



### Commission's **IMPACT** knowledge transfer meeting



About 150 people from industry, the press and the public sector were welcomed by Deputy Director General Vicente Parajón Collada to the Commission's Knowledge Transfer meeting on intelligent interface IMPACT projects held in Luxembourg on 29 October 1990. More than 100 other people, who were unable to attend, requested full documentation.

A lively interest was generated by demonstrations of Max, ECHO, the European Commission Host Organization's talking computer and the Natural Language projects as well as progress reports of IMPACT pilot/demonstration projects, Disnet, Carte Info and MITI.

Of the 60 questionnaires returned 85% (51) responded that the meeting was a useful platform for making contacts. The same number indicated that they wanted further information and/or follow-up contacts relating to the projects. About a third said they would prefer more technical information in the presentations.

The workshop, chaired by Mr. Wolfgang Huber, was aimed at:

- showing that innovative and multilingual user interfaces could be developed with off-the-shelf materiel,

- gauging user acceptance of such interfaces and
- encouraging the transfer of such know-how to the market place.

In particular, the services on ECHO, Max and Natural Language Recognition, are available free of charge to encourage these aims. Brochures detailing the experiments can be obtained from ECHO. Further information on specific questions will be furnished on projects where the Commission has full rights. A second workshop is now planned for when the experiments reach a mature stage.

The IMPACT pilot/demonstration projects which are developed by commercial firms will be the subject of a separate workshop, when results are available.

#### Max

Max is able to speak out answers on specific questions from telephone enquirers. The topics on which callers can get answers relate to European Commission programmes, important addresses and telephone numbers, ECHO services and activities. These are chosen by a process of the caller replying to questions posed by

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**You will receive the new DG XIII policy magazine**

Readers on the Information Market mailing list should receive a new free magazine in the post early next year. The new magazine will cover all aspects of the directorate general's programmes: ESPRIT, RACE, DELTA, DRIVE, VALUE as well as the IMPACT programme covered by IM.

The interlinking of information technology research, high speed networks, innovation and information market services are now becoming a key aspect of the European economy of the 1990s. The new magazine will give you new insights into these vital developments.

Be sure to read it carefully. You will have a chance to become a subscriber!

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### CORDIS - Single access to Euro R&D activities and results

The European Commission has launched CORDIS, a new online service giving access to research results in many different scientific and technical fields. CORDIS, COmmunity Research and Development Information Service, aims to provide a single and easy way for enquirers to find results that can be exploited for their own projects. The new service is available on ECHO, the European Commission Host Organization. A separate registration is needed for both present and new customers of ECHO.

With the wide range and depth of research being performed in Europe including Community programmes such as ESPRIT, RACE, DELTA, AIM, FAST, BRITE, COMETT, CLIMAT, ECLAIR, TEDIS and others, the layman may be confused about where to turn for help. The European Community created such research programmes to exploit the dimension and opportunities of a Single European Market or to overcome specific problems. With the creation of CORDIS European companies and research

centres will be able to find more easily the information they seek and make synergies by combining different research results. These include details from fields as diverse as agriculture, transport, environment, fisheries, energy, education and training, information technology, telecommunications, nuclear fission and fusion. In short CORDIS provides a knowledge infrastructure so that these European research results can be fully exploited. Created as

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Deputy Director General Vicente Parajón Collada (second from left), accompanied by (from left to right) Mr Axel Szauer, Mr Wolfgang Huber and Mr Gerhard Heine, opens the Knowledge Transfer Meeting.

### Knowledge Transfer from p.1

Max which require answers involving yes or no and numbers from one to twelve, plus a limited vocabulary.

The construction of the speech recognition system involved the use of a statistical approach as a better method to match word templates than a wave form system. Account had to be taken of a wide variety of accents, as well as possible background or line noise.

A large variety of spoken words by different speakers was tried out.

Speech output depends a lot on the creating rules for phonetic analysis to give words and sentences, stress, melody and intonation. Phonetic editing (creating false spelling) of texts was required in order to produce sounds that were more easily recognized than the synthesized correct spelling.

For Freephone numbers in EC countries to call Max, see p.12.

### Natural language recognition (NLR)

How do you find which databases are available in Europe, especially if you don't know how to use

computer command languages? The answer is to use a natural language access. Once a caller is connected to the ECHO computer with a modem, he or she can put a question, in French, English or Italian, in a normal way such as:

What databases are available on the protection of handicapped children?

A backend computer makes a linguistic analysis of the sentence in terms of key words and identifies them in relation to fields of the DIANEGUIDE database. The NLR software has to determine variations in writing style (such as ECHO and E.C.H.O.), inflections such as factual/factually or trained/train, derivatives such as bibliographic and bibliography and words of the similar meaning such as Great Britain and United Kingdom.

A dictionary contains words most likely to be entered (with about 20 000 words in the case of French). A set of rules helps resolve ambiguities relating to words that can be used in several forms such as noun, or various verb parts. For MAX and NLR,

Contact: ECHO  
PO Box 2373  
L-1023 Luxembourg

Tel: +352 48 80 41  
Fax: +352 48 80 40

### MITI

Pronounced 'mighty', this multi-lingual IMPACT project (English, French, German Spanish) uses a built in technical dictionary to help users find technical information from 24 general technology and environmental databases. Once the search is well defined, the software automatically log on to the relevant database.

Contact: Tome Associates Ltd  
22, Finsbury Square  
GB-London EC2A 1D5  
Tel: +44 1 579 21 42  
Fax: +44 1 579 72 23

### Carte Info

This IMPACT project will create a network of intelligent gateways

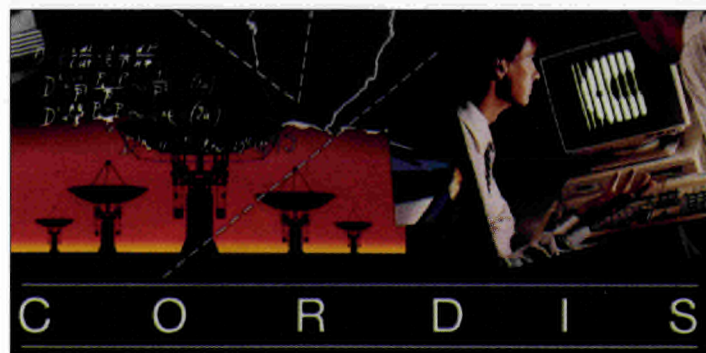
for European business use. Three modes are possible: transparent, assisted and automatic.

Contact: Carte Expert s.a.  
5, rue Breguet  
F-75011 Paris  
Tel: 33 1 47 70 12 61  
Fax: 33 1 47 70 12 61

### Disnet

A natural language query is possible with this IMPACT project which comprises of software that analyzes the natural language and an inference engine. The system specializes in agricultural microbiological and food processing databases.

Contact: IDE  
Kamerlingh Onnesdreef,7  
NL-3146 Maassluis  
Tel: +31 1899 23711  
Fax: +31 1899 25394



### CORDIS from p.1

part of the VALUE programme to implement a more effective dissemination and use of Community R&D, CORDIS should help also to promote coordination with similar activities in Member States.

Enquirers can access CORDIS by personal computer connected to datanetworks or via videotex terminals such as the minitel in France.

The service runs on an easy-to-use menu driven service in English, the language of most of the research results. The CORDIS service comprises a number of databases:

- R&D Community programmes,
- Project descriptions,
- Abstracts of reports and publications generated by Community research.

Other databases which will be added will provide information on:

- R&D results and prototypes,
- Proposals for new programmes
- Contact persons in Member States.

