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EUROPEAN COMMISSION STATISTICAL OFFICE OF THE EUROPEAN COMMUNITIES (EUROSTAT)

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Topic (ii): Development of IT strategies in statistical offices

STATISTICAL INFORMATION SYSTEM

Supporting Paper

Submitted by the National Statistical Service of the Republic of Armenia¹

Summary

An important amount of statistical data is collected through statistical surveys, results of observations and administrative registers and records based on various forms of databases.

All this information is verified, imputed, corrected and is processed according to special methodological requirements. A summary of statistical information is published periodically as official statistical data of the National Statistical Services of the Republic of Armenia (NSS RA), taking into account confidentiality and completeness of statistical information.

The information technologies are given the task of building an advanced statistical information system. Such a system has to respond to the current needs of statistics, and to ensure automation of the input, interchange and processing of information.

There is a plan to create, within the government offices and agencies of the Republic of Armenia, an advanced corporate network for the exchange of statistical and administrative information between the regions and central offices, a central repository of statistical data and metadata, development and implementation of new software tools for processing of statistical information, and achievement of the system for dissemination of statistical information, in particular over the Internet and on thematic laser discs.

The corporate network has to ensure a reliable connectivity between the region and the central office, to ensure protection of confidential statistical information, provide access to regional offices, according to the access rights, to the corresponding databases, and to provide an unlimited access to the corporate website www.armstat.am.

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The website <u>www.armstat.em</u> provides both the statistical and methodological information. The respondents may find there the electronic versions of questionnaires and instructions for their completion. The website links to the electronic catalogues of the NSS RA library providing an index to all materials received by the Library.

It is planned to complete the metadata on the web server by publishing the technical specifications of statistical software prepared by the subject-matter departments of the NSS RA, subject to some limitations due to the confidentiality. The purpose of publishing these specifications is to show the algorithms of transformation of statistical data from the input to output tables.

It is planned to build databases of applications, with open source code, in order to enable all interested organizations to use it in their work and to introduce the necessary changes. This approach is planned in order to optimize the algorithms, and to facilitate the testing and debugging of the software.

The library of technical specifications will also facilitate future work on new technical specifications within the subject-matter departments, which will speed-up the creation of new software tools. At present about half of the time used for software development is spent on changes related to the precisions in specifications during the phases of programming, testing and implementation of the software.

The libraries of questionnaires for statistical surveys together with the instructions for respondents, standards, classifications and algorithms for creation of output tables, along with the library of statistical software, will provide users with a complex presentation of processes in which output tables are obtained on the basis of collected indicators

The reliable functioning of the statistical information system represents one of the basic tasks. To this end, it is necessary to:

- Prepare instructions for re-launching statistical information systems within 15 minutes, after a failure of any of the components;
- Establish segments of the network in such a way that in case of a failure of one of the segments, other segments continue their normal functioning;
- Consider establishment of a redundant backup for each of the key components of the network;
- Ensure regular back-up of the basic information and its restoring in case of failure;
- Organize the work on the database so that the requirement on network resources are minimized;
- Organize regular training and upgrade of skills of the staff;
- Facilitate self-study by establishing and maintaining a library comprising special literature and educative programmes.

The statistical information systems should work in such a way that the statisticians would not notice the voluminous work, which the informatics specialists have to undertake for the functioning of the system.

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