



REPUBLIC OF BULGARIA
NATIONAL STATISTICAL INSTITUTE

REPORT

ON IMPLEMENTATION OF THE NATIONAL STATISTICAL PROGRAMME AND THE ACTIVITY OF THE NATIONAL STATISTICAL INSTITUTE IN 2018

**Adopted by Council of Ministers Decision № 42/25.01.2019
promulgated in State Gazette Issue 17 /26.02.2019**

SOFIA, 2019

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LIST OF ABBREVIATIONS

ASA - Agency for Social Assistance

BAS - Bulgarian Academy of Sciences

CA - Customs Agency

CAIS - Central Automatic Information System

CEA - Classification of Economic Activities

CPEA - Classification of Products by Economic Activity

DG - Directorate General

EA – Employment Agency

EC - European Commission

EP - European Parliament

ESS - European Statistical System

EU - European Union

ExEA - Executive Environment Agency

FMCS - Financial Management and Control System

GDP - Gross Domestic Product

GNI - Gross National Income

HICPs - Harmonised Index of Consumer Prices

HO - Head Office

HPC - Hybrid Private cloud

HPI - Housing price indices

IAU - Internal Audit unit

ICP - Index of Consumer Prices

ICT - Information and communications technology

IPA - Institute of Public Administration

IS - Information System

ISBS - Information System „Business Statistics“

ISMS - Information Security Management System

ISSBS - Information system “Short-term Business Statistics”

MAFF - Ministry of Agriculture, Food and Forestry

MEW - Ministry of Environment and Water

MH - Ministry of Health

MJ - Ministry of Justice

MLSP - Ministry of Labour and Social Policy

NCOP - National Classification of Occupations and Positions

NRA - National Revenue Agency

NRPP - National register of populated places

NSI - National Statistical Institute

NSP - National Statistical Programme

NSS - National Statistical System

NSSI - National Social Security Institute

OECD - Organization for Economic Cooperation and Development

OOHI - Owner occupied housing indices

OP - Operational programme

PPPs - Purchasing Power Parities

RA - Registry Agency

R&D - Research and Development activity

RSO - Regional Statistical Office

RSU - Register of statistical units

SBS - Structural business statistics

SEC - Scientific-Expert Council

SMEs - Small and medium-sized enterprises

STS - Short-term Business Statistics

TR - Trade Register

UN - United Nations

UNSC - United Nations Statistical Commission

UNWE - University of National and World Economy

WG - Working group

INTRODUCTION

The Report on implementation of the National statistical programme and the activity of the National Statistical Institute in 2018 is developed in compliance with Art. 9 (6) of the Law on statistics.

The report is structured into five sections and presents the implementation of the tasks of the National Statistical Programme and the activities of the NSI and Other Bodies of statistics in 2018.

The first section pays special attention to surveys and activities performed for the first time in 2018.

The second section describes the results achieved on implementation of horizontal priorities laid down in the Strategy for Development of the National Statistical System of the Republic of Bulgaria 2013 - 2017, amended by an extension until 2020. Special attention is paid to the first Bulgarian Presidency of the Council of the European Union in the field of statistics as activities and achievements.

The third section presents the implementation of activities on the production of statistical information in the different thematic areas - demographic and social statistics, macroeconomic statistics, business statistics, statistics on agriculture, forestry and fisheries, multi-domain statistics, information technologies, statistical infrastructure and other activities.

The fifth section introduces the audit assignments performed by the Internal Audit Unit and the activities implemented by the Inspectorate and the Finance Controller in 2018.

MAIN EVENTS IN 2018

- **Presidency of Bulgaria of the Council of the European Union** - in the period January - June 2018. **For the first time the NSI led the meetings of the Working Group "Statistics" to the Council of the EU.** The first meeting for the Bulgarian presidency was held on 24 January in Brussels, Belgium. A total of six Working group meetings, eight dialogues and nine technical meetings were held as a subject of discussions were the legislative proposals in the field of demographic statistics, macroeconomic statistics, business statistics and agricultural statistics. Bulgaria hosted a technical meeting of the Trio Presidency of the Council of the EU Estonia - Bulgaria - Austria and an informal seminar of the Directors General of the National Statistical Offices of the Member States on "Next round of Peer reviews". **The balance of the Bulgarian Presidency** - one of the five legislative proposals inherited by the Estonian Presidency at the beginning of the year, is closed and the other four have achieved significant or good progress.
- **Preparation for the 18th Census of the Population and Housing in the Republic of Bulgaria** - The NSI started the preparation of the Population and Housing census in the Republic of Bulgaria in 2021 with the elaboration of a Draft national law regulating the preparation, organization and conduct of the census. The preparation of the Draft law went through three main stages: preparation of an impact assessment; inter-ministerial coordination of the Draft law and submission of the Draft law for approval by the Council of Ministers and its inclusion in the Legislative Programme for the first half of 2019. At the end of November, at its regular meeting the Council of Ministers approved the Draft law on the Population and Housing Census in 2021. The activities carried out ensure that the necessary conditions for the successful implementation of the Census 2021 are in place.
- In 2018, the top management of the NSI set as a priority **the improvement of the information security and the implementation of the Information Security Management System within the NSI according to ISO/IEC 27001.** In order to accomplish this task, a number of activities were carried out, which are a prerequisite for the certification of information security in accordance with the requirements of the standard BDS EN ISO/IEC 27001.
- The National Statistical Institute is **the winner of the 'IT Project of the Year' award** in the field of ICT for 2017 Achievement Contest. The annual competition of the specialized edition "Computerworld" promotes the experience in the development of information solutions of the institutions and companies in Bulgaria. The NSI won a prize in the "Central Administration" category for the implementation of the 'Building Macroeconomic statistics Information System - Financial statistics and non-financial national accounts' project.
- In pursuance of its policy for development of the cooperation with the countries of the European Neighborhood Policy - East Group and the countries of the Balkan region in 2018 the National Statistical Institute hosted two **trainings for young statisticians from six European Neighborhood Policy countries** - Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova and Ukraine, and **for officials from the Statistical offices of Albania, Bosnia and Herzegovina, Kosovo, the former Yugoslav Republic of Macedonia, Serbia and Montenegro.**
- **Agreements on cooperation in the field of statistics** have been signed with the Statistical offices of Belarus and Serbia.
- **The Association of Balkan Statisticians** was restored.

- The National Statistical Institute carried out a number of **initiatives aimed at increasing the interest in statistics and the statistical culture of users**, in particular secondary school students and students:
 - NSI organized and held in Bulgaria **the first European Statistics Olympics for students**;
 - In October **the second European Statistics Olympics for students 2019** began and it will end in May 2019;
 - NSI jointly with Eurostat hosted **a Conference for the European statistical data users in Bulgaria entitled Better Cooperation, Better Data Quality**.

I. DONE FOR THE FIRST TIME IN 2018

In the field of **statistical surveys** in 2018 the National Statistical Institute:

- Presented Table 29 from ESA 2010 on current accrued pension entitlements with data for 2015 as well as methodology and metadata to the table provided for users as a new section on the NSI website;
- Participated in a targeted study of Directorate-General „Energy“ for production of data on components on natural gas and electricity prices of households and final non-domestic consumers for 2016 and 2017 according to the requirements of Regulation (EU) 2016/1952 of the European Parliament and of the Council on European statistics on natural gas and electricity prices;
- Reported data on new statistical survey “District heating and cooling systems” and data on updated survey “Combined heat and power units” in fulfillment of the requirements of Directive 2012/27/EU of the European Parliament and of the Council on energy efficiency;
- Developed Energy balance sheet on a new structure according to the amended requirements of Regulation (EC) № 1099/2008 of the European Parliament and of the Council on energy statistics. As a result, the NSI reported for the first time updated and supplemented data for five-year questionnaires of Eurostat/IEA/UN on energy statistics;
- Published on the NSI website data on producer prices and producer price indices in forestry for the period 2015 - 2018;
- Implemented a web-based application with self-enumeration (CAWI) as a household interview method during the pilot survey on Gender-Based Violence in the framework of the EC project;
- Provided national data to Eurostat on government grants and grants from international institutions for environmental protection for two consecutive years - 2014 and 2015, in fulfillment of Eurostat's priorities for elaboration of new areas for development of environmental economic accounts;
- Provided national data to Eurostat on the import and export of hazardous and non-hazardous waste for 2014, 2015 and 2016 in fulfillment of Regulation (EC) № 2150/2002 of the European Parliament and of the Council on waste statistics;
- Provided data to Eurostat in the field of migration statistics on internal corporate transfers and seasonal workers;
- Collected and published data on computer provision, provision of internet access and availability of concert halls;
- Published a web-based application "Disaggregation of statistics on final energy consumption in industry";
- Issued a publication "Women and Men in the Republic of Bulgaria 2017" in Bulgarian and English.

II. IMPLEMENTATION OF HORIZONTAL PRIORITIES OF THE STRATEGY FOR DEVELOPMENT OF THE NATIONAL STATISTICAL SYSTEM 2013 - 2017, AMENDED BY AN EXTENSION UNTIL 2020

Main direction in the activity of the National Statistical Institute in 2018 was realization of the horizontal and specific priorities of approved by the Council of Ministers in February Strategy for Development of the National Statistical System of the Republic of Bulgaria 2013 - 2017, amended by an extension until 2020. The Strategy reflects national and European needs and is in line with the priorities set out in the European Statistical Programme 2013-2017. The Decision complies with the newly adopted Regulation (EU) 2017/1951 of the European Parliament and of the Council of 25 October 2017 amending Regulation (EU) No 99/2013 on the European Statistical Programme 2013-2017 by extending the programme until 2020 year.

II.1. Priorities to Objective 1: Provision of objective, timely and reliable statistical information on the economic, social and demographic development and environment at national and regional level

Priority 1.1. Provision of statistical indicators for development, monitoring and evaluation of European, national and regional policies

In 2018, statistical data were developed and provided for monitoring and evaluation of national strategies with the thematic scope of the data from all statistical areas. The provision of statistical indicators, developing new and updating of existing indicators are priority activities due to the growing needs of a complex and multidimensional statistical information for the purposes of development, monitoring and evaluation of policies and programmes at national and regional level. More effective cooperation between the NSI and the competent institutions at national level was achieved.

In 2018 the experts from the National Statistical Institute took an active part in the development of a system for monitoring, evaluation and control for implementation of the National Roma integration strategy of the Republic of Bulgaria 2012-2020. A large amount of data, indicators and relevant metadata from different areas of demographic and social statistics were prepared and submitted.

Methodological support was ensured and statistical data were provided in order to monitor and to evaluate European and national policies, such as: Europe 2020 Strategy and National Programme for Development of the Republic of Bulgaria „Bulgaria 2020“; the Operational Programmes and others.

The NSI's representatives participated actively in the work of monitoring committees of the Operational programmes, the standing inter-ministerial Working group on the evaluation of European investment and structural funds and all Working groups within the Council for European affairs.

In 2018, the work on the provision of indicators included in the scoreboard for the establishment of macroeconomic imbalances continued. The indicators are part of the package consisting of six legal acts (five regulations and one directive) in order to strengthen economic governance in the EU. According to regulations, the process of early identification of macroeconomic imbalances begins with the publication of the scoreboard accompanied by report of the European Commission containing an economic and financial evaluation. The scoreboard is an instrument for early warning of the emergence of macroeconomic imbalances, and includes a narrow set of indicators: Current account balance as a percent of GDP; Net international investment position as a percent of GDP; Real effective exchange rates based on HICP deflators; Export market shares; Nominal unit labour cost; House prices

relative to a Eurostat consumption deflator; Private sector credit flow in percent of GDP; Private sector debt in percent of GDP; General government sector debt in percent of GDP; Unemployment rate.

Priority 1.2. Updating the existing ones and development of indicators for surveys on new phenomena and processes

In 2018 the efforts were aimed at optimizing the data collection system, updating existing statistical tools and the methodology of some surveys according to the national legislation and European requirements.

In 2018 the scope of the data provided under the Regulation (EC) № 862/2007 of the European Parliament and of the Council on Community statistics on migration and international protection concerning statistics on residence permits and residents from third countries was extended.

In 2018 an extraordinary comprehensive survey on the activities of community clubs was carried out. Detailed information on organized cultural and creative events was collected.

Priority 1.3. Extending the scope of provided statistical products and services, and strengthening the communication with users

The activities, which the NSI carries out in fulfillment of this priority aimed at enhancing the statistical culture of all user groups, especially of second school students and students, presenting statistical information in accessible and attractive way using innovative approaches and tools for data visualization, undertaking measures so that the Internet to become a major source for dissemination of statistical products and services and active communication with users.

A number of initiatives have been implemented in order to increase interest in statistics and statistical culture of users, in particular secondary school students and students. NSI organized and held in Bulgaria **the first European Statistics Olympics for students**. It was attended by 11 EU Member States. The initiative was aimed at increasing the young people's statistical culture, encouraging their curiosity and interest in statistics and its role in the life of society. The Olympics was held in two rounds - national and European, with two categories of secondary school students: students from the X - XII grade and students from the VIII - IX grade. The competition is team-based, as each team consists of one to three students with a mentor teacher. In the national round of the Olympics, 527 students competed, divided in 194 teams. The six winning teams participated and presented themselves worthy of the European round with two-minute videos, answering the question: "Why official statistics are important to our society?"