Other services offered include collections of acronyms and announcements, lists of organizations that might be interested in partnerships for a Call for Proposals.

The service will initially be free of charge.



Yes! Please send me the CORDIS registration forms

Are you an ECHO user? Please give User Reg. Number

Name: .....

Organization: .....

Address: .....

.....

.....

.....

.....

.....

.....

.....

To: ECHO Customer Service B.P.2373 L-1023 Luxembourg  
Tel: +352 48 80 41 Fax: +352 48 80 40



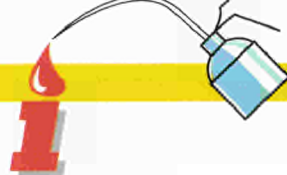
Information Market  
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Published by Directorate General XIII Commission of the European Communities

This newsletter (formerly Euronet News) is published by the Directorate General for Telecommunications, Information Industries and Innovation, Commission of the European Communities, Luxembourg, and is available on request from the address given here. Opinions expressed are not necessarily those of the Commission. Reproduction is authorised, but the CEC is not responsible for the use which might be made of the information. Luxembourg. ISSN 0256-5056 EUR: CD AD 90 004 EN C Editor: David J. Price.

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## Commission proposals: Paying for cross border service

Users of European services who have to pay in a foreign currency, have their own experience of problems of cross border payments. The European Commission has issued a discussion paper to stimulate new ideas to bring European payment transfer to the efficiency of national transfers. Improvement in Europe's payment system is seen as a crucial factor in the move to a single market for goods and services.



### Electronic transfers

The solution to more efficient transfers may be to link national automated clearing houses, so as to reduce the manual processing. An intermediary institution linking national ACHs could ultimately lead to a pan-European clearing house. An alternative would be to improve the corresponding banking framework, to establish entirely new arrangements or to make each European bank eligible to become a member of each of the 12 ACHs.

At a national level transfers between banks are carried out through automated clearing houses (ACHs). There is no link between national ACHs so banks reach agreement with an opposite number in another country to act as its channel of communication for financial transfers. This can be slow and expensive.

In a survey by the European Bureau of Consumer Unions (BEUC) in 1988 144 transfers of the equivalent of 100 Ecu produced the following results:

- the average time taken was 5 working days
- one quarter of the payments from France to Germany took more than 10 days to arrive;
- no less than three of the sample (2%) took more than 6 weeks to arrive;
- two of the 144 transfers failed to arrive nearly a year later.

As to costs of cheques (not Eurocheques) a small UK company received a French company's French cheque for £48 but was told it would cost £30 to collect. A UK publisher had a Belgian cheque for £25 for books returned by his bankers with the comment that it "was not worth processing". A Belgian resident received a French cheque for 300 French Francs (1825 Belgian Francs); commissions and fees totalled 425 BF or about 25%.



### Cash transfers

The European Commission says that it is only the irrevocable fixing of exchange rates that will reduce exchange rate risks in cash transfers and eliminate exchange rate risk. Notes from other Member States would then be acceptable to banks at par value.

### Cheques

Most cross border payments are made with Eurocheques. The Commission is examining the conditions under which this system of payments operates. Other types of cheques - which are extremely expensive to use for cross-border payments - could be made easier to use by standardisation of their format so they could be handled electronically in the same way through out the Community.

### Payment cards

In order to work effectively the organisers of different card systems must cooperate to open their networks and terminals to each other in order to accept each other's cards in their payments processes.

### Next steps

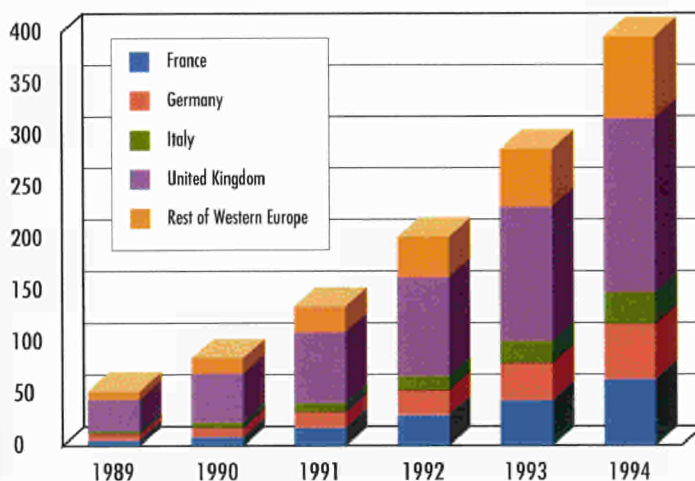
The Commission proposes discussions on these ideas with the setting up in early 1991 of a Payments Coordinating Group, representing the banking sector and central banks. The purpose of this group would be to analyse the various proposals to improve cross-border payments, to coordinate and perhaps sponsor feasibility studies, to set out the steps needed to implement the proposals and to agree on priorities.

Commission document COM (90) 447.

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CEC, DG XVI  
200, rue de la Loi  
B-1049 Brussels



## EDI and business survival in the 1990s



The uptake of electronic document interchange (EDI) is likely to sky rocket in the 1990s. A recent Ovum report, **EDI in Europe: the business opportunity** forecasts a four year increase exceeding 400% from \$86 million in 1990 to \$396 million in 1994 for the sales of EDI products and services. The fastest growth will be in the services element which will make up 72% of the market in 1994.

Europeans are turning more and more to EDI because they can achieve significant cost savings. The standard formats for transmission of documents electronically are becoming an essential tool for business.

"Enhanced office productivity and improved cashflow are merely the icing on the cake," says Elaine Mackintosh, lead author of the report. "Beneath the glossy, attractive veneer lies a more substantial foundation: if you are not in the EDI club, forget orders, forget invoices, forget cash, forget survival!"

Presently some fifteen service providers and 75 software vendors are responding to the heightened interest of traders. The most successful are "open EDI systems" based on universal message and communications standards, Edifact and OSI. In the 1970s and 1980s the large suppliers AT&T, Istel, GEIS, IBM and INS concentrated on closed user groups.

"In the 1990s, as the use of EDI grows, the complexity of commercial interchange increases. This causes new problems for which Open EDI is the ultimate solution," says Mackintosh.

For the suppliers of EDI products and services, a new market is developing fast, generating more revenues and profits. For the established suppliers, the loss of a protected customer base and the emergence of new competitors will be compensated by a bigger market place, economies of scale and greater growth potential, but only if widespread acceptance is achieved.

For the small and medium-sized enterprises (SMEs), perspective is different: many will only go EDI if they are forced into it as cost-justification is elusive and benefits are invisible.

The report says that the onus falls on major EDI players, including governments and suppliers, to ensure long term growth prospects by contributing to the realisation of Open EDI. This includes building the infrastructure of Open EDI and as importantly, making EDI attractive to SMEs.

Failure to take action now will substantially slow down the growth of EDI in Europe, from 1994 onwards, when according to the authors, "EDI penetration will be reaching saturation level amongst large companies and the main source of growth today will be drying up".

The report also contains profiles of 13 suppliers, 17 large user organisations and six SMEs.

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Tel: +44 71 255 2670  
Fax: +44 71 255 1995  
Telex: 94012452

## EIIA estimates vital statistics of info market

The total value of professional information services offered by companies within the European Community amounted to 2492 million Ecu (US\$ 2947 million) in 1988, according to a recent survey. Videotex (mainly in France) produced 15% of the revenue. An estimated 18379 staff are directly involved with database dissemination.

These and other basic statistics of what the European information industry is offering in the way of information services and products have been collected by the EIIA, the European Information Industry Association. The EIIA coordinated the collection of data through 9 national industry organizations in 7 Member States. A questionnaire translated into the necessary languages to cover the main statistical questions and sometimes further detailed national data.

