



# STATISTICS ON THE INTERNET

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03/1997





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**Chief editor**  
Daniel Byk

**Assistant chief editor**  
Fons Theis

**Editorial team**  
John Wright  
Barbara Jakob  
Annika Östergren  
Steffen Schneider

**Assistant**  
Virginie Benoit

**Layout**  
Claudia Daman  
Quentin Masquelier

**Cover**  
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**Eurostat**  
Press & Communications Team  
Room B3/079  
Jean Monnet Building  
L-2920 Luxembourg  
Fax: 352 4301 35349

Europa's web address:

<http://europa.eu.int/>

E-mail address:

[europa@dg10.cec.be](mailto:europa@dg10.cec.be)

Eurostat on Europa

<http://europa.eu.int/eurostat.html>



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# Statistics & the Internet: taking advantage of global communication



If there is one area that has been globalised, it is information. The pace is continuing to quicken, thanks in particular to constant improvements in the means of electronic communication, but also to the exponential growth of available information and urgent user demand. Users may be scattered all over the world but they are connected to each other by the World Wide Web.

Information technology and the creation of international networks have obviously had a hand in revolutionising statistics. Statistics and informatics are now inseparable. In a relative-

ly short space of time, the Internet has become an effective work tool that is about to revolutionise the whole practice of collecting, communicating and disseminating statistical information.

Although data-collection projects by Internet are only in their early stages, communication between government departments via the European Statistical System (ESS) is underway, leading to the mass dissemination of statistical information.

The EU, with its diverse statistical traditions and languages, was faced with a unique challenge: how to

improve communication within the ESS, which has as many as 80 working parties meeting once or twice a year and 1,500 local, national, European and international departments. Only Internet technology provides a simple and efficient solution. In concrete terms, the pre-standardised, pre-programmed creation of one site per working party offers all its members the opportunity to consult a document, load it into the library and take part in a forum.

In the same way, many statistical organisations will use the internal communication method known as Intranet. Multimedia functions of this



type will enable individuals to correspond with each other on various subjects, the sharing of all available information and access to draft documents. All this under the best technical conditions and at lower cost. For some months Eurostat has experienced this through its internal communications system *Cybernews*.

The role of traditional media, such as paper, remains to be redefined. Several opinions have emerged, from totally retaining their present status to giving them a complementary function.

The first lessons learned from dissemination of statistics on the World Wide Web show what users want in terms of data characteristics and the organisation of services requested.

A key motive of 'netsurfers', even uninformed ones, is to consult data directly on a wide variety of subjects. But, from the start, they run the risk of being disappointed, as national statistical institutes are unable, for a multitude of reasons, to offer free access to all available data.

### What type of data?

What type of statistical data should be published on the Web? Their characteristics can be summarised as:

- timely and well-documented published data
- statistics relevant to the specific needs of user-groups
- free basic indicators, and
- data adapted to individual needs.

The clarity of the organisation, tree structure and access to data will be essential to success. And the worldwide character of the Internet and

market globalisation call for a multilingual approach. Analysis of connections in certain national statistical sites reveals that more than 50% of users are from abroad.

Generally, such sites contain at least four essential sections:

- the most recently published figures in the form of news releases or indicators
- the most common indicators
- publications and services offered
- information sources, contacts and links with other statistical offices.

Some sites go further and already include services facilitating access to information. In such cases, the facility most often requested by users, whether experienced or not in statistics, is an on-line research tool for all the available information. In view of the size of the databases and the large number of news releases and publications, we can easily imagine the nightmare of finding one figure in such oceans of information.

Having researched the product, the netsurfer will want to buy it directly. Electronic commerce, although currently insignificant in statistics compared to other dissemination networks, could become an extremely useful tool for on-line data purchase in the future. Certain NSI sites offer such a service already, with growing demand. Some problems have not yet been resolved, such as pricing the databases on the Internet. It will be difficult to find harmonious solutions because of different rules in different countries. The reaction of users and new products arriving on the market will probably suggest ways of resolving such matters in future.

Standardisation of new technological developments enables a personalised information delivery service to be envisaged. For instance, users will be able to subscribe to a subject of particular interest, such as economics and finance, or to part of a site, and receive an electronic mail giving a summary of the latest publication or news release on that subject.

### No longer a needle in a haystack

Finally, the newest and most promising service to date is on-line information and training. Still underdeveloped due to its complexity and impact on existing organisations, this type of very high value-added service puts a team of specialists in contact with users, provides information in real time and enables statisticians to understand user needs directly.

The development of statistical information dissemination services via the Internet is not an end in itself, but forces us to review the efficiency of other data dissemination methods and networks, obliges each organisation to take a quality approach to dissemination, and puts producers in direct contact with users. Researching a piece of statistical information should no longer be like looking for a needle in a haystack. Users should no longer be bombarded with useless information. On the contrary, they should receive the information requested as soon as it is published in an appropriate medium.

The way forward in the coming years is clear: full advantage must be taken of Internet technology for both data collection and internal and external communication.

**Yves Franchet**  
**Director-General**  
**Eurostat**



If, like RÜDIGER SCHIMMEL of the Statistisches Bundesamt press office, you ever find yourself face to face with the Internet wondering what it is all about, the following article describes what he has learnt...

# What is the Internet?

## A simple guide

**I**nter-platform communication using TCP/IP standards, access via various providers' POPs, FTP servers, gateways to on-line services, chat lines, conferences and emoticons, plug-ins for browsers, and the WWW as a global, interactive, dynamic, graphic hypertext information system...

The following is an attempt at a straightforward explanation of the Internet for the man or woman in the street...

The Internet is a huge network linked to smaller networks throughout the world. All the networks consist of computers that communicate with each other over data lines. In theory, any computer in the network can exchange data with any computer using a common 'language'. Obviously, this is not a real language but a catalogue of electronic standards contained in the TCP/IP or transmission protocol.

At the beginning of 1996 there were already nearly 10 million computers linked to the Internet worldwide with between 30 and 40 million users.

All this clearly costs a lot of money. No wonder questions spring to the minds of those new to the system. These include:

### Who owns the Internet? Who pays for it all?

Nobody owns the network. There is no 'Internet Ltd' or controlling authority.

From a technical viewpoint the network simply consists of computers and data transmission. Anyone who wants an Internet connection pays for his or her own equipment, data transmission fees and costs charged by the provider – the company providing access. Each participant pays his own share. This means the Internet has no need of a central authority or financial backers.

### How do you get on to it?

You need three things:

- a computer
- a modem – a device that converts digital data from the computer into analogue data for the telephone network and vice versa, *and*
- access authorisation.

You can receive access authorisation from one of many providers – a company that sells access to the Internet. Or you can subscribe to on-line services such as the national telecommunications services suppliers or AOL (America On-line).

### What is the World Wide Web?

The WWW has developed into the best-known and largest Internet service – many users think it is the

Internet. However, it is just one of a large range of services.

Pretty pictures, colours, multimedia applications from sound to video sequences – with each click of the mouse the WWW opens up new and interesting pages. It was developed mainly for a better overview of information available on the network. But there is a downside: vast quantities of data are required to transmit each page, which gives rise to a more irreverent description – world wide wait!

Basis of the system is a standardised word-processing model supporting *hypertext* – a page of text with cross-references. The idea is that, instead of reading the text from start to finish, like a magazine, you can simply jump from one point to another by activating a *hyperlink*. With a click of the mouse you can shoot into another document, find additional information, return to the original text, choose another topic, and so on. One consequence, common to most 'net users, is that you can easily forget what you were looking for originally!

Another important WWW component is *URL* (Uniform Resource Locator), the uniform address for consulting a page or data source. Every WWW document has this, making it directly available from any location.



## What about some more 'computer-speak'?

Here are some general EDP concepts:

A computer on the Internet that offers services is called a *host*.

A program that runs on this host with an Internet service is called a *server*.

A program that allow use of a server's services is a *client*.

The WWW also works to this client-server principle. This means that, to make full use of the WWW, users need the appropriate client software on their computers. To gain access to the WWW we need a *browser*, a term conveying the idea of searching and sifting through information. This communicates with the server to call up specific pages and then displays them to the formatting requirements stipulated. It also handles pages with graphics or links to other documents.

## What is e-mail?

Every Internet user has an e-mail address. This enables communication with other participants worldwide. It handles not just text but all forms of digital data, such as images and sound.

The e-mail address does not refer directly to a person's computer but to the postbox of his or her provider or on-line service.

E-mail communication has become an intrinsic part of the Internet, allowing dispatch of comprehensive information within minutes and much cheaper than other postal or fax services.

Given its speed, some optimists have built up hopes of receiving equally

swift replies and using e-mail to seek information etc. Reality is somewhat different!

## What are the Internet's current uses?

It would be easier to say what it can't do, given it now offers so much.

Here's just a taste: Data exchange between all sorts of computer systems; electronic editions of well-known newspapers and magazines; news services; weather reports; scientific research in libraries; 'virtual' visits to museums allowing downloading and printing of a 'genuine' Rembrandt in full colour; local cinema programmes with links to film companies and their databanks; music files including latest charts; job vacancies at employment offices; electronic shopping; holiday offers with pictures of hotels and the resort; last-minute holiday bargains; and so on...

The list seems endless. In less than a minute you can read a news release from the Ministry of Finance, send an e-mail to your MP – or even directly to the Pope – and go on to discover everything about emigrating to Australia!

## What about network crime and security?

Hardly a day goes by without some horror story about hackers, computer crime, instructions on making bombs, pornography, viruses, home pages for extremist groups...

There needs to be a basic distinction between technical problems and content.

One characteristic of the current Internet is lack of security: there is no way of knowing how many and

which computers are receiving the data. Since most data in circulation are not coded, it is possible theoretically for anyone to 'listen in'. So financial transactions should only be conducted using secure procedures, as is currently the practice in the smaller on-line services networks, for example. Some electronic cash processes have also started appearing on the Internet.

Special programs can protect a computer from viruses. In case of doubt users should simply avoid downloading suspect data files.

When complete in-house networks are connected to the Internet, a 'firewall' regulates the traffic to one external computer. This acts as a bridge to the Internet, protecting all the other in-house computers and deflecting any external 'attack'.

Sex and crime are a problem. Given no ultimate controlling authority, there is no central censorship – the price paid for freedom and independence. But individual providers are increasingly aware of their responsibilities in restricting access to 'suspect' clients.

In terms of total users, those offering dubious products are a tiny proportion of traffic on the information highway – comparable perhaps with the number of dangerous drivers on a motorway – and there is no great clamour for a clampdown or stricter regulations.

One problem often underestimated is the various copyright laws or consumer protection provisions in countries of origin. With increasing commercialisation of the Internet, there is need for hard and fast rules.

Even now the Internet is still in its pioneering stage. Like the Wild West, it a land of great potential and opportunity but also one of danger and risk.



# Internet glossary

compiled by Sven Kreitmann, Statistisches Bundesamt

**Account:** guarantees certain user rights eg disk memory, execution authorisation for programs. For example, a user name and password gives access to an account.

**Address:** every computer in the network is assigned an indicator by which it can be identified (IP address: Internet Protocol address).

**Baud rate:** indicates the rate per second (or signal changes) at which a data exchange is carried out.

**User id:** Name by which the user can be identified in the network. This can be real name, pseudonym or simply a sequence of numbers.

**Browser:** Client software with which the user can search the Internet or some other data service.

**Chat:** Conversation between two participants using a keyboard and screen. They have to be linked to an on-line network.

**Conference:** Extension of the chat line – on-line conversation among two participants at the same time.

**Client:** Computer and/or program allowing use of the services on a server.

**DNS:** Domain Name Service – divides corresponding domains on the Internet and allocates names to them.

**Domain:** Last part of the Internet address. There are various types such as country domains *be* for Belgium or *de* for Germany; *gov* for government pages; and *edu* for educational establishments.

**Download:** Downloading data files from a server.

**Firewall:** Safety system regulating traffic between a local network and the Internet.

**FTP:** File Transfer Protocol – for transferring data files from one computer to another. Also the Internet service for downloading data files from Internet servers.

**FAQ:** Frequently Asked Questions.

**Gateway:** Interface between two communications facilities with the same transfer protocol.

**Guest access:** A concept from the on-line services world – free, no-strings access to a communications system. The user logs on with the user id 'guest'.

**Home page:** First page of a site on the World Wide Web selected by a browser. Also the name for pages of private individuals who publish their own pages on the network.

**Host:** Computer offering services on the Internet.

**HTML:** Hypertext Mark-up Language – an interactive page-description language used to produce pages for the Internet to an international standard. All cross-references are activated with the corresponding HTML command.

**Hyperlink:** Explicitly-highlighted fields that at the click of a mouse produce a link to another page in the network or cross reference.

**Hypertext:** Text page with cross-references or links.

**ISDN:** Integrated Services Digital Network – a digital telephone network designed for standard telephone calls, fax and other services such as video conferencing. Much more powerful than the conventional analogue telephone network.

**Modem:** MODulator/DEModulator – device to convert digital data from the computer into analogue data for the telephone network and vice versa.

**On-line service:** Unlike the Internet, this is a closed network of computers with a central authority. Operators make a living from fees paid by members for access and data are organised and managed differently from the Internet. Many operate as providers (see below) enabling Internet access.

**Provider:** Someone offering Internet access with possibility of connection via a modem or ISDN in return for a monthly flat-rate payment and/or user fees calculated by connection time or data transferred. Some larger on-line services (AOL, Compuserve) also operate as Internet providers.

**Server:** A program that runs on a host and takes care of an Internet service. Also a synonym for host.

**TCP/IP:** Transmission Control Protocol/Internet Protocol – package of network protocols forming the technical basis for data flows on the Internet.

**URL:** Uniform Resource Locator – indicates location and name of a WWW document.

**WWW:** World Wide Web – worldwide search system of the Internet that works through hyperlinks and can call up data in HTML format from WWW servers.



# Internet addresses of NSIs

*Selected network addresses for statistical offices*

## E U R O P E

### **Eurostat:**

<http://europa.eu.int/eurostat.html>

### **Cyprus, Department of Statistics:**

<http://www.pio.gov.cy/dsr/>

### **Denmark, Statistics Denmark:**

<http://www.dst.dk>

### **Finland, Statistics Finland:**

<http://www.stat.fi>

### **France, INSEE:**

<http://www.insee.fr>

### **Germany, Federal Statistical Office:**

<http://www.statistik-bund.de>

### **Greece, National Statistical Service (provisional):**

<http://www.iacm.forth.gr/esye/>

### **Iceland, Statistics Iceland:**

<http://www.stjr.is/hagstofa>

### **Ireland, CSO:**

<http://www.cso.ie>

### **Italy, Istat:**

<http://www.istat.it>

### **Luxembourg, Statec:**

<http://statec.gouvernement.lu>

### **Malta, Central Office of Statistics:**

<http://www.magnet.mt/home/cos>

### **Netherlands, Central Statistical Office:**

<http://www.cbs.nl>

### **Norway, Statistics Norway:**

<http://www.ssb.no>

### **Portugal, INE:**

<http://www.ine.pt>

### **Spain, INE:**

<http://www.ine.es>

### **Sweden, Statistics Sweden:**

<http://www.scb.se>

### **Switzerland, Swiss Federal Statistical Office:**

<http://www.admin.ch/bfs>

### **United Kingdom, ONS:**

<http://www.emap.com/ons97/>

## I N T E R N A T I O N A L

### **UNECE:**

<http://www.unece.org/stats>

### **OECD:**

<http://www.oecd.org>

## O T H E R

### **USA,**

#### **Department of Commerce:**

<http://www.stat-usa.gov>

#### **Bureau of Labor Statistics:**

<http://stats.bls.gov>

and nine Federal statistical agencies

#### **Bureau of Economic Analysis**

<http://www.bea.doc.gov>

#### **Bureau of Justice statistics**

<http://www.ojp.usdoj.gov/bjs/>

#### **Bureau of Transportation statistics**

<http://www.bts.gov>

#### **Census Bureau**

<http://www.census.gov>

#### **Economic Research Service**

<http://www.econ.ag.gov>

#### **Energy Information Administration**

<http://www.eia.doe.gov>

#### **National Agricultural Statistical Service**

<http://www.usda.gov/nass>

#### **National Center for Education statistics**

<http://www.ed.gov/NCES>

#### **National Center for Health statistics**

<http://www.cdc.gov/nchswww/nchshome.htm>

#### **Canada, Statistics Canada:**

<http://www.statcan.ca>

#### **Turkey, Turkish State Institute of Statistics:**

<http://www.die.gov.tr>



Former Eurostat Director and now in charge of European Commission informatics, FERNANDO DE ESTEBAN is interviewed by Sigma's STEFFEN SCHNEIDER...

# 'Users don't want a numbers graveyard'

*A major concern of Fernando de Esteban when he was Eurostat Director responsible for dissemination was to make statistics sufficiently comprehensible to be accepted as a working tool. His view was: "Users want information – not a numbers graveyard."*

*Last February de Esteban was appointed Director of Informatics at the European Commission. Result: his mission remains the same despite a widened remit and a changed outlook.*

*How does the Informatics Directorate react to new technological developments and what place does the Internet – the 'network of networks' – occupy in the dissemination of information in general and statistical data in particular?*

**W**hat role does the Informatics Directorate play in the European Commission?

"It is a very dynamic role, perhaps a bit too dynamic. The other Directorates and Departments force this on us. But it is also an extremely varied role. Within the Commission, more than 1,000 people are involved in information technology. It is fasci-

nating work and my colleagues are extremely professional. The challenge is that technology is developing at such a speed that, if you're not in a permanent state of readiness, you can quickly be overtaken by events. Information technology is the future. It is the bedrock of computer-processed information and the information superhighway."

*How do you see the future of the Informatics Directorate?*

"We shall have to continue to see ourselves as a service provider – increasingly so, in fact – but we shall also have to provide a point of reference, not only for the Commission but also for the outside world. I want to organise a service that transfers its experience of applied information technology to a major organisation of some 20,000 users who are confronted with problems of multilingualism. We are probably the only organisation in the world with such experience, which it should be possible to transfer to others, subject to inevitable limitations and the need to proceed with care.

"In the near future I intend to propose to the Directorates-General responsible for information and telecommunications policy that they use the services of the Informatics Directorate as a transferable practical experiment.

*The Internet has become indispensable. Will it replace other information tools or merely complement them?*

"We mustn't put the Internet on a pedestal. It is extremely user-friendly and provides easy communication. Despite its strong points, however, the Web will not solve all problems. It is nothing more than an instrument or, if you'll allow the analogy, a telephone. The quality of the conversation is our responsibility. The important thing is content. At present the Internet contains a vast amount of information: some valid, some junk or even harmful. Sooner or later, a way of 'sifting' will have to be found.

"Moreover, you can't put everything on the 'net. You have to make judicious choices. Information must be precise and rapid. The Internet user doesn't sit in front of the screen for hours on end. The information must provide leads to publications on other media – unless the user is happy with succinct information, in which case it must be very brief and, most importantly, up-to-date."

## 'Users need fresh statistics'

*Is that true of statistics as well?*

"Where statistics are concerned, the situation can be a bit different in that time-series are necessary, especially for studies involving econometric models. The 'freshness' element is not as important as the 'series' element.

"At present, users need fresh statistics, and they need them *tout de suite*. The Internet can be the per-



fect avenue, especially if the user is looking for statistics on short-term trends. The system also provides us with an excellent channel for disseminating our forecasts. For all these information types, the Internet provides very easy access and worldwide distribution. The problem for Eurostat in particular – but also all other statistical institutes – is the need to update information regularly and distinguish between free information and information you sell.

