



## Improving communication with users – Polish experience

Renata Bielak

Central Statistical Office of Poland, Warsaw, Poland – [r.bielak@stat.gov.pl](mailto:r.bielak@stat.gov.pl)

The form and quality of communication determine the recipients' perception of information and their attitude towards public statistics. Statistical offices acting as producers of official statistics also face the challenge of their dissemination. Information supplied by statisticians should meet users' demand and keep track of the changing reality. Attractive and intuitive form of data dissemination is nowadays of crucial importance, especially when providing information to users who are not statistical experts.

The concept of communication with users needs to be developed permanently. Being aware of this challenge, Central Statistical Office of Poland has taken activities aiming at improving the communication with users. Offering public access to thematic statistical databases as well as creating statistical application for mobile devices are good examples of adjusting the style of data dissemination to users' expectations. Another illustration of best practice is Strateg system which perfectly fits the requirements of an innovative statistical product. It is a database system dedicated particularly to users interested in monitoring the development policy. Apart from standard table presentation of data, Strateg offers a visually-attractive forms like maps, charts and reports, which are easily adjustable for varying users' needs. The system is an excellent combination of knowledge treasury and functional tools for data presentation and analysis.

**Keywords:** statistical literacy, data presentation, statistical education

### 1. Introduction

Effective communication plays a key role in activity of every organization and determines the efficiency of its performance. In the case of statistical offices, as leading providers of information, it is of crucial importance to build appropriate relations with users and involve them in the communication process. Users are aware of the information significance in every area of life. Choices and decisions – quick daily as well as complex ones with reference to significant social and economic issues – both are made on the basis of information. The access to information and the knowledge how to use them may affect the results of decisions made.

The role of public statistics is to produce the reliable, objective and high-quality statistical information corresponding to the needs of users. Information for which there is no demand is useless. Therefore it is essential to identify the requirements of users in a systematic manner, as needs vary along with changing environment.

Apart from knowledge about expectations of the recipients, statisticians should be concerned with education of users. Availability of information does not determine their appropriate use. Understanding the information is vital for their skilful selection (especially that there is increasing problem of information overload) and proper interpretation. Only conscious use of information will enable drawing appropriate conclusions from the analysed data. To ensure comprehensibility of presented data users should have an access to clear definitions and exhaustive methodological explanation. It is equally important that the shared statistical results should bear an analytical commentary.

The article presents the actions undertaken by the Polish public statistics with regard to communication with users and achievements regarding statistical literacy.

## 2. Towards user approach

Users' expectations determine the scope of statistical information system. Thus, statisticians have to know what is requested to match the information provided with these expectations. The Central Statistical Office of Poland attempts to take users' needs on board to the extent possible. Legal obligations (resulted with European and domestic law) are essential in the programme of surveys of official statistics. The information needs of national users are taken into consideration through the consultations organised each year before the official statistical programme is approved. A model describing identification of users' needs has been prepared in order to arrange the process. Apart from currently implemented practises other activities (that is continuous tracking of users activity on the web, especially on statistical databases) will be carried out to diagnose the users' needs.

One of the methods to improve the communication is satisfaction survey conducted among users. The Central Statistical Office has taken the initiative and the system-related research projects designed to study satisfaction of statistical information users was prepared. Both the satisfaction level and the difficulties with using statistical information can be deduced from the survey. The first pilot edition of the survey showed substantial interest of users and the results were the valuable guidelines for future improvement of statistical system. It will become a constant practice and is going to be repeated every three years.

The most challenging part while formulating dissemination policy is to diversify the information offer taking into account various user groups. There is a greater need for response of official statistics services to the necessity of accurate characterisation of changing reality. The information society needs clear evidence which gives practical knowledge and forms thereof the basis for effective social, economic and political activities. In the face of rapid progress of the digital data processing and changing information needs of the society the Central Statistical Office of Poland has taken up the challenge to use the processed data effectively and rationally in order to explain complex socio-economic phenomena. The proper data should be extracted efficiently from statistical databases and transformed into understandable information. Therefore, the process of analysis has to be organised appropriately. In Poland special analytical teams are created with the task to meet users' demand for explanation of socio-economic phenomena and to adjust content and presentation forms to diverse users' needs. This is a long-lasting process, oriented at the appropriate selection of human capital, education and trainings, cooperation development and stimulation of members' motivation to share their knowledge.

