

**SPACE STRATEGY**

## ENSURING EUROPE'S PLACE IN THE SPACE RACE

**SPACE STRATEGY AND NEW TECHNOLOGIES CAN BE FUNDED THROUGH EXISTING EU RESEARCH PROGRAMMES**

Unless Europe acts quickly to adopt a concrete and forward-looking space strategy, it risks being forever locked out of the promising future space markets, such as satellite telecommunications, satellite navigation and Earth observation.



To address this situation, the European Commissioners for research, telecommunications and transport - Edith Cresson, Martin Bangemann and Neil Kinnock - approved a communication calling for close coordination

between all players that have a stake in Europe's space sector. These are the European Union, Member States, the European Space Agency (ESA), national space agencies, operating organisations (such as EUMETSAT) and users. According to the communication, no additional funding will be required to realise the European Space Strategy. The entire strategy will be funded through the existing European Research and Technological Development programmes, Framework Programmes, Structural Funds, Trans-European Networks, and related European Union programmes. A major part of the strategy concerns regulatory and policy measures.

The three major areas of interest to the EU are satellite communications, satellite navigation, and earth observation. For the first two of these, the Communication announces specific Action Plans to be launched by the Commission early in 1997. Both of these areas are of considerable importance to the development and expansion of the Information Society at global level as they provide users connectivity anywhere and assist mobility.

The communication furthermore defines the European Commission's role as that of a 'pioneer user'. Its initial role will be to launch studies and pilot projects for future Earth observation missions, to be implemented by private investors offering commercial

services. The Commission's actions will be focused on developing a portfolio of well-defined applications: monitoring of land-use planning and resources, monitoring of surface waters, fisheries management, monitoring of major hazards/natural disasters, oceans, and atmosphere, etc.

To further strengthen coordination, the three Commissioners have also created a Space Coordination Group which is composed of representatives of their respective services. The Group will manage the dialogue with industry, national agencies and the European Space Agency.

Experts predict that the worldwide space market is on the verge of coming out of its five year slump, caused by the reduction of government funding in most countries. The expected development of promising new applications - in particular satellite telecommunications, satellite navigation and positioning, and a multitude of services based on Earth observation from space - is expected to create a vibrant new market in the coming years.

### THE SPACE MARKET

#### Space telecommunications

Two systems are emerging: satellite personal communications systems (satellite PCS), and very broad band digital communication systems. The latter will use 'satellite constellations', to provide Internet-type interactive multimedia services. In early 1997 the European Commission will submit to the Council of Ministers an action plan proposing a coherent approach to regulation, satellite communications and research and technological development (RTD), based on private/public sector partnerships.

*Market prediction: world satellite telecommunications market, an estimated ECU 220 billion - ECU 300 billion in the coming decade.*

#### Satellite navigation and positioning

This technology is of most interest in the transport and leisure/tourism sectors. These new applications are expected to expand rapidly as they offer many advantages over existing services, such as simplification through the use of a single system, improved accuracy, a reduction in waiting time, energy savings, environmental protection and safety.

The present satellite communication standards are the American GPS and the Russian GLONASS systems, both originally developed for military purposes and now ageing in technical terms. Today's political and industrial challenge is to define a single world system, called GNSS.

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Editorial by Jörg WENZEL  
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Head of the  
European  
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Activity Centre  
(ISAC).

Adopted in July 1994, the Commission's Action Plan on "Europe's way towards the Information Society" served as an efficient planning and coordination instrument which enabled the EU to progress significantly towards implementing the Information Society in Europe. However, it recently became clear that the Action Plan had to be revised and consolidated to take into consideration the emergence of new policy priorities regarding the Information Society.

The revision process was launched in July 1996 with the adoption of a Commission Communication on "The implications of the Information Society for EU policies," which identifies four new policy priorities. They concern the necessity to improve the business environment, to invest in the future, to put the central focus on people, and to set global rules.