"And don't forget that there are other powerful data transfer media that Eurostat and the Commission are in the process of setting up. An example is IDA, *Interchange of data between administrations*, a DG III programme aimed at facilitating effective electronic data interchange between EU Member States. It serves a specific purpose but constitutes a parallel network all the same."

*What place does the Internet occupy in Commission activities?*

"We are lucky to have our own server already. *Europa* functions very well, and the growth in its popularity is astonishing. Internal Commission information is placed on *Europa plus*. It is a prime source of information that has to be permanently updated and easy to use.

"Although much of the information is updated, many departments make the considerable initial effort required to get a page on *Europa plus* but then fail to update it. This is equally true of the information on *Europa*. Departments must develop the habit of continually providing up-to-date information – what Eurostat calls 'fresh' information. If our gamble pays off, the Internet will be an ideal medium for the Commission to disseminate information to users both within and beyond the EU."

### **'We don't have to be afraid of the future'**

*What comparative advantages do Europe, the EU and, perhaps, the Commission have in the information technology game?*



"A few weeks ago I had the opportunity of meeting the Vice-President of Microsoft. To put Europe in a world context, I began by describing to him the European market in terms of population. It is vast – bigger than those of the United States or Japan. I then showed him the amounts the governments of Member States and the Commission spend on information technology.

"We don't have to be afraid of the future. Europe is in a strong position. From both the private and public points-of-view, the Union can muster the information technology needed to cope with such a large information market.

"A comparison of consumption of informatics products in various Member States shows that the smallest and biggest consumers differ by a factor of three. In the case of the largest European consumer, Switzerland, it is a factor of four or five.

"On the other hand, if we consider average per capita expenditure in Europe and the United States, Europe is still somewhat behind but quickly catching up. The informatics market in Europe has vast potential but we cannot afford to stand still."

*This brings us to the topic of Internet democratisation...*

"The democratisation of the Internet and informatics services will take hold to the extent that households or individuals acquire the necessary electronic media. The pace of development is very fast. At the moment the Finns are the biggest users of the Internet, but its popularity is increasing at very encouraging rates in the countries of southern Europe. If we break down the newspapers published on the 'net' by nationality, we see that the southern European countries are very well represented. The tendency will be towards equalisation, very similar to the pattern that developed for television or the motor car.

"In some countries, there was once one car for every two inhabitants, while in others there was only one to every ten people. Slowly the difference narrowed. A similar pattern will take shape in informatics but with one significant difference: the productivity gains from information technology will quickly enable less developed countries to catch up with the more highly-industrialised ones."



The information market is a basic component of modern economics. New technologies have revolutionised information – and statistics are no exception. It is the task of Eurostat's unit A2 – technological development and information systems – to put these technologies into action to improve the quality, availability and user-friendliness of statistical services.

# Statistics on the information highway

by Barbara Jakob

*There has been a whole range of initiatives to build the Eurostat Internet site and, in parallel, the internal site for Eurostat staff, Cybernews. These are still important projects. Numerous other possibilities offered by Internet technology are being explored by Eurostat A2.*

**C**hristian Guittet is responsible for Eurostat activities on information highways, multimedia, active content and data-visualisation. His work is mainly research with concrete applications expected in the short to medium term.

"Eurostat is already making use of the new possibilities offered by the multimedia revolution", he explains. "Photographs, interactive charts, sound, video sequences and animation can be used to illustrate statistical data, making them more attractive, understandable and user-friendly.

"The Eurostat Internet site is an application field of all these technologies. But development is not finished. Research has been started to allow further progress. The general objective of the whole project application of new information technologies to statistics is to review cutting-edge

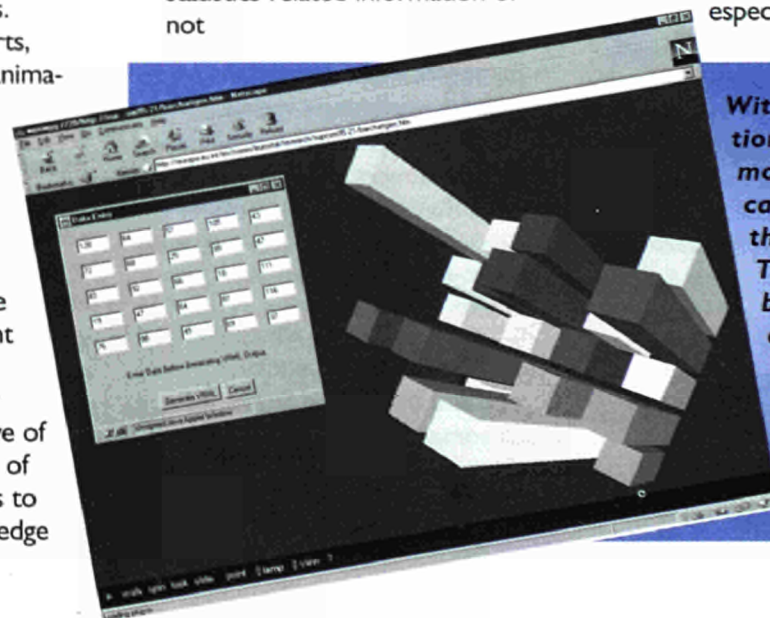
and emerging information technologies, including multimedia, active documents, information highways, visualisation techniques, computer graphics and image-processing techniques; and to evaluate, from a user's point of view and on the basis of concrete applications, how they could help Eurostat fulfill its mission to provide the EU with a high-quality statistical information service.

"The ultimate goal is to create and maintain a reference centre (<http://europa.eu.int/en/comm/eurostat/research/it.htm>) dedicated to application of these technologies to statistics-related information. This centre is being set up progressively and new information technologies, starting with the Internet, put to work to make it widely accessible beyond Eurostat to all interested parties. Ultimately it will comprise:

- details on tests that have been conducted to apply these technologies to statistics-related information, including the evaluation of their suitability and user-acceptance
  - a system to collect additional contributions and feedback from potential users.
- "Contributing to standardisation activities, in particular to try and influence Internet-related developments so that statistical requirements are taken into account, is also an essential part of the activity.

## Exploiting synergies

"While cutting-edge and emerging information technologies in general are closely monitored, particular attention is paid to their potential application to domains associated with priority themes for the EU. These include distance learning and international cooperation. Results of past and on-going projects, especially those in the



**With data visualisation techniques more information can be shown at the same time. This virtual-reality bar chart presents data in a 3D interactive model**



framework of SUPCOM or other EU-funded research activities, are also taken into account, so that possible synergies are exploited.

"The following technologies have been or will be examined, demonstrated and assessed:

- bandwidth-intensive applications, such as audio-, data- and video-conferencing on the Internet, or audio- and video-broadcasting, that could facilitate and improve relations with information-brokers, or, more generally, with Eurostat correspondents
- intelligent agents ('knowbots') that could automatically retrieve information relevant to Eurostat on the one hand, and help Eurostat disseminate information on the other
- real-time interactivity supported by active-contents technology (eg *Java*, *ActiveX* etc) to allow for direct manipulation of data by end-users
- virtual reality as a way of improving the man-machine interface on the one hand and the understanding and visualisation of information on the other
- language-processing technologies that could facilitate the management and dissemination of statistics-related textual information such as nomenclatures, methodologies and metadata."

### 'Virtual libraries' and cyber meetings

The possibilities that new technology offers go far beyond presentation and dissemination of information.

**Philippe Lebaube** is working on a project to revolutionise working conditions of statisticians all over Europe.

DSIS (Distributed Statistical Information Services) is a framework for a wide range of technological activities supporting the functioning of the European Statistical System which is funded by the IDA (Interchange of data between admin-

istrations) project of DG III (industry). Work on multimedia and information highways (for setting up dissemination environments for statistical information) and integration with Trans-European Networks (aimed at implementing a logical network linking all involved partners to communicate more efficiently electronically) are identified as priorities of the DSIS.

This is underway in the DSIS Information Resource Centre (IRC). Based on Internet technology, the IRC is offering a global service perfectly suited to project management involving representatives from the Member States.

**Philippe Lebaube** explains how it works: "We are offering an homogeneous environment for what we call interest groups – homogeneous group of users with a set of common functionalities: for example, the Statistical Programme Committee, a task force, a working group, a pilot project or the Eurostat Data Shop network.

"Firstly, IRC makes projects visible to a wider audience. We have already installed showrooms for some interest groups to allow a live demo of EDI (Electronic Data Interchange) projects.

"The IRC is configured so you have a global service – you connect to it, have all the interest groups listed and after that access is restricted to members of the group. They can use all the services such as electronic document repositories – the document library of their interest groups, directories of operational information such as projects and meetings, a 'who's who', frequently-asked questions – they can even discuss items in a cyber meeting."

### Keeping in touch via PC

Eurostat is providing the secretariat for some 80 working groups, committees etc usually with members all over Europe. This may help to evalu-

ate the benefits of DSIS/IRC. Delegates of Member States retrieve any document of concern to their interest group and keep in touch with other members through the electronic forums – via a PC connected to Trans-European Networks. This will simplify drastically the workload faced by secretariat of committees.

"Following the subsidiarity principle, we are sub-delegating management of interest groups to the participants", **Lebaube** continues. "We don't want to centralise – the only thing we do centrally is to create an interest group on request; the rest is up to the group.

"To date we have 15 such groups. The Euro-Med project, for instance, has two, and we also want to use it for cooperation with Member States. The IRC is installed as part of the *Europa* server (<http://europa.eu.int:8000/dsis-irc>). The DSIS IRC is a very generic project with a wide application field. And it is extremely important for cooperation and collaboration with Member States. With the proper infrastructure it will greatly ease the exchange of information. IRC is already used for the Eurostat Data Shop network to handle requests etc.

### Door to electronic commerce

The commercial link is also very interesting: we are currently discussing electronic payment systems and how this kind of technology can be used for small-scale payment on the Internet."

**Lebaube** expects to have validated the prototype before the end of this year; this will then move to full operational service in 1998.

Both he and **Christian Guittet** agree: "By taking full advantage of the most appropriate and modern techniques we can constantly improve Eurostat's statistical information service."



# New Internet site for Eurostat

The new Eurostat Internet site is now available on *Europa*, the Commission's external server accessible in English, French and German. It is intended for all users of statistical information: institutions and administration, businesses, the education world, the media and information disseminators. It replaces the experimental server that came on line last year and offers fuller, better-structured information, improved navigation and graphics and better user interaction.

Since creation of the Commission server, the Eurostat has always been one of its most consulted sites. The new presentation, combined with a rapidly-growing amount of information, is bound to increase the server's attractiveness and number of connections.

## Response to Eurostat's mission

Eurostat's Internet presence is a tailored response to the mission it has set itself – to provide the EU with a high-quality statistical information service enabling everyone to locate information, understand it and use it to take decisions with confidence.

It is an efficient way for Eurostat to promote the dissemination of statistical information worldwide and maintain regular contact with European countries and also those beyond Europe such as the United States. The Internet target group is particularly interesting since there is broad similarity

between potential users of Eurostat data and Internet users in general.

By disseminating information on the Web, Eurostat is also meeting client needs. A preliminary test and survey have shown that half of all clients wish to have on-line access to information on Eurostat products and that 70% of the media would like similar access to news releases.

## Rich variety of information

The site is structured around eight main sections:

1. *Presentation of Eurostat*: explains the role of Eurostat and how it is organised.
2. *Products and databases*: gives a detailed description of everything Eurostat offers.

3. *On-line statistical publications and indicators*: proposes a selection of indicators and publications that users may download free of charge.

4. *On-line catalogues*: allows consultation of all or part of Eurostat's catalogues.

5. *Statistical information service and Data Shop network*: describes the dissemination network for European statistics.

6. *News releases*: provides access to all Eurostat news releases since beginning of 1996.

7. *Statistical news*: includes articles from *Sigma*, bulletin of European statistics.

8. *Links and contacts*: refers to sites that may interest users of European statistics (eg NSI servers, network of Eurostat Data Shops and the Commission Publications Office).

Users can find their way around the site easily via a navigation bar, which can be used to move from one part of the server to another without having to return to the home page. It is also possible at any time to return to the *Europa* site by clicking on the appropriate button. A series of headings and sub-headings



The site is structured around eight main sections



provides a uniform, clear picture of the whole site. Finally, the information is structured in tune with Eurostat's classification of nine themes.

**The possibilities...**

The site makes maximum use of the possibilities offered by the Internet.

Publications are presented in great detail if this is justified by their content. Via four successive screens, users access a description of the publications, a visual display of their content and a summary, and information on ordering them (eg price, catalogue number, language version etc).

The site is interactive: using electronic forms, external and in-house users can order Eurostat catalogues and publications or

request statistical information. Regularly updated information is offered, such as on-line indicators and news releases. The latter can be selected by date, by key word and by subject

**A dynamic pacemaker**

For Eurostat the Internet is a means of dissemination with tremendous potential. The statistical information Eurostat provides has the advantage of being transformable into computer data and electronically transmissible. So the site should help improve the service to users and increase sales by offering on-line subscriptions to statistical data.

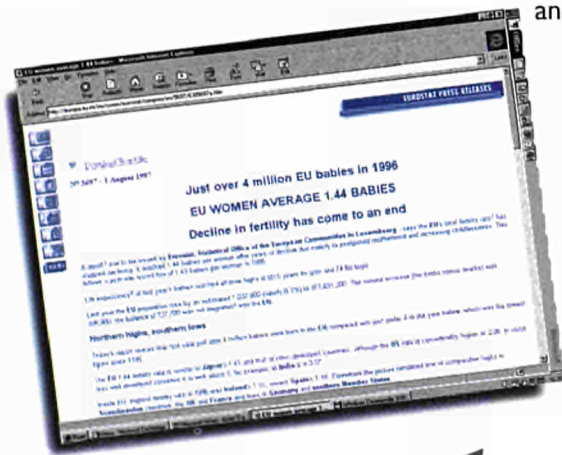
It should also enable Eurostat statisticians to identify their clients and their expectations more accu-



**Products and databases are presented by statistical theme**

rately by analysing information on connections to the server, data from electronic forms and suggestions made to the Webmaster.

The site should become a pacemaker in the world of on-line statistics though its rich variety of constantly-updated information and by striving to be very dynamic.



**All Eurostat news releases are available on-line on date of issue**



**The site displays in detail the contents of Eurostat's flagship publications**

➤➤➤➤➤➤ **The Eurostat site on Europa** <<<<<<<<<  
address: <http://europa.eu.int/eurostat.html>

**For further information contact:**  
 Hans Wilhelm, Webmaster, tel +352 4301 34809, e-mail [hans.wilhelm@eurostat.cec.be](mailto:hans.wilhelm@eurostat.cec.be)  
 Fons Theis, news releases and bulletins, tel +352 4301 33444  
 José Pessanha, marketing, tel +352 4301 33262  
 Laurent Probst, Data Shops, tel +352 4301 34785  
 Gérald Tayenne, technical back-up, tel +352 4301 37267



Eurostat has launched an internal communication system. It's called Cybernews...

## 'A new magic formula'

*They're easy to use and build, cost-effective, immediate, and with no strings attached. Organisations the world over are discovering a new 'magic formula' for data access and communication: intranets linking PC users inside an organisation via existing networks and World Wide Web software. Encouraged by obvious benefits such as low cost, ease of use, short development cycles and the use of existing hardware and network infrastructures, users are rapidly deploying intranets in an effort to streamline internal communication. Intranet applications worldwide range from on-line 'phone and mail directories through documentation of internal policies and procedures to obtaining health care and ordering office supplies.*

After developing its external server, Eurostat recently launched an intranet server, called *Cybernews*, linking all internal PC users. The project stems from:

- 1 Eurostat's corporate planning project with its main element of total quality management. Aim is to switch from a 'logic of production of statistical data' to a 'logic of service'.
- 2 A wish to improve internal communication – following a 'logic of interactive information'.

Aim of *Cybernews* is to inform, satisfy communication demands and reinforce the corporate identity of Eurostat.

### Flexibility & interactivity

*Cybernews* will partly replace the monthly internal newsletter *Eurostat-infos*, although a version of this will still be issued in parallel. It will contain comprehensive reports on trends and personalities in Eurostat, *Statistics Europe* (news about the European Statistical System) and details of latest developments on the server.

Main advantages of the electronic version are flexibility, interactivity and the capability of handling more information than before. If necessary, Eurostat staff can be informed of something immediately without waiting for the next monthly newsletter. Information can be downloaded, printed and adapted to different requirements.

*Cybernews* was developed in parallel with the new home page of Eurostat on the external Internet server. To ensure the server remains a logical and consistent whole, all pages adopt a common style and shared navigation.

This will give the server and all its sections a sense of context, prevent fragmentation, achieve a strong site identity and greater reliability, improve the richness of the pages, improve usability, and maintain and improve content and presentation.

### Twelve main groups

*Cybernews* is divided into 12 main groups. The navigation system is available in German, English and French.

It is a dedicated channel of internal communication – not only on strategy, such as corporate planning, but also on the daily activity of directorates and units. The electronic version of *Eurostat-infos* will be updated to keep it topical, and 'information cascades' will constantly reflect developments and aim to encourage staff to react to events in the life of Eurostat.

There are headings for notices of meetings and seminars, publications and statistical documents. The user-friendly environment will inform staff day-by-day on topical items in *News of the day* and *Not to be missed*.

*Cybernews* is also a mirror of goods and services offered by the Office to various users. Eurostat's up-to-date catalogue is there, as are news releases, and *Sigma*; and there is access to databases such as *New Cronos*. As a measure of the take-up of Eurostat output, *Cybernews* offers data on who has asked for what goods and services; who is interested in information provided by the Office; how many times the Eurostat Internet site is consulted in comparison with others; the impact of the news releases in the media; and so on.

Lastly, *Cybernews*, is a *service*. People can find documents needed for daily work, such as the statistical editor's guide, the handbook for desk-top publishing and a guide to the translation service. There is also administrative information including *Who does what* and the flow chart. A training site is also envisaged as are leisure sections and news groups: the one suggesting out-of-office activities, the other offering a channel of communication for various interest groups.



# NSIs on the Internet

*Almost all EU national statistical institutes (NSIs) offer services on the Internet. They are at varying stages of development.*

*Sigma asked them to summarise their current 'state of play'. Answers received follow. GERMANY and FINLAND are covered in more depth in articles on pages 23 and 20.*

## Belgium National Statistical Institute (project)

**O**ur Internet project is developing in two directions: the first linked to our mandate and the second linked to its integration into the European Statistical System.

Information available is:

- Our history and mission
- Organisation chart and information services in the main statistical areas
- What's on offer, how to get in touch etc
- Main publications, prices
- Computer products and contact points
- Conditions of sales, orders, subscriptions
- News releases, new products, new statistics published etc
- A selection of free information – general national data, main economic indicators
- Our place in the ESS – link with sites of Eurostat and other NSIs

- Links with other statistical sites.

As soon as method of payment is fully secure, we intend to use the 'net to disseminate the data we sell.

However, we have still not decided our pricing policy, although, as for other means of dissemination, it will depend on the use clients make of our data and their status – researchers, universities, the public or those wishing to resell.

## Statistics Denmark <http://www.dst.dk>

**S**tatistics Denmark established an Internet service in August last year. Since then number of users has grown steadily and by end-1997 we expect a level of at least 50,000 visits a year.

The service contains basic information about Denmark and its population.