The effective performance of analytical works requires preparation of human resources with knowledge and skills enabling statistical data analysis, consideration on the causes of observed dependencies and formulation of relevant conclusions. To meet this demand special education system dedicated to the analytical teams is under implementation. *Share your knowledge and experience* programme has been developed to be realised by the team of internal trainers as well as mentoring.

Activities concerning analytical works should enhance both the coverage and the quality of statistical products and therefore satisfy users' needs.

In response to increasing demand for support in proper interpretation of statistical measures, the Central Statistical Office has set up a project to draw up a conceptual and methodological framework for indicators concerning the development policy. The indicator interpretation guide will be created to serve users as navigation through the statistical information system. Being aware that statistical indicators of all kinds represent a methodological challenge, the manual serving as guidelines on key indicators of development monitoring will give a general understanding and scientific definition as well as clear descriptions facilitating analysis and interpretation of statistical measures. Moreover, the manual will describe explanations of possible consequences or implications when using an indicator. Despite some potential limitations in the use of indicators, i.e. dependence on the context, serving precise purposes or misleading interpretation of results, they provide input in global, national and local policies by translating often intangible, abstract objectives into measurable targets against which progress and achievements can be monitored. Thanks to the signposts marking the way, the guide will allow users in-



depth comprehension of indicators, among others, by explaining the purpose of measurement, way of use and possible interpretations.

### **3. Statistical products to improve communication with users**

The expectations of increasingly conscious statistical data users are growing constantly. They apply not only to the scope of data and the time of their publication, but also to the form of presentation. Development of technology and availability of tools provide new opportunities in the scope of information sharing. Friendly and attractive form of presentation often determines reaching for public statistics data as a source of information.

In response to the need of enhancing communication with users, the Central Statistical Office of Poland constantly takes up challenges to implement new solutions or to improve the existing ones regarding forms of data dissemination.

#### **3.1. Strateg – the development monitoring system**

With the aim to enrich communication and data dissemination services, the Strateg system has been created by the Central Statistical Office. It is a database system built in order to support and facilitate the process of programming and monitoring the development policy. The project was provided taking into account the needs of policymakers to conduct evidence-based policy and result-oriented management.

The Strateg system, accessible through the CSO website or directly at [strateg.stat.gov.pl](http://strateg.stat.gov.pl), is a publicly available multidimensional database, which integrates indicators significant to the monitoring development policy derived from the official statistics as well as from other sources, including scientific institutes, national and regional centres and agencies, databases of international organizations and institutions. The basis of the information resources of Strateg system is formed by indicators from strategic documents – the Europe 2020 strategy in force at the EU level as well as strategic documents binding in Poland. The Strateg is also meant to function as a system for monitoring the cohesion policy. For this purpose, indicators are being compiled in the system with a view to monitoring the strategic goals included in the Partnership Agreement for 2014-2020 as well as in operational programmes, national and regional ones.

The Strateg database collects annual indicators (time series start since 2003). Data is available for various territorial aggregations:

- the European Union (EU-27 and EU-28) and individual Member States,
- Poland
  - country level,
  - lower spatial aggregation levels (NUTS 2, 3 and LAU 1, 2),
  - macro regions/functional areas (e.g. Eastern Poland, Western Poland),
- a set of selected indicators for the EU regions (NUTS 2).

There are approx. 1,600 indicators in the Strateg system at the moment. They are derived from more than 80 national and international sources. Taking into consideration data availability at various territorial levels as well as its variables (e.g. sex, age groups) there are about 4 million records in the database.

With a view to meet users' needs, much attention was paid to ensure an accessible and visually attractive forms of data dissemination. The Strateg system enables visualization of indicators in form of charts and maps, which considerably facilitates data analysis process. Visualization modules are equipped with a range of functionalities enabling the creation of various graphic forms. Apart from static visualization, it is also possible to view charts and maps in an animated form, with visible changes occurring in the subsequent years. The function enabling export and visualization for different formats makes it possible to use the system resources directly for publications or reports, which improves significantly the process of reporting on the implementation of strategic documents.

As a creator and maintainer of Strateg system, the Central Statistical Office has decided to use it as an excellent channel for effective communication and education in the field of statistics. Accordingly, a separate module was created within the application for users and was named *Metadata and analyses*. It collects a range of methodological information, analytical reports and statistical publications, grouped by thematic domains. To meet expectations of users detailed indicators' profiles were prepared, presenting information on a given indicator. Easily accessible profile of an indicator provide information on its definition, description of the calculation methodology, source of origin, comments on how it should be interpreted and used, and a list of documents the goals of which it monitors. Apart from a wide set of indicators concerning various thematic domains (e.g. national accounts, labour market, territorial cohesion, social capital) including methodological information, definitions and interpretational guidelines, the Strateg collects a range of analytical reports, statistical publications (national and regional) and short analytical comments on current socio-economic situation and trends concerning a given subject.