In October 2018, **the Second European Statistics Olympics for Student 2019** began, as it will end in May 2019.

The National Statistical Institute jointly with Eurostat – the Statistical office of European Union hosted a **Conference for the European statistical data users in Bulgaria entitled “Better Cooperation, Better Data Quality”**, held at the end of June in Sofia. The event was held within the framework of the Bulgarian Presidency of the Council of the European Union and on the occasion of the 138th anniversary of the establishment of the official statistical institution in Bulgaria. Ms. Mariana Kotzeva, Director-General of Eurostat presented Eurostat's main dissemination policies under slogan: **Putting users first**. At the conference the following topics were discussed: **"Official Statistics - Obvious for Reality"** and **"The Benefits of European Statistics in Analyzing, Decision Making and Monitoring - Good Practices"**. Good practices were presented in the field of dissemination, interpretation and analysis of statistical data, as the role and the importance of European statistics on the development of the state, the business, the science, the non-governmental sector and the society as a whole were highlighted.

Priority 1.4. Establishing conditions for production and integration of spatial (georeferenced) information with statistical information

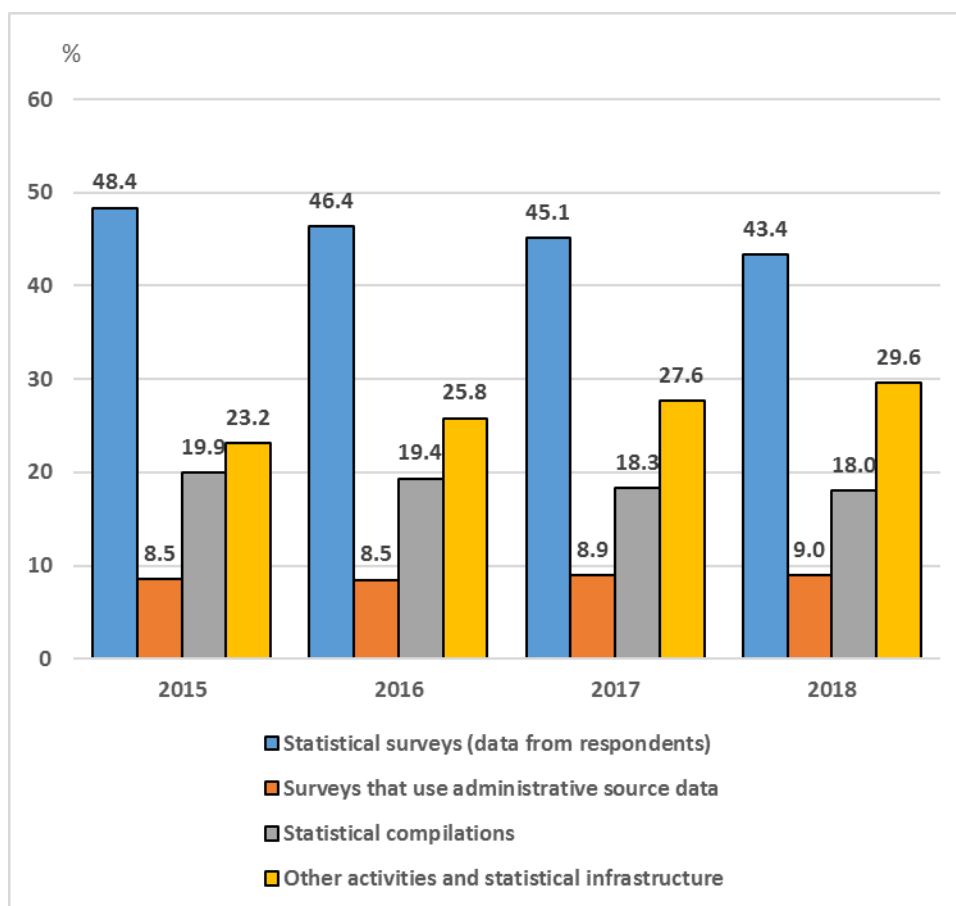
The National Statistical Institute works on its commitments in the field of integration of statistical data, when applicable, in order to create an infrastructure with multiple sources of information to provide spatial-temporal analysis and to expand the use and the dissemination of regional georeferenced statistics.

II.2. Priorities to Objective 2: Implementation of new data sources and instruments for improving the production and increasing the quality of statistical products and services

Priority 2.1. Expanding the use of administrative registers and information systems for statistical purposes

In 2018 the share of surveys conducted by the National Statistical Institute that use administrative source data was **9.0%** (Figure 1).

Figure 1. Distribution of statistical surveys conducted by the NSI by type according to NSP 2018



In order to increase the completeness and reliability of the information data from administrative registers were used successfully in „Survey on Income and Living Conditions” (National Revenue Agency, National Social Security Institute and Agency for Social Assistance) as well as results from the NSI’s survey „Annual statistics on employment and labour cost“.

In order to improve the coverage and quality of the statistical data on income in 2018 the NSI continued to use data from the NSSI as follows: data on the size of pensions received, supplements to pensions and supplementary compensations and benefits by type and by months from the register -,„Pensions“, as well as annual data on recipients of compensations

and benefits under the Social Security Code (Register of compensations). The NSI used also data on insured persons provided by the NSSI. Information from the ASA on the recipients of benefits, as well as information from **the National Revenue Agency** on persons who have submitted annual tax form were used in order to supplement missing information on income and to validate data of „Survey on Income and Living Conditions“.

In the field of social protection statistics - European System of Integrated Social Protection Statistics (ESSPROS), **the National Social Security Institute** provided data on revenue and expenditure by schemes from 01 to 06 (core system) as well as data on pension beneficiaries by schemes and functions (module on pension beneficiaries).

In order to improve statistical production and to increase the quality of statistical products and services in the field of energy statistics in 2018 the efforts were focused on identifying new administrative data sources. The good cooperation continued and administrative data were provided by: Customs Agency, NRA, State Agency “State Reserve and War-time Stocks”, Sustainable Energy Development Agency and General Directorate “Civil Aviation Administration”.

The good cooperation and provision of administrative data for the purposes of environment statistics and accounts continued with a number of institutions: Ministry of Environment and Waters (Enterprise for Management of Environmental Protection activities, ExEA, River Basin Directorates), National center of public health and analyses to the Ministry of Health.

During the year, for the first time, a step was taken towards the development of the **Information system INFOSTAT**. The process of maintaining the relevance of metadata and methodology has been facilitated. The submission in pdf format was replaced by a dynamic extraction of the information through a link to the NSI website, where the current information on the metadata of statistical surveys was published. Towards the integrated service of users an additional functionality has been added in order to send statistical data from the list of standard statistical indicators, which are not available through the module for “Statistical data with free access” of IS INFOSTAT. During the year, **60 173 visits** of IS INFOSTAT were registered.

In order to achieve efficient and secure data exchange within the interaction with other institutions (CA, NRA and NSSI) supporting registers and administrative sources used for statistical purposes, a constant connectivity at database level was established through the united electronic communications network.

Priority 2.2. Using innovative ICT and instruments for collection of primary data

In order to facilitate the respondents and to improve the quality of the collected statistical information during the year, the development and implementation of new Information systems and web-based applications for the needs of different statistical surveys in NSI continued.

In connection with the fulfillment of the NSI's commitments to provide qualitative, timely and widely accessible statistical information, **the Information System “Business Statistics”** was updated with the definition of the 15 statistical surveys in the field of structural business statistics included in the ISBS for 2018, the inclusion into them of new forms or the modification of existing forms. In 2018, the unified entrance for submission of the annual activity reports of enterprises to one place - online at the ISBS, established by the NSI and the NRA, continued to operate as for the first time the non-financial enterprises, the financial enterprises and the non-profit enterprises had the opportunity to submit their corrective annual activity reports electronically to the ISBS. Thus the respondents had to make adjustments themselves if necessary, which contributed to reduce paper document turnover and to shorten data processing time.

During the year, draft terms of reference for development of the **Information System “Foreign Trade”** was prepared. The aim is to optimize production process, to increase control, quality and timeliness of data, to facilitate access of external users to provide online information and to guarantee necessary information security of the system, which will be in compliance with the new requirements of the European Commission.

In 2018 some subsystems of the **Information System “Short-term Business Statistics”** were updated. Thus, the calculated short-term indicators will be in line with the new requirements for short-term statistics.

An update of **the Information system “Consumer Price Index”** was carried out.

A review, an analysis, an assessment of the current state and information provision of the monitoring of the national and European strategies were carried out and a contract with a contractor was signed for development of the software applied for **the Information System “Statistical base and Information system for monitoring of European and national strategies and regional policy”**.

In 2018 the use of **tablets and mobile devices** to collect primary data was extended. As part of the long-term strategy for use of new technologies to accelerate and facilitate processes for collection and processing of data and to ensure good quality, electronic devices were used to collect information for the purpose of the survey „Statistics on Income and Living Conditions“.

Developing **web-based applications** facilitated and accelerated work on the entering and control of data and shortened the deadlines for providing the output data. The applications provide both an easy and convenient way of entering data as well as ongoing control during data entry as well as general control of all input data. Appropriate references are provided in the applications in order to monitor the status of input data, the number of respondents answered and other. Both NSI’s staff (the Head office and the RSOs) and respondents use the applications. The development and improvement of the developed web-based applications continued. They were used for the needs of different statistical surveys in the NSI namely: „In-patient and health establishments“, „Prices and indices of feeding“, „Prices and indices of mineral fertilizers“, „Prices and indices of veterinary medicinal products“, „Prices and indices of producer in agriculture“, „Prices and indices of organic farmers in agriculture“, „Prices and indices of seeds and propagating material“, „District Heating and Cooling Systems“, „ESPROSS - Improvement of statistics on Social Protection“.

Within the project “Testing and piloting survey on Gender-Based Violence” the NSI carried out pilot survey on gender-based violence as for the first time the respondents had the opportunity for self-enumeration by filling out the questionnaire in **a web-based application**.

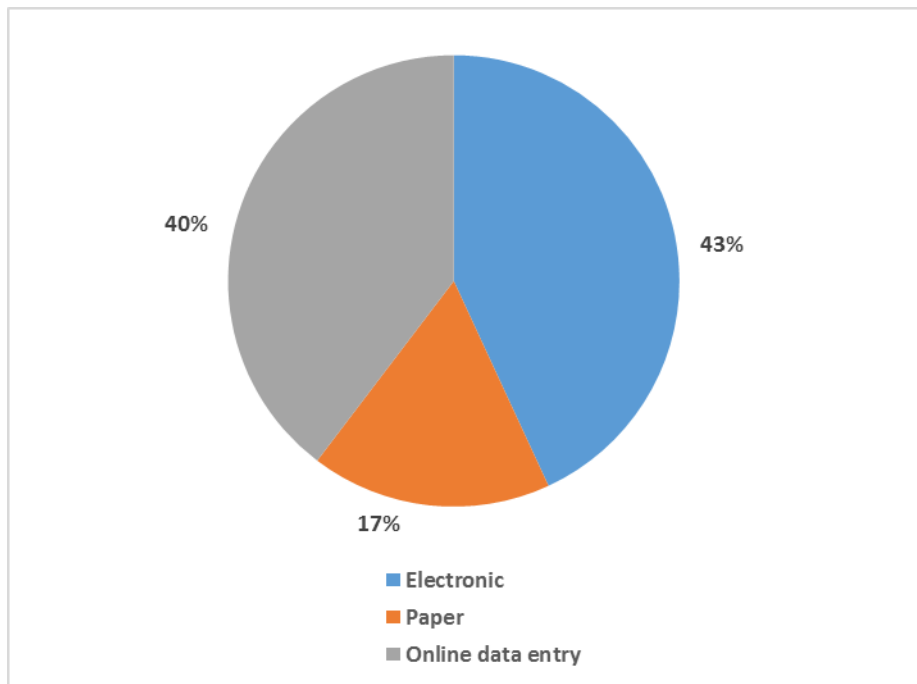
In 2018 within the EC project “Modernisation of the Harmonised European Time Use Survey” **an application** for electronic devices for conducting an interview with households and individuals was developed.

In the area of foreign trade statistics the NSI provided users with interactive reports through **a web-based application** for access to multidimensional databases.

In the area of business statistics the NSI developed **web-based application** “Disaggregation of statistics on final energy consumption in industry”.

In 2018, **83% of the surveys** conducted by the National Statistical Institute in which data collected from respondents **were entered online and by electronic questionnaires** (Figure 2).

Figure 2. Share of electronic questionnaires for statistical surveys conducted by the NSI via data collection from respondents



In order to provide objective, timely and reliable statistics in the field of energy statistics, in 2018 the efforts were aimed at improvement of data collection system, development of new tools and updating the current statistical tools for monthly, semi-annual and annual surveys, which are related to current changes in European legislation.