This led to the adoption on 27 November 1996 of a new Action Plan entitled "Europe at the forefront of the Information Society". The so-called "Rolling Action Plan" is based upon the same assumptions as the original one: that Europe's rapid entry into the information age is the key to its future as a major economic, political and cultural centre.

The Action Plan presents an overview of the EU's main achievements to date. These include: the gradual implementation of a liberalised telecommunications environment; the adoption of the Green Paper on "People first: Working and living in the Information Society"; the successful implementation of the specific Information and Communications Technology (ICT) programmes; new initiatives that support the development of a strong European multimedia content industry; and efforts to help European schools rise to the challenge of the Information Society. The Action Plan also outlines a set of new measures in the four new priority domains identified by the July Communication.

As it will be updated regularly, the new Action Plan is a flexible and strategic tool that is capable of meeting new challenges and priorities. It will also constitute a clear and transparent guidance tool for private investors and all other parties willing to play an active role in the successful development of the Information Society in Europe. ■





**EITC  
AWARDS**

# EUROPEAN INFORMATION TECHNOLOGY AWARDS

**WINNERS RECEIVE 200,000 ECU CASH PRIZE –  
25 FINALISTS AWARDED 5,000 ECU EACH**

“Europe needs far more young entrepreneurs interested in new and emerging technologies. It is these efforts that will shape our future economic activity and social well-being.”

With these words of encouragement, European Commission President Jacques Santer awarded a 200,000 ECU prize to each of the three winners of the European Information Technology Prize. This awards ceremony, the second of its kind, was the culmination of the Esprit Programme's CIT Conference in Brussels in November.

The winning companies are: 3D Scanners Ltd of London, which designed the ModelMaker, a hand-held 3D scanner; Data Fellows Oy of Helsinki for its F-Secure cryptography software designed to protect information on computers or transmitted through insecure networks, and the Danish company, Oticon, which developed the DigiFocus unit and OtiSet programming system, which form a fully-digital compact hearing aid.

These winning innovations were selected from a shortlist of 25 by an independent jury appointed by Euro-CASE (the European Council of Applied Sciences and Engineering), and chaired by Prof. Karl Heinz Kaske, former CEO of Siemens. Each shortlisted company received a 5,000 ECU prize. This year, for the first time, the competition was also open to entries from Central and Eastern Europe and Israel. Five finalists were from Eastern Europe. ■

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Fax: +32 2 2991926  
<http://www.cordis.lu/esprit/src/eitc96.htm>  
<http://www.itea.tm.fr/whatsn.htm>

**EITC AWARD  
WINNERS**

**DIGITAL HEARING AID CAN BE CUSTOMISED TO THE NEEDS OF EACH USER**

Hearing loss is as individual as a fingerprint, and Oticon's compact digital DigiFocus hearing aid is probably the first unit able to match the personal specifications of each person's hearing deficiency. A standard hearing aid merely amplifies sound. DigiFocus is adjustable to seven adjustable frequency bands, enabling a user's hearing profile to be more precisely matched than ever before.

Oticon is one of the world's oldest hearing care company, founded in Denmark in 1904.

Contact: Oticon Christine Antorini & J. F. Olsen  
Fax: +45 39 277900  
e-mail: [info@oticon.dk](mailto:info@oticon.dk)  
Web: <http://www.oticon.com>

**MILITARY GRADE ENCRYPTION AT THE SERVICE OF BUSINESS USERS**

F-Secure products, by Data Fellows, provide military grade cryptography for corporate users. Whether your information is being transmitted through insecure networks - such as the Internet - or stored on the hard disk of a PC or laptop, F-Secure ensures that it can only be accessed by the users for whom it is intended.

Data Fellows is a Finnish software development company with offices in Helsinki and in San Jose, California. It specialises in anti-virus, data security and cryptography software. Its team is made up of five nationalities and has an average age of 30.