You also find information about Statistics Denmark's products and publications. We also provide information about our organisation and how to get in touch with us.

These basic services are free of charge and are in Danish and

English. About one-third of visitors are from abroad and use the English version of the home page.

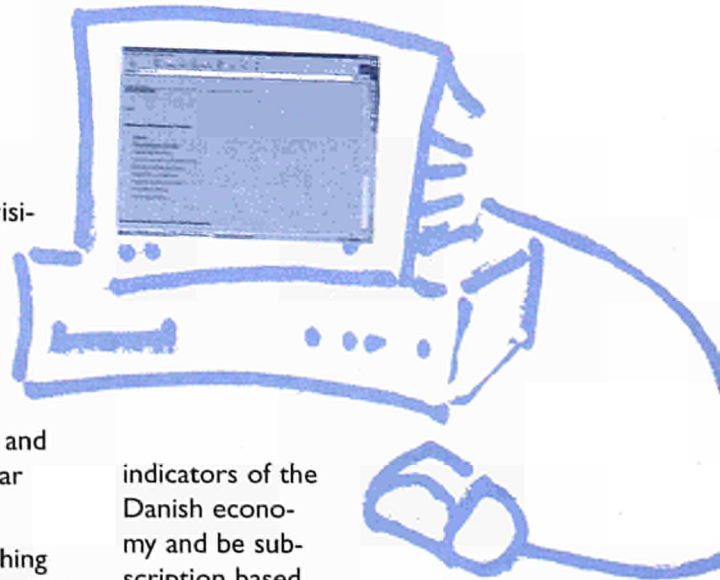
Our experience is that our 'normal' users pay great attention to our home page and many return to it on a regular basis.

On 2 June we started publishing our news releases on the 'net. This new service has already been well received by customers.

By October 1997 we hope to introduce a commercial information system. This will cover basic

indicators of the Danish economy and be subscription based.

At present we run a comprehensive on-line system covering most published statistics. This is a commercial activity and will continue to be so.





In the very long term (end-1998?) we hope to move some of these services to the Internet.

If you would like to visit our homepage the address is:

<http://www.dst.dk>. There is also <http://www.st.dk>. This address is the official address of the Danish Government Information Office which compiles a list of all govern-

mental departments and agencies and their Internet activities.

However, Statistics Denmark's dissemination and publication costs generally must be covered by user funding. We think the Internet is moving away from the information-for-nothing principle towards a more ordinary pay-per-view system.

Statistics as a product are very suitable for dissemination through the

Internet, especially from a commercial point-of-view. They are fully digital and can be delivered directly to the end-users by the Internet. Most of products presently offered on the 'net are just 'simple' mail order catalogues that rely on mail for delivery of their products. Statistical information can be delivered immediately and directly to the customer's preferred office application.



## INSEE France <http://www.insee.fr>

- Publications
- Practical information – contacts, presentation of telematic services.

Since opening, two new services have been offered:

- Table of values of short-term economic indicators
- Access to a catalogue from which orders can be made on-line.

A further current project is a service in three areas:

- an institutional part comprising a presentation of INSEE, public

statistics in France and European and international statistics

- structural information with principal indicators that can be consulted free of charge; a catalogue of products that can be ordered on-line; and downloading of publication files and documentation
- commercialised data: population census, directory of enterprises, macro-economic data.

Data will be priced according to volume supplied.

**O**ur Internet service went public in May last year. The 'shop window' was initially limited in purpose and structured in four parts:

- Mission and structure of INSEE
- News: latest publications, events, Data Shop Paris, short-term trends

## National Statistical Service of Greece <http://www.iacm.forth.gr/esye/>

(provisional)

**O**ur efforts to display statistical data on the Internet began in 1996 but due to the inevitable red tape were realised only in June this year.

At present our pages (either ready or under construction) contain:

- presentation of our organisation
- list of products
- some statistical tables
- press bulletins
- links to other statistical offices.

Our goal by the end of the year is to complete a current study on

our presence on 'net including pricing policy for downloaded information and treatment of special orders. The results of this study will form our guidelines for the final installation of our Web site, due in first quarter 1998.



## Irish CSO <http://www.cso.ie>

The site is a general one containing the following:

- Information about the CSO
- News items
- Advance release calendars of statistics
- Customer services details
- Principal statistics
- Information on statistical releases
- Information on publications.

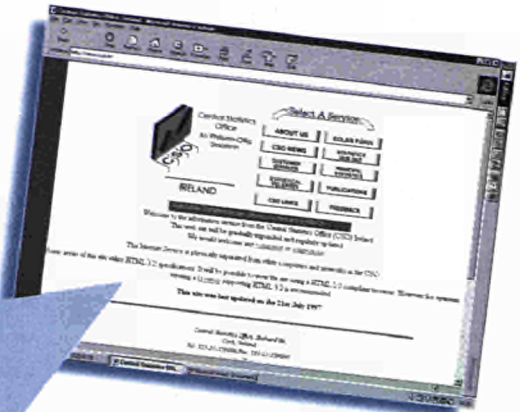
This is the initial content of the site which is the minimum amount con-

sidered necessary for the launch data.

The CSO's key criteria for data on the net are that the content should be

- of wide general interest
- up-to-date
- easily navigable
- attractively presented.

We intend to expand significantly the statistical content of the site. It was only started earlier this year and reviews have been favourable.



We have not yet finalised a pricing policy. All information currently held on the site is free. There should be charges for access to databases when this is introduced.

It appears to us that use of the Internet for access to statistical data will become a major means of dissemination for NSIs.

## Statec Luxembourg <http://statec.gouvernement.lu>



- Catalogue of available printed and electronic publications. Users can obtain publications using an electronic order form
- General statistical information on Luxembourg.
- *Luxembourg, an economic portrait* – detailed description of the economy, comment, basic statistical information

- A list of links to other interesting sites.

Our 'net policy – at least at present – is to offer free information,

updated faster than in printed publications.

In future we shall improve speed of updating and offer more detailed statistical information – for example, files published in our *Statistical yearbook*. We are planning to sell this information using subscription or account systems, make our news releases available and later our monthly economic indicators.

A database system allowing users to make customised requests and build tables interactively is our definite long-term aim.

Our Internet service started in May this year and offers:

- Information about Statec – its task and services

## Statistics Netherlands (CBS) <http://www.cbs.nl>

CBS has had an Internet site since February 1995.

We use it mainly for promotion. There are Dutch and English versions. Main topics are:

- news releases
- key figures
- main economic indicators
- links to other statistical offices

- an overview of our products and services and some corporate information.

We think it an important medium for publication of statistical data although not the only one.

Our publications database, *StatLine*, is also available via the 'net on an

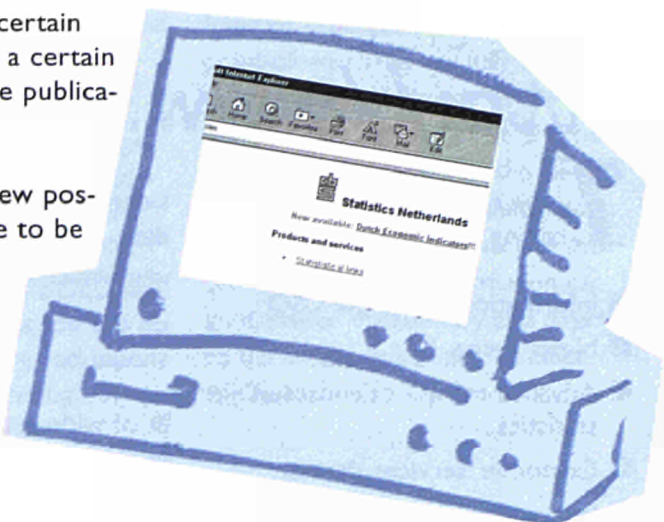


experimental basis. The same data as on a priced CD-ROM are available on the 'net free of charge.

We have not yet decided whether to charge for our data on the Internet. Statistics are available free of charge in the Netherlands although we are entitled to charge reproduction costs including those for management and maintenance of the database. So all publications are priced. Up to now we have followed a consis-

tent pricing policy: a certain amount of data costs a certain amount no matter the publication medium.

The Internet offers new possibilities that will have to be explored extensively. Its impact is as yet unknown and more information is needed before changes in publication policy are introduced.

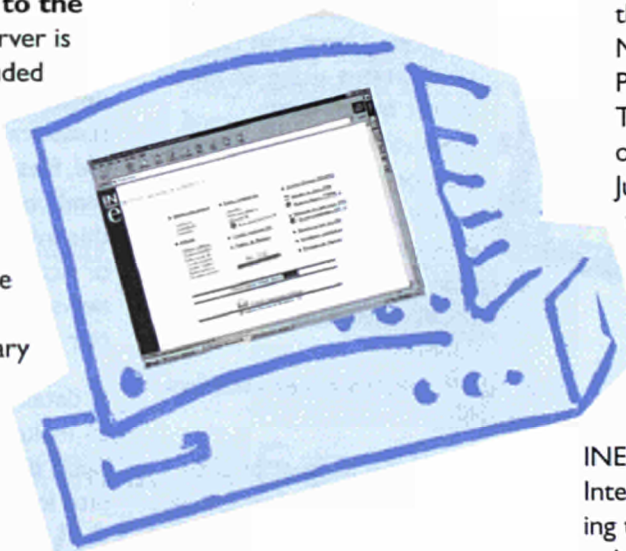


## INE Spain <http://www.ine.es>

**D**iscussion is widening on the major role the Internet could play in the dissemination of statistics and its dominance of other systems currently in use. Here are the main features of the INE server on the 'net:

■ **Information available to the public.** Access to the server is free. All information included is the same INE offers free of charge by other means. Economic data are presented as 11 monthly and four quarterly indicators that come out as soon as available, together with a preliminary calendar and related methodological notes. All this is known as *INE figures*. The server also offers access to the chronological database TEMPUS, which is permanently updated; to figures about population in the Spanish communes; and to the *Spain in figures* pages. This amounts to some 70 pages updated when there is a change; around 300 pages updated once a year; and more than 300,000 TEMPUS series permanently updated.

■ **Updated information.** Automatic procedures have been developed so economic data and the TEMPUS database are updated as soon as changes are made public. Therefore, the Internet is the best way to obtain latest detailed figures from INE.



■ **Promotion and information.** As well as data, the INE server offers textual information. Examples are INE's internal organisation, the Spanish statistical legal texts, news about statistics and a catalogue of printed and electronic publications including those to appear in the near future. Aim is to enhance the Institute's image and to

inform customers about products and services.

■ **Constant improvement.** The INE server is constantly improving. When it started in January 1996, it offered only general information. Economic indicators were added in May the same year, and in November access to the TEMPUS database was launched. This February we loaded the on-line catalogue. At the end of June information on the INE tailor-made dissemination service and our news releases were added.

### Challenges and opportunities

INE has decided to reinforce its Internet server in various ways, facing the challenges of this new technology in order to profit from the opportunities it offers. First is inclusion of a paying information module that will broaden the information offered. This will convert the server into an integral dissemination tool, obliging INE to reconsider all other dissemination methods.

Second, constant evolution of the Internet will require a process of



permanent updating to the most appropriate tools in order to meet users' increasing demands.

Third, the greater the amount of information offered by the server, the more sophisticated and automated should be procedures for updating the figures. This obliges the creation of direct access to databases from the server instead of editing pages HTML. As a consequence the elaboration processes of aggregated data

from individual registers will have to change.

Finally, hypertext demands a very different writing style from that currently used on the printed page. Rewriting the server texts and translating them into English – given that 25% of our users are English-speakers – are two challenges we intend to meet in the near future.

The INE server has revolutionised the dissemination of our information

and gives us the opportunity to reach many users who previously found access to our data very difficult. It also has opened a channel for user-feedback via electronic mail, and for indicating topics of greatest interest through analysis of log data on the use of our server.

And in the near future the Internet will offer other possibilities that at present can only be guessed at. INE means to take advantage of them.

## Statistics Sweden <http://www.scb.se>

The September 1995 launch of the Statistics Sweden (SCB) home page was preceded by a study highlighting the following:

- The net has huge potential as one of the main channels for SCB dissemination
- We can use it to reach new target groups and users
- The technology permits mass dissemination of free information and also on subscription
- It outstrips print media in update capability, and allows cost savings.

From the start we intended the home page as an information and marketing channel. In response to market demand, it has gradually incorporated current statistics: for example, full-text versions of all SCB news releases. Our home page currently has some 30,000 'hits' a day. Around 600 websites of other organisations and companies are linked to it.

Plans include indexing all documents; this will allow more efficient tracking by search engines. The home page English-language version will be expanded; English versions of the databases are scheduled for 1 January next.

The home page has been well received with positive reviews by leading specialist journals. It has also attracted international attention, ranking highly in various top listings eg *Best of Europe*, *Financial Times Publishing House*.

Since 1 January 1997 users have been able to access SCB's statistical databases via the home page. For the first three months this was free of charge. Over 1,000 users took advantage of this. SCB is now charging an annual subscription of SEK 6,000 to cover the marginal cost of distributing the data. Swedish university and college libraries have free access, as do NSIs and international producers of statistics.

The databases will evolve in step with user feedback, so far positive.

Users span public authorities, municipalities, industry and schools, as well as mass media.

By the year 2000 we plan that...

- All SCB official statistics will be accessible via the databases
- so will official statistics of other Swedish agencies
- and statistics in demand internationally



- plus, to a large extent, non-official statistics
- Full potential of the databases will be exploited using state-of-the-art downloading and analysis tools – in part via the Internet but also by solutions tailored to specific requirements of user groups
- Statistics will be e-mailed automatically in the format required by the client.

A key advantage of the Internet is its scope for interactivity. One way of using this for statistical presentations is a combination of databases and Geographical Information Systems (GISs) – within the Web format.

A possible approach is selecting a variable plus criteria to be studied to generate an on-screen geographical presentation. Next step might be to select a smaller area or variable to obtain a corresponding presentation. Images, tables or data files could be saved at any stage.



JUSSI MELKAS, Chief Information Officer of Statistics Finland, argues that the Internet places a heavy burden on statistical offices, but if its demands can be met the result is more than worthwhile.

# Casting the net for statistics

This article is based on a paper presented to a work session on statistical output for dissemination to information media. This was held under the auspices of the Conference of the European Statisticians of the United Nations Economic Commission for Europe and the Statistical Commission of the UN in Ottawa on 12-15 May 1997.

The Internet offers several challenges for national statistical institutes:

- an easy way to publish statistics
- a cheap way to deliver products and services to customers
- a timely service
- interaction with clients
- links with other services
- capacity to combine different media and target groups.

But to rise to these challenges demands a lot of work.

## An easy way

The Internet offers a cost-effective and labour-saving system of publishing statistics. Good statistics should be useful in many different contexts. The fragmented structure of the net does not overinflate the value of statistics – often the case with more theoretical presentations.

The international dimension of statistics increases the Internet's value. The net makes it easy to make contacts and collect information worldwide. The network of statistical agencies is a good source of information – if users can rely on comparability of the data.

Because dissemination on the 'net is so easy for everyone, the result is information overload. In this

jungle how can we make sure our message is noticed?

First principle is to be good: good pages, contents, structure and layout. Pages must be reliable and valid, useful both theoretically and practically. As well as being enjoyable, the data should challenge people's assumptions and answer their questions.

Bare numbers are not enough. You should also provide analysis. But there's also room for some fun. On Statistics Finland's pages we present basic statistics on Finland and its economy. Articles from our monthly and quarterly bulletins offer analysis. As fun, we have a page of short, pithy maxims called *From the pen of the assistant statistician* and soon users will have a permanent quiz.

A good structure means easy navigation through your pages – not just an easy way from your home page to other pages, but an easy way from any page. This means there must be a clear hierarchy in the material. And don't keep your logic secret: a systematic list of contents should give a global view of the pages. It is also helpful if you make special pages for special groups – such as schoolchildren – offering easy access to information especially suitable for them.

In part, pages can be prepared as modules for use in different con-

texts. Statistics Finland has started to provide Internet customers with tailored statistical packages. In these, we use our public Internet pages as modules, although the information comes from a number of sources.

Good layout is also important. But it should not be an end in itself. Easy use of the pages is far more important.

Second principle in the battle to be noticed in the Web jungle is collaboration. You can't succeed alone. You have to make allies. These could be big national network operators. Use them to put your signposts on the information superhighway.

Another type of ally is a credible page-keeper. I think collaboration between statistical offices of different countries is a good example of this kind of co-operation. But in national contexts you should have your links on the pages of universities and the main newspapers at very least.

Third way is to form an alliance with your customers or organisations representing them. More and more groups have their own user-interface pages which they use as a starting-point for surfing the Web. Statistics Finland has had such cooperation with entrepreneurs' organisations and the education sector.



## A cheap way

The Internet offers a cheap and effective system of delivering information products to customers. However, we have faced two problems. Most of our printed publications are in a format that does not easily allow digital use. The actual publication can be reproduced in pdf-format, but the figures can't be used effectively in customers' calculations. Thus using the Internet would mean changing the whole production system of our printed publications. So for the time being the 'net cannot be used effectively as a platform to use the publication; it is only a delivery channel. However, the development of software may change the situation.

Charging poses another problem for the Internet as a delivery system. With big customers we have no difficulty: as before, we reach a comprehensive agreement on the statistical service to them. But small and *ad hoc* clients are more difficult. In the 'net there is no universal way of charging. We think the possibility of buying small pieces of information straight away would increase the sales of statistical material.

However, Statistics Finland does have a list of its publications on Internet pages. Actual sales activities are planned in cooperation with other organisations.

## A timely service

For a timely service, having up-to-date data is a 'must'. With a printed document or diskette, pieces of data becoming dated seems a minor problem. But on the Internet every piece has to be the latest. Since this requirement seems to becoming more and

more critical, it is advisable to have a full-time editor for your Web pages.

Statistics Finland is experimenting with a system for putting releases on the Internet at 7am precisely (our official release time) on day of publication. This adds an important positive element to our release procedure which currently consists of scheduled e-mails, faxes and ordinary mail. Failure in one delivery method can be compensated for by another part of the system.