The survey dealt with host organizations, irrespective of country of origin, which had a physical presence in at least one of the Member States of the EC. Some 349 organizations were identified as being relevant to the survey and responses were received from just over 40%.

Excluded from the survey were: database producers/information providers who did not have their own host service, gateway services which were not hosts in their own right, services not publicly available and organizations with no more than a nominal presence in the EC. The definition of "professional information services" was interpreted in a broad way excluding only purely consumer oriented services.

The survey found that just over half of the services were consumed inside the EC (56.5% with a value of 1410 m Ecu). The remaining 43.5% of turnover came from customers either in other parts of Europe or further afield. Making an estimate for the amount of imported services, EIIA put the figure for the total EC online market at between 1500 m and 1700 m Ecu.

The financial sector predominates in the EC online market with 56.6% of the turnover devoted to real time information and 43.3% to retrospective information services. By subject content, 86.3 per cent of the services deal with finance and 8.6 per cent with business.

## Boom in audiotex - info systems by telephone

Recent deregulation of the telephone monopolies have allowed a new range of information systems to be offered to the public. Using the public telephone service, callers can hear recorded messages, database information or interactively get the latest company or stock information.

The audiotex market has shown strong take off in the United

Kingdom, where two telephone administrations compete for custom. In total the European market outstrips the US market for such services.

A recent study, **The audiotex information services market in Europe**, prepared for the European Commission, DG XIII, examined the nature of this new phenomenon.

### What is Audiotex?

Audiotex can cover a large range of offerings but for the purposes of the survey the definition was confined to those services where the information is supplied through online access to a databases using voice or tone recognition. Audiotex services are interactive and may be free to the caller or paid for. Services that are intended for purely entertainment

purposes were not covered in the survey: the figures are therefore lower than some other surveys.

There are few interactive services at the moment but the trend is increasing as the industry moves from passive, recorded information services and adds voice and tone phone recognition equipment and software.

### How big is the market?

The survey estimates that the total of revenues for service providers, information providers and manufacturers is about 300million Ecu. Of this the UK has revenues of 250 million Ecu, France 30m Ecu, Germany 1.5m Ecu, Denmark 7m, Belgium and the Netherlands 9m Ecu. Within the narrow definition adopted by the study, the US market is worth 102m Ecu, about half the European market, although the total US voice service market is considerably higher.

The European market could grow three or four times within the next five years, producing a European market of the order of 700m to 1200m Ecu by 1993. By 1992 the US is likely to have already have overtaken the average of these two estimates. The motor to the US growth will be the improved awareness of the uses of audiotex among service providers and information providers.

### What sort of services are on the market?

Although there are relatively few true audiotex services available in Europe, present applications include banking and financial services, company information, travel and reservation systems, hospital patient information, cable subscriber information and mail

order entry. In addition there are a number of general information services including weather and tide details, and leisure services such as betting. Audiotex versions of electronic telephone directories have not made an impression on the market yet.

### Participating organizations

AFI, Arbeitsgemeinschaft Fachinformation  
Untermaikai 83,  
D-6000 Frankfurt/Main 1  
Tel: +49 69 32 31 28  
Fax: +49 69 23 52 79

GMD, Gesellschaft für Mathematik und Datenverarbeitung  
Schönhauser Strasse 64  
D-5000 Köln 51  
Tel: +49 221 376 730  
Fax: +49 221 376 7383

Dansk DIANE Center  
Sigurdsgade 41  
DK-2200 Copenhagen  
Tel: +45 318 16666  
Fax: +45 358 21655

FUINCA  
Alcalá 61, 2º  
E-28014 Madrid  
Tel: +34 1 435 3215  
Fax: +34 1 578 3148

ACSF  
83-85 bd Vincent-Auriol

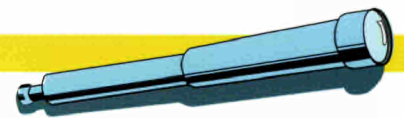
F-75013 Paris  
Tel: +33 1 45 26 45 07  
Fax: +33 1 45 85 43 08

GFFIL  
24 rue de l'Arcade  
F-75008 Paris  
Tel: +33 1 42 65 78 99  
Fax: +33 1 42 65 78 21

ANFoV  
via Alfonso Lamarmora 35  
I-10128 Torino  
Tel: +39 11 504 098  
Fax: +39 11 596 975

NBBI  
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NL-2585 BA 's Gravenhage  
Tel: +31 703 60 78 33  
Fax: +31 703 61 50 11

CICI  
19 Bedford Square  
GB London WC1 3HJ  
Tel: +44 71 580 6321  
Fax: +44 71 636 5375



## What will help European growth?

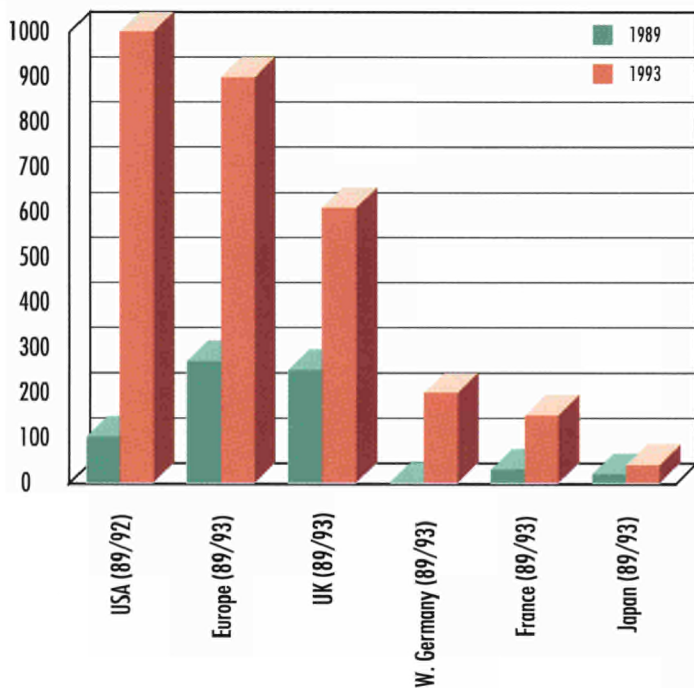
The report identifies the following factors that would promote growth:

Full digitization of PTT networks. This could bring higher voice recognition quality (currently only 95% accurate), itemized billing, and most importantly, flexible charging systems on the same phone prefix.

Relaxation of telecommunications regulations concerning interactive, premium rate calls and concerning equipment approvals. Equipment approvals process still varies from PTT to PTT and can take months. Some service providers wish to use more sophisti-

cated equipment approved for use in other countries. A common EC approvals process would ease the difficulties.

Greater penetration of tone phones. Tone pads held in contact with the phones are used in the UK where tone phones are rare. Tone phone devices would increase the accuracy client identification for financial and banking services where voice recognition is insufficient. They would also allow quick access by short cutting menu options. In some markets rotary pulse detection is widely used. In Germany voice recognition is not viewed with optimism.



Introduction of variable tariffs. This is one of the most frequently mentioned requirements for expansion of the market. For business applications the rates are set too low to encourage many information providers. Lack of itemized billing on the UK major PTT is also a barrier. In the USA subscription services can be authorized by credit card and this also ensures callers of the 'pink' services are over 18 years old and helps diffuse public criticism. A number of respondents called for the PTTs to increase the proportion of the call charge passed on to the service provider. European PTTs tend to take more than half the call charges, whereas US operators

pass on a minimum of 50%.

