Statistical information dissemination in Slovakia

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1. Introduction
Demanding external environment forces participants of processes at different fields and at different levels of deciding to use mechanisms and tools for reduction the risks of own decisions. Using statistical data and information of high quality belong to such tools. Statistical information creates very important base in decision-making processes. To increased user demandingness and needs the Statistical Office of the Slovak Republic (hereinafter SOSR) tries to respond flexibly and provide products in accordance with new trends (free electronic data dissemination, data visualisation, clearer methodological description and data interpretation). Therefore all official statistical information processed by the Office must become a common property in a certain time and in a certain extent and must be disseminated to maintain data quality.

2. Legal base
The process of statistical information dissemination of the SOSR is conducted in compliance with two main documents. The first has the legal form, the second one is prepared directly by the Office. The Act No 540/2001 Coll. on State Statistics describes the state statistics in general, defines main principles, which has to be held by the Office, ministries and state organizations by collecting and processing the statistical information, states the main tasks of the SOSR to publish the results of statistical surveys, to inform the public about the social, economic and demographic development and to provide statistical information.

The internal document The Principles of Release and Provision of Statistical Information is more detailed. The principles establish a binding process to release, provision of statistical information and to formation of the Catalogue of Publications. They characterize the basic forms of release and providing individual products and services, define the rules of relationships with statistical data users and also the conditions of providing products and services.

3. Strategic objectives for dissemination process in near future
Great attention is paid to data providing and dissemination also in the document The Development Strategy of the SOSR till 2012. The main vision of the strategy is to provide high quality and objective statistical products and services with the aim to support improvement of the information and intellectual level of customers.

Basic objectives:

- Create the value-added products – intense use of the latest technical possibilities achievements and software products to prepare of outputs with value added, especially through data analyses and their visualization.
- Database development and dissemination of information preferably via internet – the creation of modern products corresponding with principles of statistical information dissemination and needs or users requirements (wide extent of information, user comfort).
Orientation to target groups of customers – the preparation of products for different target and specific groups for purpose to disseminate the statistical education and to improve the interest in statistics.

Enhanced intensity of communication with customers – the survey of users’ satisfaction with the SORS existing products and also the identification of new or expected needs in terms of statistical information and information about statistical data (metadata, quality, etc.) is a part of communication with key users.

The main strategic objectives were projected in the field of internal processes into the Action Programme, which states the preparation of The proposal for processing the products with value added and the provision of visualization software for products. The proposal, which was prepared and approved in 2009, includes concrete changes and time schedules of product portfolio.

4. Forms of statistical information dissemination

It is required to evaluate the product portfolio of the Office in regard to creation of value added products. In that case the product with value added is understood especially as a printed or electronic publication, but also covers the design of the internet site and marketing activities. The publication system and the internet site as a most dynamic dissemination form are the main forms of publishing and providing statistical information.

4.1 Publication system of the Office

Capacity development and availability of the internet, currently the main tool for data dissemination, influenced very strongly the publishing activity. Formerly the main form of dissemination is developed in current conditions as a supplementary tool for data providing. Publishing the data via printed publications required their qualitative change not only in the form but also in the content.

Publications are generally divided into four groups:

A. Comprehensive publications
   Provide the complete look at the country, the given region or its subregions (districts, municipalities) in individual statistical themes or domains, mostly in time development supplemented by textual analyses, data visualisation and unified harmonised methodological notes.

B. Thematic publications, i.e. in statistical themes or domains
   Focus on specific statistical theme, e.g. demography, information and communication technologies, transport. Like comprehensive publications they should include analyses, data visualisation and understandable methodological notes.

C. Publications published by regional workplaces of the Office
   There are products completely prepared by regional workplaces.

D. Other publications
   There are mostly products of smaller extent, occasional products or products of informational or promotional character.

In terms of form there is seen gradual transition from printed to electronic form of publication. Printed products, served as a main source of statistical data until now (at present replaced by the internet particularly via on-line public database) are becoming the products offering a different quality i.e. the products with value added, user oriented, with better intelligibility and higher ability to know and understand statistics. Making such products enables better use and evaluation of knowledge potential of statistical experts and usage of information technologies possibilities. In order to increase the understandability of statistical data to compile publications provision of methodological and terminological information will increase and improve. Great effort is put on the analytical activities (social and economic, sectoral, thematic), visual tools are used largely (tables, graphs, interactive
thematic maps). Increased attention is paid to using the single and precise terminological language, keeping the rules of making statistical tables and graphs.