In May, the NSI participated in the project ESSnet on Big Data I, which resulted in the experimental collection of Big data on the characteristics of enterprises by applying web-scraping techniques and analysis of data collected through machine learning. For this purpose, own open source software was developed and open source software was used produced by the Statistical offices of Italy and Poland. The software is distributed on a sharing platform at GitHub. NoSQL databases for storage Solr and statistical software R for Big data analysis were used.

Priority 2.3. Implementing a systematic approach for quality management and control in NSS

The stable quality management of European statistics is a priority direction in the development of the European Statistical System. Quality management of European statistics requires all Member States to implement effectively the legislation in the field of statistics and principles of the European Statistics Code of Practice.

In 2018, the third annual monitoring on the implementation of the „Action Plan for implementation of the recommendations of the Peer Review in the NSI“ was carried out.

The following activities were carried out in relation to the implementation of Quality management system according to ISO 9001:

- Conducted specialized training for the Head office and the Regional statistical offices related to internal quality auditors according to standard ISO 9001:2015;
- Performed internal audit and recommendations made for adjustments to implemented tool for Quality Management System;
- Carried out GAP analysis of the Quality Management System in three selected “Statistical surveys” Departments - “Statistical surveys” Department – Vratsa (RSO-Severozapad), “Statistical surveys” Department – Blagoevgrad (RSO-Yugozapad) and “Statistical surveys” Department – Stara Zagora (RSO-Yugoiztok);

- Carried out external recertification audit, which resulted in **new quality certificate of electronic services according to the standard ISO 9001:2015 received by the NSI.**

During the year, the NSI continued to develop and provide to Eurostat quality reports for statistical surveys, including quality reports according to the European Standard Structure (ESQRS) in the heading „For users“ and in the newly created sections „Quality reports“ to statistical areas of the NSI’s website.

During this year, the NSI’s experts supported the linguistic translation of the updated European Statistics Code of Practice (CoP) and the Quality Declaration of the Directors General of Statistical offices within the ESS. In September 2018, the updated European Statistics Code of Practice and the Quality Declaration were published on the NSI website in Bulgarian in the special heading “Quality”.

In the field of Short-term Business statistics the efforts were concentrated on further methodological development and improvement of data quality. In 2018, work continued on the assessment, quality improvement and maintenance of comparability of time series, which are among the main advantages of Short-term Business statistics. The samples of enterprises were updated in order to provide sufficient representativeness and to reflect the changes in the structure of non-financial enterprises.

During the year, the NSI continued to develop and provide to Eurostat quality reports for statistical surveys in the field of demographic and social statistics.

In the field of macroeconomic statistics data on GNI for the period 2002 - 2017 year, accompanied by the relevant quality report, were provided.

According to the Regulation (EU) No 691/2011 of the European Parliament and of the Council on European environmental economic accounts and to the Regulation (EU) No 538/2014 of the European Parliament and of the Council the following quality reports were developed: data on air emissions, environmental taxes and fees, expenditure on protection of the environment, environmental goods and services, material flows in the economy and physical energy flows. Pursuant to a Regulation (EC) No 2150/2002 of the European Parliament and of the Council on waste statistics a quality report for data on waste statistics was developed and provided to Eurostat through ESQRS specialized format for online submission of metadata and quality report.

In accordance with the recommendations of the European Court of Auditors to improve the quality of data through the ESS Metadata Handler, a quality report for environment statistics and economic accounts was developed and submitted to Eurostat.

The metadata for statistics on producer prices in forestry was developed and published on the NSI website. The metadata for statistics on agricultural land prices and rent in agriculture was updated.

According to the requirements of Commission Implementing Regulation (EU) No 995/2012 and of Commission Regulation (EU) No. 859/2013 of the European Parliament and of the Council concerning Community statistics on the information society, the quality reports of data on innovations for 2016 and on ICT usage by households and enterprises in 2018 as they were provided to Eurostat through ESQR specialized format for online submission of metadata and quality report.

II.3. Priorities to Objective 3: Enhancing the professional and organizational capacity of the NSI and the Bodies of Statistics

The improvement of statistical production and dissemination of statistical information for users laid down as a leading objective in development of the National Statistical System, is impossible without the participation of key organizational resource, namely human. The

improvement of qualification, flexibility and capacity of the NSI's staff is an important prerequisite for successful implementation of the priorities set in the Strategy for Development of the National Statistical System 2013 - 2017, amended by an extension until 2020. Therefore, in the process of development of Annual Plan on specialized training of NSI's employees in 2018, the specific needs related to the development of the methodology and the enrichment of the content of the existing surveys were taken into account by introducing additional modules and indicators.

The Training plan provided a total of 26 trainings to EU training institutions (Table 1) aiming at supporting the development of partnership and cooperation with other statistical offices through exchange of best practices and experience.

During the year a training was conducted on the model of microsimulation Euromod, at the invitation of the Institute for Social and Economic surveys at the University of Essex, the United Kingdom.

1. Trainings, seminars and courses of employees of the National Statistical Institute in 2018

| Trainings, seminars, courses | (Number) | |
|--|--|-------------------|
| | Conducted trainings, seminars, courses | Employees trained |
| 1. Trainings according to European Statistical Training Programme | 38 | 38 |
| 2. Seminars related to the modernization of surveys included in the National Statistical Programme | 23 | 779 |
| 3. Seminars on projects | 3 | 118 |
| 4. Other courses and trainings outside the Annual Training Plan | 16 | 122 |
| 5. Bulgarian Institute of Public Administration obligatory training | 40 | 40 |
| Total | 120 | 1097 |

The trainings contributed to the production of high quality statistics in line with the international standards, which means internationally comparable and reliable data. The trainings were in the field of implementation of quality management systems, implementation of IT tools, national accounts and usage of administrative data in social surveys.

During the year, twenty-three seminars (Table 1) related to modernization of surveys of the National Statistical Programme were held. A total of 779 employees attended from the NSI's Head Office and RSO's Departments.

In the field of business statistics, the identified priority thematic areas during the seminars were as follows: use of administrative registers and administrative data as well as improvement of scope and quality of primary data on enterprises and calculation of harmonized index of consumer prices. During the year, an expert in the field of energy statistics participated in a training seminar on "Tools for evaluation of the policy of energy efficiency - ODYSSEE-MURE 2015".

In the field of macroeconomic statistics the seminars and courses were related to methodological issues to improve national accounts data. The household energy consumption theme was also discussed. In February a training seminar on "Methodology and Tools for environmental statistical surveys 2018" was held at the Slivek Training Center. It enabled participants from RSOs to acquire additional knowledge about relatively new surveys in this

field and to share practical knowledge and experience.

In the field of statistics on agriculture, forestry and fisheries two seminars on “Improvement of coordination and integration of the National Statistical System in the field of statistics on agriculture, forestry and fisheries” were held. The experts from the National Statistical Institute, the Ministry of Agriculture, Food and Forestry, the Executive Forest Agency, the Executive Agency of Fisheries and Aquaculture, the Bulgarian Food Safety Agency and the State Fund “Agriculture” took part in the seminars. The main objective is to extend the possibilities for usage of administrative data for the purposes of official statistics, incl. the improvement of their quality.

The rest of the seminars on improving the professional capacity aimed at the consideration of the current issues and the practice of applying the Public Procurement Act, as well as the work with specialized statistical products.

Involvement of the NSI in the implementation of European projects on the development of statistical methods and conduction of new surveys was crucial for the provision in the Annual Plan for Project Trainings. As a result, the employees trained amounted to 118 (Table 1).

The NSI’s employees were included in various courses outside the Annual Training Plan in 2018. These courses were aimed primarily at the administrative services and activity of general administration. The organizer of most of the courses was the Institute of Public Administration in the implementation of the project „Capacity building of IPA for studies, education and application of innovative European practices in good governance“.

There was a very useful cooperation between the NSI and the Centre for Human Resource Development and Regional Initiatives to the MLSP in the sharing of good practices in human resource management and implementation of the relevant regulatory framework in the different administrations.

In 2018, the Institute of Public Administration carried out mandatory trainings for newly recruited employees in the NSI according to the provisions of the Civil Servants Act¹ - for civil servants of expert positions and civil servants in management positions – a total of 40 participants from the Head Office and RSOs. The purpose of these trainings is to support the adoption of new roles and responsibilities, which ensure faster and more successful adaptation to the state administration.

Priority 3.1. Establishing a motivating work environment and development of professional capacity of the employees in the NSS

In the dynamically changing conditions in the labour market, development of the employees is an essential prerequisite for the implementation of organizational objectives and tasks. The search and hiring talented people is not a less challenge. The reason is the discrepancy between knowledge, skills and experience that candidates are expected to have, and what they demonstrate in practice.

Overcoming this imbalance is possible by the joint efforts of the academic community and employers. The NSI is a good example in this respect. In implementing the Priority 3.5 of the Strategy for Development of the NSS of the Republic of Bulgaria, 2013 – 2017 (amended by an extension until 2020) the NSI annually attracts trainees from various universities (Sofia University “St. Kliment Ohridski”, University of National and World Economy, Academy of economics “Dimitar A. Tsenov”).

¹ Article 35b of the Civil Servants Act (1) First-time entrants of civil service, as well as the civil servants appointed to a managerial position for the first time, shall be subject to compulsory training. The appointing authority shall be obligated to submit a list of those persons to the Institute of Public Administration within one month after the assumption of position.

The participation of students in organized trainings/practices enabled them to get acquainted with the method of work at the NSI, acquiring valuable work habits and skills. On the other hand, they saw the practical application of knowledge accumulated so far and were able to build valuable professional contacts with their mentors. Similarly, the recent mission of the National Statistical Institute is to become a training center for young statisticians from countries such as Azerbaijan, Armenia, Belarus, Georgia, the Republic of Moldova and Ukraine.

In 2018, the NSI accepted a traineeship of young people from different universities (Table 2).

Table 2. Traineeships conducted at the National Statistical Institute

| University/Organization | (Number) |
|---|------------------------|
| University/Organization | Traineeships conducted |
| University of national and world economy –Sofia | 22 |
| Sofia University “St. Kliment Ohridski” -Sofia | 2 |
| University of Montpellier, France | 1 |
| Tbilisi University, Georgia | 1 |
| Trainees total | 26 |

The duration of traineeships was different depending on the needs of students. The longest traineeship lasted one month and was organized jointly with the Council of Ministers (Programme for summer student traineeships in public administration). The difference herein was that the initial stage of the application and the subsequent administration of the programme were performed by using an online platform.

Priority 3.2. Adapting the organisation of work in the NSS towards contemporary information and communication technologies

In 2018 a direct videoconference between the Head Office of the NSI, the RSOs and the Training and qualification centre “Slivek” was introduced.

The use of the remote work capability of employees is expanding in compliance with all security requirements.

A unified printing, copying and scanning environment was provided for the needs of the employees of Head office of NSI thereby improving the quality of service delivered.

The use of analytical platforms for processing of statistical data SPSS and SAS was improved, as they become an essential tool for processing of statistical data.

Priority 3.3. Cooperation and partnership between institutions within the NSS and users

In order to increase efficiency, to achieve optimal organization and coordination of interaction with the institutions and efficient implementation of defined functions and tasks, the NSI, the bodies of statistics and the other state institutions continued their joint work under the **concluded agreements** during 2018:

- Memorandum of Understanding and Cooperation between the National Statistical Institute and **UN Children’s Fund (UNICEF)**, which includes strengthening interinstitutional cooperation, coordination and interaction, aiming at data collection and data exchange, related to the status of children in the Republic of Bulgaria in fields like healthcare, education, protection, justice, access to social services, etc.
- Agreement for cooperation and strategic partnership in exchange of information with the **Executive Agency for Fisheries and Aquaculture**;

- Agreement with **Bulgarian E-commerce Association**;
- Agreement for cooperation with **National centre for regional development** in order to development of social-economic and demographic analysis of regions in Republic of Bulgaria;
- Renewed and updated Agreement with **University Specialized Hospital for Active Treatment in Oncology** – National Cancer Registry;
- Agreement for cooperation and strategic partnership in exchange of information with the **Ministry of Education and Science**. The agreement aims to increase efficiency, to achieve optimal organization and coordination between the two institutions and improving efficiency when performing their functions and tasks during the production and dissemination of statistical data. The medium term plan is to switch fully to using administrative data sources for the production of statistical data in order to reduce burden on respondents and reduce costs.

The good cooperation between the National Statistical Institute and the Ministry of Interior continues, providing data on car accidents and registered vehicles, which are sought by the users. Another use of the data on registered vehicles is in the sample survey on freight automobile transport.

In 2018 the National Statistical Institute continued to receive, process and publish data also from:

- **National Road Infrastructure Agency** – data on the state road network divided into road class and types of road;
- **National Railway Infrastructure Company** – data on the length of railroads – aggregated for the country and in different regions;
- **Executive Agency “Automobile Administration”** of Ministry of Transport, Information Technology and Communications – data on licensed carriers of passengers and goods for domestic and international transport; data on the number of licensed taxi carriers and the vehicles they own.