## Interaction with clients

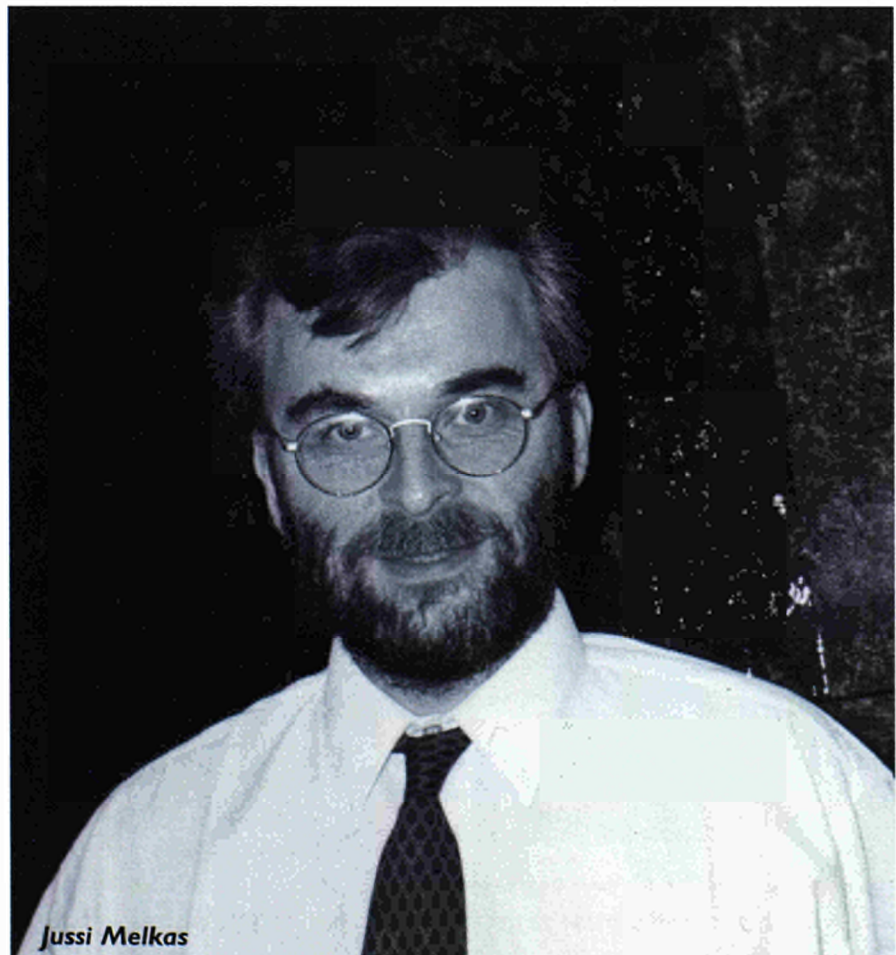
Internet users regard immediate contact with the organisation behind the page as self-evident. Such contacts are a good and resource-saving alternative to the telephone. However, they have to be planned and organised to make

the most of this interaction. As a criterion of good service, the speed demanded seems to be quickening.

Somebody must keep an eye on incoming messages. He or she also has to ensure messages are answered as soon as possible. Statistics Finland has tried to forward incoming messages – unless clearly personal – to some ten points in the organisation. Number of messages per receiver is still tolerable and effective handling routines are starting to shape up.

## Links with other services

A good list of links with other servers wins you many friends – but at a price. You have to ensure addresses are correct and continuously updated.



Jussi Melkas



It is advisable to have descriptions of link pages combined with the links and information on why and to whom you recommend them. This way you save surfers' energy and win even more friends.

### Combining different media and target groups

All the possibilities mentioned so far add to your workload. What about reducing it? One way is by using the same material many times for different purposes and media.

Of course, you can simply reproduce printed publications on the Internet pages to be read in the same way as traditional publications. Far better to use the same material in a media-specific way.

One example: Based on our monthly bulletin *Tietoaika*, we make four graphical slides a month for commercial TV to present as fillers in commercial breaks. We can only use one very simple graphic per slide. In addition, we have to make the pictures more 'visual' than in the bulletin. This has resulted in very positive publicity for us.

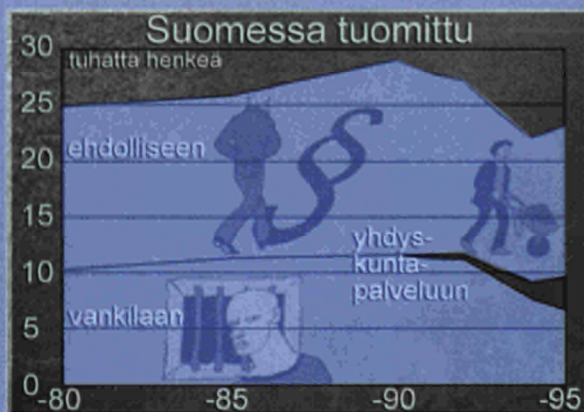
But for some, the TV spot is not enough. Somewhere there has to be more information about the slide, so we decided to use our Internet pages. Now there's an URL address

in the TV spot. And on the Internet pages we reproduce the TV graphics combined with text from *Tietoaika* – not the whole article, but essential parts. Thus we have three different versions of the same material: an article in our monthly bulletin, a TV spot and a graphics/ text combination on the Internet pages.

The same procedure is under development with material called *Figure of the day* in the teletext system of our public broadcasting corporation.

Using material this way requires a thorough logistical analysis of the production processes of a statistical agency. Once the analysis is made the possibilities of integrating and automating the processes seem very good. Unfortunately, making statistics popular has been viewed as work for hand and brain with only a minor role for automation. The technical questions have been seen as separate from content. This has resulted in two cultures that cannot always communicate.

Another method is using the same material for different target groups. This is made possible by defining the users of different networks. Statistics Finland now has an internal network with its own electronic communication systems (bulletin boards and e-mail), external Internet pages and an Internet-based system (Extranet),



**Graphics presented in TV commercials have to be more vivid than in print. This example shows development of different types of prison sentences in Finland. From bottom to top the curves trace**

**development of prison sentences, sentences to community service and conditional sentences. Figures on the left are in thousands.**

## STATISTICS FINLAND LEADS

**In a competition with other public organisations, Statistics Finland's annual report was chosen as the best. The competition was organised by a leading economic bulletin and the Ministry of Finance.**

**Statistics Finland's press service was judged best in Finland by Finnish journalists in research conducted by a prominent market research institute. This was out of all main private and public organisations communicating with the Finnish news media.**

which can be used by agreement. Internet pages and Extranet are mutually interactive, but the internal communication systems do not have direct contact with them. Integrating the whole system would enable us to use the same documents for both internal and external communication.

Effective use of the same material as modules in different kinds of service packages, both internal and external, presupposes an analysis of different customer groups and their needs. The information also has to be structured so pieces of information can be easily combined.

**The Internet does not make disseminating statistics any easier. On the contrary, the workload seems to grow. Pressures to standardise, harmonise and make processes more effective are great – at least in the beginning. But the potential rewards offered by the Internet are immense. It is a medium no statistician or national statistical office can afford to ignore.**



In this article, ANGELA SCHAFF, head of the press office at the German Federal Statistical Office, describes their considerable investment in the World Wide Web.

# German statisticians net a big success

Since March last year the German Federal Statistical Office (FSO) has offered national and international users more rapid access to statistical data via its own server on the Internet.

The information system has been developed by an interdisciplinary team of statisticians. At first it was only a basic programme, including press services and major structural data, but has been gradually extended. Today it's used on a considerable scale.

The Federal Statistical Office has a legal obligation to publish federal statistics for general use. It fulfils this by offering a large variety of information to press and public, with a comprehensive system of printed and electronic publications and data online. Our slogan is *Figures for everyone*, while at the same time stressing that provision is oriented to the needs of users.

The Internet is particularly suited to statistical office dissemination of data. On one hand, it gives users flexible, individual, rapid and low-cost access to information and participation in interactive communication. On the other hand, information on types of requests and feedback from users enables statistical offices to analyse current demand more rapid-

ly compared with more conventional dissemination.

## Criteria for selection

Data we provide on the 'net is based on the following key criteria:

### Timeliness

This is essential.

FSO statistics are issued first as news releases sent by fax to press

agencies and other media every morning at a fixed time. At the same time, they are published on the Internet. All other components of the programme are updated when latest data are issued.

### Demand-orientation

To meet user demand, official statistics need to be issued as

This article is based on a paper presented to a workshop on statistical output for dissemination to information media. This was held under the auspices of the Conference of European Statisticians of the United Nations Economic Commission for Europe and the Statistical Commission of the UN in Ottawa on 12-15 May 1997.



Angela Schaff



- free basic information for the general public
- information for specific target groups
- information tailored to individual needs.

Certain target groups and professional users have access to specific databases. Individually-processed information is also offered. Continuous demand analyses give the basis for further development.

### Language

Because of the globalisation of markets, national information must be put in an international context. So we offer our Internet information in German and English.

### Customer-orientation

For users to accept an information system, it must be accessible, transparent and clearly structured.

Providing background information on statistics in general and individual statistics in particular, and on services offered, makes it easy for people to search for rather complex data – even those with no statistical knowledge.

Naming contacts in the statistical office allows users direct access to specialists, who in turn can use the feedback for demand-oriented development of the programme.

### Structure of information offered

In line with these criteria, the information we provide on the net can be broken down as...

- **statistics**
- **background information**
- **contacts**
- **shop.**

Information requested can be retrieved either via the home page menu or directly using search tools.

### Statistics

These comprise

- **hot news:** press services
- **basics:** key statistics
- **indicators:** short-term economic indicators
- **time-series** of the statistical information system.

*Hot news* encompass all press services. Latest results are available immediately on day of issue. All news releases are available unabridged in German. News Releases on key indicators such as gross national product, foreign trade and consumer prices are also accessible in English on our Web site. Releases can be accessed either by subject fields or chronologically for the current and previous year. Also given are dates on which releases will be published in the current and following weeks.

The menu item *basics* provides key data and trends of demographic and economic developments for Germany.

Under the *indicators* home page menu, the FSO provides selected database time-series of major economic indicators.

On offer are national accounts, prices, foreign trade trends, and output, orders received and turnover in the production industries. As tables come directly from our STATIS-BUND database, they are good quality and up-to-date. The effort to maintain and update this stock of data is comparatively little, the information offered is restricted to global data. A detailed subject-related breakdown – by

branch or sector – can be retrieved from the database described below.

In its most recent Internet service, the *time series service*, the FSO has, through the STATIS-BUND database, offered more than one million time-series to Internet users since March this year.

The time-series service includes a documentation and search system free of charge and an order mode set against payment.

The database, with data from 21 areas of official statistics, offers both long-term annual series going back in part to 1950 and short-term monthly or quarterly series. Time-series in the same statistical context are stored together in so-called segments. Number of time-series per segment depends on the detail of the variable breakdown. It may range from 10 to 500.

The time-series service consists of two components. Metadata allow precise selection of the time-series required. The segments concerned can be listed using search tools. Data can also be accessed in a hierarchical order. In each case, a networked catalogue of definitions eases the search for technical terms and offers precise database-related definitions.

Time-series from the STATIS-BUND can be retrieved via data transfer based on an order and collection service. Data packets are loaded on to a user's own PC and made ready for further processing by means of software downloaded as well.

### Background information about statistics

The menu item *about us* gives information about federal statistics and the FSO.

*Science* describes methods and procedures applied and developments in federal statistics.



Events offers information on events, conferences and fairs attended by the FSO.

**Contacts**

Helpline lists experts to answer specific statistical questions.

Feedback permits users to contact statisticians via e-mail.

In many cases, it is useful to compare national data with those of other countries. Via *statlink*, contact can be established with almost all statistical offices in the world, provided they are on the Internet. At national level a wide range of regional data can be obtained from the Länder statistical offices.

**Shop**

This comprises

Bookstore – important printed publications

Mediastore – electronic publications.

These provide a survey of current publications and different ways of obtaining data.

**Prices**

With the exception of time-series of the statistical information system, FSO Internet data are part of basic statistics provided free to the general public.

The time-series service is charged under a user contract. Annual subscription is DM 50. Users are given individual user codes and passwords. Subscription includes annual provision of 200 time-series for a total DM 20. Additional time-series can be ordered at DM 0.10 each. The quarterly accounts can be transacted on-line.

Bigger users will receive discounts still to be defined. Prices and

licence fees for commercial information distributors are also under consideration.

**Media & the Web**

Under the heading *press services*, the home page offers users a choice between two main groups of information:

**Press services**

- topical news releases
- important news releases

- news releases by subject fields
- news releases chronologically
- figure of the week.

**Information**

- schedule
- press office contacts
- press conferences.

Number of requests for press services recorded between March 1996 and March 1997 was 145,000 -18% of all requests.

**ANALYSIS OF INTERNET REQUESTS**

*To learn about the use of our Internet service and to ensure its updating in a user-oriented way, all accesses to the Web site have been recorded in a server-logfile since the very beginning on 11 March 1996.*

*Our own accesses are not recorded. To avoid double counting, graphics files are not covered. Data requests are recorded by time, country of origin and content.*

*Figures given below are subject to some reservation. Unfortunately, we are not able to record all accesses. Rather than individual addresses, we register the hosts through whom contact is established. Many users are represented by a computer program robot which automatically searches Web servers, loads their pages and temporarily stores them in so-called caches. Therefore many of our Internet users do not reach our server.*

*Analysis of the logfile shows that up to 10 March this year a page of our information service had been loaded 821,000 times. This equals an average of 2,254 pages a day.*

*A total of 50,700 different computers contacted us (mostly several times). Data transferred amounted to 4,938 Mbytes. Demand for data has increased continuously.*

*56% of users are from Germany, 62% are from Europe and 16% from the USA and Canada.*

*Data requests are mainly during the week in usual Central European office working hours. We conclude that requests are based mainly on professional interest.*

*Analysis of individual pages has shown that users are interested primarily in the basic information offered (overview of all statistical areas) and news releases. We believe our service is used mainly by two target groups: general users wanting a broad view and those – the media, information distributors, banks etc – interested in highly-topical information.*

http://www.statistik-bund.de



There has been a continuous increase. In the first month of operation there were 1,678. Six months later, in September last year, 14,900 were recorded, rising to 18,300 in February this year.

Average number of files requested per day was around 800 when last counted.

As regards individual news releases, demographic data in German are requested on a large scale. (This may be due in part to population being the first option on offer.)

Demand is considerable for major economic information issued by news release: gross domestic product, consumer price index, foreign trade etc. This is mainly on day of issue.

The FSO issues its news releases every day at 8am, or 10am on news conference days. Release dates are published every Friday for the following week. They are updated daily on the Internet.

Like other data on the 'net, news releases are retrieved mainly during usual Central European office working hours. Considerable demand for English versions has been observed until late at night – probably non-European users.

Analysing requests by hours is interesting in assessing the Internet as a medium for rapid distribution compared with traditional methods. For very important news releases, with dates and times of publication announced in advance, we have recorded large numbers of requests directly at time of issue.

For example, in the case of the 1996 gross domestic product figures published on 9 January 1997 at 10am, a third of all requests on that day were between 10 and 11 am.

However, access times vary throughout the day for news releases with only days or periods of publication announced in advance.

### Very successful

Based on a year's experience, distribution of statistics via the Internet can be regarded as very successful. Response to information offered has been good, leading to more detailed development. Developing a system of information supply continuously adapted to changes in demand is a big step forward towards our provision of information tailored to the needs of users.

The German experience shows the Internet is still somewhat of a supplementary means of distribution, particularly for news media services. Traditional methods via news agencies and direct mail still predominate.

*However, we can expect the net to be used to an ever-greater extent due to the burgeoning of on-line connections in the media sector and society as a whole. As well as supplying topical information, our Internet service offers the media very favourable scope for their more in-depth work. Continuously available and up-to-the-minute data enable journalistic investigations to be undertaken on a sound basis very quickly.*





The following article considers experiences in costing and pricing of statistical products in ECE member countries and in particular raises some questions concerning the Internet.

# Net cost of statistics

In recent years a general trend towards stricter financial discipline has had an impact on the financial management of national statistical institutes (NSIs). Many are now expected to generate their own revenue and be less dependent on government budgets.

In a number of NSIs the practice of complete budgetary financing of activities is being replaced by new strategies and policies for pricing and costing of statistical products.

Costing of statistical products takes into account a combination of factors such as labour, computer time, composition of publications and documents, printing, costs of diskettes, tapes and CD-ROMs, distribution costs – and, lately, marketing. In addition, overhead costs covering management, personnel, finance and other

associated services are usually taken into consideration.

Special statistical surveys, analysis and data-processing projects requested by clients and all *ad-hoc* statistical work not covered by regular statistical programmes are also subject to costing in almost all statistical offices. Practice varies somewhat from office to office. Most often, costs are calculated on the basis of personnel involved, computer time and overheads. Sometimes costing also includes amortisation of expenditure on equipment, as well as costs associated with dissemination of information (for example, on-line systems), retrieval and tabulation.

Some offices (see *panels*) have developed original costing policies and use costing information for continuous adjustment of resources available for statistical work.

Costing information is used in internal planning routines and in the plans and proposals of budget estimates. It is also often used to price products commissioned by commercial customers or other government agencies.

## Budget and structure

Costs of operations and activities of most NSIs are covered by their budgets. Typically the budget is allocated by the national assembly, council of ministers, or some other body within government administration which also approves the NSI's programme of statistical work.

In many offices, all activities are financed on the basis of a national statistical programme approved annually. Special

This article is based on a paper prepared by the Secretariat of the United Nations Economic Commission for Europe. The paper was presented to a work session on statistical output for dissemination to information media held in Ottawa on 12-15 May 1997 under the auspices of the Conference of European Statisticians of the UNECE and the Statistical Commission of the United Nations.

surveys and statistical activities outside this are usually carried out on request and are financed by the requesting administration, institution etc. A typical NSI budget has the following headings on the costs side:

- personnel costs (wages, pension and other contributions, travel, training etc)
- operation and maintenance

## COSTING IN STATISTICS FINLAND

In Statistics Finland all activities are allocated to products. These are classified as (1) products financed by budget appropriations (2) own-account activities used in production, and (3) products made for commercial purposes.

A typical product belonging to the first category might, for example, be a datafile of certain statistics or a development project. Belonging to the second category are various products of EDP use, staff administration, training, sales services etc. Finally, products in the third category are sold on a commission basis or are ready-made.

Costs are allocated to products directly or indirectly using accounting data, internal invoicing or various quantitative indicators. Data on direct costs are available monthly and on indirect costs (overheads) annually.

## COSTS IN STATISTICS DENMARK

Statistics Denmark is divided into a certain number of entities of either a statistical or functional nature. These are further divided into 'activities'. It is at this level that costs are calculated. In general, an activity corresponds to a 'field of responsibility'.

All 'activities' are subject to annual calculation of costs.

Determination of these is based on reports from all staff indicating the time devoted to each activity and to data-processing. Operating costs are calculated on the basis of the average use of resources, and are included in the costing of individual projects as overhead costs.



## GENERAL PRICING POLICY

*In general, most NSI products and services are subject to pricing. The list varies from one country to another but usually includes publications (paper, diskettes, CD-ROMs); access to data-banks; replies to requests for information requiring a certain amount of research and computer-time; specially-commissioned surveys and similar statistical work; supply of information on business entities; and special processing of existing data.*

*All NSIs are still dependent on government financing. Consequently, they are obliged to supply a number of domestic and foreign users with products – most frequently printed publications – free of charge. The prime minister's office, various ministries and other government bodies, national and uni-*

*versity libraries, media, the country's diplomatic missions and international organisations – all these are the most common recipients of free material.*

*The most widespread pricing principle is to charge marginal costs – not to include cost of data collection and primary processing of information considered as having already been paid for by taxpayers. Therefore, only indirect costs and supplementary direct costs – generally connected with printing, materials, dissemination and marketing – are charged for. This approach is customary in offices that rely heavily on government financing.*

*Some countries have very elaborate methodology for determining prices.*

- consumption of materials, printing, computers, photocopiers etc.

The revenue side of the budget has the annual appropriation from the general expenditure state budget and the revenue derived from NSI activities – for example, proceeds of sales of statistical information, subsidies from government and other sources, remuneration for special services.

In some offices, budgetary expenditure and revenue are split according to organisational structure (federal and local offices), branch structure and types of revenue and costs. This accounting technique allows the office to keep track of costs in relation to individual organisational units, and individual types of expenditure are broken down in detail. This information is also used for assessment of the NSI's financial performance, determination of prices of individual products and identification of overall financial needs.

In recent years declining budgetary resources available to statistical offices have forced many to redefine ways of managing their finances, and to adopt market-orientation and sales strategies to generate necessary revenue. The growing need to satisfy new customers and earn revenue has forced them to produce more timely statistics, improve presentation of their

products and ensure these correspond to demand.