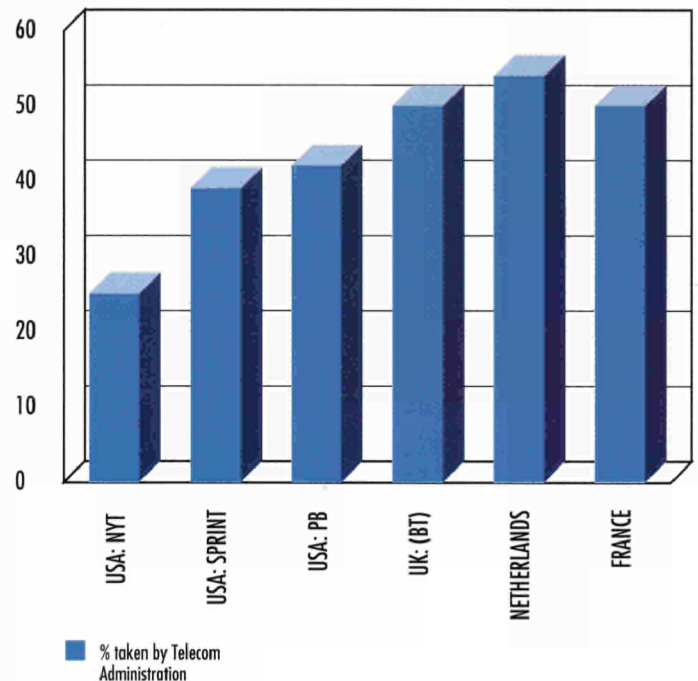
Ability of callers to control phone charges. Itemized billing would have two effects: it would make the cost of information clear but it might also cut down the use of services such as leisure and entertainment, especially where callers use business time phones. Some phones can be barred from accessing audiotex services, which cuts out leisure and business services. Time based charges rather than unit based charges would have a positive effect for customers.

Introduction of European international premium rate call services. European Freephone services are

now possible where the provider accepts the call costs. This helps enquiry services but not interactive audiotex. An agreement between PTTs is required to ensure that callers accessing audiotex services in another country are properly billed and the service provider received his full revenue.

The market is also restrained because of lack of awareness by

information providers and users of the potential of audiotex as a medium for information transfer. The linkage of audiotex to videotex and fax services is expected to enhance the market for business. In the UK and France there is some concern about the overlapping interests of the relevant PTT in audiotex (UK) and videotex (France) services.



## Five year growth projections

	1989 Ecu	1993 Ecu
1. USA	102m	1000m (1992)
2. UK	200-300m (av 250m)	320-900m (av 610m)
3. Germany	1-3m (av 1.5m)	200m
4. France	30m	150m
5. Japan	20m	40m
6. Denmark	7m	N/A
7. Belgium/Neth	5-13m (av 9m)	N/A

Europe 1989 market is approx. 300m Ecu  
Europe 1993 market is approx. 700-1200m Ecu  
(average 950m Ecu)

## Planning exchange

Based in Glasgow, Scotland with subsidiaries in Manchester and London, the Planning Exchange has built up an extensive know-how over the last 15 years in collecting, processing and disseminating information via computer systems. Four main targets of information are local economic conditions, experience developed

by centres in UK and elsewhere, aids available to local employment initiatives, and case histories and practical lessons to be learned from initiatives.

Contact: Planning Exchange  
186 Bath Street  
GB-Glasgow G2 4HG  
Tel: +44 41 332 8541  
Fax: +44 41 332 8277

## Rural Housing Network

Fédération Nationale de l'Habitat Rural comprises 73 departmental structures in France. An electronic online system was introduced to improve communication and liaison between units and the federation. It comprises messaging, a monthly journal and common services, agendas, calendars, records of meetings, technical

information, questionnaires are communicated via the network. Since its inception more departmental agencies have joined the network as complement to the network of human contact.

Contact: Fédération nationale de l'Habitat Rural  
27 rue La Rochefoucault  
F-75009 Paris

## Poptel aiding NGO's

Poptel is an international online electronic communications service geared primarily to economic and social development. Elisenet is a closed user group offering special conditions for those involved in local initiatives. Poptel backs up non-commercial organisations and NGOs operating in the

field and offers free access to its database, electronic information networks and to a teleconferencing service.

Contact: Elise  
rue Breydel 34  
B-1040 Brussels  
Tel: +32 2 230 5234  
Fax: +32 2 230 3482

## Teleport Twente

Teleport Twente is an online nursery for projects and provides design, organisation, coordination and follow-up of new businesses from start-up through to commercial operation. TT was set up by the University of Twente, the Dutch telecom authorities, the province of Overijssel, a score of municipalities and some 300 companies, including Philips. TT identifies potential partners

for new start-ups, locates financing, and launches the ventures. TT also evaluates the likelihood of these companies being commercially successful.

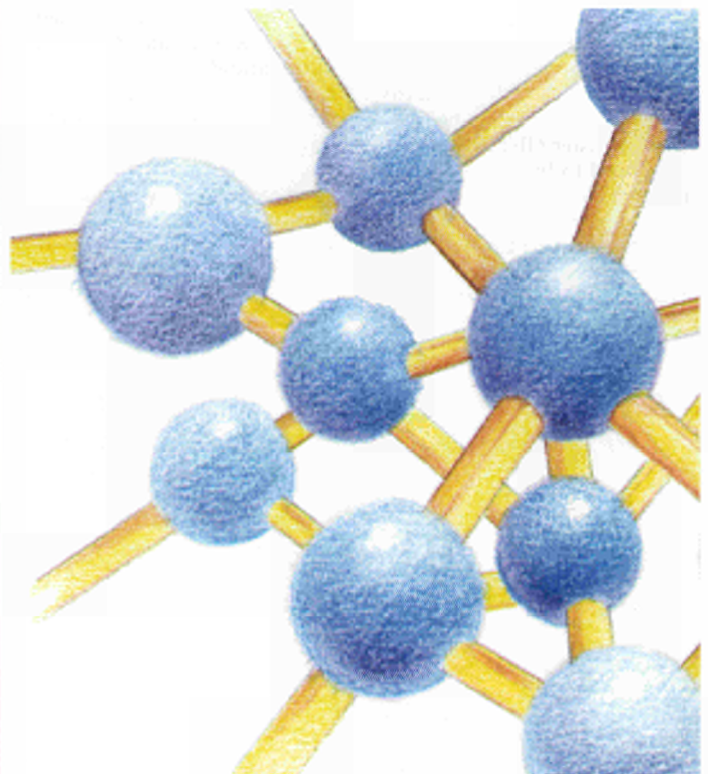
Contact: Teleport Twente  
P O Box 545  
NL-7500 AM Enschede  
Tel: +31 53 836 363

## Money from Midas

Midas, Micro information and assistance database, set up by the Walloon Regional Economic Affairs Ministry, gives details in French, Dutch German and English of sources of finance, especially for small and medium sized enterprises (SMEs) which may be

ill equipped to locate such sources themselves. Diskette and online access is available.

Contact: Midas/ Cadia  
rue Montoyer 3  
B-1040 Brussels  
Tel: +32 2 512 5930



## A network for local initiatives in Europe

Creating local employment and reinforcing local initiatives are common challenges for many regions, rural areas and cities in Europe. Often in one area, valuable experience is gained, new partnerships may be forged across Europe, joint ventures may be set up.

Other regions or cities may be faced with similar problems but remain unaware about successful methods of, for example, attacking unemployment in another region. How can local development initiatives benefit from each other's experience?

One answer is certainly Elise. Elise is the European network for information exchange on local economic development and employment initiatives. Elise, publishes its own newsletter in French and English and also has its own

database on ECHO, available as a free file.