Priority 3.4. Establishment of the NSS as an active member of the European Statistical System and the international statistical community

Bulgarian Presidency of the Council of the European Union in the field of statistics

Within the Bulgarian Presidency of the Council of European Union in the first half of 2018 **for the first time the NSI has led the meetings of the Working group “Statistics” to the Council of EU**. The NSI’s Presidency team was formed in time, has completed all mandatory trainings at national level and has started its regular meetings as early as July 2017. All team members have acquired the necessary knowledge and skills.

At the beginning of December 2017 the website concerning the Bulgarian Presidency in the field of statistics was launched and its information supported by the NSI, is protected in compliance with European standards. The website of the NSI is among the three independently developed websites for the Bulgarian Presidency, along with the websites of the Parliament and the National Assembly.

The NSI has not seconded its expert to the Permanent Representation of the Republic of Bulgaria in Brussels, Belgium.

During the six meetings the legislative proposals in the field of statistics were discussed. In addition, **on behalf of the Council the NSI led the tripartite negotiations with**

the European Parliament and the European Commission (Eurostat). In total eight political and nine technical meetings were held.

In accordance with the Bulgarian Presidency programme in the field of statistics the NSI has accomplished the following results on the open legislative proposals:

- **Proposal for a Regulation of the European Parliament and of the Council on integrated farm statistics and repealing Regulations (EC) № 1166/2008 and (EU) № 1337/2011:** The NSI continued the negotiations that were started during the Estonian Presidency, holding one political and one technical meeting, where an agreement was reached on that file. The Regulation was published in EU's Official Journal on August 7th;
- **Proposal for a Regulation of the European Parliament and of the Council on the harmonisation of gross national income at market prices (GNI Regulation) and repealing Council Directive 89/130/EEC, Euratom and Council Regulation (EC, Euratom) № 1287/2003:** The NSI has held one political and one technical meeting, where an preliminary agreement on the file has been reached;
- **Proposal for a Regulation of the European Parliament and of the Council establishing a common framework for European statistics on persons and households, based on individual data collected from samples.** NSI has accomplished a common approach in WP "Statistics" to the Council and has held six political and seven technical meetings, where a preliminary agreement with EP and EC was reached;
- **Proposal for a Regulation of the European Parliament and of the Council on European business statistics amending Regulation (EC) № 184/2005 and repealing 10 legal acts in the field of business statistics:** The NSI has drafted a mutually acceptable text during the Presidency and has reached a preliminary agreement to the large number of articles within the Working group;
- **Proposal for a Regulation of the European Parliament and of the Council on rail transport statistics (recast):** The NSI used the silent approval procedure on the original Commission proposal, as it was accepted without remarks. The regulation was published on May 2nd.

During the Bulgarian Presidency the Commission has approved a new **Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EC) № 862/2007 of the European Parliament and of the Council on Community statistics on migration and international protection.** The NSI went through a written consultation on this proposal and in that manner the NSI has speeded up the examination of this proposal during the Austrian Presidency.

The NSI was also **the host of a technical meeting** of the tripartite Presidency of the Council: Estonia – Austria – Bulgaria, held in January at the Training and Qualification Center "Slivek". In April **the NSI participated in a coordination meeting** of the trio in Talin, Estonia, where the progress on the open legislative proposals was discussed. In June in Plovdiv the NSI officially handed over the Presidency of WG "Statistics" to Austria in the presence of representatives of EC (Eurostat) and the Statistical Office of Estonia.

In May Bulgaria was **the host of the informal meeting** of the Directors General of the National Statistical offices of EU Member states, entitled "Next round of Peer reviews". The event was held within the Bulgarian Presidency of the Council of the European Union and was organised jointly by the Directorate General "Eurostat" of the European commission and by the National Statistical Institute of the Republic of Bulgaria. During the summit the topics, related to the preparation of the next round of Peer reviews – primary tool in order to increase confidence in official statistics were discussed.

Participation of the NSI in the European statistical system

The National Statistical Institute actively participated in all four regular meetings of the Committee of the European Statistical System.

In the reporting period 64 NSI's experts participated in the meetings of 64 work groups. Seventeen experts took part in the meetings of 17 target groups of Eurostat, developing strategic documents, legal acts and new methodologies in the different statistical fields. Eight experts attended six Eurostat's seminars in priority areas for the development of the European statistics.

The NSI sent out 34 experts² to 25 trainings from a total of 56 proposed training courses within 2018 European Statistics Training Programme. All the trainings were completed successfully.

At the beginning of October the President and one of the Deputy Presidents of the NSI participated in the **104th Annual Conference of the Directors General of the National Statistical Institutes (DGINS)**, which was held in Bucharest, Romania. This year the main topic of the conference was "New statistical opportunities and production models deriving from digitalisation of society and Big Data".

Participation of the NSI in International Cooperation

In March the President of the NSI participated in the **49th session of the United Nations Statistical Commission**, held at the UN Headquarters in New York. The Statistical Commission is created by the United Nations Economic and Social Council and supports the Council, as follows: to encourage the development of national statistics and to improve their comparability; coordination of statistical work of specialized agencies; development of the statistical services of the Secretariat; to advise the UN bodies on matters relating to the collection, analysis and dissemination of statistical information; to promote the improvement of statistics and statistical methods in general.

The NSI has the status of **a participant in the OECD Committee on Statistics and Statistical Policy** and in September 2018 it **joined the Recommendation of the OECD Council on Good Statistical Practice**.

In September 2017 the NSI has applied for **associated membership** in the Committee on Statistics and Statistical Policy as the successful completion of the overall process is in compliance with the application of the Republic of Bulgaria for the country's accession to the OECD.

Strengthening regional cooperation

The National Statistical Institute is pursuing a consistent policy for development of bilateral cooperation with the countries of the European Neighborhood Policy – Eastern Partnership (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine), South Partnership (Algeria, Egypt, Israel, Jordan, Libya, Lebanon, Morocco, Palestine, Syria and Tunisia) and the countries from the Balkan region.

In August the NSI hosted an **informal meeting of the Heads of Statistical offices of the countries from the Balkan region** – Albania, Bosnia and Herzegovina, Greece, FYROM, Serbia and Montenegro. The main topic - subject of discussion was the restoration of the activities of **the Association of Balkan Statisticians**. The proposal was supported by

² Data on the number of trained employees is at the beginning of November 2018.

all participants in the meeting, the vision and mission of the association were discussed and the next steps on its registration and future activities were identified. During the meeting a **Memorandum of cooperation in the field of statistics was signed between the National Statistical Institute of the Republic of Bulgaria and the Statistical Office of the Republic of Serbia.**

In July in Minsk, Belarus **an Agreement on the cooperation in the field of statistics was signed between the National Statistical Institute of the Republic of Bulgaria and the National Statistical Committee of the Republic of Belarus (Belstat) signed.**

An **Agreement on the cooperation with the Republic of Moldova**, approved by the Council of Ministers, is in the process of being signed.

Implementing its policy for development of cooperation with the countries from the European Neighbourhood Policy - Eastern Partnership, the National Statistical Institute organized **for the second time a training course** for 24 young specialists from the Statistical offices of Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine. The training was conducted at the end of September – beginning of October 2018 within the framework of the Bulgarian Development Assistance Programme (“Building Administrative Capacity and Democratic Institutions”) of the Ministry of Foreign Affairs of the Republic of Bulgaria. The aim of the Programme is to provide support for strengthening the institutional and administrative capacity of partner countries of the Western Balkans and the Black Sea Region. The organizers of the training were “Methodological and Training Center” Directorate of the NSI and the Centre for Statistical Studies at the University of National and World Economy. The training was held in the facilities in NSI’s Training and Qualification Centre in Slivek, Lovech region and UNWE - Sofia. The topic of the training was “Introduction to the theory and organisation of statistical surveys”. During the course the participants were introduced to practical aspects of the statistical surveys conducted in Bulgaria in the fields of demographic, macroeconomic and business statistics as well as several new methods of data collection, including Big Data.

In December within the framework of the Bulgarian Development Assistance Programme of the Ministry of Foreign Affairs of the Republic of Bulgaria the NSI hosted a five-day **training in the field of statistics** of experts of Statistical offices from Balkan region countries - Albania, Bosnia and Herzegovina, Kosovo, the Former Yugoslav Republic of Macedonia, Serbia and Montenegro. The training, conducted jointly with the UNWE – Sofia was focused on the theoretical and practical aspects of the statistical science and statistical surveys in Bulgaria.

During the year within the framework of **Multi-Beneficiary Statistical Cooperation Programme (IPA 2015) three study visits** were organised:

- At the end of February the NSI hosted a two-day study visit of experts from the State Statistical office of Former Yugoslav Republic of Macedonia in the field of statistics on tourism. The aim of training was to present the Bulgarian experience in the field of statistics on tourism.
- At the beginning of July the NSI hosted a study visit of experts from the Statistical Office of the Republic of Serbia. The aim of the meeting was to present Bulgarian experience in the field of electronic census as a method for data collection during the census.
- In September the NSI hosted a three-day study visit of experts from the State Statistical Office of Former Yugoslav Republic of Macedonia. The aim of the training was to present Bulgarian experience in the field of harmonized indices of consumer prices.

At the end of October 2018 the National Statistical Institute for the first time hosted a study visit within the framework of **MEDSTAT IV programme**, funded by the European Union. The topic of the study visit, organised jointly with the French International Agency for technical cooperation Expertise France was: „Administrative records as main resource for Business registers and statistics“. The representatives from the countries of the European Neighborhood Policy – South Partnership, namely: Egypt, Israel, Jordan, Libya, Lebanon, Morocco, Palestine and Tunisia (with the exception of Algeria and the Syrian Arab Republic) participated in the study visit. The objective of Programme MEDSTAT IV (2016 - 2019) is to improve the quality and coverage of data as well as to promote democratic development by improving the availability, visibility and accessibility of reliable, credible and timely statistics in the countries of the ENP – South.

Participation of the NSI in European projects

The National Statistical Institute successfully continued to perform the tasks associated with participation in projects of the European Commission, as well as projects on a bilateral and multilateral basis with the statistical offices of the Member - States, implementation of projects under the EC programs in the Western Balkans, European Neighborhood Policy and Eastern Partnership. During the NSI successfully completed the implementation of **13 projects**, funded through grants by the European Commission and co-funded by the state budget in the area of macroeconomic statistics, demographic and social statistics, business statistics and multi-domain statistics. During the year the NSI applied and signed contracts with the European Commission for **15 new projects** which are intended to be implemented in the period 2019-2020. The projects are included in the Annual Programme of Eurostat for 2018 and are in pursuance of the new Regulation (EU) 2017/1951 of the European Parliament and the Council of 25 October 2017 amending Regulation (EU) № 99/2013 on the European Statistical Programme for the period 2013 - 2017, extending the Programme up until year 2020. In July an audit of nine EC projects was successfully concluded, according to Eurostat’s Annual plan for ex-post control.

During the current year the implementation of the **project “EU Support to the State Statistical Committee of the Republic of Azerbaijan (SSC) to reach European standards”** has started. The Lead partner is the ICON Institute – Germany, and the consortium includes the Statistical offices of Bulgaria, Germany, Lithuania and the Netherlands. The main objective of the project is to obtain an effective statistical system which supports and monitors the processes of economic reform and contributes for the economic and social development of Republic of Azerbaijan.

In 2018 the NSI continued its participation as a partner in two projects within the framework of **transnational programmes**:

- At the end of April and end of October two workshops were hosted by the NSI within the framework of the project **“Improving institutional capacities and fostering cooperation to tackle the impacts of transnational youth migration” (YOUMIG)**. The experts from Ministry of Labour and Social Policy, Ministry of Education and Science, Ministry of Health, Ministry of Regional Development and Public Works, Employment Agency, Burgas Municipality and the Institute for population and human studies to the BAS participated. Policies and specific indicators, related to the evaluation of youth migration were presented and discussed, as well as developed multi-level models of management of the phenomenon. The project with duration of 30 months is realized within the Danube Transnational Programme (Interreg – Danube Transnational Programme - ERDF) as it is focused on the evaluation of youth migration and measurement of well-being of youth in the region. There are 19 partners participating in the project – local government bodies, scientific institutes, universities and Statistical offices from 8 countries - Hungary, Austria, Bulgaria, Germany, Romania, Slovakia, Slovenia and Serbia. The project’s lead partner is the Hungarian

Central Statistical Office. YOUMIG project aims to foster development of management at a local level and to support municipalities to tackle the challenges related to youth migration by improving the scope of data on migration and exchange of knowledge at transnational level.