Contact: Mia Westerholm, Data Fellows Ltd, Finland.  
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Web: <http://www.Data.Fellows.com>

**INSTANTLY COMPATIBLE 3D SCANNERS FOR PC AND INTERNET APPLICATIONS**

As more PCs become 3D-capable, the demand for 3D computer models is growing rapidly. ModelMaker, developed by British company 3D scanners, meets this need by enabling users to produce scan and store 3D models of complex objects - including surface geometry and colour texture. These 3D models are in standard formats and can be put directly into PCs, workstations and Internet software packages.

3D Scanners is a private company whose goal is to serve the world's growing need for fast, accurate capture of 3D surface data. Organised as a 'virtual' company, this organisation has a core of five engineers and an extended family of specialist partners in various locations. It exports over 85% of its production and has installations in 30 countries.

Contact: Peter Champ, 3D Scanners, UK  
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**SPACE  
STRATEGY**

(continued from page 1)

The European Commission, the ESA and Eurocontrol have already joined forces in the European Tripartite Group. The Commission will submit an action plan to the Council in 1997 aimed at determining the European contribution to the future GNSS.

Market prediction: ECU 477 million (1994), ECU 4 billion (2000) and ECU 25 billion (2005).

**Earth observation from space**

Today the main customers are public entities, but this activity offers a promising range of services which might interest the private sector, such as telecommunications, building and public works, fishing and agriculture. As the EU is among the largest purchasers of data services, it is uniquely placed to play a leading role in developing this market.

Market prediction: world market for civil remote sensing is estimated at some ECU 30 billion. ■



## PUBLICATIONS

### ESPRIT CASE STUDY BOOK BRINGS DOZENS OF PRACTICAL BUSINESS SOLUTIONS

How can your company benefit from the results of the European Information Technology research programme? Simply pick up a copy of the newly published Esprit Programme book: *Solutions for Business: case studies from Esprit*.

This book offers an extensive range of case studies completed under Esprit, and contains a wealth of practical information, including a section of company profiles, one covering the various Esprit initiatives, and another giving examples of

how these projects have helped companies improve their business performance.

Projects in nine areas are profiled - ranging from transport, medicine and biotechnology, energy and environment, business services, home and leisure education, and other sectors.

*Solutions for Business* is currently available in English, French, German, Italian and Spanish versions will be available in early 1997. ■

To obtain your copy of *Solutions for Business: case studies from Esprit*, (28 ECU) contact the Office for Official Publications of the European Communities (CO-95-96-916-EN-C in English). Or click into the electronic version on the World Wide Web:

<http://www.cordis.lu/esprit/src/results.html>

## LEGAL

### THE NEED FOR INFORMATION SOCIETY COPYRIGHT LAW CONFIRMED

*The Internet is ready for commerce. As the World Wide Web enters its fourth year, costs are dropping by the month and services are becoming simpler to use. The final hurdle for many businesses is clear "electronic copyright" legislation to protect material placed on the WWW and related services.*

The European Commission addressed the "electronic copyright" issue as early as 1995 in its Green Paper on Copyright and Related Rights in the Information Society. This document focused the debate on the challenges to copyright brought about by the new technologies. Based on the results of this consultation, the Commission has now adopted a Communication on Copyright and Related Rights in the Information Society, on the initiative of Single Market Commissioner Mario Monti. Four priorities for legislative action are set out, aimed at the creation of a level playing field for copyright in the framework of the Single Market. This is essential as most of the new services will contain, or be based on, content protected by intellectual property.

Commissioner Monti says that the Commission must "provide the basis for the Information Society to be a success for investors, users and consumers, while ensuring that it respects both the Single Market and current multilateral initiatives at the world level". The Commission will propose action in the first half of 1997 in the areas of reproduction rights, rights of communication to the public, legal protection of anti-copying systems and distribution rights.

