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Topic (i): Changes in statistical processes

THE PRODUCTION MODEL AND REORGANISATION OF *IT* AT STATISTICS FINLAND

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1.   The basic IT work is done at the Information Technology and Statistical Methods Unit (IT unit), which has a total personnel of 125-130, of whom around 100 are true IT professionals, and most of the rest methodological experts.

2.   The areas of responsibility of the IT unit are: Application development and maintenance – Mainframe - Network – Servers - Data entry - Workstations - Data care – ADP training - Systems methodology - Statistical methods – Classifications and metadata.

3.   IT work is not only done at the IT unit (see Figure 1). The statistical units have many employees doing IT-related work. In most cases the employees compiling and processing statistics use SAS software. The average number of staff years used for this kind of IT work is about 50.

Number of IT personnel at Statistics Finland

DG Director General

IT Management 5

SC Secretariat

MS Management Services

Internet and DB 6

IS Information Services

IT Information Technology and Statistical Methods

PS Population

SS Social

PW Prices & Wages

ES Economic

BS Business Str

BT Business Tr

Average number of staff years used for IT work

IT 100

Basic IT personnel
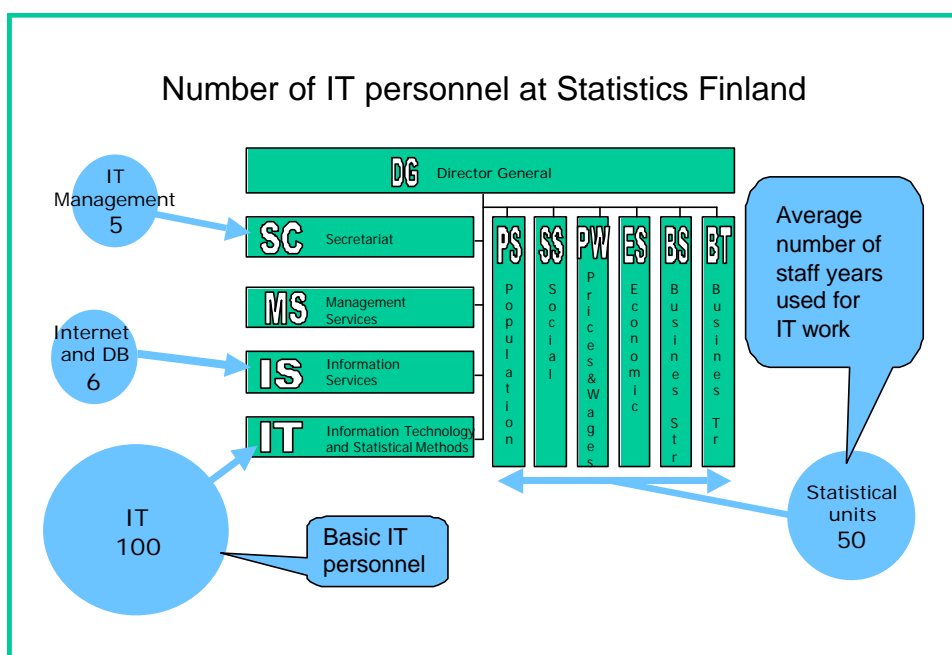
Statistical units 50

Figure 1: Number of IT personnel

4.   The Information Services unit has about 6 employees working on Internet services and dissemination databases.

5.   The IT Management unit of the Secretariat of the Director General is a sister unit of the IT unit, and has 5 IT professionals working in it. They work very closely together with the staff of the IT unit. Among the tasks of the IT Management unit are the following:

- Keeping in contact with other governmental IT organisations;
- Preparing norms and guidelines regarding the use of IT;
- Monitoring compliance with IT standards;
- Taking care of the administrative data security while the IT unit is responsible for the technical data security.