- **Project „Innovation capacity boost of Small and Medium-sized enterprises” (SME Innovation Capacity Boost - SMEInnoBoost)**, which is implemented within the framework of Interreg - Balkan-Mediterranean 2014 - 2020 Transnational Program and is aimed at increasing the innovation potential of small and medium-sized enterprises in the region. The Project started in early August 2017 and its duration is 24 months. The main objective of the Project is to boost the transnational innovation capacity of SMEs and to support the creation of sustainable networking formations, including innovation clusters with other SMEs from the Balkan-Mediterranean region, in order to share know-how and to develop innovation through the creation of tripartite partnerships to provide SMEs with relevant data, tools and systems. Partners on the project are the Statistical offices of Bulgaria, Albania and the Former Yugoslav Republic of Macedonia, the National Association of Small and Medium Businesses, the Science and Technology Park of Crete at the Foundation for Research and Technology - Greece, the Institute of Information and Communication Technologies to the BAS, Foundation for small and medium-sized enterprises - Skopje, the Former Yugoslav Republic of Macedonia, the Regional Development Agency of the Korce, Albania; monitoring partners - the Software Engineering and Internet Technologies Laboratory at the University of Cyprus and the Innovation and Technological Development Fund of the Former Yugoslav Republic of Macedonia. Leading partner is the National Association of Small and Medium Business in Bulgaria. Within the framework of the project at the beginning of January the National Statistical Institute hosted an international seminar on the development of a questionnaire and methodology for conducting of statistical surveys on innovative activities of small and medium-sized enterprises in Albania, Bulgaria and Former Yugoslav Republic of Macedonia. The implementation of the action related to development of specialized software for interviewers and provision of technical means for surveys continued.

Participation of the NSI in projects under operational programmes

During the year the National Statistical Institute continued its work on two projects, implemented with the financial support of **Operational Programme “Good Governance” 2014-2020**, co-financed by the European Union through the European Social Fund:

- Project “Building of statistical base and information system for monitoring of European and national strategies and regional policy”. The main objective is the development of statistical framework and procedures for collection of information on monitoring of the implementation of national and European strategies in order to use them in decision making and implementation of policies, as well as to optimise the information exchange with managing bodies of Operational Programmes for the period 2014-2020;
- The project “Aligning of the NSI information assets in accordance with Eurostat requirements and migration to Hybrid Private Cloud” has been completed successfully. The duration of the project was 18 months. The results of the project were presented at a conference, held at the beginning of February 2018.
- Project “Implementation of CAIS “Single entry point” for submission of annual financial statements and statistics in machine-readable format and integration with the NRA, NSI, RA (TR)”.

Priority 3.5. Active cooperation with the academic society in the development of new statistical methods, products and services

The National Statistical Institute pursues an active policy of strengthened cooperation with representatives of the academic society, which is reflected in the activities of the Scientific-Expert council. The SEC is an advisory body to the President of the NSI and includes prominent representatives of the academic society from different universities and institutions as well as leading statistical experts from NSI. With its activity the NSI supports the innovative approach in development of new methodologies and discussions on important to NSI scientific or practical statistical problems.

II.4. Priorities to Objective 4: Implementation of innovative and effective information and communication technologies and e-services

Priority 4.1. Development of information systems and e-services in order to reduce the respondents' burden, increase the quality of statistical information and improve the methods of its dissemination

In 2018 the work on the project "Implementation of CAIS "Single entry point" for submission of annual financial statements and statistics in machine-readable format and integration with the NRA, NSI, RA (TR)" continued. The project is implemented by the NSI under Priority Axis 1 „Administrative Services and e-Governance“. In order to reduce administrative burden as much as possible in the period December 2017 – May 2018 a series of meetings were held with experts from: State e-Government Agency, RA and representatives of the business, especially Institute of Certified Public Accountants, Association of Accountants and the Accounting Companies, Bulgarian Chamber of Commerce and Industry and the Bulgarian Industrial Capital Association. As a result a document was drafted, describing the architecture of a new business model for the realisation of a single entry point for submission of annual activity reports to NSI and NRA and annual financial reports to RA. This business model is designed to optimize working processes, in compliance with current legislation, and allows flexible modeling to ensure their future legal changes without the need of complete reprogramming of a single entry point. A working group at the Ministry of Justice was formed, in order to make suggestions changes in the regulatory framework affecting the operation of a single entry point.

Considering the fact, that the NSI, the NRA and the RA will be the users of data from this system, a series of meetings were held between the NSI, the RA, the OPGG and the MJ regarding the future actions, related to the implementation of project. The accomplished results of the discussions have led to the need of a change of the Road Map for implementation of the Strategy for development of e-Government in the Republic of Bulgaria for the period 2016 – 2020, as the current beneficiary NSI will be replaced with RA.

As part of the State Administration, the National Statistical Institute is obliged to publish public information on the Portal for open data of the Republic of Bulgaria in open, reusable, machine-readable format. In the annually planned expansion of published open data in the field of business statistics and demographic statistics 4 new sets of data were added and their number reached to 42. This year for the first time data in JSON-stat format were published on NSI's site for open data.

Priority 4.2. Implementation of unified European IT tools, products and standards in order to ensure conditions for integration and harmonisation of statistical production process in the framework of ESS

The process of implementation of the SDMX standard for data exchange in new

statistical fields continued. During the year the transition from standard SDMX 2.0 to standard SDMX 2.1 was carried out. The NSI continued to support software for web-based services for dissemination of statistical data in SDMX format. The SDMX-RI software is developed and granted by Eurostat.

The NSI continued successfully to use the Single Entry Point of Eurostat for data exchange of statistical data EDAMIS (Electronic Dataflow Administration and Management Information System), which guarantees secure data exchange of confidential data. During the year the exchanged data was marked with levels of confidentiality, availability and integrity according to the Classification of information of NSI.

The open data of NSI were experimentally converted in RDF (Resource Description Framework) format.

Priority 4.3. Increasing the effectiveness and allocation of resources in the Data center by implementation of best practice and technologies for infrastructure management.

The core of communications infrastructure was completely redesigned and the active equipment met the new standards for performance, reliability and security. In 2018 the construction of the new NSI data center completed. The migration of equipment into the new data center implemented successfully without seriously interrupting the provision of information services to citizens and employees.

The NSI is in the process of preparation for the information security certification in accordance with the requirements of ISO/IEC 27001 standard which should be implemented by the end of 2018. In order to achieve that the NSI applied and was approved to work on EC project “IT security improvement in the ESS for the exchange of confidential statistical information”, which was concluded successfully in September 2018 with the implementation of the Information security management system and internal audit (ISMS). For the effective functioning of ISMS two governing bodies were created: Expert technical committee and Information security committee, in which representatives of all directorates of the NSI’s Head office and directors of the RSOs are involved.

The local network was completely redesigned and segmented at the NSI Head Office and modern active equipment was installed. Specialized premises for the Data Center were built in accordance with the requirements of the standards for security and data protection.

Priority 4.4. Development and upgrading of server and communication infrastructure and personal equipment in order to ensure the ICT development and provision of new services.

The successfully implemented project “Aligning of the NSI information assets in accordance with Eurostat requirements and migration to Hybrid Private Cloud” ensured favourable conditions for developing, building and implementing of “Information security management system in the NSI”. The NSI information assets were aligned with requirements of the standard ISO/IEC 27001:2013 „Information Security Management System”, in regard to provide server infrastructure, data storage infrastructure, software for creation and management of backups and network components.

II.5. Priorities to Objective 5: Harmonization of the data collected and adoption of common data quality standards that will enable to link different business, social and macroeconomic statistics, to increase the value of the information collected and to extend its use.

During the year the process of developing standardized quality reports in ESQRS format (according to SDMX format) for new statistical fields continues, which contributes to harmonization of data quality reports at ESS level. In addition, all quality reports are stored

and supported in a specially developed for the purpose centralized IT tool, which provides updates of the information for the quality of data on the NSI site in real time, in order to increase the use of statistical products and the awareness of users.

III. REPORT BY THEMATIC DOMAINS

III.1. Demographic and social statistics

Demographic statistics

In 2018 main priority in the field of demographic statistics was the conducting of statistical surveys, included in the National Statistical Programme. The regular processing and production of data from the surveys on fertility, mortality, migration, marriage and divorces continued. They provided the necessary information for calculation of the number and structures of population and main demographic indicators in accordance with the requirements of Regulation (EU) № 1260/2013 of the European Parliament and of the Council on European demographic statistics.

The work continued and the scope of the data provided was extended according to Art. 6 of Regulation No. 862/2007 of the European Parliament and of the Council on “Statistics on residence permits and residents of third countries”.

During the year the population projections for the period 2020 – 2080 were updated. The last projection reflects the changes in the trends in fertility, mortality and migration. The base of the projection is the population in the country as of 31.12.2016, as the projection takes into account the demographic events occurred during 2017. The projected population is divided by sex and age for every year of the period. The published data are for five-year age and calendar periods. In 2018 the NSI updated the population projections by sex and districts in perspective up to year 2080.

In 2018 the work on project „Urban audit 2015”, carried out in the period 2016-2018 was concluded. The aim of the project is to provide reliable, complete and comparable in geographic and temporal aspect information on urban areas on the European continent through collection of large data volumes from different statistical surveys. Bulgaria has participated in data provision since 2004. Within the framework of the project a bilingual electronic publication (in Bulgarian and in English) was published, containing data for the period 2010-2016.

In March 2018 the next phase of the project started, aiming at providing data on urban development and functional urban areas for 2017 and 2018. The action on the project is implemented according to the EC Grant Agreement.

In 2018 active work on EC project “Modernisation of Harmonised European Time Use Survey” continued. The aim is to test new methods and tools in conducting the survey, which could lead to cost saving in carrying out the survey at intervals shorter than ten years, as it is the practice so far.

The NSI’s experts actively participated in project YOUMIG.

In 2018 the NSI’s experts actively participated in data preparation for National Strategy for Roma integration. Detailed data on the Roma population from the Population census 2011 was prepared and presented.

Preparation for the Population Census and the Census of Housing in 2021

The Population Census and the Census of Housing is largest scale exhaustive

statistical survey. It is conducted every 10 years and is the primary source of detailed information on territorial level on the number and characteristics of population, households, housing and buildings in the country. The Population Census and Census of Housing provides data on the number and structure of the population by gender, age, education, economic activity, profession and other demographic, socioeconomic and ethnocultural characteristics.

The Population Census and the Census of Housing also provides data on the number and primary characteristics of the building and housing fund in the country, as well as populations living conditions. The data collected during the census is of equal value to the central and the regional government, business, the scientific community and the non-government sector.

The Population Census and Census of Housing in the European Union in 2021 will be conducted in accordance of the requirements of Regulation (EC) № 763/2008 of the European Parliament and of the Council on population and housing censuses. As a member-state the Republic of Bulgaria is required to follow its provisions and to provide exhaustive data to the Commission (Eurostat).

The necessity to collect additional data for national purposes, the division of functions and obligations of administrations, agencies and persons, engaged in the preparation and conduction of the census, the funding and the provisions of article 18 of the Law on statistics call for the draft and execution of a national law.

In 2018 the NSI started preparing for the Housing and Population Census in 2021 with the drafting of the bill regulating the preparation, organisation and conduct of the census.

During the year and within the framework of the project, complying with the requirements of the Law on legal acts, the following actions were implemented:

Stage one – drafting of a complete impact assessment of the draft of a bill

- Drafting of technical specification for the completion of the impact assesment of the draft of a bill. A survey of enterprises with experience in that area was done and an tender was sent to three enterprises. After the evaluation “LA FIT PLC” was chosen.
- Identifying interested parties - directly affected, indirectly affected and users of information from the draft bill. A consultation document has been drafted pursuant to Annex 3, Art. 26 of the Regulation on the Scope and Methodology for Impact Assessment. The document was published on www.nsi.bg and www.strategy.bg;
- Meetings with the interested parties for the examination and discussion of the consultation document were held as follows:
 - press conference for the media where the aims of the upcoming census were presented;
 - three regional meetings – in Plovdiv on 13.07.2018, in Veliko Tarnovo on 23.07.2018 and in Sofia on 27.07.2018. Representatives of the NSI, RSOs, tellers, controllers, municipal and regional administrators, National Association of the Municipalities in Republic of Bulgaria, regional administrations were present at the meetings;
 - two work meetings in NSI, Sofia on 26.07.2018. The first meeting was aimed at consulting with the administrations, which will be engaged in census of specific groups of people. The second meeting was aimed at consulting with the adminitrations which will provide data from their registers for the purposes of conducting the census;
 - work meeting with experts from the NSI Central Office, where the general concept of a legislation on Census and housing fund 2021 was discussed;

- two work meetings with directors of RSOs, head of departments and other experts that participated in the previous census, where the concept of legislation was discussed;
 - a meeting with representatives of the Commission for Personal Data Protection and Central Electoral Commission.
- Notification letters to administrations with which good coordination and communication is required for the preparation of the upcoming population census, for the purpose of selecting contact persons from each interested administration. In relation to their functions coordination letters were sent to the State e-Government Agency, the Commission for Personal Data Protection and Central Electoral Commission;
 - Online questionnaire for the tellers and controllers, who participated in previous censuses was developed. 1043 invitations were sent and 408 participants replied. The aim of the online questionnaire was to explore the previous censuses participants experience;
 - All suggestions, recommendations and opinions, received during the meetings were collected and processed. The opinions received on the websites www.nsi.bg and www.strategy.bg were included in the report with the corresponding justification for their acceptance or dismissal. The report was published on www.nsi.bg and www.strategy.bg;
 - The prepared document package – Impact assessment report, resume of the impact assessment, results from the meetings, minutes, attending lists and the report on the opinions were sent via an official letter to “Administration Modernisation” Directorate to the CM. Within the set timeframe that same Directorate officially coordinated the Impact Assessment of the draft of the Population Census and Housing Fund bill 2021 without corrections.

