

# *Progress report of Statistics Finland*

## *1. Information Society Statistics*

Statistics Finland launched **the second survey on the use of Information and communication technologies in enterprises** with a special focus on the use the Internet and electronic commerce. The approach follows closely the common Nordic framework and the aim is to provide internationally comparable information on the issue. The questionnaire was sent to 3,200 enterprises with the number of employees more than 10. The response rate rose to 54 per cent, which, for a voluntary inquiry, is not modest at all.

The results show well the penetration on ICT and the Internet in enterprises, the purposes for which the Internet is used or the barriers for wider use of the Internet. It was noticed, once again, that any volume data on e-commerce is difficult to acquire even if the definition is restricted to the percentage of orders received in electronic format (or purchases made by the net). It is considered important to survey also small, or mini-, enterprises in the future as the benefits (or risks) of networked economy may considerably change their market situation.

**The second survey of the project The Finns and the Future Information Society** was launched in autumn 1999 and the first report was published in May 'Mobile Phones and Computer as Parts of Everyday Life in Finland'. The questionnaire was divided into a household part (around 1,000 households) and a personal part, in which persons aged 10-74 in the household were interviewed. The main results show that 78 of Finnish households had a mobile phone, but rarely in the case of elderly persons living alone. 60 percent of Finns had an access to a computer somewhere and around one third had an access to the Internet somewhere. More recent data are available of households 4 times a year. Statistics Finland has included in **the monthly Consumer Survey questions on the stock of IT equipment in households**. According to that survey 87 per cent had at least one mobile phone in August 2000, 47 per cent of households had a computer at home, 32 per cent the Internet connection. Additional questions on electronic consumer commerce will be tested later in the autumn this year.

## *2. Service prices*

Last spring Statistics Finland decided to combine the service prices project to the PPI program and broaden PPI's scope to the services area. So far we haven't included any additional service price indices and the Finnish PPI doesn't yet include service items.

Since last year's meeting we have been working on few pilot industries which are partly the same that are on the table in Madrid: **telecommunications, computer services, accounting, laundry and cleaning services**. The initial plan was to present preliminary results by now but the development project has so far been running slower than planned. The price collection will however begin during this year on at least few of the pilot industries and we are expecting to expand the coverage to other industries as well next year.

Statistics Finland has initially agreed on some form of Nordic cooperation and hopefully this will come up with a more concrete form during this Voorburg Group

meeting. Also we would like to see Eurostat to take an active role for example calling an informal and voluntary meeting for members at different phases on indices of service prices.

### 3. *International Trade in Services (SITS)*

#### 3.1. *Backgrounds of SITS in Finland*

Statistics on International Trade in Services (SITS) has previously been compiled in Central Bank of Finland. The creation of EMU-area and Euro created a new operational environment for banks and enterprises. It was obvious that the quality of the old system could not be maintained. Bank of Finland launched discussions of the compilation methods of SITS with Statistics Finland in 1997 to solve the arising problem. Bank of Finland and Eurostat signed the Gentleman's Agreement at autumn 1998. To secure the compilation of all the needed data –including data on international trade in services- for balance of payments needs Bank of Finland and Statistics Finland signed the agreement few months later.

From 1999 onwards Statistics Finland is inter alia responsible for “the annual data relating to the foreign trade of services at its disposal obtained from the survey to enterprises”. In the agreement it was also decided that” Statistics Finland will carry a more extensive survey on the foreign trade of services including country and item breakdown. First survey will be carried in the year 2000, concerning the annual data for 1999. Following surveys will be carried out every three years.”

#### 3.2. *Project on statistics on international trade in services*

A new project to develop methods and processes on compilation of SITS was launched in June 1999. Project was divided into four sub-phases and strict timetable was settled to achieve the main goal, to be able to send data on international trade in services to Bank of Finland in June 2000. The four sub-phases were:

- 1) Collection and harmonisation of international and national needs of the SITS and detection of availability of international service data in Finland.
- 2) Definition of the target group of enterprises for the data collection and informing them in advance for the coming survey.
- 3) Design of the questionnaire and the data system.
- 4) Implementation of data collection, treatment and analyses of data and creation of possible imputation model.

#### 3.3. *Progress of the project*

**First phase** was done in June-August 1999. The main frames for the compilation of SITS are based on Manual of Balance of Payments (IMF, BPM5), coming Manual on Statistics of International trade in services (co-operation work between OECD, UN, EU, WTO, IMF) and ESA-95.

**Second phase** the ‘definition of target group’ was done autumn September-October 1999. The size of target group was decided to be around 2000 enterprises. The frame was taken from the SBS-register which had at that time about 200 000 enterprises. As it was quite obvious that only small portion of enterprises have international activities, all possible sources were exploited to find these out f.ex 1) SBS-database, 2) Customs data and 3) other material such as a) data of Central Bank on enterprises which have transactions on international trade in services, b) Statistics of Association of enterprises in design and consultation and c) Database of foreign traders kept by the Association of foreign traders.