### Phenomenal growth of WWW

One fact that perhaps best illustrates such development is the phenomenal growth of NSIs' World Wide Web presence.

In May 1996 only about five or six ECE member countries' NSIs were on the Web. A year later there were no less than 28. A further eight were expected to open their Web site in 1997.

The issue of costing and pricing of statistical products and services is becoming even more important in the context of the Web. It is quite apparent that there is widespread recognition of the importance and power of the Web as a dissemination channel. However, at the same time, there is clearly a lack of coherent pricing and costing policy for Internet and Web presence.

While almost all NSIs have fairly elaborate pricing and costing policies for most forms of statistical products, their policies for calculating costs and prices of products available through the Web are far less clear. Only a couple of them – and international organisations – have established prices for accessing information and data avail-

able through the Web (see panel).

Against this background we must ask the following questions:

Considering the Internet's technical aspects, what guidelines should be followed by statistical offices in costing products made available in this way?

Given the greater emphasis by NSIs on revenue generation, should they be exercising their copyright – and what principles should be applied to pricing?

What are the real costs and benefits – in terms of engaged resources and earned revenues – of data and information dissemination via various on-line access systems (the Internet, tele-text, CD-ROMs, diskettes etc) versus traditional dissemination techniques (written/printed/published material)?

As more and more NSIs gain experience in using the Internet for dissemination and communication with users, answers to such questions will be increasingly important. New technologies are already calling for profound changes in traditional ways in which NSIs disseminate their products.

### Prices of WWW information

*The OECD weekly publication OECD hot file, previously circulated on a confidential basis to managers and analysts inside OECD, is now available on the Web on subscription. By subscribing to the service, you receive a password giving full access to the weekly file. Annual subscription is: F 4,900; US\$990; DMI 4,20; Yen 112,700.*

*The United Nations on its Web site has made available the Monthly bulletin of statistics on the following conditions:*

*Access on-line is limited to users who have paid for a 1997 subscription to the MBS. Annual subscription for the bulletin is US\$525, with a discounted rate to academic and non-profit institutions of US\$295. The subscription now covers both the monthly hard copy publication and full access to MBS on-line on the World Wide Web. Subscribers may request MBS on-line only, but with no separate subscription rate.*



A national statistical institute motors down the information superhighway

# Statistics Canada strives for service excellence

by Daniel Scott

Statistics Canada has always been committed to using emerging technologies to meet the information needs of its clients. A few years ago, recognising that the Internet offered important new opportunities to meet this challenge, we began making our mark on the superhighway.

The initiative led in early 1994 to inauguration of the *Talon* Internet service – named after Jean Talon (1625-1672), Canada's first census-taker.

At that time the Agency served the Internet community with a text-based, hierarchical menu system (Gopher site), an FTP (file-transfer protocol) site and *listservs* (automated mailing list-servers). Statistics Canada's World Wide Web service started in March 1995. It was among the Canadian government's first.

Today, more and more Canadians have access to the Internet at home, school, office, community centre or



Daniel Scott

local library. Users are no longer limited to government and universities, as in the 1980s.

Data from Statistics Canada's Household Facilities and Equipment Survey show almost one-third of

Canadian households with a computer last year. This was more than triple the proportion a decade earlier. About half of households with a modem-equipped computer surfed the Internet from home. A poll by a private consulting firm showed close to 60% of Canadian companies using the Internet in 1996 – although less than one in ten for business.

The Canadian media, on which Statistics Canada relies heavily to disseminate to the public, also use the Internet. A 1996 survey showed almost 7 in 10 newsrooms hooked to the Internet. Nearly half the journalists surveyed used the Internet at least once a day, mostly for research, browsing for ideas and exchanging messages.

At the moment, there are more than 2,500 sessions a day on the *Talon* site (a session consists of all the 'hits' and requests a single user generates in one sitting). This compares with just over 1,000 less than a year ago. The service may be reaching as many people as the inquiries services of the Agency's reference centres.

The many developments and ever-increasing possibilities of the Web and associated Internet technologies are changing substantially the way we provide information to the pub-

*This article is based on a paper presented to a work session on statistical output for dissemination to information media. This was held under the auspices of the Conference of European Statisticians of the United Nations Economic Commission for Europe and the Statistical Commission of the UN in Ottawa on 12-15 May 1997. Daniel Scott is manager of official releases, media relations and Internet services in the communications division of Statistics Canada.*





*Canada's first official statistician, Jean Talon, sent to New France by Louis XIV, King of France. He conducted the first census in North America in 1666*

lic and market our product and services. The Internet can also help us make products available in the most cost-effective way while meeting clients' needs.

### **Serving the general public**

Through *Talon*, Statistics Canada serves the general public by providing free current information of broad interest on Canada and its people. Along with toll-free telephone lines and statistical reference centres across the country, *Talon* has now become a key access point.

The very first product included in the 'public good' component of the site, without charge, was *The Daily*, the official release vehicle for all Agency information. *The Daily*, no longer a printed publication, has been the heart of *Talon* since its inception. Although not originally conceived as such, the on-line *Daily* has become a statistical encyclopaedia of Canada. What's more, it can be used as a 'front door' to the rest of the

Web site by creating links from new releases to the product catalogue, on-line documents, the time-series database and other resources.

*The Daily* is the main element of the 'official release module', which also presents related information such as data release dates and searchable back files, as well as the labour force survey preliminary publication and consumer price index.

In continuing efforts to serve Canadians better, we decided to expand the amount of statistical information on the Internet without charge. The first initiative was *Canadian dimensions*, a series of some 170 data tables presenting a wide variety of basic statistical information on economic and social conditions in Canada. Work is under way to add provincial and territorial data to all tables where possible, and automate data updating procedures using the site's databases.

*Canadian dimensions* data cover most Agency outputs. The module

was built on an infrastructure that already existed for the *Canada year book*. This module is composed primarily of annual and occasional data. The table of monthly and quarterly indicators was so popular that it has been split and developed as a new module called *Latest indicators*, with individual tables for each major economic indicator.

*Canadian dimensions*, *latest indicators* and *The Daily* together contribute a major share of site traffic. However, some concern has been expressed that these developments may be contributing to a recent decline in the number of publication subscriptions.

The *Talon* site is also useful for divisions to disseminate research papers. A variety of other on-line documents is also available.

Metadata services are another key element of the public good component. One of the most important metadata products offered free on the site is *Information about products and services (IPS)*.



This is a comprehensive catalogue of Agency products and services – publications, research papers, electronic products and custom services. From IPS, users can determine easily what is available from Statistics Canada on a particular topic. Libraries can also use it to provide access to their collections of our products.

*Talon* offers an increasing number of metadata services. The *Thematic search tool (TST)* and *Census preview* are two other examples. *TST* helps research clients discover if social data exist on a particular subject and, if so, where to find them. In *Census preview*, users can find information about various products and services from the censuses of population and agriculture, including data release dates.

Future developments will tend toward further integration of metadata and expansion to cover not only documentation of surveys and products but also more comprehensive documentation on concepts and methods. And the Agency has a major initiative to improve its metadata system.

### Groups of particular concern

*Talon* is also used to provide free or specially-priced information for groups of particular concern to Statistics Canada. For years, all Agency printed publications have been available for consultation in public libraries across Canada under the Depository Services Program. As a pilot project, selected publications in electronic form are being delivered via the Internet to some 130 libraries. This anticipates that in years to come more and more of our publications will be disseminated on the Internet.

Another example is the Data Liberation Initiative. This gives academics from participating Canadian universities Internet access to all Agency standard electronic products for an affordable yearly flat fee. Data use is restricted to academic research and teaching.

Through *SchoolNet* on the Internet, high school and college teachers and students can access E-STAT, a curriculum-based friendly charting and mapping software using census and time-series data.

*Talon* is also a gateway for paying clients to the provision of products and services. General information in the public good component of *Talon*, notably *The Daily*, serves to promote awareness of our data.

### Private good

Clients looking for detailed or customised information or for their own copies of a publication, diskette or CD-ROM are expected to cover the costs. The Agency applies the basic principle that data collection is paid for by Canadians through taxes. But service delivery costs must be fully recovered from customers. In response to market demand, we

decided to pursue development of our Internet site as a delivery platform for priced services.

Currently we have two different commercial on-line systems for direct access to data holdings: the Internet and *StatsCan On-line*.

The latter is the Agency's premium commercial service. Registration and subscription fees apply. It provides clients with guaranteed, fast access to *The Daily* and databases of international trade and the full Canadian Socio-Economic Information System (CANSIM) database with more than 600,000 time-series.

*StatsCan On-line* clients also pay standard charges for data retrieved, but can get volume discounts. They have access to a dedicated toll-free telephone help line. All that is needed for access is a modem, a regular telephone line and special software developed and managed by the private sector. To provide clients with maximum flexibility, the Agency is considering basic access to *StatsCan On-line* via the Internet in addition to direct dial-up access.

The metadata services part of the site's public good component helps to generate revenue. For

## A SIMPLE PROCESS

Through the *Talon* commercial services module Statistics Canada responds to markets, promotes products and services and takes orders. This service provides data coverage similar to the premium service. It is aimed at occasional users not necessarily needing guaranteed or fast access. The service searches for information requested, selects relevant data in directories and assembles a retrieval request, includes pricing information. It has a commercial transaction authorisation component requiring the client to acknowledge the price to be paid and the bank to verify client authorisation and complete the transaction by credit card. The purchased data are then retrieved from the database and delivered to the client. The process is simple. There is no paper involved and the transaction is totally secure. Statistics Canada is the first Canadian government department to offer such a service.



example, once users have identified a product that may be of interest through the IPS catalogue, they can order it easily. In many cases, delivery will be off-line. But more and more, the product is delivered on-line immediately.

As a test, users are able to purchase on the site electronic publications that are part of the library pilot project. These are offered in PDF (Acrobat) format and sold at 75% of the price of their paper equivalent. Purchases are made using the site's commercial on-line system. As with the Depository Services Program, this test is conducted in the expectation that, in years to come, more and more Agency publications will be disseminated in electronic format via the Internet.

The Agency is following the lead of software publishers and beginning to use the Internet site as a platform for delivering updates to purchased products or subscriptions to data or software in electronic form.

Another recent on-site innovation – from which additional revenue will be generated – is use on the most frequented pages of banner advertising for new Agency products and services with links to descriptions and order forms.

### Web site management

There has been extensive internal debate about other contents and applications that should be developed for the *Talon* site.

Management is concerned that the Agency should develop a site representing the full range of its activities – a user-friendly site that can be built and maintained in future at reasonable cost.

There has also been internal contention about the role of subject-

matter divisions in development of the site. These divisions would like a bigger, more direct role. The site has been centrally-driven with subject-matter divisions involved indirectly through consultation.

While the Management Subcommittee on Dissemination steers all aspects of dissemination at Statistics Canada, the rapid pace of Internet development dictated that a subordinate committee – the *Talon* Site Committee – be created specifically to address Internet dissemination. This committee, with broad membership among subject-matter divisions, was set up specifically to address issues of policy and planning, develop consensus on *Talon* content and resolve disagreements.

The committee also makes routine decisions on moving new components expeditiously on to

*Talon*. It oversees site structure and establishes and administers presentation standards and content quality.

*So, what started as a grassroots initiative by a small number of employees has evolved rapidly into a pillar of Statistics Canada's dissemination strategy – a 'seamless service'. In a rapidly-changing world, it is reassuring that the organisation has such potential to innovate and adapt.*

*Talon is being developed as a flagship service for the broadest possible audience. As non-computer users are about to gain access to the Internet using common products such as a remote control and television, Statistics Canada's Web service could well become, very soon, the most important public access point to the Agency – a super statistical highway.*

### A CLIENT PERSPECTIVE

*A framework document was prepared to guide Statistics Canada's dissemination of information via the Internet. It sets out general orientations, objectives, roles and responsibilities, and confirms Talon as the sole site for Internet dissemination. Use of links from Talon is restricted to Web sites of other international and national statistical organisations and provincial, territorial and other federal departments.*

*As a general guideline, information on Talon must be organised and indexed to reflect a 'client perspective'. Canadian dimensions is an excellent example. In organising data around four themes (economy, state, land and people), Statistics Canada's communications division – responsible for this data bank – has tried to reflect the way most users see their information needs.*

*For the site to be developed properly, each and every module first had to be defined and assigned to an organisational unit for operation and development. Managing the Talon site is a team effort.*

*Communications division is also responsible for the official release (The Daily) and Latest indicators modules. The Statistics Canada library has primary responsibility for metadata. Marketing division handles sales promotion. Dissemination division looks after operations and priced services.*

*Any division providing site content is responsible for ensuring their Internet products and services meet all federal government and Agency policies and guidelines. These include ensuring integrity, accuracy and timeliness of the information in both of Canada's official languages.*



# Minimum standards for metadata on the Internet

The following minimum standards have been proposed by the United Nations Economic Commission for Europe for putting metadata on the Internet. Canada, Germany, Sweden and OECD were involved in their drafting:

■ The metadata required to accompany statistics on the Internet is essentially the same as that required for statistics in other media. All information considered necessary in paper publications should also be provided on the Internet.

■ It is convenient to categorise the necessary metadata into two broad groups:

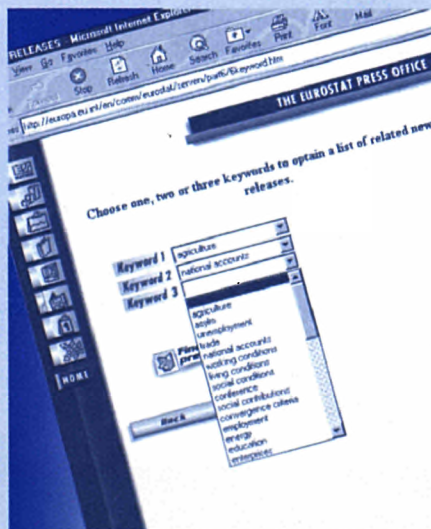
- ① that which assists users in their search for statistics
- ② that which assists statistics users in assessing and interpreting the data.

Parallel items in paper publications are the contents page and index in the case of ① above, and in the case of ② the sources, methods, definitions and classifications. These are usually explained in footnotes, annexes and sometimes in separate books of notes in the case of some quarterly and annual publications that change little from year to year.

A few years ago, it was difficult to mix texts and figures in informa-

tion presented on a monitor screen – but current software overcomes such problems. Similarly, current software makes it relatively easy to search and browse – always possible in paper publications. But it is also easy to go quickly from a page of data to associated metadata which might be quite voluminous – equivalent to separate books on sources and methods associated with some paper publications.

## Searching for statistics



As a minimum standard, it should be possible to search for statistics on the basis of theme or subject, and it is desirable to search by keyword or variable.

Having located the desired statistics, it should be easy to return to a level on which it is possible to search for other statistics.

This is based on a paper prepared by the Secretariat of the United Nations Economic Commission for Europe. The paper was presented to a work session on statistical output for dissemination to information media held in Ottawa on 12-15 May 1997 under the auspices of the Conference of European Statisticians of the UNECE and the Statistical Commission of the United Nations.

To meet these minimum standards, it is necessary to adopt the most appropriate technical solution in each case – but definition of these techniques (such as hyper-text linking or standard generalised mark-up language) is not necessary.

## Interpretation

Minimum standards for metadata should enable statistics to be interpreted properly in the same way as for statistics published in print. Variables and other terms used must be clearly defined, sources quoted and any classification system made clear.

Again, techniques employed will depend on software used and need not be standardised, although SGML could form a standard.

## Finally...

These standards assume that data required for statistics on the Internet are for wide use in much the same way as if published in other media. Requirements are different for other kinds of data transmitted or stored for specialist use. For example, where large quantities of microdata from a particular survey are transmitted between specialists, their metadata needs may be similarly specialised.



In this article H MELIH ARAL, Information Systems Coordinator of the Turkish State Institute of Statistics, gives his view of statistics on the Internet – and describes the Turkish experience.

# A net full of eastern promise

**P**ublishing via the Internet is considered beneficial since it:

- increases the reach of the data
- shortens the sales cycle
- only reaches people who are interested in it
- increases customer satisfaction and reduces support costs, and
- makes it easier for the user to find information with considerably less help from the organisation – decentralises the distribution of information, making it easier to access and cheaper to update.

Despite such benefits, some organisations are still reluctant to take the plunge. The reasons:

- Information-providers have to use HTML (Hyper-Text Mark-up Language) for creating Web pages. Only very modern office software can convert documents into HTML format. Otherwise, the embedded links need to be revised and the document reconstituted by hand.
- Personnel involved in preparation of Web pages must have graphic design and technical skills that are hard to find.

It is not unreasonable to assume that all this will be overcome by the introduction in the immediate future of new tools in the IT market. In the coming decade the Internet will be the major medium for exchanging information and for social interaction.

## 'A WONDROUS COMMUNITY...'

Research by Tim North, a social anthropologist, has shown that the Internet society is already a very social environment. He argues:

*With its faceless textual interface, and sometimes malicious behaviour of its users, the 'net may be thought to be a cold, uninviting place; but to those who have entered into it the 'net can become a central part of their social life, a wondrous community of people linked together across the globe. Its camaraderie and humour can make the 'net an appealing and gregarious place for those who can master its ways and expectations.*

This article is based on a paper presented to a work session on statistical output for dissemination to information media. This was held under the auspices of the Conference of the European Statisticians of the United Nations Economic Commission for Europe and the Statistical Commission of the UN in Ottawa on 12-15 May 1997.

## Statistics on the 'net

The Internet is an ideal medium for disseminating government data in general and official statistics in particular. But one major difficulty national statistical institutes (NSIs) experience is the inflexible form in which data are provided on Web pages. Traditional Web pages have fixed content. Users access data by following paths to a particular page.

In the case of statistical data, the page is usually a statistical table. This structure makes it necessary to construct all the possible statistical tables a user may need to find the data he or she requires. And these tables have to be placed in the Web pages so users can navigate them easily and correctly.

With the software tools now available, it is possible to construct dynamic pages so that users can select the variables that interest them within the geography and time-domain of their choice. The query information on a Web page can be transmitted to a database server for the required data to be reported and the result presented on a Web page. Services allowing users to download the results of their query in standard spreadsheet formats could also be provided.



NSIs providing statistical data over the Internet usually have concerns about keeping their local network secure against the disclosure of confidential information. A practical solution is to decouple the production databases containing microdata from the dissemination databases containing aggregate data.

Some advanced techniques could be used for controlling access to internal databases. An Internet 'firewall' is a system or group of systems enforcing security between an organisation's network and the Internet. The firewall determines those internal services that may be accessed from outside, those outsiders permitted to selected internal services, and outside services that may be accessed by insiders.

For it to be effective, all traffic to and from the Internet must pass through the firewall, where it can be inspected. The firewall must

permit only the passage of authorised traffic, and be immune to penetration. It offers no protection once an 'attacker' has got through or around it.

### Internet charging

Government institutions are funded by the taxpayer and are not expected to charge for access to information. While free access promotes the use of on-line services and creates a demand for statistical data, there are certain concerns about providing Internet services free of charge.

