# VISION FOR SCIENTIFIC AND RESEARCH ACTIVITIES IN THE NSI

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## 1. Introduction

The vision was elaborated according to priorities in the *"Strategy for Development of the National Statistical System 2013-2017"* and according to long-term prospects for development of the NSI till 2020, respecting the basic principles of quality of statistical processes and products set out in the European Statistics Code of Practice. The main purpose that justifies the need for the development of this vision is the improvement of statistical practice and enhancement of its efficiency.

## 2. Organization

The deployment of scientific and research work and the continuous training of staff in the NSI and the Bodies of statistics are a precondition for building and development of a modern state statistics. Organization and development of the scientific and research activity in the NSI implies and requires a relationship of trust and collectiveness in the performance of tasks. In this connection, it is necessary to:

**A. Establish expert groups on main directions**, which are currently working in various operational departments of statistics, including also the Bodies of Statistics. This will regroup the potential of experts in the NSI for the performance of specific tasks aimed at modernizing and improving the existing statistical system. The creation of expert teams on specific themes of research is the foundation upon which we can build a modern statistics, in line with the global trends. The relationship and cooperation within and between teams ensure high quality of statistical products.

**B. Establish an "elite" group of experts** (no more than 5-6 persons) who, under the authority of the President of the NSI, will determine the policy of the institution in terms of scientific and research activities in the short and long-term time. The characteristics of this policy are intensive (at the expense of extensive) growth; flexibility; increase in capacity; dynamic adaptability; multimobility; multifunctionality and multidimensionality. The need to implement such a policy is necessary because of the emergence and development of a number of dynamic processes in national or international aspect as follows: escalating interdependence between phenomena and processes in the world; globalization; dynamics of the modifications in Europe and the world in all spheres of the economic and social life.

## 3. Priority directions of the scientific and research activity in the NSI

The main priority directions of scientific and research activities in the NSI can be reduced to:

### 3.1. Optimization of production of primary statistical information

**3.1.1. Development of a guideline on theory and practice of sample surveys** with the following sections:

• Probability Theory;

• Theory and practice of sample surveys - classic and new methods for design and planning of the types of statistical sample surveys;

• Analysis of results and representativeness of the statistical sample surveys;

• Techniques for improving the accuracy of estimates from sample statistical surveys.

**3.1.2. Development of a concept for population** - to document the method for formation of the population of units (subjects) from which the samples are selected within the NSI; file structure to work with datasets; right of access to datasets; update datasets.

**3.1.3. Development of methodology for matching data from various sample surveys at micro-level** - possibility to include data from different social and economic surveys (for example SILC, HBS, LFS, EQLS – „European Quality of Life Survey", HFCS – „Household Finance and Consumption Survey", EHIS - „European Health Interview Survey", etc.). The final goal is to obtain data on poverty, employment status, health status of the population and other indicators at national and regional level. This is a real precondition for mapping a number of socially significant indicators - an important information resource for management of the social and economic processes and the definition of targeted policies in health, employment, education, industry.

**3.1. Further development and enrichment of the systems of aggregated indicators**

**3.1.1. Development of a system of indicators for quality of life by means of**:

• using a multipurpose framework of indicators for quality of life - a combination of subjective and objective measures;

• focusing mainly at the individual level: analysis of the relationship between the various measures; measurements of the quality of life for concrete, specific population groups; identification of problem and risk population groups through multipurpose indicators of deprivation;

• defining indicators based on existing data from surveys;

• synthetic indicators (combined, composite indicators);

• development of SILC as a tool for extracting data from other sources.

**3.2. Development of the technology of comparative statistical surveys in static and dynamic aspect at regional, national, and global levels**

**3.3.1. Development of interdisciplinary analysis by themes** including data from different statistical surveys. These analyzes will help to synchronize the information flows and to prevent risk of the emergence and existence of contradictory data on the phenomena and processes surveyed. In this sense, they will largely perform control functions in relation to the logic and meaning of the developed indicators characterizing the economic and social sphere.

**3.3.2. Development of technology to work with Big Data** - combining data from official statistics with large datasets from various sources outside the scope of national statistics. Consequently, the development of new approaches to collecting, combining, processing and analysis of socially significant information from different areas of economy and society.

**3.4. Improving the quality of data from statistical surveys** - to ensure the production and dissemination of statistics complying with the unified quality standards for the entire statistical business process. In practice, this means to perform a complete inventory of the reports on data quality by statistical surveys and to develop rules and methods to ensure the implementation of a new approach to monitoring and controlling the data quality as well as the introduction of a comprehensive system for its management.

**3.5. Provision of statistical confidentiality** - the application of Regulation 223, Chapter V and Regulation (EU) № 557/2013 of the Commission derives obligation to the NSI to take regulatory, administrative, technical and organizational measures to ensure the harmonization of principles and guidelines on physical and logical protection of confidential data. The NSI and other national statistical authorities use confidential data exclusively for statistical purposes respecting the rules on statistical confidentiality. Physical and logical protection of confidential data should be secured within the NSI, while not restricting the usefulness of the data for research purposes. In this sense, it is necessary to respond appropriately to prevent and sanction any violations of the statistical confidentiality.

**3.6. Provision of training to employees of the NSI and the Bodies of Statistics in order to improve the professional qualification and the level of acquired knowledge** - professional training of the employees of the NSI and the Bodies of statistics is essential for the production of high quality information in time. The main emphasis of the training is concerning intellectual work used in the production of statistics. This work outlines the fragments of scientific research, creative approach to problem solving and higher level of general culture.

**3.7. Study and implementation of specialized statistical software and electronic technology as a tool for the development of scientific and research activity in the NSI according to the modern requirements** - modern statistical activity is inextricably linked with computer technology and more specifically with software products of general and specialized use. Working with large datasets, combining information from different sources, carrying out online surveys and application of specific statistical methods of analysis is impossible without the use of specially developed software. In this connection, it is necessary to study the need for such software in order to implement successfully the activities of units (departments and directorates) in the NSI and the Bodies of Statistics.

**4. Conclusion**

The experts occupying key positions in the institution are responsible on the creation and development of a work environment where relationships of trust, motivation and morale dominate. These are the leaders who can and should turn these keywords into real imperative. The positive image and transparency should become the everyday working environment in the NSI. In parallel, a planned and organized process will start to build high level of reputation, prestige and respect of the institution in the society.

Deadlines for the final realization of the targets in the concept should be consistent with the circumstances and conditions that it is intellectual work - a combination of science and creativity. This determines the complexity and difficulty for the criteria and methods for assessment of the required resources of staff, costs and time.

Over the long term, the vision for scientific and research activities in the NSI will be implemented through the development of an action plan with specific tasks, deadlines and responsible persons.