About 9000 enterprises were taken into more serious examination. Enterprises which have more than 100 employees or enterprises which came out from other

sources were all included in the final target group. For the small enterprises, the frame was divided into strata using the enterprise's activity and size classes as stratification variables. The sample was allocated to strata using the Neuman allocation model. From every stratum at least 5 enterprises were taken into the target group. The final target group included 2101 enterprises. All these enterprises were informed in October about the coming survey on SITS.

**Third phase** was to create the questionnaire and data system for SITS. The model for questionnaire was mainly taken from the Balance of Payments (BPM5) manual as well as from models of United Kingdom and Canada. It was also decided that transportation, travel, insurance and financial services were edited out because the data for these services are received from other surveys of Statistics Finland. Division of services by country was designed so that it enables all the grouping needs of Eurostat. As the survey is done for the first time, it was anyway agreed that the level of detail cannot be too detailed. (see Appendices 1 and 2). Data collection and treatment is done in the "SAS System for Windows" which enables the statistical treatment of data and combinations with other registers.

**Fourth phase** the 'data collection' began in March 2000. First reminder was sent to enterprises at the end of April. In the beginning of June when the first analyses were available the response rate was already over 80%. It was decided to make phone reminders only to big enterprises. In June-July the data was treated and it was possible to begin the development of the imputation model for SITS.

In the beginning of the project, it was decided to create an imputation model to raise the data of those enterprises which came to target group by random sampling. The main target is to get the total levels of service-export and service-import for the whole frame of SITS. The model is still under development but it can be stated that the main attempt behind the model is first to impute the data using the amount of employees as the raising variable for those enterprises which are in the target group but which have not answered to the inquiry. When the total figures have been calculated for the target group, then the Hornwitz-Thompson estimation model is used to estimate the data of service-export and service-import for other enterprises in the frame. In the middle of September the imputed data for SITS for 1999 will be sent to Central Bank to be used in the compilation of Balance of Payments.

### *3.4. Conclusions and remarks*

With this new method of compilation of SITS it is possible to improve the quality and coverage of the SITS data. The target group of enterprises will be updated and maintained at SBS-department for the use of SITS-production and for the use of Bank of Finland for quarterly and monthly balance of payments needs.

As this new compilation method is under construction it has been discussed if the next data collection could be done early in the next year (although in the beginning it was decided that data collection could be done every third year). The new project plan is now under work. The main tasks of this project would be:

- a) clarifying the methods of choosing enterprises to the target group,
- b) clarifying the descriptions of services and widening the variety of services (target: data collection for 2000 would also include transport, insurance and financial services),
- c) improvement of imputation methods,
- d) improvement of the quality of SITS,
- e) integration of adp system of SITS into the system of SBS and
- f) improvement of the production processes of SITS to meet the timetables of Eurostat and national accounts.

*Appendix 1: Services in the inquiry on International trade in Services 1999 at Statistics Finland*

| <i>code</i> | <i>service</i>  |
|-------------|---|
| 245         | communication services                                      |
| 249         | construction services                                       |
| 262         | computer and information services                           |
| 266         | royalties and license fees                                  |
| 268         | Other business services                                     |
| 269         | Merchanting and other trade-related services                |
| 272         | Operational leasing services                                |
| 273         | Miscellaneous business, professional and technical services |
| 287         | Personal, cultural and recreational services                |
| 288         | Audiovisual and related services                            |
| 289         | Other personal, cultural and recreational services          |
| 982         | Other non-classifies services                               |

*Appendix 2: Division of services by country in the inquiry*

| <i>EU member countries</i> | <i>Code</i> | <i>Other countries</i> | <i>Code</i> |
|----------------------------|-------------|------------------------|-------------|
| Netherlands                | NLD         | Japan                  | JPN         |
| Belgium                    | BEL         | Canada                 | CAN         |
| Spain                      | ESP         | Norway                 | NOR         |
| Ireland                    | IRL         | Switzerland            | CHE         |
| United Kingdom             | GBR         | USA                    | USA         |
| Italy                      | ITA         | Russia                 | RUS         |
| Austria                    | AUT         | Estonia                | EST         |
| Greece                     | GRC         | other world            | MUU         |
| Luxembourg                 | LUX         |                        |             |
| Portugal                   | PRT         |                        |             |
| Germany                    | DEU         |                        |             |
| France                     | FRA         |                        |             |
| Sweden                     | SWE         |                        |             |
| Denmark                    | DNK         |                        |             |