A number of members of the Elise network include database producers who have begun to make local initiative experiences available to a wider audience. In the Spring of this year, the Elise team organised a seminar on Online services: a tool for local development at Gesves, Belgium. The proceedings of the seminar are now available, free of charge, but in limited quantity from the Elise secretariat.

Elise have also negotiated advantageous conditions for access to electronic mail and other facilities as a closed user group. Members can have rapid and cheap communication across Europe and a wider contact with groups with similar aims in other regions of the Community.

Please send me details about  
Elise   
Elise Seminar proceedings   
Elise closed user group email

Name.....

Organisation.....

Address.....

to: Elise; rue Breydel 34; B-1040 Brussels;  
Tel: +32 2 230 5234; Fax: +32 2 230 3482

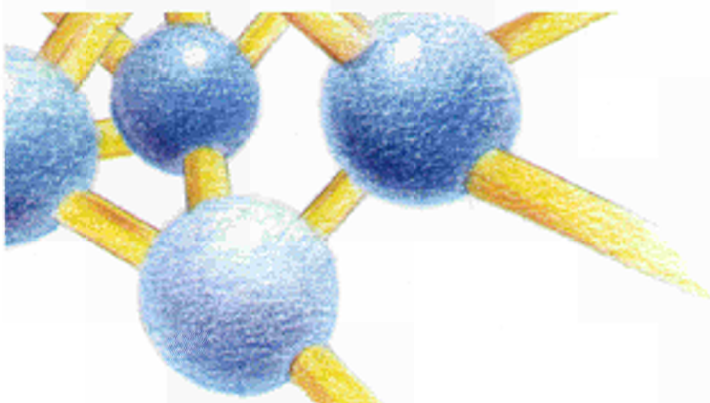


## JET, finding jobs abroad

The Single Market will encourage the free movement of people looking for jobs in other Community countries. How should they go about finding jobs, with different systems in employment national services and different languages? A pilot project was launched by the Commission to link the employment agencies of two regions, Enschede in the Netherlands and Gronau in Germany. The agencies used not easily compatible systems but a Job Euro Transfer (JET) system was developed to link three agencies in the Netherlands to two agencies in Germany and their respective computers and designed to Open Systems Interconnection (OSI) standards.

Job vacancies are written up differently in different countries and some agencies opt for circulating job vacancies while other base their strategies on the demand for jobs. The system, however, allows agencies to record information according to their own procedures, identify other centres to which the information should be sent and transmit it automatically overnight at reduced tariffs. The system is easy to use and requires only brief training. Agencies can be linked together in star clusters, which in turn are interconnected to others.

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## Satis, world development

The online network, **Satis**, aims to harness modern communication to bring simple and practical techniques for the development areas. **Satis** provides technical and financial assistance to local employment in 105 countries and is an umbrella organisation for 109 members in 50 countries: NGOs, village authorities, SMEs, research-action teams and so on. Its principal areas of activity are health, agriculture, marketing,

transport, energy production, water supply and training. The **Satis** network is served by Poptel. On average the members of **Satis** work with 3450 clients, answer 180 requests for technical information, distribute 4000 publications and create 125 jobs.

Contact: Satis  
P O Box 17227  
NL- 1001 JE Amsterdam  
Tel: +31 20 26 06 19

## Fondation rurale de Wallonie

F.R.W. is an important development agency and offers French language information for use of firms in Belgium's Walloon Region. The aim is to give local development actors, whether a farm or small enterprise, precise answers to concrete questions corresponding to their needs. The

information system is based on an exchange of practical experience, structured around questions asked by people involved in local initiatives.

Contact: F R W  
Place de Wodecq  
B-Ellezelles  
Tel: +32 68 44 85 22

## Rurtel in the Highlands

The Scottish Highlands and Islands service, **Rurtel**, concentrated on equipping rural areas with computerised services, then to study their potential in different areas. The online network is used with success by professional services, and training: students can receive a "learning packages"

over the network and discuss them with their tutors via teleconferencing.

Contact: Rurtel  
c/o Arkleton Trust  
Nethy Bridge  
GB-Inverness-shire PH 25 3EA  
Tel: +44 47 98 26 88

## Province of Seville

An online network is built around a number of structures: an advisory board, a provincial level management unit, 14 local job-creating units, and 57 local business information units. the telecommunications structure is based on

videotex, fax telex, online databases, and industrial computer services including CAD/CAM.

Contact: Economic consultation centre  
Vestibulo 2, Planta 2°  
E-41004 Sevilla  
Tel: +34 54 21 16 72

## Ville moyenne network

The **Réseau villes moyennes**, RVM, links up medium sized towns with between 20 000 and 100 000 population two interlocking tools: a messaging service enabling the daily interchange of detailed, up-to-date information in the form of questions and answers; and an exchange fund or projects directory co-produced by

the member-towns on the network and comprising files in which the towns describe their method of organisation and management and their achievements.

Contact: R V M  
4 Place de Sorbonne  
F-75005 Paris  
Tel: +33 1 46 33 34 82

## Eurobases extra

Documents relating to the Court of First Instance of the European Communities have now been added to the Community law database, **Celex**, on Eurobases. Other improvements to help with re-editing of downloaded texts include the addition of accented and special characters. A guide on how the user can benefit from this is available, called **Practical Guide for the use of special Latin characters in**

**Celex**. Eurobases has introduced a menu driven system so that customers can also choose between **Eclas**, the Commission's reference library database, **Rapid**, the Commission press release database and **Info92** the internal market progress database.

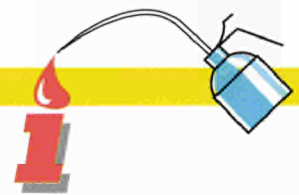
Contact: Eurobases  
Rue de la Loi 200  
B-1049 Brussels  
Tel: +32 2 235 0001  
Fax: +32 2 236 0624

## Eastern European opportunities

Eastern European countries, Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, Romania and the USSR, are likely to see explosive growth in telecoms equipment and services, according to a report by Datapro, **Eastern Europe and Soviet Union Telecom Markets**. Equipment is expected to grow from \$3.7 billion in 1990 to \$8.6 billion in 1994.

Services are likely to double from \$5.5 billion to \$11 billion in the same period. By contrast, western European markets will remain difficult to enter because protectionism is rampant, says Datapro.

Contact: Datapro  
600 Delran Parkway  
Delran, New Jersey 08075  
USA  
Tel: +1 609 764 0100



## Open information interchange

Most people will recognise 6/3/90 as way of "coding" a date. Some people will interpret the date as the 6th of March 1990 and some will interpret it as the 3rd of June 1990. The person who wrote down the date knew which date was intended, the reader can only interpret the coded version correctly if he knows the coding rule being used. All electronic information is coded according to some set of rules.

The coding of information content, the coding of data and document structure and the coding of format information for representation are largely uncoordinated and where standards and norms exist they are not applied consistently or widely within the information industry. The ability to transfer a string of electronic bits (0s and 1s) from one machine to another, does not automatically endow the receiver with the ability to recover the information coded in the string without a knowledge of the coding rules.

The increased exchange of information in an electronic form brings with it the necessity to ensure that the information is accessible to as many people as possible and that no artificial barriers are created to the interchange of information. The ability to interchange information freely, is a key to industrial growth and open competition.

Open systems interconnection (OSI) standards set out to define the basic transport services for electronically coded information. As these services are set up and used, there is a need to ensure that the information transferred over the transport system is easily recoverable. The same need exists with the exchange of information on fixed media such as CD-ROM.