Relatively unified form and integrity of statistical information can improve its understanding. Regarding keeping the rules in making outputs the SOSR developed at the end of 2009 *Recommendations to publication of statistical information within the National Statistical System* for its partners, which is an important tool for compilation and adjustment of tables, graphs and maps in order to prepare output products containing statistical data.

Over years of its existence the SOSR has built the flexible publication system, which brings not only the continuity, but also is ready to respond to the needs of society and customers. The coordination of publications is provided by the *Catalogue of Publications* yearly. The trend of reducing the number of printed publications, increase of publications in electronic form at the internet and also preparation of bilingual titles are considered in the preparation of the Catalogue (Table 1).

**Table 1 Changes in publication activities in numbers**

<table>
<thead>
<tr>
<th>Selected indicators</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>All titles included in the Catalogue of Publications</td>
<td>134</td>
<td>133</td>
<td>101</td>
</tr>
<tr>
<td>Publications in printed form (%)</td>
<td>73,1</td>
<td>53,4</td>
<td>32,7</td>
</tr>
<tr>
<td>Publications in electronic form (%)</td>
<td>4,5</td>
<td>33,8</td>
<td>72,3</td>
</tr>
<tr>
<td>Bilingual publications (%)</td>
<td>35,1</td>
<td>34,6</td>
<td>63,4</td>
</tr>
</tbody>
</table>

The elaboration of *The Single Conception of Publishing Publications by the regional workplaces of the SOSR in 2010* was the very important step in publication activities in order to eliminate duplicity of published publications, differences and diversity of products and also to cancel the products, which meet the needs of users no more in current conditions. Until 2009 the publication process of regional workplaces was controlled only partly by the headquarters. Since 2010 the publication activity is coordinated by single projects in terms of their content, form, design and printing and also dates of release, price and ways of distribution. The main intention is to ensure the user is provided with comprehensive statistical data on all Slovak regions on time and in an integrated form, or had accessible statistical information in the most comfortable form.

**Examples of value added products**

*The publication Regions of Slovakia*

Slovak-English publication of comprehensive character provides knowledge on the state and development of demographic, social and economic conditions and processes in regions of Slovakia. Regions are described not only by geographic and economic characteristics, but also through analyses of selected statistical indicators (Image 1).

**Image 1 The publication Regions of Slovakia**
The publication Our region
Slovak-English publication of promotional character provides knowledge on the state and development of demographic, social and economic conditions and processes in region. Regional workplaces of the SOSR processed statistical data on own region by the single project prepared by the headquarters (Image 2).

Image 2 The publication Our region

The publication Slovakia in the EU
Slovak-English publication on theme Slovakia in the EU. It provides statistical information on EU countries to selected statistical domain (Image 3).

Image 3 The publication Slovakia in the EU: Foreign trade

World Statistics Day
The celebrations of the first World Statistics Day (thereinafter “WSD”) declared on October 20, 2010 are aimed at increasing the awareness of the task of official statistics and basic values such as professionalism, integrity and public service. The SOSR plans to join the celebrations of the WSD through the preparation of different activities for the public and also members of the National Statistical System. Some interesting activities and value added products are prepared in that occasion:

- The placement of the stamp with the logo of WSD to all mails distributed from the Office (Image 4).

Image 4 The stamp with the logo of WSD
• Publishing bilingual leaflets and small folders for different target groups of users:
  ▶ Forms of statistical information dissemination
  ▶ How do we survey statistical data?
  ▶ What can we learn from National Accounts?
  ▶ Business statistics – rich source of information
  ▶ Why Population and Housing Census?
  ▶ The history of statistics in Slovakia
• Release of the publication „Size groups of Slovak municipalities in figures“.
• Preparation of electronic quiz for public on internet focused on search of information on the website of the SOSR.
• The award “Young statistician of the year” as a motivation for young employees to be more interested and active in statistical work.
• The organization of the action „Open doors day at the SOSR“ with the exposition of products, the presentation of statistical information dissemination, practical illustration of the SOSR website and direct selection of data from databases, the possibility to meet top management. Also contact of responsible employees with media, direct providing of information, distribution of statistical products and promotional gifts and evaluation of competitions will be provided.