The cooperation with users was provided at each stage of the project implementation. Special workshops were organised in order to present and test the trial version of the system. The meetings offered a great opportunity of showing the users how the system works, which allowed for constructive discussion and identification of comments and suggestions to be considered in the following steps. Thus, the target users of the system had the possibility to co-create it and influence its final shape. The analysis of expectations as well as good practices applied by international organisations in their systems enabled a selection of Strateg functionalities which ensured a perfect balance between modernity, utility and efficiency. This is an ongoing process and the system is being developed and improved constantly.

The Strateg system was originally created for users involved in development and cohesion policy. One and a half year since its dissemination, it has turned out that the system is well known and various users (e.g. academics, local government representatives, individuals) are willing to use it.

### **3.2. Domain Databases**

Providing users with systematic information on situation in social and economic areas is the main goal of a project which is currently being provided by the Central Statistical Office. It is assumed the creation and launch of 22 Statistical Domain Databases which will be soon available to users<sup>1</sup>.

Domain Databases enable access to a wide set of data provided by the official statistics. Their thematic scope covers the main information needed by users. Databases are constructed based on mutually complementary and compatible systems, i.e. statistical data warehouse, statistical metadata system as well as analyses and decisions support system, which enables their flexible expansion and implementation of new products. Using these systems would allow for an integration of comprehensive statistical information – data, some methodological explanations, additional information connected with particular areas as well as links to recommended publications, studies and events.

Domain Databases provide the opportunity of statistical data visualisation in form of tables, charts and maps, as well as their download and usage for own analytical elaborations. Solutions used in Domain Databases, including a standardized form of reports, make user's work easier, allowing at the same time for adjustment of data to individual needs. Domain Databases allow for a simplified transition from data to information, through knowledge and finally to evidence-based decisions.

Apart from 22 Domain Databases the launch of the following products is assumed under the project:

- statistical application for mobile devices, a multidisciplinary database adjusted for the needs of smartphone and tablet users. The application will include a set of the most recent and in demand indicators which are grouped in statistical domains;
- regional atlas – a module dedicated to regional data presented on maps.

---

<sup>1</sup> The project is going to be finished by the end of June 2015 and Domain Databases will be available accordingly.



Moreover a special multidimensional database with essential news and data is being developed in order to enhance internal communication and coordination of dissemination process. This communication platform should support works of Internal Statistical Information Centres (located in the Central Statistical Office and in each of 16 Regional Statistical Offices). It will allow, among others, performing quick actions aimed at sharing the information from various thematic areas frequently asked by data recipients available at various territorial levels.

Activities undertaken in order to improve channels of data presentation both harness the potential of emerging technologies and explore new approaches to facilitate greater dissemination outreach. Products that are being created form data dissemination system to enhance the availability of timely and comprehensive statistics.

#### **4. Conclusions**

The unique features of official statistics (such as a comprehensive set of skills, objectivity, and a long-standing experience in obtaining information from various sources, data compilation, processing and analysis) highlight its crucial role in the global information system. Methodological standards are today established more and more often at the international level and ensure high quality and comparability of data. The benefits of official statistics concern not only a broad range of topics, but also a guarantee of continuity and constant updating, as well as open access to data.

On the other hand it should be noticed that being a leader in the provision of reference statistical information requires from statistical offices constant monitoring of the environment. It is binding study of market conditions, internal and external, determining the current information systems and identification of users' expectations. This information will allow to adjust the statistical production process to users' needs in the shortest duration possible. Future challenges to be faced by the official statistics create the strong need for constant development of statistical resources and simultaneously for easy, attractive and quick access to the most requested statistical information. There are heterogeneous groups of users and their satisfaction is determined by access to useful and understandable types of information. Statistical offices continuously improve within the scope of modern IT tools use and initiating solutions in the area of data visualization.

The optimum use of information from official statistics depends on the communication between statisticians and users. Statistical education and a constant dialogue with users are thus of particular importance. The form and quality of disseminated information determine the recipients' perception of information and their attitude towards official statistics.