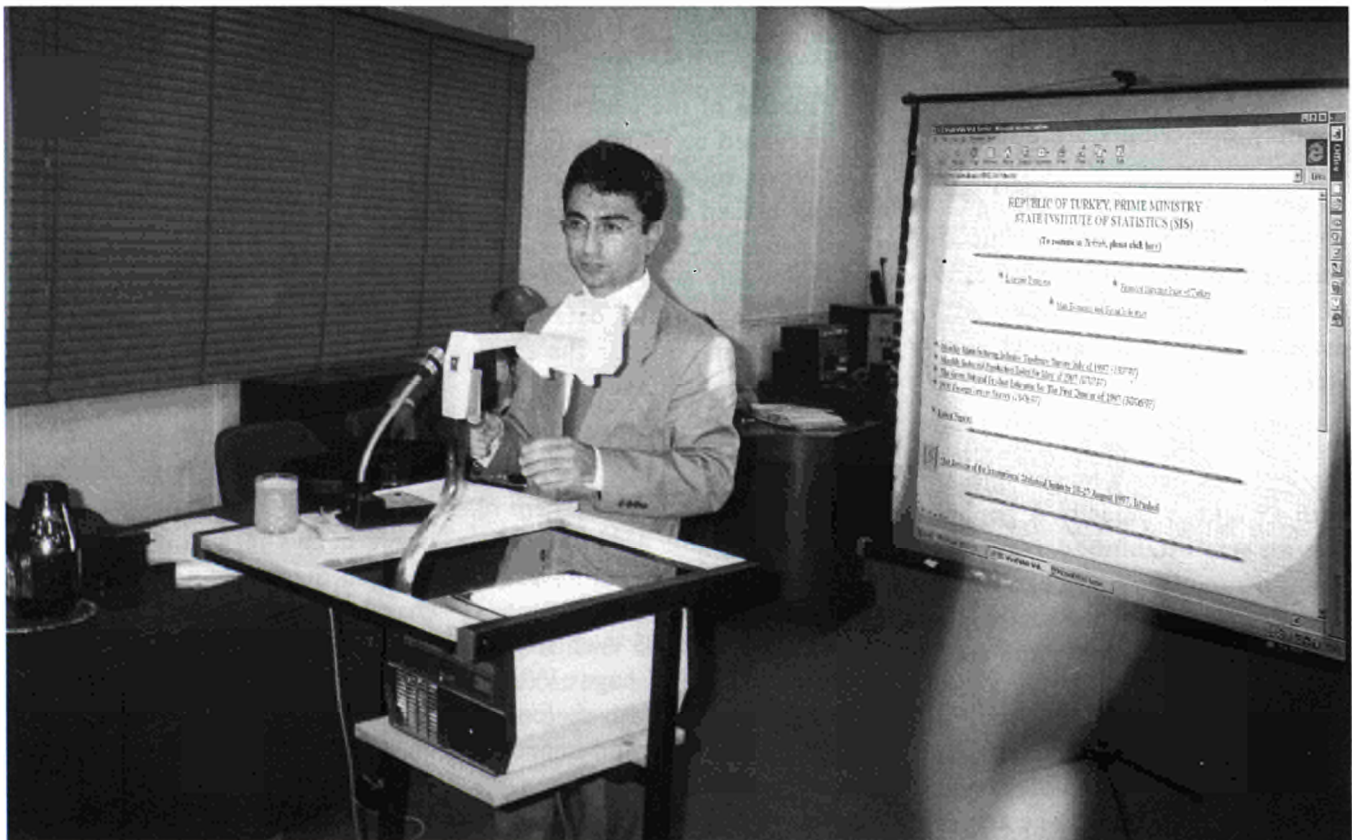
This argument is not altogether fair since government 'gateways' are free only to institutions and individuals with Internet access. Furthermore, tightening budgets of government agencies over the last decade have encouraged agencies to cut and/or 'recover' costs wherever possible.

Therefore, while there is free access to official statistics on the Internet, it does have limitations. Financial aspects and the paperwork involved in charging and following up customers might prove a burden for the statistical agency. So the job of dissemination might be delegated to value-added re-selling agencies who could sell data and pay the NSI a licence fee. Such a mechanism improves the variety of available data products with no financial risk to the agency.

### The Turkish experience

The major challenge for the Turkish State Institute of Statistics (SIS) is to create demand for our statistical data. For historical and cultural reasons, domestic demand for statistical data has always been low compared to that in advanced economies.

<http://www.die.gov.tr>



Melih Aral presenting the Internet site of the Turkish State Institute of Statistics



As a result of increasing public confidence in SIS data – and a freer market economy over the last 12 years – there is now increasing awareness of the value of statistics in decision-making. The Internet is an excellent way of encouraging this. Even though SIS lacked the opportunity to connect fully to the Internet at once, our dissemination has always been the maximum possible. Gradual progression from user-status to a node with a high-capacity server has led us to implement various means of data dissemination through the net.

In 1994 the SIS Internet connection was as a user at the Middle East Technical University. It was not possible to place a host computer in that type of connection. A news group for SIS statistics was established for appropriate announcements and a free e-mail subscription service formed. Subscribers received news bulletins in Turkish or English as they became available. Due to the limited number of Internet users in Turkey at that time, and low-speed connection outside the country, subscribers were limited in number. Around 100 individuals or enterprises were receiving news headlines on e-mail. This approach of rapid dissemination of latest statistics continued until establishment of the gopher service.

In 1995, SIS became a node on the Internet over a leased line with 19.2 kbps capacity. A gopher service was established. News bulletin summaries still had the highest priority. Other topics included facts about SIS and statistical tables from the latest year book.

Free access to these data was not a major concern since the number of users was still limited



and demand low. SIS gopher remained in service until the end of 1996. The number of users went as high as 700 a month.

After establishment of the Web service in December 1995 the number of users gradually fell to a few hundred. About 25% preferred pages in English, which may give some indication of out-of-country-use.

The capacity of the leased line was increased to 64 kbps in July 1996. News release summaries are now placed on Web pages on day of release. Content of pages is continuously enriched with, again, no concern that data are free of charge – but for the sake of promoting their use.

Home page of the English version of SIS web service is at <http://www.die.gov.tr> (see picture).

Last April, 3,490 external users connected to the SIS Web site and browsed 45137 pages. While these figures are relatively low, the rate of increase and improvements in the connection bandwidth are considered promising indicators of wider use.

## Two-stage service planned

Main topics presented in our WWW pages are:

- News bulletins
- Basic economic and social indicators by provinces
- Statistical yearbook
- Black Sea economic co-operation countries' trade statistics
- Price statistics
- Labour statistics
- SIS general information
- SIS research projects
- Metadata such as dictionaries and catalogues
- SIS Library
- Links to local and international organisations.

Our ultimate wish is for a two-stage dissemination service through the 'net. The current service will serve as the first stage with summary statistics, and will be free of charge. The second stage will provide an interface with the on-line dissemination databases.

Users will be able to select the variables of their interest and obtain data for them for the selected time-frame and geography. They will also be able to download the data in a spreadsheet format for further analyses.

Users of this service will be charged. Since it is not practical to charge for each inquiry, a subscription approach will be followed. Pricing will be adjusted to cover dissemination cost, without impeding the broad use of statistical data. Government agencies, students and academics will have free access.



What makes a good web site? When international statisticians met in Canada recently to discuss dissemination, journalist ROSALEEN DICKSON shot from the hip with advice as both a user and provider of Internet pages.

This article is based on a talk by Rosaleen Dickson to a work session on statistical output for dissemination to information media. This was held under the auspices of the Conference of European Statisticians of the United Nations Economic Commission for Europe and the Statistical Commission of the UN in Ottawa on 12-15 May 1997.

# Making your World Wide Web site worthwhile

There are some notions we still see repeated over and over again. The following e-mail came from a marketing company in British Columbia, Canada:

Never before has the world seen anything like it. Not since the Industrial Revolution has there been so profound a transformation of the very fabric of our society. We're talking, of course, about the Internet – the global network of computers that has revolutionised the way people work, play

and do business. Since 1993 – propelled by the phenomenon of the World Wide Web – the growth of the Internet has accelerated dramatically, doubling in size approximately every six months.

What baffles me is that well into 1997, several years since the Internet became part of our daily lives and now as familiar to many as the telephone, we are still bombarded by such alarmist messages about a 'profound transformation'.

The fact is this transformation took place two or three years ago – and it wasn't all that profound. The Internet is just interesting and useful; but because some writers love to perpetuate the myth that it has extra powers, some people are still unable or unwilling to use it sensibly in a relaxed, intelligent manner.

In the last few years, entirely new industries have emerged to accommodate the demand for commercial Web sites. Thousands of vendors all over the world now offer services like Internet access and Web page design.

If you want to hire one of these experts, go right ahead, but don't let him take over entirely. Keep

control in your own hands. It's your organisation you are representing on the Web – it's not supposed to be an advertisement for someone else's expertise.

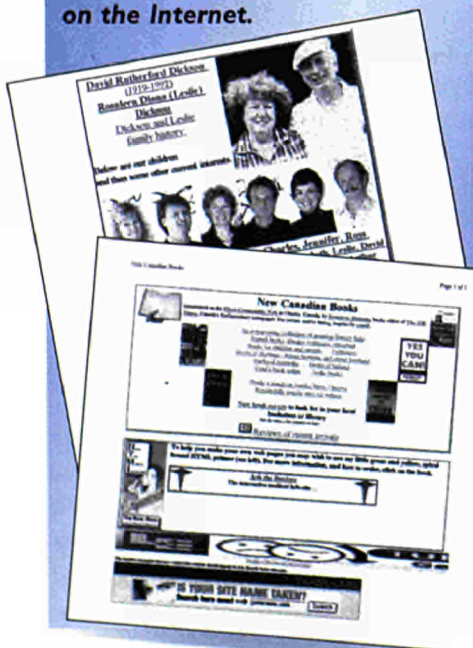
Now here is some of my expert advice – free!

My first advice is that unless you or someone in your organisation feels very much at home in the Internet environment, enjoys being there and has time to make a decent job of it, you shouldn't even think about opening up a commercial Web site. You could build yourself a personal index, or what people call a *home page*; that's OK because it will familiarise you with the environment without making any demands.

But the minute you put a commercial or organisational venture on the net you expose your organisation to threats that could make or break it.

This applies equally to government-sponsored Web sites and official purveyors of information, statistical or otherwise. Once you've put your Web site on the Internet and advertised its address, it's disastrous to remove it for 'repairs'. It is not a good idea to put up one of

Practising what she preaches: two of Rosaleen Dickson's pages on the Internet.





those cute little 'under repair' signs and so let everyone know you're still 'learning'.

The rest of my free advice has no special order. Nothing about setting up a useful Web page has priority over any other factor. Each is essential. If you miss any one, you've missed the whole boat on your Web site project. So, in no special order, here goes...

### Quick loading

When I access your uniform resource locator – the address for your Web site – how long before I know I've reached the right place?

If you have all sorts of pictures, graphics and gimmicks on your main page, the seconds will tick by while these lovely devices are being loaded. I may begin to wonder if perhaps it's out of order or I have the wrong URL.

At worst, I'll abandon my wait and seek another source for the information I need. At best, I'll wait and finally see your page with all its distractions and probably become so distracted that I lose my train of thought altogether. But if I'm in a hurry, I probably won't wait.

You want people to know they have found you and that you are willing to be helpful. Start with the main page. Make it simple, clean and informative.

In this matter, do as I say not as I do. I recently acquired a state-of-the-art scanner, became all excited and scanned a lot of book covers to improve one of my web sites, which is all about new Canadian books (<http://www.flora.org/books/>). The page is really nice – book covers all over it – but it takes forever to load. Nobody is going to wait that long just to see a whole screen full of colourful book covers. I'll change it as soon as I can.

What I need is a simple main page with no delaying graphics – indicating the book covers can be seen if anyone is interested, and with a link to them.

I'm not suggesting there should be no graphics on the main page of a Web site – just that an overwhelming number of big pictures, moving pictures, moving type or other slow-loading devices is a serious mistake.

As for moving graphics, there are still many users who just can't see all this motion. Lots still view Web sites in text only. So the text should tell the whole story with or without graphics. Waiting and waiting for something they can't even see when finally loaded can really turn the user against your whole organisation.

Just remember: the first impression anyone forms of your Web site includes the time it takes to get there.

Another warning about that first page: blinking type is so easy to set up but terribly distracting – as far as I'm concerned, something for children to play with, and that's about all.

### Clear and simple with good links

Once you've established your simple, quick-loading front page, you should ask a few people to read it and see if they can all understand what it says. Using esoteric or flowery language is stupid. Just say why your Web site is there with clear information about where the various links go.

If you have links to extensions on your Web site, there's no special problem – you have fairly good control. But you must keep good track of changes. Changes on one

page will usually require adjustments of the hyper-text links on another. Anyone editing or updating information on your Web site should never close down operations until they have checked the links to make sure they still hold true. If I'm looking up information and come to a dead end because a link is no longer effective, I just give up on the whole site and look elsewhere – or manage without the data.

Links to outside sources are just as important as your internal links. They have to be checked often and changed or omitted as necessary. Links to nowhere are unnecessary frustrations for researchers and time-wasting that is especially annoying to media people with a deadline. Our wonderful Internet phenomenon is so useful that it's a terrible shame to misuse it by leaving deadend links on-line.

### Special services & dated material

If you have decided to add special help to your site, such as download areas for programs to help the reader, be sure they exist. One of the world's major statistics-providers (no name!) has some links to download areas that are inoperative. I can't even tell them by e-mail because they list no address.

Another essential for a useful Web page is keeping it up-to-date. You need a person with time to do it. Daily checking on the site and fixing little glitches should become routine. Every time I look at my own web pages I see small ways in which I can make them more understandable. This is especially important for Web sites carrying up-to-the-minute material. The very latest available should be there so people will become accustomed to relying on you.





*Canadian Rosaleen Dickson has been a journalist for over 40 years – on newspapers, television and radio. She is an active member of the Canadian Parliamentary Press Gallery and the National Press Club. She entered the world of the Internet with National Capital Freenet in 1992 and was a director for three years. As a Webmaster, Mrs Dickson has built and maintains four active Web sites:*

**Personal page** <http://www.flora.org/people/rosaleen/>

**Ask the Doctors** <http://www.flora.org/ask-doctor/>

**New Canadian Books** <http://www.flora.org/books/>

**Good Companions Center** <http://www.flora.org/companions/>

*She participates regularly in many aspects of the Internet – "particularly", she says, "concerning older people and their influence on the world as interpreted in cyberspace".*

*Mrs Dickson's current preoccupation is simplifying and personalising the World Wide Web and making it accessible to an ever-growing older population. She teaches computer use to older people at Good Companions, an Ottawa community centre serving thousands of pensioners in the Canadian capital.*

*At 76, Mrs Dickson personifies one of the most interesting generation groups on the Internet. She does all her writing on either her Macintosh Performa or Macintosh Powerbook laptop. She also spends many hours a day chatting with friends around the world on-line or exploring Web sites to see what's new.*

## What it costs & who you are

Some material available through your Web page might have a cost attached: people will pay by sending a cheque. Make very clear what is free and what has a price – right at the top. Don't lead the user from link to link, only to discover the information is not there but can be bought. I prefer a note on the main

page saying all items marked with a certain button are free and others are charged.

One fault on many Web sites, especially government ones, is there is no name attached. Who is the Webmaster? I want to know. If it's a commercial Webmaster, not connected with the organisation, I want to know who in the organisation is responsible for the material I see.

Whom will I e-mail for further information – or even just to congratulate them for their help with my research?

Making the site personal gives it tremendous advantage over a nameless site. I also like to know where it is. Vancouver or Amsterdam, Geneva or Hawaii: true, the Internet knows no borders, but it's still interesting and relevant to know the site's 'home'.

And what about humour? Well, there's a time and place for it and I wouldn't want to discourage anyone from making their web pages entertaining. Be funny and amusing, try to lift the spirits of your readers all you want, but don't let it get in the way of the data you are providing.

## And finally...

What I'm trying to say is you should balance your need to be a little more than just a compendium of facts with your need to provide these facts quickly to busy people with no time to waste.

I've examined a number of the Web sites of national statistical agencies and, as far as I can see, they're hitting the mark nicely most of the time, although sometimes I'd love to make minor changes.

Your job is to make your Web sites represent you as well as possible. So...

- keep all your links up-to-date and working
- check on all your outside links every day
- use good grammar and syntax to make sure you are understood
- provide a name and address for feedback from users
- include the last date your site was updated, and...
- keep your main page simple so the whole wide world can see it fast.



For his latest profile of a national statistical institute, Sigma's JOHN WRIGHT went to Athens. Here he met the new Secretary-General of the National Statistical Service of Greece, 38-year-old NICHOLAS KARAVITIS – a dynamic man in a hurry to modernise an organisation he describes as 'introverted'.

# Crusade to make Greek statistics accessible

*Nicholas Karavitis is in his headquarters in Lycourgou Street in central Athens.*

*To find its nondescript entrance – not easy! – I turn right by a magazine stand, enter a gloomy shopping arcade and turn right again by a workmen's pavement café. As Karavitis talks, you can't help thinking that this location is a synonym for the inaccessibility of Greek statistics.*

**B**ut all is about to change. Karavitis's plans for the statistical service amount to little less than a revolution, even down to a purpose-built brand new headquarters. *Inaccessibility* is not a word he likes.

Transcribing our interview, I find words he definitely does like and which characterise his 'revolution'...

- "What we must do, we must do fast and very competently. We don't have time to lose."
- "I'm not a 'Euro-sceptic'. I am a firm believer in the EU. I think the future of Greece is there."
- "You can't do much without a happy face."



*The less-than-imposing entrance to the headquarters of the National Statistical Service*

*But we start the interview by talking about how he comes to be sitting in the 'hot seat' of Greek statistics...*

"I was appointed end-January this year. I was with the Government's Council of Economic Advisors for

six years or so. I am also an academic. My main field of interest, both academically and in the Council, was fiscal policy. I was also very much into quantitative methods – statistics, econometrics – and have done much empirical work. This means



over the years a lot of cooperation with the statistical service." As a student, he worked on the 1981 census.

"When with the Council I was initially a member of the economic policy committee of the Union. Then I took over the monetary committee. After my appointment here I quit the monetary committee because you have to be in Brussels every week. I rejoined the economic policy committee. And so here I am." But, he stresses, throughout he has been a civil not a political servant.

"I graduated in economics from the University of Athens. Then I went to England – University of Leicester – for my MA and PhD. After national service – as a petty officer teaching in the Navy – I joined the Ministry of National Economy, left briefly, then rejoined. You know the rest."

*At 38 isn't he rather young to be head of a national statistical institute? I ask.*

"I don't know; is it? Well, not for me to judge, really. We'll see!"