Open Information Interchange (OII) is a proposed initiative of the European Commission, DG XIII-B, and addresses three aims:

- to ensure a consistent strategy exists and is followed for the use and development of information representation standards
- to ensure that products exist to support the production of information products embodying the standards, and that the benefits of interworking are fully demonstrated

- to make both the information industry and the users of information in other industries, aware of the importance of standardisation of information interchange and of how it may be achieved.

The action proposed continues earlier initiatives to promote the use of information standards such as SGML in IMPACT, DOCDEL and DOCMANUSC, and the current support for the Text Encoding Initiative from the EURO-TRA team.

Activities that are foreseen for OII include:

- development of functional standards for the information industry, using existing international base standards for text, images, sound, video and document structure
- definition of the tools required to support the functionality required in different application environments
- support to projects that develop tools for the generation of standard conformant information products
- support to projects that demonstrate the benefits of standardisation in interworking information products
- awareness campaigns to promote knowledge of standardisation and interworking in the information industry.

The initiative will benefit information providers, software developers and information users. Information providers are confronted with a difficult choice between delivery methods. Standardisation of the electronic information representation independent of the delivery form will lower costs and preserve the basic investment in the information product by allowing re-sale and re-use via different distribution media. Software developers will be able to write information access and presentation systems that will accept a wide range of information products. End users will be able to buy information products that they can "plug-and-play" with their existing hardware and software.

The market synergy that can be generated by the widescale acceptance of standards has been demonstrated by the take off of

personal computers since the de facto IBM/MS-DOS standard came into existence. Action has begun in OII with a definition study. The study will form the base for a workshop for industry participants to discuss the OII initiative and help formulate

further action. The success of the initiative depends on European industry support and participation.

Contact: Mr G Heine  
CEC, DG XIII-B  
L-2920 Luxembourg

## Online users survey... online

Are you an online user? Do you use electronic mail or search databases, or read bulletin boards? ECHO, the European Commission Host Organization in conjunction with BrainStorm Computer Solutions of London would like you to call up an NUA and reply to the questions online. The survey will help us determine who our potential customers may be and how we can help you in the future. The results of the survey will be published later.

Call using your national data network: 023421720014500

Onliners in the UK need call: 21720014500

If you have problem logging on, call the help desk given below.

Contact: BrainStorm Computer Solutions  
103a Seven Sisters Road  
GB-London N7 7QN  
Tel: +44 71 281 4411

## Overview of IT in Europe

The second edition of the **Information Technology Atlas - Europe** covers twice as many organizations as the first edition with 1300 companies now list in-house R&D. The Atlas also lists trade associations, standards bodies,

professional organizations and telecoms bodies and administrations.

Contact: IOS  
Van Diemenstraat 94  
NL- 1013 CN Amsterdam

## Gale's EISS

Then tenth edition of Gale's **Encyclopedia of information systems and services** includes more than 300 listings for companies offering a variety of optical publishing products and services. Databases, online vendors, gateways and networks, library and management systems, retrie-

val software, information consultants and associations are also included.

Contact: Gale Research Inc  
835 Penobscot Building  
USA- Detroit MI 48226  
Tel: +1 313 961-2242  
Fax: +1 313 961-6083

## Geotel: multimedia databank

Oriented towards the petroleum and chemical industries, Télésystème Questel's **Geotel** is an electronic documentation delivery service selected by the European Commission (DG XIII) as part of its advanced communications research programme, RACE. **Geotel** subscribers, equipped with workstations based on PC or compatible computers and a laser printer can access primary documents through high speed networks such as ISDN or IDA.

The information in the form of standards, reports, plans, and technical reviews originate from different sources such as word processors, CAD software, and scanners. The hosts are installed in Woking, UK and Paris and the French standards relating to the oil industry are already available.

Contact: Télésystèmes Questel  
115 rue du Bac  
F-75341 Paris Cedex 07  
Tel: +33 1 45 49 86 35



## Barriers for books

Books ordering by standard computerized systems is helping to reduce costs for the book trade. Unfortunately these systems stop at national frontiers because of the prohibitive costs of international telecoms tariffs, says a report by ELP, the working group of European Librarians and Publishers. The report, **Barriers to the free flow of books**, says that the free circulation of printed materials would be greatly facilitated if preferential rates were granted to

the librarians, publishers and booksellers who make use of these new means of communication when ordering abroad. Other barriers include taxes, postal rates, censorship, exchange control and reduction in budgetary allocations for books forcing up unit costs.

Contact: STM Secretariat  
Keizersgracht 462  
NL-1016 GE Amsterdam  
Tel: +31 20 22 52 14  
Fax: +31 20 38 15 66

## DB SEEKS HOST



## Mine of microbial information

### Database seeks host

**MINE**, the Microbial Information Network Europe, is an international network of culture collections cooperating in facilitating access and exchange of information on micro-organisms and cell-lines. The various national databases will be accessible from a central database, presently on a VAX computer with BASIS software. As the users are generally not

computer experts a user friendly menu system has been developed. The MINE project leaders would like to make the data available on a European host where it can be actively promoted and marketed.

Contact: Dr D. Claus  
DSM  
Mascheroder Weg 1B  
D-3300 Braunschweig  
Tel: +49 531 61 87-0  
Fax: +49 531 61 87 18

## Stahl und Markt

Der Datenbankdienst **Stahl und Markt** schafft für jeden Interessierten die Möglichkeit innerhalb von wenigen Minuten jene Hersteller zu benennen, die tatsächlich auch für die Herstellung der gesuchten Ware in Betracht kommen. Er kann den technischen Teil der Kundenspezifikation mit bekannten technischen Rahmenbedingungen der in Betracht kommenden Werke vergleichen, denn nicht jedes Walzwerk ist in der Lage, alle erdenklichen Massbereiche und Ausführungen herstellen zu können. Da der Dienst der Hersteller ebene auch mit einschlägig bekannten Handelshäusern zusammenarbeitet, kann er ebenfalls sofort den Nachweis erbringen, welches dieser Unternehmen einen zur sofortigen Lieferung benötigten Stahltyp tatsächlich

auf Lager hat; auch hier erfolgt die Selektion über rein technische Aspekte.

Nach der Einschätzung der Leitung von Stahl und Markt, kann diese Auskunftsstelle für die Marktteilnehmer eine wichtige Informationsquelle darstellen, vor allen Dingen vor dem Hintergrund der weiteren Markttöffnung der bisherigen Europäischen Gemeinschaft. Stahl und Markt möchte dieses Servicepaket nun den entsprechenden Interessenten nahebringen und einen ergänzenden Dienst auf einem europäischen Hostrechner anbieten.

Kontakt: Herr W Dieter  
Stahl und Markt  
Lisztstrasse 2  
D-6927 Bad Rappenau  
Tel: +49 7264 7017  
Fax: +49 7264 4241

## Libraries programme workshop and utilities

With the Libraries Programme now included in the Third Framework Programme for Research can Development with approval expected in the first half of 1991, a number of preparatory activities are under way. Two new studies have been started and a workshop has been held on retrospective conversion of library catalogues.

### Recon workshop

The workshop on Restrospective Conversion (Recon) was held in Luxembourg on 4-5 July with invited participants from all Member States. Bringing together expertise from libraries and also commercial sector organizations involved in recon services, the workshop focussed on priorities for collaborative retrospective conversion at a European level (Action line 1 in library programme). Issues regarding collections and how to evaluate their importance for recon, data and its ownership and re-use, together with sessions on practical and technical matters were discussed. A series of case histories illustrated these issues. Key points that emerged: national priorities do not necessarily meet stated aims at European level and more thought was needed on the nature of the European resource; there was a lack of basic tools and methodologies needed for cost-effective recon. A report of the workshop will be available shortly.