Second Stage – inter-agency coordination of the draft of the bill, in compliance with Article 32, (1) of the Rules of Procedure of the Council of Ministers and its administration.

- Drafting of the Population Census and Housing Fund bill 2021, estimated budget and financial statements;
- Conducting an inter-agency coordination procedure;
- At the beginning of October the draft of the bill was presented on the annual meeting of the local government with an emphasis on the functions of the municipalities as a census body and their responsibilities for conducting the process as an important stage of the census;
- Sending of the necessary package of documents to the members of the CM, Agency Directors, National Association of Municipalities and district governors and receipt of the opinions.

Third stage - submission of the draft bill for approval by the Council of Ministers and inclusion in the legislative program for the first half of 2019.

Labour market

In 2018 NSI started conducting the Labour force survey ad hoc module on reconciliation between work and family life, along with the preparation for the 2019 ad hoc module on work organisation and working time arrangements. NSI experts participated in

work groups preparing reports related to the provision of harmonized definitions in the Labour Force Survey, which would be used as a basis for the future framework legislation on integration of European social statistics, as well as the preparation for the implementation regulation for the survey.

In the field of the statistical information provided by enterprises on work wages and labour costs the work on regular annual and short-term surveys on employment and labour cost continues. The data from the four year-long survey “Monitoring of labour costs”, in compliance with Council Regulation (EC) № 530/1999 of 9 March 1999 concerning structural statistics on earnings and on labour costs and Commission Regulation № 1737/2005 of 21 October 2005 amending Regulation (EC) № 1726/1999 as regards the definition and transmission of information on labour costs were sent to Eurostat on schedule.

Regular receiving of information from the Administrative Social Security Register of the National Social Security Institute continues, contributing to the improvement of quality and exhaustiveness of statistical data for employed persons and average work wage.

Education and Lifelong Learning

During the year the regular exhaustive statistical surveys on educational institutions in Bulgaria were carried out in compliance with the requirements of the national and European legislation under Commission Regulation (EU) № 912/2013 concerning the production and development of statistics on education and lifelong learning. The NSI provided data on the joint questionnaires from Eurostat, Organization for Economic Cooperation and Development, and UNESCO for financial and non-financial indicators in the field of education statistics.

The National Statistical Institute actively participates in the project to create and maintain a register of European higher education institutions, managed by GD “Education and Culture” of the EC.

The preparation for the two ad-hoc sample surveys in households (“Adult education survey”) and businesses (“Continuing vocational training of employees”) has started. They are conducted according to a unified methodology in all European member states.

Experts from NSI contributed significantly to the development of an updated strategy for the development of professional education in Bulgaria.

In 2018 the regular surveys on schools and kindergartens included pilot specialized sections to collect information on the availability of gymnasiums and sports facilities. The data was collected in order to help the Ministry of Youth and Sports make strategic decisions to develop school sports.

Throughout the year special compilations of data for the development of the index of human capital were developed at the request of World Bank in order to calculate a part of the UNESCO’s Sustainable Development Indicators.

Culture

In 2018, the NSI carried out regular exhaustive statistical surveys in the field of culture (libraries, museums, performing arts, film production, cinemas, radio, television and publishing activity) based on the methodology compliant to the requirements of Eurostat and UNESCO.

In 2018 an exhaustive survey on the activity of community centers was conducted. Detailed information on the organized cultural and creative events was gathered.

The work on updating the national methodological system of statistics on culture as well as implementing the priorities in the work plan for culture 2015 - 2018 proposed by Cultural Affairs Committee to the Council of the European Union continued.

Public health and health and safety at work

In implementation of Regulation (EC) № 1338/2008 of the European Parliament and of the Council on statistics on public health and health and safety at work, in 2018 the NSI conducted regular statistical surveys providing information in the area of resource statistics of the Health system and deaths by causes.

Data on financial and non-financial indicators in the field of health statistics for joint questionnaires with Eurostat, OECD and WHO were provided.

Pursuant to Regulation (EU) № 328/2011 of the European Commission in the field of statistics on deaths by cause, the NSI sent to Eurostat individual data on deaths and stillbirths by cause for 2016 at the level of the fourth character of the International Classification of Diseases, X revision.

In 2018 NSI has started work on the project “Pre-testing of new variables for future European Health Interview Survey wave”. The goal of the project is a quality and quantity testing of new variables which would be included in the future waves of surveys. The first stage of the project – “Quality testing of questions from areas Disabled persons, Children’s Health, Patient Experience and Nutritional Habits was successfully completed.

The National Center of Public Health and Analyses (NCPHA) to the Ministry of Health has completed all the statistical surveys and activities included in chapter II of the National Statistical Programme (Plan for statistical activities of the bodies of statistics for 2018) in compliance with all the parameters set in the NSP: themes of the survey, action and terms of the survey as well as the form of presentation.

Incomes and living conditions

In 2018, the NSI continued the regular collection and publication of quarterly and annual data on Bulgarian households’ income, expenditure and consumption and providing quarterly and annual weights to calculate the harmonized and national consumer price index and national accounts. The Household Budget Survey additionally collected information on kind of trade premises from which the households are shopping and availability of cash receipt for the purchase of goods and services.

On the base of Household Budget Survey data, the NSI calculated Poverty Indicators at national level and by specific groups according to methodology adopted by the Council of Ministers for calculation of the official poverty line in Bulgaria. Poverty line for the country for 2019 was established on the base of these indicators.

The NSI conducted regular panel survey „Statistics on Income and Living Conditions“ (EU-SILC 2017) in implementation of Regulation (EC) № 1177/2003 of the European Parliament and of the Council. In 2018 the module “monetary and non-monetary indicators of poverty, material deprivation and social exclusion” in compliance with the Regulation (EC) № 310/2017 of the Commission. Within the module information on monetary and non-monetary indicators of poverty, material deprivation and social exclusion is collected. In addition, information on three variables on material deprivation, which according to Regulation (EC) № 2256/2015 of the Commission were removed from the list of target variables, will be collected. The aim is to collect data for the last time, which will contribute

for the calculation of the indicator for material deprivation in his current state and to guarantee consistency with the indicator “Risk of poverty and social exclusion” (AROPE) for the last reporting year of the strategy “Europe 2020” in the field of poverty and social exclusion (2008-2018).

During the year the main files with information from the 2017 survey were finalized and sent to Eurostat along with their accompanying indicators for poverty and social exclusion and the longitudinal component 2012-2017 containing household information observed over the last six years.

Social protection

In 2018, the production of statistical data for 2016 under the Core system and the Module on pension beneficiaries completed in accordance with Regulation (EC) № 458/2007 of the European Parliament and of the Council concerning the European system of integrated social protection statistics. The Core system contains data on revenue and expenditure by social protection schemes and by function. The NSI followed the requirements of Regulation (EU) № 110/2011 of the European Commission on the appropriate formats for data transmission, results to be transmitted and criteria for measuring quality in relation to the ESSPROS module on net social protection benefits. The information systems and registers of ministries and institutions governing social protection schemes are the data source for social protection statistics. The National Social Security Institute provided annual data on the income and expenditures on schemes 01 through 06 (main ESSPROS module) as well as data on pension beneficiaries by scheme, pensions by type and by sex in accordance with the format for transmission of information on Module on pension beneficiaries.

Crime and justice

In 2018, the NSI continued activities related to conducting the regular statistical survey on the crimes, accused and persons convicted (including convicted juveniles). The main accent was the expansion of the scope and the improvement of the quality of used data from administrative source Unified Information System Against Crime maintained by Prosecution Office of the Republic of Bulgaria for the production of statistical data in the field of crime and criminal justice on national level. A representative of the NSI participated in the activities of the The Interdepartmental Board for the Management of the UISAC.

As national coordinator in the field of crime and criminal justice statistics NSI has initiated the creation of an interdepartmental expert work group for the gradual implementation of the International classification of crimes for statistical purposes into practice. It was adopted in 2015 by the 46th session of the UN Statistical Commission, as an international statistical standard for data collection in the field of justice and the process of adapting national data to the requirements of the standard. In the expert group representatives of all major responsible institutions in the country are represented: Supreme Judicial Council, Prosecution Office of the Republic of Bulgaria, Ministry of Interior, Ministry of Justice, General Direction “Sentencing”. A project for a national road map for the activities, related to the process of the implementation of International Crime Classification for statistical purposes and the adaptation of national data to the requirements of the standard and a table of correspondence of articles of the Penal Code and level 1 of the Classification is being developed and discussed.

In 2018 NSI conducted the regular annual survey for the activity of local commission for prevention of juvenile delinquency. The survey is conducted in cooperation with the Central Commission for prevention of juvenile delinquency and an NSI representative

participates in training seminars for secretaries of local commissions with the purpose of improvement of the quality of electronically provided primary data.

During the year NSI has started work on activities, related to the implementation of the EC funded project for piloting survey on Gender-based violence. The purpose of the survey is the testing of the applicability of the Eurostat developed methodology and harmonised questionnaire, considering its future implementation in the statistical practice of all EU member states. Within the framework of the project NSI conducted piloting sample survey “Violence against men and women” among randomly chosen households in 6 regions in the country.

During the year NSI continued to act as a national coordinator in the field of crime and criminal justice statistics, gathering and providing data and metadata from Ministry of Interior, Ministry of Justice, Supreme Prosecutors Office of Cassation, Supreme Judicial Council and other institutions to EC, Eurostat, UN, UNICEF, OECD and other international organisations.

In 2018 NSI in cooperation with the responsible institutions in the country provided national data on the persons assisting foreigners to reside or to pass through the country in violation of the law in relation to a EC survey on illegal migration and also participated in the preparation and verification of the data for the publication “Global Homicide Report” of the United Nations Office on Drugs and Crime“.

NSI in cooperation with the Prosecutors Office of the Republic of Bulgaria and the Ministry of Interior provided information for a questionnaire of the EC, DG Migration and Home Affairs, related to a survey in the member states on the availability, comparability and concurrence of administrative data on registered crime and data at all stages of the criminal proceedings (pre-trial and judicial proceedings).

III.2. Macroeconomic statistics

Annual economic accounts

The main tasks in the field of national economic accounts were related to the timely development and provision of data under the Eurostat National Accounts Data Submission Program. The work continued on methodological development and improvement of data quality as well as on increasing the degree of harmonization with the EC regulations and shortening of the deadlines for data provision. The NSI continued regular production of annual data on GDP and its components by three methods - production method, method of income and method of final consumption expenditure. Annual data on employment and hours worked, regional accounts, quarterly and annually accounts by institutional sector were developed and published. Additional indicators were developed – part of the each sector’s national accounts.

The NSI took active part in joint projects with Eurostat and EU Member States in order to provide optimum methodological compliance of the indicators of national accounts between the Member States.

The work on development and improvement of financial national accounts continued in 2018. Data for 2017 were developed and provided in 2018 in pursuance of Eurostat’s program on data provision in the field of national accounts. On the basis of existing derogations data on transactions from 1995 were developed and provided.

In 2018 the work on the EC project “National accounts and Balance of payments”, regarding the improvement of the GNI data, development and provision of additional

indicators in the field of financial national accounts and report – description of the sources and methods for quarterly national accounts, continues.

Quarterly accounts

The NSI continued regular production of quarterly data on GDP and its components by three methods - production method, method of income and method of final consumption expenditure.

The NSI continued to develop and publish data on: GDP at 42 - 45 days, and 60 days after the reporting period. In addition the development and publishing of data on employment and hours worked has continued.

Government finance statistics

The efforts in the field of government finance statistics were orientated towards further methodological development and improvement of the data quality.

The NSI continued to work on reporting Notification tables on deficit and debt of General Government sector semiannually - preliminary and final data. Data for the period 1997 - 2017 were developed and provided in accordance with ESA 2010.

The work continued on development and publication of monthly, quarterly and annual data on the deficit of EU Member States in accordance with the obligations under the Council Directive 2011/85/EU.

According to the requirements to provide additional data pursuant to Directive 2011/85/EU, the work continued on provision of information on an annual basis for nonperforming loans to “General Government” sector; obligations of state-owned enterprises and government involvement in the capital of enterprises as a percentage of GDP.

Revised data according to ESA 2010 were developed and submitted in compliance with the Eurostat’s program on data provision in the field of national accounts:

- Table 2. “Main macroeconomic indicators for General Government sector” for 2017;
- Table 9. „Taxes and social contributions by type and subsectors of General Government” for 2017;
- Table 11. „General Government expenditure by function” (COFOG) for 2017 ;
- Table 25. „Quarterly non-financial accounts of General Government sector”.

Monitoring own resources

According to Art. 2, paragraph 2 of the Council Regulation (EC, Euratom) № 1287/2003 of 15 July 2003 on the harmonization of Gross National Income at market prices, each year before 22 September, the Member States are obliged to provide the European Commission (Eurostat) in the context of national accounting procedures with figures for GNI and its components. The main tasks in the field of monitoring own resources referred to data provision on gross national income, report on data quality and description of the sources and methods used to develop the data.