### 'Now or never'

*How did he get the job?*

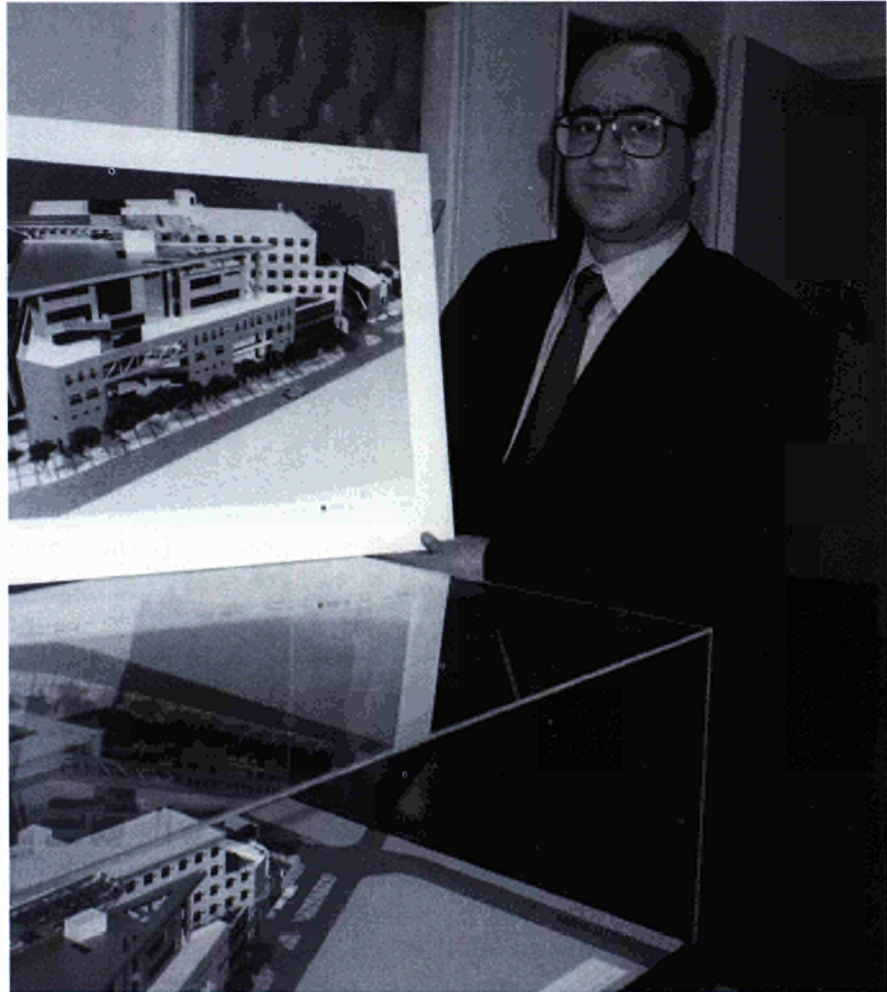
"In Greece this is a political post. My Minister asked me to take it. To tell the truth I had reservations. I certainly felt flattered – it was an honour. On the other hand, although I'm a political animal like everybody else, I'm not really into party politics. I want to keep my independent status. But I wanted the challenge and said 'What the hell, now or never – I must do it.'

"I knew the statistical service had a lot of problems...many things to be done. But this is what attracted me."

*Before making up his mind did he have to sleep on it?*

"Literally, yes – it took me about one night to think about it."

*I say it surprises me slightly that the job is a political appointment.*



**Where everything will come together: Karavitis shows the planned new headquarters in Piraeus**

"You're right. My guess is that, as I am a civil servant and an academic, my appointment may be a positive step towards enhancing the independent image of the national statistical service. Of course, there is a certain legal status governing the various government agencies, so it's not easy to change overnight. In any case, I don't think it's the title or even procedure that really matter – it's what you do."

*We turn to the present image of the service.*

**Karavitis:** "Well, the main objective for a statistical service must be the interests of users and to protect the quality and integrity of data. The Greek service has had some problems with organising the production of data. We have problems in gathering data, processing, publishing and communicating. I must admit that in

the past the statistical service has been distinguished as being introverted – for various reasons.

"People are not really conscious of the work done here. The layman knows us for the census every ten years. But what we really produce is the basis for policy-making. So I think it is a very important job that must be done in the best possible way.

"But, as I say, our service has had problems – with logistics, the work environment, organisation of statistical work – and some are more severe than others.

"Main difficulty is our work place. This is the central office but we are not really centralised because we're in three different buildings plus small bureaux in certain ministries. Some directorates are located in more than one building. So you can under-





**Karavitis plans "happy faces working all over Greece". He has them already among his immediate staff, pictured here**

stand the difficulty of communicating and getting together and being together and working together.

"For example, this building has eight floors. We rent seven. The second floor is private offices. This means we don't have a building that's our own. We lack security. We can't do all the work we would like to do.

"And if you have such an old building what can you do about networks and things like that? To talk here about anti-static carpet... – well, take a look at my own office" (small and a little frayed round the edges!) "...the electrics – not good. And we pay rent to 33 different landlords – just for this building.

"Now we think we have solved this problem. We are starting to build new facilities in Piraeus, an up-and-coming spot with good transport facilities. Above all it will be a building all to ourselves; finally we'll all be together. It will house all kinds of activities of the statistical service and be co-financed by the EU because it's purpose built. This has been a dream for people working here for decades.

"We have selected the builders. We have the land. We hope to start digging this summer and should be operational there in roughly three years.

### Stronger regions

"Another very significant dimension of the service is its regional character. We have bureaux in all 52 provinces and working conditions in some are far from ideal. Also there is, I think, a problem in the relationship between the regions and the centre.

"Most of the regions don't process data themselves – or produce final

results; they just conduct the surveys. They are mainly data collectors in a service with no computer network. So they send data to the centre by mail. We're talking about a plethora of data, mostly on paper.

"Here we have to put that data into computers, check, code and publish. This means that until we publish something the regions don't really have data to serve their local users. Also you get all kinds of bottlenecks in the central service because, I must say, we are understaffed; although 1,400 people may seem a lot of people I don't think it is.

"And sometimes the regions work in very bad conditions. We have to conduct surveys on islands, and to the statistician an island is not a summer resort – surveys must be conducted 12 months a year. There are rough seas, winds... or you may have to climb mountains with a pack on your back. It can be dangerous: driving on icy roads, for example."

*Greek statisticians, we agree, have to be fit!*

## RATTLING A LOT OF CAGES

I ask the Secretary-General if there is much resistance to all the changes he's pushing through.

*"Well, we have three levels here – political, employees and the trade union.*

*"From political authorities – until now full support for our plans. This is very encouraging. I think they understand the value of statistics, that we can't do without them and must produce them properly.*

*"From the employees – all sorts of messages. They have this agony about the future of the service. They want to see it flourish. I think the statistical service is not only just another government agency. For someone to join it he or she really must be motivated. So the staff want to be allowed to do things with the service.*

*"Last but not least, the union – I get the impression that it's not just another public sector union. Of course, they must look after members' interests and they make the usual demands, although not that many. But they also understand as employees that it's also their responsibility to forge ahead with a service that, if not at a dead end, could be so very shortly if they dig in their heels. Times are very competitive and demanding. You can't stand back and lock yourself in a civil servant's cage and say 'I don't care!'"*

We agree he's rattling an awful lot of cages!



"We plan to make the regions stronger: I think this is the *sine qua non* of future success. We shall transfer statistical work to them. I envisage them producing and disseminating their own statistics; and, on the other hand, headquarters doing the work that headquarters really should do. Incidentally, here in the centre, we have a dual *persona*: we're also the regional office for Attica, the largest region in Greece."

*Clearly, a lot on his plate. Will he have enough time to do it all? I suppose what I am asking is how long he expects to be in the job.*

**Karavitis:** "Since it's a political appointment I must go when my Minister leaves, unless required to leave sooner! This Government's term ends in autumn 2000. So theoretically I should be able to get everybody into the new building. I really hope so. Also I hope that I'll be able to change not the character of the service but the way it works."

"I am looking again at the organisation: introducing more and better coordination in every aspect from statistical surveys to missions abroad; seeking better management... We are also going ahead with full computerisation and the build-up of networks. We want everything done by computer."

"I am also not happy with training. We need people thoroughly trained in statistical work. On-the-job training is one thing but you must also have more formal training within the service. Up to now it has been rather poor."

*I ask about quality of staff.*

"Well, to judge someone's qualities you must give him or her the chance



to demonstrate them. This is one problem of the way the service is structured: it doesn't always let staff prove themselves. But I can see we have people with very good qualifications – very competent and eager to work. All they need is the right environment."

"In general, I don't think we have a problem with staff quality given the right training. We may have an age problem because over the years there hasn't been a flow of people in and out, so no continuation of know-how."

"Neither do we have many with top formal qualifications. This also we're trying to remedy. I hope to hire 30 people with high qualifications, post-graduates and so on, in the near future: new blood – people who know their science and know how to learn – that's important."

"By the end of the year I should like to have the new 'law' for the statistical service. This will encompass everything – structure, job

descriptions, things like the secrecy act for data, copyright issues..."

## Earning independence

*While we talk my mind keeps turning to the relationship between the service and the Government. It doesn't seem as clearcut as in many other NSIs.*

But **Karavitis** insists: "Our problem is not Government pressure; it is that, because of our internal problems, we do not publish as much data as we should – and a lot we do publish are two or three years out-of-

date. On the other hand, no matter your formal legal status, this won't necessarily guarantee your independence: you have to earn it. And, whatever our status, we shall still be in the public sector."

*OK. But, I press, do Ministers see key economic indicators before release?*

"I do not consult Ministers – I inform them. I do work for Ministers. In policymaking they require data, so I provide data, because the Government is one of our main users. But anyone can ask for data and we have a big demand every day from universities and the business sector, both in Greece and abroad."

"No, I can't see how a government could influence work produced here. Although clearly at present they are keenly interested because of the Maastricht criteria."

*I'm aware I am pushing my luck, but... If the Minister 'phoned you and said 'I really would prefer if you didn't release such-and-such on Thursday, let it slip until Monday', how would you react?*



"I don't think it is conceivable. There are no situations in which one might prefer one day or another for political reasons. At least it hasn't happened to me. Timing might be more affected by journalists saying 'Don't do it late on Friday, please!'"

*Are key indicators issued at a particular time of day?*

"Not really. Here's another problem with the service. We have not organised the way we come out with figures. There is no bulletin with key indicators. There is no bulletin for other things we need to say on a regular basis. We don't have common formats for what we're trying to communicate. We don't really have lists of our customers. We don't really have customers."

"Of course, we work a lot with Eurostat and other international agencies. We exchange data, publications and so on. But, especially for the private sector, I feel we could do much more and profit in every sense – not just financially but as a service: really show we can give users good and timely information to enable them to make better decisions."

*So how do you release the CPI, for example?*



"Normally by news release of around three or four pages. I also answer questions at a press conference. This happens once a month, usually towards end of the first week at 1 pm."

*Government aware of the figures in advance?*

"Oh, yes, just before. They've every right. Although there have been times – not just with the CPI – when journalists had them before the Government!"

## 'Greece needs good statistics'

*Given all the problems he's described, how would he rate the Greek statistical service with others in the EU?*

"About average. In certain areas we are rather good; in others we lag. What really matters is *why*. Where we're good it's just because the people themselves excel – the service itself doesn't provide them with the conditions to do so. It's up to their 'patriotism'."

*"I think once we're well organised, things will be much better. They have to be because Greece needs all these statistics – they are crucial."*

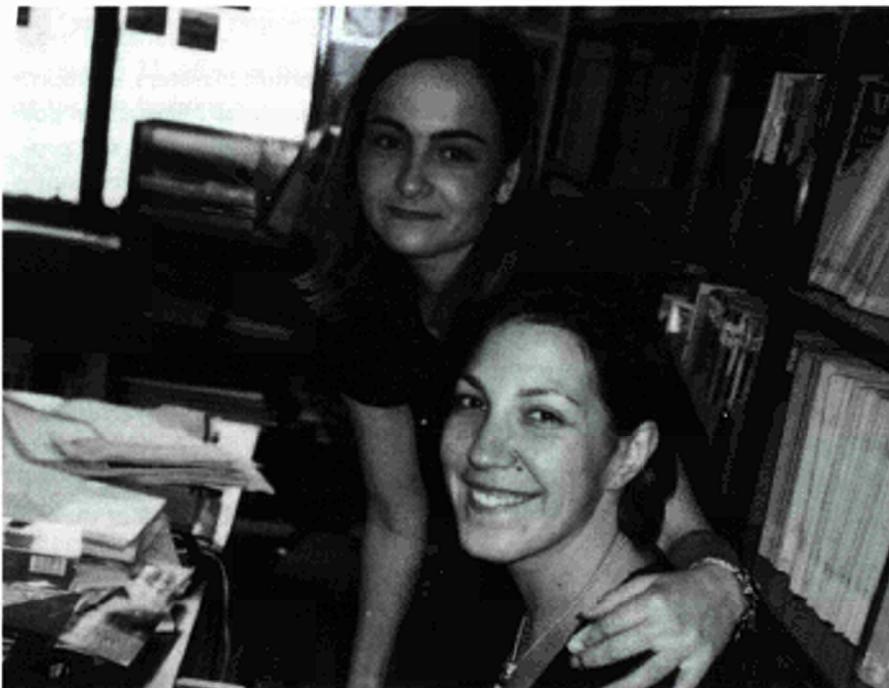
*Particularly good at?*

"We're rather good in certain surveys. In 1993 we were among the top in Europe, I think, for Intrastat. Also we're doing rather good work – although much remains – on our various price indices. Also... agricultural statistics; certain areas like tourism."

*Whatever his future plans – and they are ambitious – the picture he paints of the service at present is far from rosy. Why is it in this state?*

"I think politicians didn't realise its importance – it was just another government agency. This was not always the case, of course: you have your ups and downs. And it's much easier to go down than up. So you had a gradual deterioration in parallel with all the developments at European and international level – new Eurostat fora, new statistical work, new statistical methodologies, rapid evolution in computer electronics... And in this service there was a kind of inertia. But now we have the political back-up to really do something with the service."

*What magic brought about this change of attitude. Was it driven by the EU?*



**"The service is privileged in that a very good majority of its staff are women", says the Secretary-General. Here are two in the Lycourgou Street library**



## KARAVITIS'S VISION FOR THE YEAR 2000...

"A service structured with very strong regions producing final output and a very strong centre directing the whole thing. I'm not talking about decentralisation in the usual way because I don't consider our regional offices off centre – they are just extensions of the centre.

Statistical work is such that you can't talk about decentralising in the normal way; rather, it is dispersing, extending your scope.

"The other thing I would like to see is the service producing timely statistics in a well organised way, with users and customers all around the world. I want them to use us, not substitutes. I don't like other people using my data to produce nice tables. I want to do it here – down to the final stage. I also want to be well and truly on the Internet.

"And, of course, I would like to see a complete statistical network with a modern central building talking to other modern buildings around the world and happy faces working all over Greece.

*"You can't do much without a happy face."*

"Partly, certainly. When you start having formal requirements to produce data, when more and more users demand data, and you feel the pressure all the time – 'I want this, I want that' – there comes a point when the Government says 'We're not serving anyone, even our own policy needs; so let's do something about it'"

*Karavitis makes no bones about it: "What we must do, we must do fast and very competently. We don't have time to lose. It's like our new building. We don't want it to fall down."*

The Secretary-General *keeps coming back to current problems and how he intends to solve them. It is clearly something that absorbs him.*

"I want to make sure that when a person from the statistical office visits somebody, anybody, be it in government or private sector, his or her status will be very high, reflecting the attitude towards the statistical service in general.

"At present this is not always the case. Sometimes it's our own fault. Sometimes the public sector in general just imposes itself on the private sector for information because there's a great need for surveys etc.

"We need to produce coherent questionnaires. We can't have two or three ministries all asking a firm for the same data. This is not how you encourage the private sector to help you. We must arrange time-schedules to impose as little as possible on both private and government sectors. We must take the lead in all this."

*What, I ask, is the general attitude in Greece to being questioned and asked to fill in forms?*

"It depends on the kind of survey you are conducting. But in general I don't think we have a statistical consciousness. We do have difficulties in collecting data. Businesses are willing to cooperate but households have simply not been informed in the past why they should. This means we need more publicity, more PR. We must be more extrovert."

### Privileged with women

*We turn now to the most significant trends in Greece as measured by statistics.*

**Karavitis:** "The EU and globalisation mean that, apart from classical statistical data produced for decades, we have a need for new and more data. We have the information society, all kinds of social statistics, and the envi-

ronment. Even in economic statistics you have new things like financial accounts, because of the evolution of economies."

*The role of women in Greek society?*

"May I ask you a question? How many women did you meet in this building on your way to my office? I am sure at least four times as many women as men.

"The service is privileged in that a very good majority of its staff are women. Throughout Greece there are more and more women in the labour force. Our unemployment figures are rather high at around 10%. There are many reasons but one is participation rates of women. We also have a lot of pensioners looking for a job because many are comparatively young. We have one of the highest ratios of students in Europe and most of them would also like a job.

"So what you have – also taking into account labour from abroad – is a labour force rising rapidly because of these factors, while employment is in tune with the natural pace of the economy – say 1.5% a year. The final outcome looks like unemployment increasing, but I don't think that real unemployment as a social phenomenon is all that bad in Greece.







*Many years ago the service produced a gazette for popular use. It even had commercial sponsors, as here in 1960 with BP. Karavitis says there was better communication in those days between the service and the people. And the sponsorship was pioneering work. "That tailed off – but it's never too late to start again."*

"There are a lot of small firms. What is also encouraging is that we still have very strong family ties, which brings important relief to the problem. Also we have a very extensive underground economy. And a big service sector including tourism. So many registered officially as unemployed may have a job and some sort of income."

*Black economy much of a problem?*

"Certainly – in more than one respect. Of course, you have the usual fiscal problem but this is something you might be able to take care of one way or another. It is also of interest to the statistical service. We are planning research on how the hidden economy can ruin the structure of the open economy. You have good firms closing because of unfair competition from underground firms that tax evade."

*Other big changes in Greece?*

"Nowadays, people tend to want to feel financially secure before having children. They are also less traditional.

In days gone by, they expected income from children, especially boys. So they tried for three or four boys, which meant maybe six children because some girls would come in amongst.

"Now this has changed and down has come the birthrate. The mortality rate has also gone down tremendously; so we also have the phenomenon of an aging population, with all its consequences."

### Not a 'Euroseptic'

*Especially worrying trends?*

"Well, aging is one. My main concern is that we should develop more as a nation. We have to follow our own model. Similarities between models are only natural but I believe in one country, one model. But it depends how much freedom you have to develop it.

**"However, I am a firm believer in the EU. I am not a 'Euroseptic'. I think the future of Greece is there."**

*So the statistical service really feels part of the EU statistical community?*

"Oh, certainly. Eurostat headquarters sometimes tends to see my employees more than I do! That's the way it should be. Producing statistics for just one country does not mean much nowadays – you must have the whole picture. The future shows European integration means integration of statistics and their expansion at European level. To make this work you must have very strong national statistical institutes. This is what we are trying to evolve."

**Nicholas Karavitis** lives in Piraeus, near to the planned new headquarters. "I like it very much. I was born and bred there so won't change it for anything." His wife is also a PhD with a demanding job – with the general accounting office of the Ministry of Finance.

He travels to and from work in an ancient chauffeur-driven Mercedes. *Will he be getting a new Mercedes with his new office?*

"I would prefer a smaller and more modern car. I am not so much into a luxurious lifestyle."

Greeks, it seems, do not work 9 to 5. They start early, especially in summer – 7 to 7-30 – and finish early, say 3-30. But... "This is not true for all statistical service employees! Some of us start early and finish late. I normally start at 9 and finish when I finish."

### A good note to end on...

*The interview almost over, I ask Mr Karavitis how he relaxes from the task of reorganising Greek statistics.*

He likes music and sport – "like most people, I guess".

*Does he take part in sport?*

"Unfortunately", he laughs, "I am not in good shape right now, as you can see. Whenever I can, I like to play basketball. I used to play football in England."

*Music?*

"Oh, music is music. I like all kinds – jazz to the Stones, even really hard rock. I also like classical music a lot – Mozart, Satie. And Greek music: I think we have very good music, one of the few countries where national music is so popular."