**Reproduction rights:** Once copyright protected material is published electronically and transmitted digitally, it is much more vulnerable to copying than in the past. The advent of new techniques such as scanning of protected material and storing of digital material in a computer disc require that new legal definitions are developed. The Commission will pursue the harmonisation of reproduction rights as a top priority, focusing on the definition of protected acts of reproduction as well as on limitations and exceptions to these rights.

#### Rights of communication to the public:

On-demand services store protected material (such as text, pictures, sound recordings, databases or software) in a central computer, allowing users to "purchase" this material by retrieving it to their computer disc. The exploitation of intellectual property in the context of on-demand services will, to a large extent, depend on Community-wide markets and a clear and coherent level of protection of these activities across Member States. The harmonisation of the protection of such new forms of exploitation of protected material stored in "on-demand" electronic services is another priority on the Commission's agenda.

#### Legal protection of anti-copying systems:

The large-scale use of anti-copying software or devices that have been developed or are still under development will depend heavily on having legislation in place that addresses the situation where anti-copying devices or the like are manipulated, circumvented or violated. The Commission will therefore propose harmonised protection of the integrity of such anti-copying systems and devices, to help protect the work of copyright holders as it is disseminated electronically.

**Distribution rights:** Distribution rights entitle the authors to require their consent for the distribution of copies of their work. Today, significant differences exist between the EU Member States in the definition and application of these rights. The absence of harmonised rules governing the distribution of most categories of work creates a significant obstacle to free trade in this sector. The Commission aims to harmonise distribution rights for authors for all categories of published work.

In addition to these "priority issues for legislative action", the Commission will continue its reflection on the other issues addressed in the 1995 Green Paper (broadcasting rights, applicable law and law enforcement, management of rights and moral rights), which are equally fundamental to copyright protection in the Information Society. Further evaluations, market studies and other forms of consultation are either underway or planned for each of these issues. ■

## COUNTDOWN '98

### TELEPHONY: EU CALLS FOR USER SIMPLICITY IN TOMORROW'S MULTI-OPERATOR ENVIRONMENT

#### New proposal on 'Euro-numbering' schemes

As the European telecommunications market opens to offer new competitive services, there is the risk for users that - while they have more choice - they may also face a more complex set of mechanisms and dialling arrangements for access to these services.

To ensure that competitiveness also means simplicity for the European user, the European Commission has published a Green Paper on numbering policy for telecom services in Europe. One of the Paper's goals is to encourage operators and administrations to start thinking about how users can retain their telephone number as they change telephone company or service provider.

The Paper also calls for mechanisms that allow for "the availability of adequate numbers, allocated on a fair, transparent and non-discriminatory basis". This is to ensure that new market players can obtain equal access to numbering resources. It also proposes the creation of a special European numbering system for Europe-wide services such as free-phone and premium rate services.

Following a three-month consultation period, the European Commission will start political discussions in the Council and the European Parliament so as to arrive at a European numbering policy. This policy should bring choice to the customer and encourage open competition for operators and telecommunications service providers, thus becoming a symbol for further European integration.

IS News will keep you informed of these developments. ■







**HEALTH**

**MOBILE PHONES AND HEALTH: NO RISK, BUT MORE RESEARCH REQUIRED**

Yuppies and nouveau riche businessmen (and the millions of other GSM users) can rest assured. There is no health risk for users of mobile telephones, according to recent medical research completed by a special medical group appointed by the European

Commission. But these experts added that the results of this study "are inadequate to draw firm conclusions on this issue, and therefore further research is required."

The evaluation was completed by a panel of ten experts specialised in biology, neurophysiology, epidemiology, physics, radiation protection and telecommunications engineering at the request of the Commission.