The NSI developed data on weighted average VAT rate for 2017 based on the developed methodology and calculation of the weighted average VAT rate in accordance with Art. 4 of Council Regulation (EEC, Euratom) № 1553/89 of 29 May 1989 on the definitive uniform arrangements for the collection of own resources of the EU on the basis of value added tax and “Manual of administration of the European Communities’ own resources in the Republic of Bulgaria” by the Ministry of Finance.

Consumer prices

The main working priority was to conduct monthly statistical surveys on consumer prices, which provided necessary information for calculation of **National consumer price index, Harmonised Index of Consumer Prices and Price Index of a Small Basket** of 100 goods and services considered socially useful and vital for living for the 20% of households with lowest income, and the HICP at constant tax rates (HICP-CT) and HICP administrative prices (HICP-AP)

The work proceeded on improving the methodology, design and production of consumer price indices in relation to compliance with the European and international standards. In 2018 the sample of outlets for monitoring was updated, the selection of goods and services included in the consumer basket was improved and the scope of some sub-indices was expanded

The statistical weights system for the construction of consumer price indices was improved. The NSI extended the usage of information from additional sources in accordance with the requirements of Commission Regulation (EU) № 114/2010 as regards minimum standards for the quality of HICP weightings.

The quarterly statistical surveys of housing prices provided the necessary information to calculate the housing price indices and the owner occupied housing indices. In 2018, the activities continued on constructing the owner occupied housing indices that comprised price indices of houses, which are new for “Households” sector; price indices of services associated with the acquisition and ownership of dwellings; price indices of insurance related to the dwelling; and price indices of major repairs and maintenance of dwellings. The NSI continued the regular submission of these indices to Eurostat.

Within the EC’s pilot projects, the NSI continued the work on the improvement of the pilot system for producing housing sales indicators (Housing Sales Indicators - HIS) with aim to provide regular quarterly frequency and detailed information (by region, new and existing housing) and the existing system for production of HIS for the purpose of experimental calculation of detailed HIS (urban areas, rural areas, resorts).

The NSI completed the activities planned under EC’s projects in connection with the implementation of methodological and practical improvements and improvements in HICP. Pilot studies were conducted on providing access and using scanner data and other data on sales of ECOICOP products in order to register the prices and to use them as a source for calculation of the HICP, and on improving internal consistency of the weights, and the construction of weights for household purchases over the Internet.

The Republic of Bulgaria as a full-fledged EU member, represented by the NSI, continued its participation in the European Comparison Programme of purchasing power parities, the comparative price levels and GDP per capita, which is a part of the current statistical program of the European Commission and is coordinated by Eurostat/OECD.

The NSI’s activity is organized and implemented according to Regulation (EC) № 1445/ 2007 of the European Parliament and of the Council establishing common rules for the provision of basic information on purchasing power parities and for their calculation and dissemination. Regarding the system of quality control used for purchasing power parities, the NSI applied Commission Regulation (EU) № 193/2011.

The National Statistical Institute has achieved the goals laid down in the European work plan for calculating PPPs in 2018, which is annually approved by the Eurostat PPP Standing Working Group.

In 2018, the NSI conducted the planned five price surveys, two of them of goods and services in accordance with coherent European consumer basket: E18-1 „Foods,drinks and

tabacco“ and E18- 2 „Clothing, shoes and personal accessories“. Three special price surveys were carried out: “Health services in hospitals”, “Residential rents in selected real estate agencies in the capital”, „Selected conditional construction sites”.

The necessary additional national statistical information: questionnaires on CPI/HICP - PPP, on housing services (in kind and in value), on non-deductible VAT, on tips, on wages and compensation of employees in General Government by selected professions and occupations and on GDP by 246 main groups of final consumption expenditure, was prepared and promptly transmitted to Eurostat according to work schedule.

Quality and protection of the transmitted individual information has continuously improved by using specialized software tools developed by Eurostat for online work in database regarding PPP. This is due to improvement of methods for data control during prior surveillance period and during several sequential stages of analysis and validation both of input and end results.

The report on the sources and methods used for compiling PPPs was updated and provided to Eurostat within the reporting period.

III.3. Business statistics

Annual Business Statistics

All regular surveys from the NSP in the field of SBS and Foreign affiliates statistics (FATS), production and sales of industrial goods (PRODCOM), foreign direct investments, expenditure on acquisition and the acquired tangible fixed assets, statistics on financial and non-financial enterprises, and annual specific surveys by economic activities were completed exceptionally, according to schedule compliant with the EU regulations. The NSI completed all tasks resulting from contracts, agreements and requests for provision of statistical information from these surveys

In 2018 the successful submission of financial statements through the IT system “Business statistics” continued and new functionality for the submission of corrected financial statements from the respondents was added. NSI experts provided methodological help to the respondents during the financial statement campaign.

In 2018 NSI continued its work on the project “International Sourcing Survey”, its main objective being to implement and tested the revised methodology and tools of the Globalization Measurement Module, which will be included as a mandatory three-year observation in the new Framework Regulation Integrating of Business Statistics (FRIBS).

In 2018 NSI continued its work on improving the quality, objectivness and reliability of the data in the field of PRODCOM statistics on enterprise level via increase of the input(arithmetic and logical) control and strict comparative analysis to verify the priamry PRODCOM data using other administrative data – INTRASTAT, VAT statements etc.

The NSI calculated and submitted to Eurostat product aggregates of the second and fourth number from TEC in order to be disseminated as European statistics in agreement with Eurostat and the Member States at the meeting of the Working Group on PRODCOM in 2018.

In 2018 in the field of the monthly survey “Domestic Turnover” the attention was mainly focused towards improvement of quality of primary data, submitted by enterprises; reducting the burden on enterprises and timely production of monthly statistical information. Activities included enterprise sample optimization, additional input control, additional comparative control and output tables.

The NSI has successfully completed the project "Modernization actions for compiling PRODCOM statistics". The action and the achieved results from the survey, namely the collection, processing and submission of data to Eurostat, are a prerequisite for the achievement of the project goals – preparation for the new PRODCOM requirements in compliance with FRIBS.

During the year NSI experts have contributed for the preparation of the new FRIBS in the field of SBS, FATS and PRODCOM via their reports and opinions on expert level on the recommendations of Eurostat and their participation in target and work groups.

Short-term Business Statistics

During the year, all regular surveys from the NSP (Sales in industry, construction, trade and services, Activity of non-financial enterprises, Producer price in industry and services, Expenditure on acquisition of tangible fixed assets, Construction of new buildings permitted and started) were carried out with high quality, in time and in accordance with the requirements of national and European legislation. All short-term indicators are calculated in accordance with the requirements of the regulations on short-term business statistics, are published at the national level and are transmitted to Eurostat within the specified deadlines and in the required quality.

The institute continued to work on improving the methodology, improving the CBS data quality and evaluation, improving quality and maintaining comparability of time series. The company samples have been updated so that they are sufficiently representative and reflect changes in the structure of non-financial enterprises.

In 2018 the work on the transition to the new baseline 2015 for short-term business statistics (for all short-term indicators that are calculated in the form of indices) was completed. In accordance with Art. 11 of Council Regulation (EC) № 1165/98 the rebased time series with indicators presented in indexes will be published and sent to Eurostat in early 2018

During the year the national IT system for metadata National Process Metadata Structure was developed and improved. It includes all statistical surveys for the short-term business statistics in Bulgarian and in English language.

Due to the change of the definition of the indicator “turnover”, compliant with the requirements of FRIBS, from the beginning of 2017 the formula for the calculation of turnover was changed and correspondingly for the calculation of indices of turnover. The time series for the two short-term indicators (Internal Market Turnover indices and total turnover index) were recalculated back to January 2000 and published in the INFOSAT Information System.

The work on the project “Setting up production processes for new indices of services production – implementation of short-term business statistics”, that started in August 2016 has been completed. The aim of the project was the definition of the process of monthly calculation of the index “Indices of production in trade and services” for all activities that will be included in STS of the FRIBS. Since the beginning of 2018 NSI has started to regularly submit data on monthly indices on the turnover and indices on the production in trade and services to Eurostat.

In 2018 NSI has applied and was approved to work on the project “Setting up production processes for new indices of services production” and improvement of quality of short-term business statistics”. The planned actions in relation to this project are: area 1 – calculation of indices of the volume of sales in wholesale and sales and repairs of vehicles with lower level of details; area 2 – improvement and automatization of the process of production of appropriate deflators for calculation of indices of production and volume in

wholesale in sales and repairs of vehicles for all groups and activities.

Energy Statistics

Work on the specialized statistical surveys included in the NSP 2018 continued in 2018. The energy balances and overall energy balance of the country have been developed on their basis.

All monthly and annual surveys on energy statistics were conducted in accordance with Eurostat methodology, the requirements of Regulation (EC) № 1099/2008, Commission Regulation (EU) № 147/2013 on energy statistics, Directive 2009/28/EC on the promotion of the use of energy from renewable sources, Directive 2012/27/EU on energy efficiency and Commission Regulation (EU) № 431/2014 as regards the implementation of annual statistics on energy consumption in households.

In relation to the changes in the 5 yearly questionnaires of Eurostat/IEA/UN in the field of energy statistics experts from NSI participated voluntarily in the 2 stages of testing of the methodology and functionality of the electronic questionnaires.

The collection of semi-annual data on the prices of electricity and natural gas continued. The data are prepared on the basis of the requirements of the new Regulation (EU) № 2016/1952 of the European Parliament and of the Council on European statistics on natural gas and electricity prices

A new pilot one-time survey themed “Disaggregation of the statistics on final energy consumption (FEC) in the industry sector” - EC project has started. The data was provided via a specifically developed online-based form.

In 2018, experts took an active part in international and national consultations on:

- The proposal for amendment of Regulation 1099/2008 on energy statistics and related changes in five-year and seven-month questionnaires on energy statistics, namely: including new indicators and new energy products, updating existing methodologies, harmonizing definitions and instructions between annual and monthly questionnaires and others.
- The form, content and instructions of the “Combined heat and power units” questionnaire and the new “District heating and cooling system” questionnaire.
- Preparation of several Eurostat Guidelines for reporting monthly, semi-annual and annual data and their validation.
- Draft legislative acts and other documents regulating the „energy“ field, within the framework of the participation in WG 14 „Energy“ at the Ministry of Energy. During the year, experts participated in the meetings of the Eurostat Working Group on Energy Statistics, which elaborates strategic and program documents, draft legislative acts and methodologies in the field of energy statistics;
- Proposal for amendment of Regulation (EC) № 1099/2008 on energy statistics in regard to the updates of the methodology, indices, product, definitions and instructions of the monthly and yearly questionnaires related on energy statistics of Eurostat/IEA/UN;
- Proposal for implementation of EC Decision for granting derogations to Slovakia as regard the provision of statistics pursuant to Regulation (EU) 2016/1952 of the European Parliament and of the Council of 26 October 2016 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC;
- Proposal for implementation of Regulation of the EC as regard the reports for quality of European statistics on prices of electricity and natural gas pursuant to Regulation (EU) 2016/1952 of the European Parliament and of the Council of 26 October 2016 on

European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC;

- Proposal for implementation of EC Decision for granting derogations to Germany, Spain, Italy and Cyprus as regard the provision of statistics pursuant to Regulation (EU) 2016/1952 of the European Parliament and of the Council of 26 October 2016 on European statistics on natural gas and electricity prices and repealing Directive 2008/92.

During the year NSI participated in the following meetings/written consultations in the field of energy statistics:

- WG “Energy statistics” of Eurostat, developing strategic and programme documents, drafts of legislation and methodology in the field of energy statistics;
- WG14 „Energy“ of the Ministry of Energy, reviewing drafts of legislation and other documents in the field of energy.

Transport Statistics

The work on regular annual and short-term surveys included in NSP 2018 in the field of transport continued in 2018.

The collection, processing and submission to Eurostat of data on the rail transport in compliance with the requirements Regulation (EU) 2016/2032 of the European Parliament and of the Council of 26 October 2016 amending Regulation (EC) № 91/2003 on rail transport statistics, as regards the collection of data on goods, passengers and accidents has started.

In the field of transport statistics NSI in cooperation with Executive Agency “Maritime Administration” and Directorate General “Civil Aviation Administration” continued the work on regular preparation and provision of statistical information on the activities of air transport and inland waterway ports and maritime ports. The cooperation between the agencies helped the improvement of the quality of the data via a more detailed verification of the data.

During the year directorate “Ports and Port services” from the EA “Maritime Administration” continued its regular preparation and submission of statistical information on river and sea ports. The collection and submission of data to Eurostat is compliant with the specific provisions and forms of Regulation (EU) № 974/2018 of the European Parliament and of the Council, Regulation (EO) № 1304/2007 of the Commission, Regulation (EO) 425/2007 of the Commission and Directive 2009/42/EO of the of the European Parliament and of the Council. The information, submitted from ports and port operators covers 100% of the activity of river and sea ports in Bulgaria, regarding the processing of goods and passengers.