*This seems a good note on which to end my interview with this dynamic man so clearly determined on revolutionising official statistics in Greece. Clearly, the years to the turn of the century will be ones to watch in the office with 33 landlords by the pavement café in the arcade behind the magazine stand in Lycourgou Street.*



## GREEK STATISTICAL HISTORY...

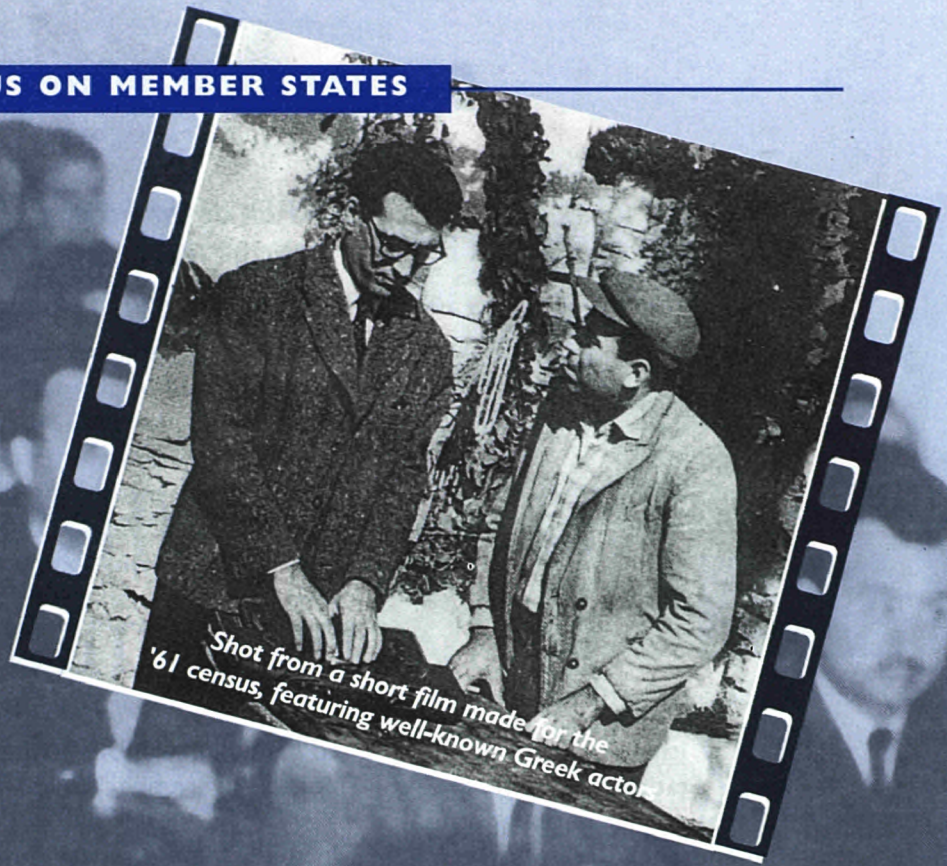
"A statistical office has been around for over a century-and-a-half in various forms. The need for statistical work started with a need for a census after the revolution in the 19th century and liberation from Turkey.

"In 1836 there was a fiscal affairs directorate of the Ministry of the Interior; it organised censuses using administrative sources. In 1860 this bureau became four different sections. One was called the statistical section.

"In 1910 we had a statistical section at the Ministry of National Economy. Then it became a directorate and in 1925 the general statistical service within the Ministry. That was a very decisive step in the history of the statistical service because for the first time it concentrated and took away from all other government agencies the responsibility for collecting and producing statistics. Until then each agency did its own thing. Now there was a central statistical service.

"In 1956 the National Statistical Service of Greece, as we know it now, was formed. Since then we have had certain changes, especially the national accounts moving in and out. Now they are in; I think that's where they belong and where they should stay.

"We also had improvements over the years in the ability and competence of the service to collect data and have access to them: individual data, secret data – all kinds of data."



*Shot from a short film made for the '61 census, featuring well-known Greek actor*

*Training employees for the 1961 census*



*In this article ALWYN PRITCHARD, of the Policy & Planning Division, UK Office for National Statistics, and PER NYSTROM, Office for Statistical Coordination, Statistics Sweden, discuss the similarity of their offices' approaches to planning a key EU meeting. This despite national differences in relation to centralisation/decentralisation of the statistical system.*

# Different paths – growing similarities

**W**ithin the European Statistical System, the relative merits of centralisation and decentralisation are often discussed.

A national statistical institute that employs most government statisticians has greater public visibility and economies of scale. On the other hand, spreading statisticians over a number of functional ministries puts them nearer to their main customer – the government policymaker – and could make their output more relevant.

An important feature of the decentralised system is that it requires considerable effort to coordinate links with the outside world. Organisations such as Eurostat naturally prefer to keep in touch with one well-defined hub in each Member State than

to maintain relations with several dozen government bodies.

In the EU some recent developments have been towards more centralisation while others have gone in the opposite direction.

For example, the UK statistical system now has a larger role for the Office for National Statistics. In Sweden, on the other hand, important elements of the once highly-centralised statistical system have been decentralised over the past few years – in particular, responsibility for commissioning statistical surveys in a number of areas.

Having entered the 1990s from different positions, the UK and Swedish systems now have much in common. In both countries responsibility for official statistics is spread among some 30 different government bodies. A recent staff secondment from Statistics Sweden to the UK ONS sought to identify best practice in coordinating decentralised national statistical systems.

In a decentralised system the position of the statistical office in the national statistical system can be said to mirror Eurostat's position in the European Commission. The national office has to exert leadership on statistical

matters while taking account of the expertise and responsibilities located in other government bodies.

Likewise, Eurostat is the EU's lead body on statistics but cannot operate without taking on board the views and needs of the Commission's other Directorates-General, some of which collect statistics themselves and all of which use them.

In a decentralised national system the last word in statistics for many subject areas does not lie with the NSI but with other government bodies. In the UK, for example, other government ministries take the lead or have an important say on statistics in such major areas as transport, agriculture, environment, health and education. In addition, these London-based ministries will usually need to consult the autonomous, decentralised services in Wales, Scotland and Northern Ireland.

In Sweden also, responsibility for many subject areas is held by agencies outside Statistics Sweden. However, coordination is sometimes simplified by the fact that most of these agencies commission Statistics Sweden to produce the statistics.





## Case study: planning for SPC

In both Sweden and the UK the preparation for last May's meeting of the Statistical Programme Committee (SPC) illustrates the care that must be taken not to bypass the centres of expertise found outside the NSI.

SPC meets four times a year and brings together the Directors of Statistics of EEA countries. It is chaired by Yves Franchet, Director-General of Eurostat. Its many roles range from acting as a forum for deciding the strategic direction of European statistics to being a committee voting on Commission legislation. Each meeting considers between 10 and 15 papers on topics within the EU's responsibility. Most recent meeting was held Helsinki on 28-30 May. Details of preparation vary but main features hold true for both UK and Sweden.

### Here's how it goes:

*End-April:* Agenda arrives from Luxembourg dated 16 April. This gives us some idea who will have to take responsibility for briefing the national Director on each item. Letters go out immediately – some to NSI staff, the rest to other government departments – to warn that written briefing will be required by 19 May. With this letter is an example of the format in which the Director needs the briefing.

*Last days of April:* Papers arrive electronically. For this meeting there are two issues on which legally-binding votes will be taken, a paper on census proposals, one on road transport, another on environmental protection and, as usual, several on preparations for monetary union.

Staff of the international liaison office read each paper to spot any difficult issues in advance. Plenty of time has to be left to discuss the line to take. Several copies are made of each paper: one for the Director, one for the staff from the policy department who will accompany him – Jenny Church for the UK, Gösta Guteland and Matti Niva for Sweden – and one for the person who will provide the briefing. In many cases, more than one government department has an interest in briefing. This time the UK brief on the environmental protection paper is provided by a Department of the Environment statistician but only after consultation with the ONS division responsible for surveys on this topic.

*Mid-May:* Briefs trickle in. Others have to be chased up. Last week's school holidays in the UK didn't help. Then telephone calls are made to contacts in other countries. Aim is to indicate proposals that give us most difficulty and see if there is any support from other countries. Naturally, they talk about issues difficult for them – we might consider supporting them!

*End-May:* A package of papers and briefing two inches thick is put together for the Director and his second, the head of the policy department. Briefs for each item are printed on different coloured paper to distinguish them from the document to be discussed. It is difficult to believe they will read it all!

*Last days of May:* Face-to-face briefing meeting with the Director to go over all papers and agree the position to be taken. Experts are brought in as necessary. There is still time to rewrite the briefs or provide sup-



porting material. The Director must be able to talk knowledgeably on each topic – from the statistical needs of the Stability and Growth Pact to the proposed survey of road freight transport.

*27 May:* National Directors of Statistics converge on Helsinki from all over Europe. Back home all is quiet – for a short time.

*Beginning of June:* Much typing going on, presumably of notes written in the departure lounge at Helsinki airport. These contain news of decisions taken at the meeting and the background to them. These have to be circulated, not only to those who provided briefing but also to all senior staff and others in a large number of government departments with particular interest in EU statistical developments. They can – and do – ask for copies of papers and debriefs. These are kept ready to hand until the dust has settled.

*As illustrated, the process is complex. Failure to consult all parts of the statistical system – no matter how far from the centre – can cause strong reactions and impose substantial costs on government. But luckily, as this example shows, most of the time a decentralised system can be effectively coordinated – given time.*



## Seminar at the Hanover Fair for statisticians &amp; business

# Partners in statistics

**O**n the second day of the 50th Hanover Fair, Statistisches Bundesamt organised a panel discussion entitled *Statistics and the business sector – partners in the information society* aimed at stepping-up dialogue with leading users of official statistics in the economic sphere.

The panel was chaired by Elga Lehari, Economics Editor of *Handelsblatt*, who said the title was more controversial than might first sound. Themes discussed included statistical needs of the information society, growing EU information requirements and use of official statistics for the benefit of the German economy.

Panel members were **Klaus Büniger**, Head of the Economic Policy Unit at the Federal Ministry of Industry and Trade; **Johann Hahlen**, President of the Statistisches Bundesamt; **Dr Walter Hohlefelder**, General Manager of VEBA AG and member of the Advisory Committee on Lean Government (the *Sachverständigenrat Schlanker Staat*); **Heinrich Matthes**, Deputy Director-General of DG II of the European Commission; **Dr Franz Schoser**, Chief Executive Officer of the DIHT (Association of German Chambers of Industry and Commerce); and **Dr Herbert Kriegbaum**, Head of the Statistics and Trends Department of the VDMA (the Federation of German Engineering and Plant Construction Companies), representing the BDI (Federation of German Industries).



## 'More investment needed'

*One discussion focused on how official statistics can meet the information society's demand for data that are better, more timely and cheaper despite general tightening of the public purse.*

**Dr Kriegbaum** said the structure of official statistics no longer measured up to the requirements of the information society in certain important respects. He called for remedial measures involving investment in statistical offices at both Federal and Land levels.

He emphasised the absurdity of joining the information society with information deficits, and the need to bring statistics into line with requirements. There were too many agricultural statistics, but also too many voids, for example in the area of services – especially services to industry such as leasing.

Improvement in Germany was expected through the law on statistics in the field of services intended by the Federal Government. But there was still no consensus on the crucial methodological issue of oblig-

atory or voluntary provision of the information in question.

Statistical specialists claimed that an obligation to supply these data – as in the case of almost every other kind of industrial statistics in Germany – was the only way of ensuring their reliability.

**Klaus Büniger** said the Ministry took the view that transmission of data voluntarily was justified and would produce reliable results because the business sector had a lively vested interest in services to industry. But **Dr Kriegbaum** replied that statistics supplied in this way never provided reliable basic aggregates and emphasised that in any case professional associations could conduct voluntary surveys themselves.

**Dr Hohlefelder** saw no real conflict between budgetary cuts and restructuring of official statistics. He said it was very important that statistical offices should concentrate on efficiency but not 'put the baby out with the bath water'.

**Johann Hahlen** also stressed the importance of efficiency. Statistisches Bundesamt, with some 3,100 employees and an annual budget of



around DM 250 million, had to maximise the efficiency of its use of taxpayers' funds. Statistical offices now seemed more ready to justify the need for statistics and were better placed to alert the policymakers who commissioned the collection of statistics to changes in demand. This worked in favour of changes in the statistical system. It was a significant change in attitude.

There was a mixed response to **Dr Hohlefelder's** proposal that data costs should be borne by departments that commissioned their collection. He thought this might curb their 'monstrous appetite' for statistical data in the present situation where all spending on statistics at federal level was charged to the Federal Ministry of the Interior, to which Statistisches Bundesamt was administratively answerable.

**Mr Büniger** warned against this approach. Statistics were of social importance and must not be left to the mercy of what he called 'departmental egoism'. **Mr Hahlen**, said he had similar misgivings. The contribution of official statistics to monitoring the impact of measures taken by the policymakers was so important that such an approach would simply put an end to the collection of potentially critical statistics.

### Eurostat 'too demanding'

*Discussion turned to the question of whether the EU's increasing need for data is compatible with national interests*

Commission representative **Heinrich Matthes** explained why it was so important to ensure that the internal market and EMU, with all their convergence criteria, were supplied with timely economic data harmonized and comparable between Member States – of the kind already available in many areas. Nobody disagreed but there were different

opinions on the scale and content of data supply requirements formulated by Eurostat on behalf of the EU. Eurostat was still demanding too many statistics by full surveys. At the same time it was making a misguided effort to reduce the supply of certain data of crucial importance to policymakers and others with an interest in the economy – for example, projected cutbacks in internal trade statistics.

**Mr Büniger** said it was vitally important to establish priorities for the development of Community statistics.

The Statistisches Bundesamt President pointed out that harmonization, for example in connection with introduction of internal trade statistics and the new European classification system, had been hampered by massive adaptation problems. Eurostat's draft Statistical Programme 1998-2002 was also criticised by **Mr Hahlen** who complained it included every imaginable sort of statistical data with no statement of priorities. **Mr Kriegbaum** said the industrial sector had become disillusioned and considered its voice was not being heard in Europe.

**Mr Matthes** maintained such criticisms were 'a bit over the top'. Many had already been dealt with. The Basic Statistical Regulation adopted by the Council in February laid down all the procedures for collection of European statistics in cooperation with Member States. But his assurance that there would be nothing against the interests of individual countries was not accepted by everyone present.

### 'Industry depends on official statistics'

*There was then discussion of the economic value of official statistics and the acceptability of the existing cost-benefit ratio*

**Dr Schoser** reminded everyone that the industrial sector and organisations representing it depended on availability of official statistics – for example, for market analyses. But they also had to bear the heavy burden imposed by the obligation to supply data. Hence his description of the relationship between business and statistics as 'mixed'. He criticised the duplication of effort when the same data were collected for a number of statistical products. He called for more sample surveys and fewer full surveys and much greater use in statistical inquiries of electronic transfer and processing technology.

"We haven't been keeping our heads in the sand", said **Mr Hahlen**, "and we recognise the need for economies, not only on our part but also on the part of the businesses concerned." A review of the legal provisions of the Statistical Programme had resulted in 45 proposals for cuts and rationalisation to reduce the burden; and the instruments used for this were also being steadily improved.

Representative sample surveys were invariably a balancing act between the burden on respondents and the loss of information if the burden was reduced. **Mr Hahlen** pointed out that both statistical offices and businesses could achieve economies via direct transmission of data. He regretted the low level of demand from industry for the mostly cost-free software available for this.

*Concluding remarks were notable for their emphasis on the need for priorities for statistics at both national and EU levels. Speakers all welcomed the increasing use of modern communication for collection and dissemination of data. They were all convinced of the need for dialogue between the statistical offices and industry to continue on a regular basis.*



# Wide-ranging discussion at German Stat-Expo

*From 14 - 16 May, Stat-Expo was held for the first time in Germany, in Frankfurt.*

**S**tat-Expo is the only international exhibition dedicated to the means and methods of data analysis and statistics. In addition to Eurostat, exhibitors at Stat-Expo '97 included the German Federal Statistical Office, the statistical offices of various German *Länder* and the NSIs of six other EU Member States – France, Spain, Portugal, Italy, the United Kingdom and Luxembourg. Goskomstat (the Russian Statistical Office) and a number of businesses active in statistics were also represented.



**Johann Hahlen answers questions about possibilities offered by the Europroms CD, introduced at the press conference**

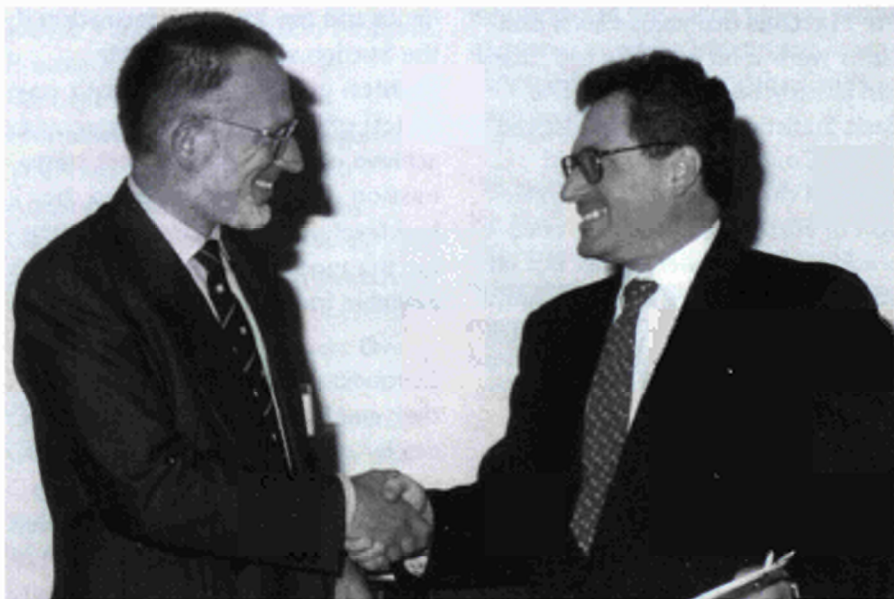
At a joint press conference held by Eurostat and the Federal Statistical Office under the slogan *Statistics in dialogue*, **Johann Hahlen**, President of the Federal Statistical Office, and **Daniel Byk**, Acting Director at

Eurostat in charge of dissemination, introduced the new Europroms CD ROM – the first jointly-created electronic product of the European Statistical System. Europroms contains European production and market statistics for 4,400 uniformly-classified product types.

**Mr Hahlen** explained: "As a supplier in the global information market, our efficiency is increasingly measured against international standards. The merging of world markets is constantly increasing Europe's need for information, which is why official information suppliers are continually strengthening their cooperation."

**Mr Byk** announced the opening later this year of a Eurostat Data Shop in Berlin in cooperation with the Federal Statistical Office. During Stat Expo, **Hahlen** and **Byk** signed a contract to mark the official start of the project. **Byk** stressed the importance of NSI cooperation for the functioning of the ESS. In some ways the German federal statistical system was a model for Eurostat.

Stat-Expo was an opportunity for a large number of international experts with a statistical, economic or technical background to participate in subject-related discussions and attend lectures. Major issues were *Statistics for financial markets*, *Statistical information for management*, *Data mining* and *Statistics 2000*, new perspectives on technology and international cooperation.



**Johann Hahlen, President of the German Federal Statistical Office, and Daniel Byk, Acting Eurostat Director, sign the contract for a new Data Shop in Berlin**



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