4.2 On-line dissemination of information

The internet website of the SOSR is the one of the basic tools for dissemination, filled and maintained through the content management system WebJet. WebJet is a modern system for maintenance and management of websites content (roles: author, editor, structure administrator, etc.), provides open-ended availability of web service, easy and quick access to information (logic structure). The conception and structure of the portal is created in order to provide exhaustively statistical information and data not only to experts but also general public. Starting the new internet website (in September 2007) the SOSR reached the qualitative progress in the field of dissemination and providing of information. The website standardly offers functions and characteristics as fulltext search, site map, archive (News, publications, etc.), RSS, export to XML, validation of sites to W3C and access of sites for handicapped persons (purblind) and others.

4.2.1 Public databases

Access to public databases, which offer free selection of data for all users, is an important part of data dissemination via internet. At present there are available following databases on the website of the Office:

Public database Slovstat opens the access to basic data of all statistical domains in monthly, quarterly or yearly time series at the national level. It is stored in the Oracle environment. Application tools enable users to work directly with data and their export in the selected format (XLS, CSV, XML or DBF). In 2009 the database was visited by 9 445 registered users (the registration is made only to monitor attendance of database) and in total 281 881 extracts were realized. Most extracts were directed to macroeconomic indicators of national accounts, labour market statistics and demographic statistics. Available from: [http://www.statistics.sk/pls/elisw/vbd](http://www.statistics.sk/pls/elisw/vbd).

Regional database RegDat (start in September 2007) contains regional data from different statistical domains presented in the form of dynamically generated tables in yearly time series to the level of regions and districts of the SR (also municipal level data are being prepared). Database RegDat is stored in the environment of Microsoft IIS server and presented through the tool PX-Web 2008 and predefined data matrices in the form of PX files. PX-Web 2008 is a web application determined to dynamic statistical data presentation. Another web application PX-iMap designed for map presentations of statistics is a part of it. Only in June 2010 the database was visited by 2 514 various users. Most extracts were directed to statistics of industry and labour market. Available from: [http://px-web.statistics.sk/PXWebSlovak/index_en.htm](http://px-web.statistics.sk/PXWebSlovak/index_en.htm).
**Information system of Urban and Municipal statistics** provides statistical information for each town and municipality with the possibility to define different territorial units of the SR by making extracts. It is a system, which has cross-sectional character containing data from different statistical domains supplemented with data and characteristics from other data sources for domains not covered by official statistics surveys.


Regarding databases it is needed to mention also the project **Urban Audit** realized by Eurostat for needs of the European Commission. The created database containing collected statistical data is the result of the project. The main aim is the collection of data on life quality in European cities. For Slovak users the version of Urban Audit database containing information on living conditions in eight Slovak cities included in the project was created available not only in Slovak but also in English version.


### 4.2.2 The future of electronic data dissemination

During the current programming period 2007-2013 eleven operational programmes has been realized within the **National Strategic Reference Framework of the SR**. The SOSR has joint the Operational Programme Information Society within which applied for the financial assistance for the national project **Electronic Services of the SOSR**. The main objective is providing user oriented electronic services. The project will last till 2012. The new portal including BI tools for general public will be solved based on INM WebSphere Portal and BI OLAP tools (Image 5). New products such as the unified public database, which will integrate all existing databases, dynamic interactive data visualisation (graphs, maps), meta-information system, SDMX, the catalogue of products (on-line shop, publications to download) will be the important part of the new portal. Also new services as Electronic elections, Population and Housing Census 2011, Electronic data collection from reporting units and Central business register will be included.

**Image 5 The future of electronic data dissemination as a heterogeneous synchronous system**

The integration of currently different databases by platform, using BI tools and user-friendly interface for outputs from the public database should contribute to simplify and increase the access to searched
data. Dynamic form of data visualisation and metadata of high quality are the value added, which will serve also for increasing statistical education of general public but also experts.

5. Conclusion

The user or customer plays the most important role in the whole process of statistical information dissemination. Tendencies of the dissemination policy are completely definite: to ensure independent, quick, simple and in the most possible way free access to statistical information, metadata and methodology through tools, which allow comfortable and dynamic work with data, provide products, which are not only the statistical data source, but offer also value added and evaluated knowledge potential of statistical experts and also to acquire the feedback from users and flexibly respond to new challenges and impulses. Activities in that direction will still be closely coordinated with Eurostat in order to provide mutual comparability of released indicators within the European statistical system and to project new trends in statistical data dissemination into practise.

References

3. Statistical Office of the SR: The proposal for processing the products with value added and the provision of visualization software for products, internal document, Bratislava, 2009