Based on this work, the expert group has recommended further research, coordinated at European level, into the possible interaction of radio telephone emissions with living tissue, genetics, cancer induction and the immune and nervous systems. ■



**BUSINESS UPDATE**

**NEW COORDINATING GROUP FOCUSES ON ELECTRONIC COMMERCE ISSUES**

**Introducing Electronic Commerce Europe**

Consumer enthusiasm exists. Suppliers are ready. But a variety of administrative, legal and practical topics need to be addressed before electronic commerce can be an everyday reality for European businesses and citizens.

To help realise the goal of open electronic commerce in Europe, a coordinating group - Electronic Commerce Europe - was recently created. The group will act as a Europe-wide focal point for organis-

ations representing industry, service sectors, technology providers and business process-oriented groups. These players are active in CALS, direct marketing, purchasing, EDI groups, Internet Service Providers etc. The national electronic commerce associations of Belgium, Germany, France, Sweden and the UK are also involved.

The formal launch of the group will be held on 7-9 April 1997 in Bonn at the first annual conference of the G7 Global Marketplace for SMEs project. All those interested in participating in the meeting should contact:

*Roger Till (chairman of the interim board)*  
 Fax: +44 171 4322501  
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**ISPO CORNER**

**FUNDING FOR YOUR 'IS' PROJECTS?**

**Find the answers in the ISPO funding brochure**

Can ISPO help provide funding for my organisation's Information Society project? This is one of the most frequently asked questions that is received from the outside world at the ISPO offices.

In answer to these queries, ISPO has compiled a brochure. Available as of

January 1997, this document is your quick reference resource to funding opportunities available to Information Society-related projects. Here you'll find details of programmes and initiatives in the Commission, that offer this type of funding.

To receive your brochure (free of charge), contact the ISPO Help Desk. The same information is available electronically on the ISPO www server, beginning January 1997. See ISPO contact addresses below. ■

**CALENDAR**

**Bangemann Challenge Awards Ceremony and Seminars**  
 Stockholm (SE)  
 22 January 1997  
 Jorgen Kleist  
 Tel: +46 8 7859141  
 Fax: +46 8 6717129  
 e-mail:  
[bangemann@challenge.stockholm.se](mailto:bangemann@challenge.stockholm.se)

**Regions and the Information Society**  
 Brussels (B)  
 30-31 January 1997  
 European Commission - DG XVI/A/3  
 Fax: +32 2 2963271  
 e-mail:  
 "Nicola.DeMichelis"@dg16.cec.be

**European Information Society: Challenges and Opportunities for Nordrhein-Westfalen**  
 Duisburg (DE)  
 30 January 1997  
 Landesinitiative Media NRW  
 Tel: +49 231 9750560  
 Fax: +49 231 97505610

**G7 pilot project: A Global Marketplace for SMEs First annual conference**  
 Bonn (DE)  
 7-9 April 1997  
 D3 Group c/o Empirica GmbH  
 Tel: +49 228 985300  
 Fax: +49 228 9853012  
 e-mail: [info@G7EC.DE](mailto:info@G7EC.DE)  
<http://www.G7EC.DE>

**JENC8 - 8th Joint European Networking Conference**  
 Edinburgh (GB)  
 12-15 May 1997  
 JENC8 Secretariat, c/o TERENA  
 Tel: +31 20 639 1131  
 Fax: +31 20 639 3289;  
 e-mail: [jenc8-sec@terena.nl](mailto:jenc8-sec@terena.nl)  
<http://www.terena.nl/jenc8>

**Stockholm IT Week**  
 Stockholm (SE)  
 26-30 May 1997  
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**EEMA '97 Electronic Commerce and Messaging in Europe**  
 Maastricht (NL)  
 15-18 June 1997  
 Tel: +44 1386 793028  
 Fax: +44 1386 793268  
 e-mail: [cgibson2@attmail.com](mailto:cgibson2@attmail.com)  
<http://www.eema.org>

**Online Cooperation International Conferences on Teleworking**  
 Berlin (DE) 23-24 June 1997  
 Singapore, 28 August 1997  
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