### New technologies: LIB-2 update

Twelve parallel studies have been launched in each of the Member States to update the 1986 studies on the 'State of the art of the application of new information technologies in libraries and their impact on library functions', known as Lib-2 and published as EUR 11036. The studies are being undertaken by the same

contractors as previously. They aim to produce a selective reassessment of the situation and to evaluate progress made, in order to produce a current knowledge base for action and to help provide additional startup information for developing projects. The survey will be of benefit both to the Commission and to libraries interested in projects.

The studies will provide factual information on four key areas: machine readable record resources; network access to machine readable record resources, integrated library housekeeping systems, and IT based services in libraries. The work is due to be completed in Spring 1991.

### Study on optical disc technology and libraries

A contract to study the user and technical requirements of libraries for optical discs has been awarded with work due to start in December. The study will provide a stimulus to the use of optical disc technology in libraries in the EC by providing a European point of reference on the available technologies and options for use and on potential products and services. The study aims at determining and analyzing the potential for the use of optical disc technology in libraries; to determine the currently available scanning, encoding and optical disc technologies; to analyze where the technology is a barrier to meeting the requirements; to ascertain the requirements for standards in this area; and to identify where further work is required and recommend the action necessary.

Contact: Ms A Iljon  
CEC, DG XIII-B  
L-2920 Luxembourg  
Tel: +352 4301 2923

## STN Mentor

Customers of STN International can make use of **STN Mentor**, an MS DOS compatible diskette to help users of STN international to sample and experience six files relating to health and safety of chemists, engineers and other scientists. Sample records of **Biosis, CA, CHI, LHB, NTIS, and Registry files** are available

for mock searches; the tutorial also shows how to monitor the costs of online searching.

Contact: STN International  
FIZ Karlsruhe  
Postfach 2465  
D-7500 Karlsruhe 1  
Tel: +49 7247 824566

## Briefings for libraries

The busy professional in the library and information business can benefit from ten briefings a year from LIBS to keep him or her abreast of important aspects of legal and political environment of information with an emphasis on new technologies. Published by the Library and Information Technology Centre in conjunction with the British Library research and development department, LIBS include topics such as net

book agreement, joint academic network, OSI interlending protocol, EC IMPACT and Library programmes, hypertext, optical storage techniques expert systems and work stations for end users.

Contact: Mary Feeney  
The Data Workshop  
Rose Cottage, School Rd,  
Elmswell,  
GB-Bury St Edmond IP30 9EA  
Tel: +44 359 41901

## SCRIBO online at Siena

The University of Siena, Italy has created a special service for students and lecturers to exploit online sources for research rather than resorting to long searches of the paper based originals. SCRIBO, Servizio Centrale de Ricerca Bibliografica Online, comprises five faculties: Law, Humanities, Biology Economy and Medicine. Work stations were set up in each of the central libraries and seven hosts are currently accessible, with more expected to be signed up. Librarians and other staff have been re-

trained as information specialists. The service gives a broad support service to students and lecturers in the field of documentation, training for students in compilation of bibliographies and the supply of updated and complete bibliographies to lecturers and other useful material to scholars.

Contact: Mr Lucia Maffei  
Università degli Studi  
SCRIBO  
Centro Didattico Le Scotte  
I-53100 Siena  
Tel: +39 577 270259  
Fax: +39 577 286202

## Glossaire bilingue

Le glossaire bilingue de bibliéconomie et de sciences de l'information par Frances Salinié, British Council, Paris, et Souad Hubert, BPI, contient plus de 5000 termes utilisés régulièrement en bibliéconomie, en sciences et

techniques de l'information et dans le domaine de l'édition.

Contact: Frances Salinié (Sarl) ACS  
38 rue de Bourgogne  
F-75007 Paris  
Tel: +33 1 45 56 06 02  
Fax: +33 1 43 86 56 43

## Books by modem

Over 2000 computer books can be searched through a modem connection at 300, 1200 or 2400 baud rate at Sharbrook Systems. The online catalogue can be searched by title, author or

keyword on +44 823 333471.

Contact: Sharbrook Systems  
18 The Crescent  
GB-Taunton, Somerset TA1  
4EB  
Tel: +44 823 334383

## Optical information products

The Commission has supported a survey on the use of optical information products in libraries and information centres in Europe. Carried out by Ching-chih Chen and D Raitt on behalf of FID in 1989, it covers all EC Member States, Nordic countries, Austria and Switzerland.

The results of the survey, published as FID 683, have created bench marks for the methodology in the European context and have indicated the potential for optical products (particularly CD-ROM) in European libraries.

Contact: FID  
P O Box 90402  
NL-2509 LK The Hague

## L'informatisation des bibliothèques

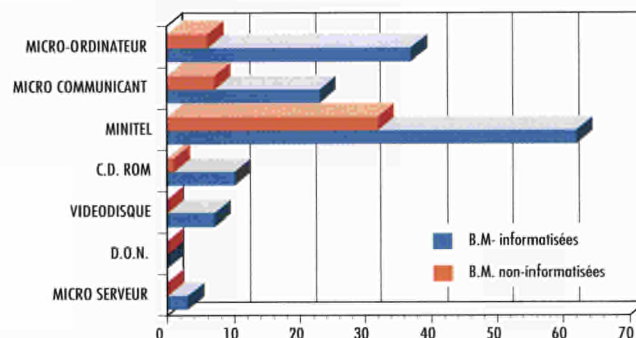
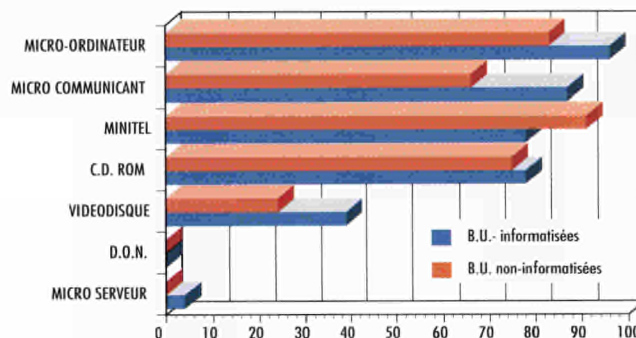
Pendant un récent sondage, repris dans **L'information des bibliothèques et centres de documentation**, neuf sur dix bibliothèques municipales non-informatisées ont répondu oui à la question: 'envisagez-vous de vous informatiser?' Pour l'échéance, 8% étaient bien avancées dans leur projets, puisqu'elles pensaient l'être avant la fin de 1989. 26% pensaient qu'elles le seraient en 1990. Mais une forte majorité, 66% pensent que ce sera ultérieurement. 69% optent pour un petit système de 1 à 16 terminaux: 14% pour un système moyen de 17 à 64 terminaux et 1,5% pour un gros

système de plus de 64 terminaux. 15,5% ne savent pas encore.

Les réponses de bibliothèques municipales confirment bien la tendance du marché en faveur des petits systèmes sur micro-ordinateurs. A la question: quel investissement comptez-vous mettre?

43% ont dit moins de 500 000 FF; 23% de 500 000 FF à 2 millions de FF; 2,4% plus de 2 millions de FF; 31,6% ne savent pas.

Les graphiques suivants indiquent le pourcentage d'établissements équipés des matériels suivants:



- micro-ordinateur pour activités bureaucratiques
- microcommunicant ou terminal ASCII avec modem pour la consultation des bases de données
- minitel
- lecteur de CD-ROM
- lecteur de vidéodisque ou CD-

- Vidéo
- lecteur de disque optique numérique
- micro-serveur vidéotex pour diffuser un service minitel.