II.   THE STRATEGY OF THE INFORMATION TECHNOLOGY AND STATISTICAL UNIT

6.   The IT unit manages almost all tasks that are connected with the information technology of Statistics Finland.

7.   The mission of the IT unit describes its IT duties:

The IT unit guarantees that at Statistics Finland: - applications function - classifications and concepts are in use - computers are running and PC support is near - data are secured, protected and in use - statistical methods are available;

the vision of the IT unit is:

> *The IT unit is a unit of IT professionals who are managed by coaching, it provides with its own excellence the necessary equipment/facilities for the excellence of Statistics Finland;*

and the values of the IT unit are the same as those of the whole of Statistics Finland:

> *Co-operation and mutual appreciation - Respect of the principles of statistical ethics - Innovativeness, continuous improvement of activity and know-how - Service orientation - Productiveness of activity.*

8.   The basic strategic goals are:
- Development of leadership and supervisory work;
- Development towards a unit of IT professionals;
- Development towards a learning organisation;
- Promotion and support of the production model work.

9.   To fulfil these strategic goals, the IT unit has a programme where the details and responsibilities of strategy are defined.

III.   THE PRODUCTION MODEL PROJECT

10.   At statistics Finland the project on defining a new production model started in 2002 and was completed in 2005. The central objectives of the project were to harmonize and integrate the statistical production. Although the project ended the work will continue and will span over a number of years.

11.   During the project many new innovations were made. The most importants were the Xcola engine for XML-based Web data collection and the CoSSI model (CoSSi= Common Structure of Statistical Information). XCola is a generic application for web surveys and CoSSI is XML-based standard to define the structure of statistical data, metadata and publications.

12.   The project met most of its goals. Most successful areas were software development and data collection. Also XML based data dissemination process, based on the CoSSI model, is now in testing and piloting phase. In some other areas the work will also continue, especially with metadata and data warehousing.

13.   One part of the project was to discontinue using the mainframe in its present form by the end of 2006 and abandon it completely by the end of 2009. At the end of 2004 we abandoned the mainframe database DATACOM and stopped using the SAS system in the mainframe environment. Now we have only very few PL/I-based data systems running in the mainframe environment, and a big mainframe-based data archive.

VI.   REORGANISATION OF IT

14.   Because the production model project was a technical IT project, it affected the work being done in the centralised IT unit. Very soon we noticed that it was difficult to introduce the results of the project in the organisation of that time. So that was one important reason to change the IT organisation.

15.   The other reason (and very closely connected to the production model project) was that in the strategy of the IT unit we had set up a goal to develop the IT unit towards a unit of IT professionals. One important part of this goal was to define the roles of the IT professionals and statisticians, especially developing the rules on how the IT system's maintenance is defined and done. This goal was difficult to fulfil using the team organisation that we had that time.

16.   In the beginning of 2005 we started to develop the new organisation and it was implemented in the beginning of 2006.

17.   The biggest differences between the new and old organisation are:
- The old organisation was closely connected to the statistical units – the new organisation is statistical process oriented.
- The old organisation was partly a self-controlling team organisation – the new organisation is totally managed by managers.

18.   According to our experience the self-controlling team organisation closely connected to statistical units, will operate well if the situation is static; in other words if there are not big changes in working methods and tools used. However in the variable situation the organisation managed by managers operates better. The old organisation is presented in the figure 2 and the new organisation is presented in the figure 3.

Information Technology and Statistical Methods (1998-2005)
1+128

Administrative Services
5

Computers, Networks and Workstation Support
24

IT-Methods
15

Programming Support
9

Classification and Metadata Services
10

Statistical Methods
14

Application Teams
2 + 23 + 26=51

Prices and Wages
Economic Statistics
Business Trends
Business Structures

Hipa
Topso
Yrtit
Esikot
Yrek

23

Timantti
Populus
Paikkatiedot
Eos

26

Population Statistics
Social Statistics

Figure 2: The organisation of IT-unit 1998-2005

Information Technology and Statistical Methods 2006 -
1+127

Administration
7

Server, Network and Workstation Support
20

Data Collection
12

Classification and Metadata Services
9

Project and System Development Support
10

Statistical Information Systems
20+16

Statistical Research and Development
13

Software Engineering Support
10

Data Dissemination
10

Figure 3: The organisation of IT-unit 2006 -

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