

CONFERENCE OF EUROPEAN STATISTICIANS

**Joint UNECE/EUROSTAT Work Session on Methodological Issues Involving the Integration of
Statistics and Geography**

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Topic (i): New opportunities created by cooperation and partnership

**CONSTRUCTION AND SERVICE OF THE GEOGRAPHICAL DATABASE FOR THE NEEDS
OF OFFICIAL STATISTICS IN POLAND**

Submitted by the Central Statistical Office of Poland ¹

Contributed paper

I. INTRODUCTION

1. Geographical Information System in public statistics in Poland means stand-alone desktops with different GIS tools, mostly used for making thematic maps accompanying official publications. The Central Statistical Office of Poland (CSO) does not have a central database for statistics with spatial and geographical data.

2. To meet the increasing demand for GIS applications in regional statistics (within the process of standardizing Polish public statistics with EU), a working group was established to prepare the project of GIS implementation in regional statistics by applying homogeneous tools. The database will be utilised in other divisions of public statistics in the future.

II. PROJECT GISTAT - OBJECTIVES, TASKS AND COMPUTING INFRASTRUCTURE

3. The project defines GIS applications as supplying tools to monitor regional development in Poland and particularly to present all statistical data on the map in accordance with NTS (Nomenclature of Territorial Units for Statistics) level by divisions: gminas, poviats, groups of poviats (sub-region). The project specifies the process of building a central spatial database and establishing a data processing infrastructure capable of applying GIS technology. The GIS system will be administered and processed at the central level in CSO in Warsaw (project management), and also in the computing centre CSCC in Łódź (database administration). The system will be operated and enriched with information by thematic departments, available in LAN CSO network to interested statisticians and also to external users.

4. Annex 1 shows the scheme of GIS infrastructure in CSO elaborated within "Feasibility study of options for GIS application in regional statistics in Poland" by Polish experts.

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III. PROGRESS IN THE WORK

5. The process of creating a GIS system in CSO began within the framework of development and modernisation of the information system, due to the adjustment of Polish regional statistics to the EU demands and as objective 12.1 in the National Preparatory Plan. Completion of the work is scheduled for the end of 2003. The crucial aspects of the implementation of the GIS project are gathering numeric maps, selecting GIS tools, building a data processing infrastructure and establishing a team of specialists responsible for service and management.

6. Due to a lack of experience, the CSO representatives decided to benefit from funds offered by PHARE as well as from the experience of EU and Polish experts. As a main source of basic numerical maps, CSO decided to use the national cartography offices Head Office of Geodesy and Cartography (GUGiK), Institute of Geodesy and Cartography (IGiK) and Topography Board of the Polish Army.

7. The survey concerning use of tools and equipment for GIS was completed during the first part of 2001, as was an analysis laying down the possibilities of gathering numerical maps and types of maps supposed to be used in regional statistics.

8. The result of this report by national experts is an architecture and organisation of GIS system utilisation in regional statistics (see Fig. 1). The report was approved by the expert from Statistics Sweden. CSO is going to prepare a common project of GIS architecture with Statistics Sweden and also the basis of a tender procedure for purchasing equipment for and installation of the GIS system in CSO.

9. An important condition for the smooth implementation of GIS in statistics is to launch cooperation with the national office responsible for official maps in Poland (GUGiK) and to collect the necessary numerical maps. CSO plans to draft an agreement in the second part of this year specifying the bilateral conditions for easy access and use of information sources, created and actualised by the above-mentioned offices (CSO maintains the National Official Territorial Registers and Local Data Bank, and GUGiK is responsible for an official database of digital maps and spatial database). Thanks to this agreement, CSO acquires digital maps of Poland (scale 1:100 000) as a part the Map of Europe composed in accordance with SABE project. This map is the key to elaborating a digital Map of Poland by statistical divisions (1:100 000) in accordance with NTS nomenclature.

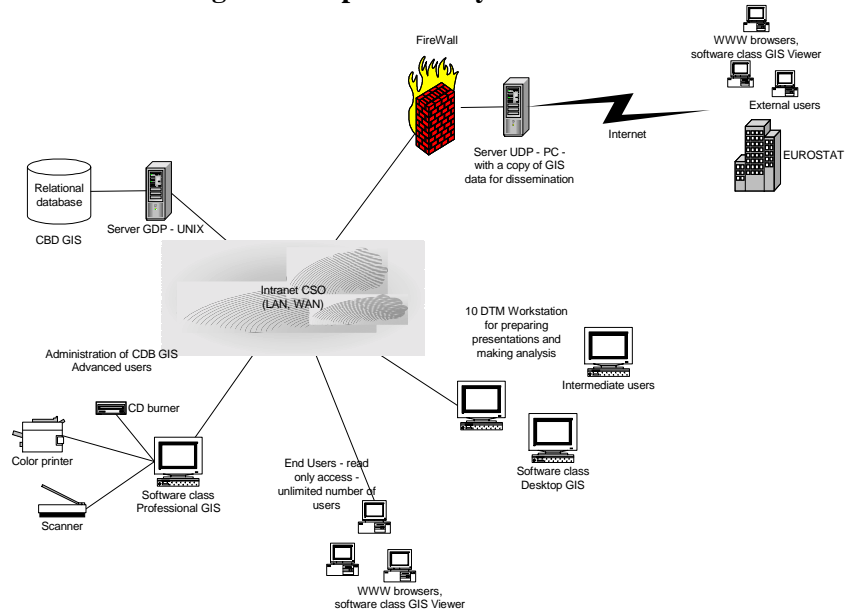
10. In accordance with the list of national experts from IGiK, there is a need to create the following maps in regional statistics: settlement (1:100 000), voivodship cities (1:25 000), polish sea border (1:250 000, 1:500 000), land use and land cover (1:250 000, 1: 500 000), hydrology (1:250 000, 1:500 000), and transport network (1:250 000, 1:500 000). The forgoing maps are not directly accessible either in administration offices or companies, so they should be purpose-built. The base for the maps is available from GUGiK, IGiK and database military map.

11. In 2002 CSO will set up a team for GIS application and staff training, and will start to build up a geographical database.

IV. SUMMARY

12. The implementation of GIS in CSO is carried out within the framework of building and modernising information systems in the process of adjusting Polish public statistics to the European statistical system. CSO is aware that it is only the first step in building an infrastructure enabling the use of GIS. In spite of the fact that regional statistics modernisation will be completed by the end of 2003, CSO would like in the meantime to launch a GIS database (through the administration division and NTS) and also establish a team of specialists providing services for database and users.

Fig. 1 Concept of GIS system in CSO



source: Feasibility study of options for GIS