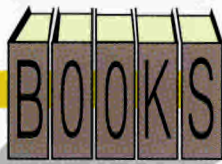
Contact: A Jour, Editeur  
11 rue du Marché  
Saint-Honoré  
F-75001 Paris

## China, Japan and Korea

The Codata special report No 12 is devoted to **Data activities and database developments in China, Japan and Korea** and is edited by Yaruo Hu and Edgar F Westrum, Jr. Reports by Chinese scientists include articles on trends in chemistry databases,

materials data, geochemical and nuclear databases.

Contact: Codata  
51 Bvd de Montmorency  
F-75016 Paris  
Tel: +33 1 45 25 04 96



## Text retrieval conferences

**Text retrieval: the state of the art**, edited by Peter Gillman reflects the views of two IIS conferences **User's perspectives** in November 1988 and **Text management** in November 1989. The varied contributions range over some product reviews, intelligent interfaces, hypertext in theory and practice, graphics handling and why text retrieval specialists earn less than data processing personnel.

**Information quality: definitions and dimensions**, edited by Irene Wormell covers the proceedings of a Nordinfo seminar in 1989. Quality is hard to define but embraces such aspects as reliability in provision, timeliness, novelty, speed of provision, completeness, selectivity, relevance or specificity, integrity, security of provision, user-friendliness, user effort, flexibility of services and accessibility of services.

A survey of managers in Norwegian financial services indicated

that databases offered by newspapers and news agencies scored low in credibility, relevance, validity, form and user-friendliness. They score highly in actual value and novelty. The best of these databases used simple menu driven systems, making it easy to browse and define the needs. Short summaries of articles were praised. Experience is a key factor in the credibility of databases. When asked what is the first source of information for administrative or strategic decision, the first source was inevitably "a knowledgeable person nearby"; external databases came fourth in the list. When asked what sources they trust, businessmen put external electronic information seventh after a number of internal sources. But if access, form, flexibility and actual value increase, electronic information could move up the table.

Contact: Taylor Graham  
500 Chesham House  
150 Regent St  
GB- London W1R 5FA

## Ecu payments in the European Community

European hosts have to overcome the reluctance of non national customers to pay in a foreign currency. What effect would paying in Ecu have for such international trade? A survey of European firms undertaken by Ernst and Young, published in **A strategy for the Ecu**, found that the vast majority anticipate greater cost savings and larger benefits from a single European currency than making the Ecu a thirteenth currency. **L'Ecu pour l'Europe de 1992** prepared by

Touche Ross includes a number of simulations for firms trading with each other in Ecus rather than two national currencies. While the use of the Ecu does not remove exchange rate risks, it does provide an optimal solution where costs of coverage may be reduced and shared.

Contact: L'Association pour l'union monétaire de l'Europe  
26 rue de la Pépinière  
F-75008 Paris  
Tel: +33 1 45 22 33 84  
Fax: +33 1 45 22 33 77

## Worldwide banking

There are four types of **Global electronic wholesale banking** covered in the book by Ajay Mookerjee and James Cash: global balance reporting, global funds transfer, global custody of clients' worldwide securities and global letters of credit. Major banks pay on average \$1 billion for such systems and annually some \$100 million. Electronic banking services accounts for nearly half their income by the early 1990s. About 65 banks have adopted

global strategies including global information systems, with a much larger number in the category 'broad-line global banks'. The authors analyse a survey of delivery system structures and operational performances of GEWB services provided by a selected group of banks.

Contact: Graham and Trotman  
66 Wilton Rd  
GB London SW1V 1DE  
Tel: +44 71 821 1123  
Fax: +44 71 630 5229

## Echo info meeting

ECHO users and friends are welcomed to an Echo Information Meeting to be held at 9 am on 12 December in the Olympia Suite of the Hilton International Olympia Hotel during the London Interna-

tional Online Meeting.

Contact: ECHO  
P O Box 2373  
L-1023 Luxembourg  
Tel: +352 488041  
Fax: +352 488040

## Israel Info

**Info 91** is the sixth annual meeting taking place in the Tel Aviv Hilton from 17-21 February 1991. Events include CD-ROM and multimedia, user experience, sessions on business/corporate intelligence, defence/aerospace, exports, Europe 92, image proces-

sing, EDI, gateways and various specialist information services.

Contact: Info 91/Teldan  
Info Systems Ltd  
P O Box 18094  
Israel- Tel Aviv 61180  
Tel: +972 3 250073  
Fax: +972 3 256359

## Hamburg Online

Online databases, value added network services, documentation, archiving and retrieval systems, optical disk systems will be discussed at Online 91 in Hamburg 4-7 February 1991.

Contact: Online GmbH  
Postfach 100866  
Neigesser Str 131  
D-5620 Velbert 1  
Tel: +49 2051 230 71  
Fax: +49 2051 219 93

## High speed networking

RARE, Réseaux Associés pour la Recherche Européenne, with the support of the Commission are holding a **Symposium on high speed networking for research in Europe** in Brussels on 24 January 1991. The event will address the situation in Europe and worldwide for data rates above 1.5 Mbps and above in

relation to user needs existing and planned infrastructures, potential usage by industry and strategies, policies and possible impact of such networks.

Contact: RARE  
Postbus 41882  
NL- 1009 DB Amsterdam  
Fax: +31 20 5925 043

## EuroComm '91

The range of topics to be covered at **EuroComm '91** conference and exhibition in Amsterdam 22-25 January 1991 include: public and private networks, value added business communications, mobile communications and public and

home communications.

Contact: EuroComm 91  
Europaplein  
NL-1078 GZ Amsterdam  
Tel: +31 20 549 1212  
Fax: +31 20 46 4469

## Using your eyes

Reading from a computer screen is generally slower than from a paper text. However, the effect varies throughout the day. According to **Visual search**, edited by David Brogan, a collection of papers from a conference held in Durham in September 1988, reading from paper was slower in the afternoon. Those with a high degree

of cognitive failure, measuring lack of attention, memory and action, showed less important differences between paper and screen.

Contact: Taylor and Francis  
Rankine Road  
Basingstoke  
GB-Hamps RG24 0PR  
Tel: +44 256 840366  
Fax: +44 256 479438



The European Commission (DG XIII-B) has implemented the first European Community-wide free phone system to help citizens find the answers to questions about the European information market. Negotiations are under way with telephone administrations in all Member States to open lines to a Help Desk in Luxembourg. These

reverse charge services allow European citizens to ask about general questions on the information market in Europe, what information services are available, how do you connect to a database, and the European Community's IMPACT programme, plus ECHO'S talking computer, Max.

## Echo's Free-phone Services

	ECHO Help-Desk	German	MAX English	Comments
Belgium	118456	118434	118435	118437
Denmark	80010756	80010734	80010735	80010737
France	05906956	05906934	05906935	05906937
Germany	0130823456	0130823334	0130823335	0130823337
Luxembourg	08003456	08003334	08003335	08003337
Netherlands	060223156	060223134	060223135	060223137
U.K.	0800899256	0800899234	0800899235	0800899237

## impact programme 1989-90, Information Market Policy ACTIONS

	Information Market Observatory
	Overcoming technical, legal and administrative barriers
	Improving the conditions for transmitting and accessing information
	Improving the synergy between public and private sectors
	Launching of pilot/demonstration projects
	Promoting the use of European information services
	Action in favour of libraries



Information Market  
 Marché de l'Information  
 Informationsmarkt  
 Mercado de la Información

Published by Directorate General XIII Commission of the European Communities

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