The EA “Maritime Administration” continued its work on improving the statistical IS PORTSTAT for the collection and processing of data, regarding the flow of goods and passengers through the river and sea ports of Bulgaria, fully compliant with the new recommendations and methodological requirements of Eurostat. At this time the agency, jointly with the NSI is going through the process of preparation and finishing the statistical system in relation to the upcoming Regulation on reports on goods and passengers and accidents in internal water ways.

The NSI continued to assist the Managing Authority of Operational Programme „Transport and Transport Infrastructure 2014 - 2020“ regarding the provision of information on the result indicators under this operational program within the competence of the NSI according to the implementation of general precondition 7 „Statistical systems“ of the Partnership Agreement.

Tourism Statistics

In 2018, NSI timely fulfilled the tasks on provision of regular statistical information for the development of tourism in the country regarding trips of Bulgarian residents in abroad and arrivals of visitors from abroad to Bulgaria, activities of the accommodation establishments, tourist trips and tourism-related expenditure of the population, and tourism satellite accounts. All monthly and quarterly surveys were conducted according to the World Tourism Organization's recommendations and in accordance with requirements of Regulation (EU) № 692/2011 of the European Parliament and of the Council concerning European statistics on tourism and Commission implementing Regulation (EU) № 1051/2011 implementing Regulation (EU) No. 692/2011 of the European Parliament and of the Council concerning European statistics on tourism, as regards to the structure of the quality reports and the transmission of data.

Business register

In 2018 the work on processing and input of data in the Register of statistical units continued from administrative sources continued, for the purpose of providing and supporting the framework for all business statistics surveys in NSI. Data from the TR and Bulstat were received daily and monthly data on the number of socially secured persons was prepared yearly.

On the basis of yearly statistical surveys from 2018 new and updated existing statistical units were defined in the RSU - "enterprises", "local units" and "local units by activity". Their characteristics were updated regularly, using information from the yearly statistical surveys and external administrative sources.

The data on the report for "enterprise groups", included in the yearly report on enterprises for 2017 was processed. Groups of enterprises were formed – basis and a source of data for the update of the Eurogroup register. NSI submitted to Eurostat an aggregate of the Bulgarian legal units, members of enterprise groups on European level, unidentified foreign legal units, participating in multinational enterprise on national level. NSI submitted data on units and connections, describing multinational enterprise groups for 2017 cycle in compliance with Eurostat's schedule.

The scope of the register regarding the different kinds of units – legal and statistical and their corresponding characteristics was examined. The NSI submitted to Eurostat questionnaires on the quality, metadata and development of the RSU.

The RSU continued to provide the full scope of active statistical units "enterprises", "local units" or "enterprise groups" as well as conditions for the formation of samples based on specific criteria for statistical surveys.

The Register of statistical units has been used as the main source of information in preparing the business demography of enterprises, which describes the life cycle of enterprises and presents data on the number of active enterprises, the number of newly born enterprises, the share of survived enterprises, the number of dead enterprises as well as data on change in employment at specific time. Data from the RSU was used in the forming of outputs for registrations and bankruptcies, submitted to Eurostat quarterly.

RSU continued to provide data on signed agreements and at internal and external user requests.

The activities related to profiling of large multinational enterprise groups and data validation in the EuroGroups Register (EGR) have been completed, by using the interactive module EGR IM - Steps towards implementing the definition of statistical units for business statistics and profiling in the framework of the ESS.VIP ESRs project - EC Project

NSI has started work on the "Steps towards implementing the European System of

Interoperable Statistical Business Registers (ESBRs) – EC project and Interoperability Pilots – Steps towards implementing the European System of interoperable Business registers (ESBRs) – EC project.

NSI has signed a contract with a subcontractor for “Archiving and optimisation of the database of RSU”.

External trade in goods statistics

The main priorities in the field of foreign trade statistics that the experts worked in 2018 include: better use of administrative data sources; provision of timely and reliable statistics and improvement of data quality; adaptation of the National System for production and dissemination of foreign trade statistics in accordance with the changed requirements of EU legislation and with the users’ needs of foreign trade data; involvement in Eurostat’s work on discussion of strategic issues concerning the future development of international trade in goods statistics

NSI took steps in order to ensure the full coverage of exports and imports to / from third countries and to ensure the provision of reliable and timely data on foreign trade statistics. Required due to changes in the European legislation changes in the outputs for NSI from the IS of the Customs Agency were discussed and defined. NSI continued to use simplified customs declarations received from the Customs Agency under the Single Authorisation for simplified procedures in other countries

During the year, the NSI continued its work on improving the quality of primary data declared by traders. The NSI’s experts have made direct contacts with Intrastat operators, as well as contacts in cooperation with the NRA. As a result, some inaccuracies in submitted Intrastat declarations were corrected. The NSI provided methodological assistance to the respondents in declaring data in specific cases, which contributed to facilitating business in carrying out monthly obligations for submission of Intrastat declarations.

In fulfilment of its obligations NSI defined the thresholds for declaring and the thresholds statistical value in IS Intrastat for 2019, as well as the types of data that should be declared.

In 2018 NSI and NRA continued their efforts to improve the quality of data, declared from Intrastat operators. Regarding the managed by “Intrastat” directorate control over quality and credibility, daily contacts with enterprises on questions, related to their declared data and identification of IS Intrastat-obliged persons were made. An updated instruction for the submission of Intrastat declarations and other operative documents was developed. Answers to the submitted methodological, legal and IS Intrastat related questions were sent. Employees of the “Intrastat” directorate continue work on the improvement and development of IS Intrastat, which is used by a wide range of users – Intrastat operators and employees. At the beginning of the year trainings for the presentation and discussion of questions and specific cases, related to the IS Intrastat were conducted. The training was conducted for agency employees and Intrastat operators.

Intrastat declared data is being compared to data from other administrative sources from the NRA – VAT and VIES systems daily.

Since 2018 a monthly validation and verification of the declared data on arrivals and dispatches by comparison with the data from other member states in the “COMEXT” database has been started for the purpose of improving the scope and quality of declared data.

In the field of data collection activities by the National Revenue Agency for IntraCommunity trade through IS „Intrastat” during the year more than 160 thousand declarations were accepted and validated (90 thousand declarations by stream „arrivals“ and 80 thousand declarations by stream „dispatches“ through which 7.6 million trade transactions

were declared). The total number of Intrastat operators during the year reached 13.5 thousand, of which 7.3 thousand in streams for "Arrivals" and 6.1 thousand in streams for „Dispatches“.

The activity for improvement the quality of the collected data on IS “Intrastat” continued, by introducing additional rules for validation and verification of the collected data by comparison with data from other administrative sources.

In order to facilitate users of statistical information in disclosure of new monthly data, the NSI prepared and published two press releases on a monthly basis, respectively for trade in goods with third countries and Intra-community trade in goods. The maintenance of means for storage and dissemination of data on foreign trade statistics continued via Information System “Foreign Trade”. The system provides users with direct access to more detailed data than those published in the press releases

To answer the increasing respondents’ needs in 2018 NSI submitted to Eurostat additional data sorted by business characteristics of enterprises, which were prepared via the wider and effective usage of existing NSI data, without increasing the burden on respondents.

In 2018, the NSI’s experts contributed to the overall innovation activity in the field of international trade in goods statistics at European level through participation in leadership, target and working groups of Eurostat. Integration of the provisions for Intrastat and Extrastat in the base act of the FRIBS are key components in cooperating with NRA and CA. Experts from the three institutions participated in developing Eurostat questionnaires and written consultations. NSI experts actively participated in Eurostat’s joint meetings of the target group on exchange of statistical microdata on foreign trade in goods and target group on IT to the ESS.VIP, which are aimed towards the ensurance of reliability and security of the future transfer of microdata between member states.

III.4. Statistics on agriculture, forestry and fisheries

The activity of the Ministry of Agriculture, Food and Forestry on the NSP for 2018 is being carried out by the “Agrostatistics” department to the GD “Agriculture and Regional policies”, which is a body of statistics according to article 3, (2) of the Law on Statistics.

In the year 2018, the two information systems were put into operation by means of which the process of collecting, processing and validating the data from the statistical surveys carried out by the body of statistics

In 2018 the two IS that are used for the process of collection, processing and validating of data from statistical surveys, executed by the body of statistics were put into operation.

- IS for agrostatistics;
- Farm Accountancy Data System .

The implementation of both systems is following the recommendations of the European Commission conducted an audit mission of the Farm Accountancy Data Network in 2011 and 2014 and of the Eurostat peer review held of National Statistical System of the Republic of Bulgaria in 2014.

In 2018 “Agrostatistics” department conducted 21 surveys in the field of crop production statistics, livestock production statistics, fruit and vegetable processing, land use and farm incomes.

In the field of statistics on crop production in 2018 data on sown and harvested territory, average yields and crop production, vegetables, grapes and fruit plants, the activities of fruit and vegetables processing plants and the structure of plantations of certain species in 2017 was collected, as well as data on wheat and barley before the 2018 crop harvest.

In the period June – August a survey on Land cover and land use of the territory in the

country in 2018 (BANSIK'2018) was conducted.

In the field of distribution and realization of animal products surveys on the number of cattle in Bulgaria as of 1 November 2018 and the state of poultry and bee-keeping in Bulgaria in 2017. Monthly and annual data on the activities of slaughterhouses, milk processing enterprises and hatcheries in Bulgaria in 2017 were conducted.

In 2018 the work on the sample survey on the farm structure in 2016(Fss2016), compliant with of Regulation (EC) № 1166/2008 of the European Parliament and of the Council of 19 November 2008 on farm structure surveys and the survey on agricultural production methods and repealing Council Regulation (EEC) No 571/88 and the Grant Agreement with Eurostat. The technical and financial reports were submitted to Eurostat in the middle of 2018.

In 2018 data on the income of farms was calculated via the Farm Accountancy Data System. The purpose of the information is to enable the taking national decision-making and to measure the impact of the Common Agricultural Policy on Bulgarian agriculture.

On the website of MAFF metadata and methodological notes on the surveys in the field of agriculture, conducted by “Agrostatistics” department were periodically updated and supplemented.

The results from the surveys of “Agrostatistics” department were published in the specialized bulletins on the MAFF website, in the NSI’s annual publications– Statistical yearbook and Statistical Reference Book, in the electronic spreadsheets of Eurostat and the FAO and Open data portal websites.

In 2018 experts from “Agrostatistics” department participated in the preparation for the Proposal for a Regulation of the European Parliament and of the Council on integrated farm statistics (IFS).

In relation to the upcoming farm census in Bulgaria a draft of a bill, which will regulate its organization and the way to conduct it.

In 2017, the NSI produced annual data (preliminary and final for 2017) and quarterly data for 2018 (including for the flash estimates) for national non-financial accounts for economic activity “Agriculture, forestry and fisheries” at current and constant prices.

In 2018 NSI produced and submitted to Eurostat:

- annual data on economic accounts for agriculture - first and second estimation of income in agriculture, preliminary data for 2017 and final data for 2016 and first estimation of income for 2018 at current and constant prices in compliance with Regulation (EC) No. 138/2004 of the European Parliament and of the Council;
- annual data on regional economic accounts (at NUTS1 and NUTS2), as well as statistics on unit values in agriculture and “bridge tables” to the national accounts for 2016;
- quarterly and annual data on indices of prices of agricultural production and agricultural input for the period 2015-2017 using the new Eurostat 2015=100 base in accordance with the current Gentleman’s agreement between Eurostat and the Member States in the field of agricultural prices and indices. For national users the quarterly and annual data for the period 2011-2017 were re-calculated using the new Eurostat 2015=100 base;
- data on the average price of agricultural land and rents for 2017 at national level and regional level NUTS1 and NUTS2;
- annual data for 2016 on the European Forestry Accounts;

- annual data for 2017 on Material flow Accounts годишни pursuant to Regulation (EU) № 691/2011 of the European Parliament and of the Council of 6 July 2011 on European environmental economic accounts.

Pursuant to the Release Calendar for statistical information from the reviews of the NSP for 2018, spreadsheets of data and press releases for publication on the NSI website and IS INFOSTAT. In compliance with the deadlines of the Editing Plan for 2018 the spreadsheets with data were prepared for publication in the NSI printed and electronic publications.

The application software for automatic generation of output tables for agricultural producer price indices was updated. As a result of the changes, the process of processing of statistical data was optimized, the quality of statistical information was improved and the time of receiving of end results of the survey was shortened.

In 2018 NSI experts participated in:

- Coordination, production, dissemination and exchange of statistical information on agriculture, forestry and fisheries within the NSC of Republic of Bulgaria(National Council on FADS, WG on preparation of the draft of Law on Census of Agricultural Farms in Bulgaria in 2010);
- NSC of Republic of Bulgaria(National Council on FADS, WG on preparation of the draft of Law on Census of Agricultural Farms in Bulgaria in 2010);
- Fulfillment of NSI's obligations on general precondition 7 "Statistical Systems" from the Partnership Agreement;
- Work group meetings in Eurostat in the field of agricultural accounts and prices and fishery statistics.

III.5. Multi-domain statistics

Business Trends

In 2018, the work on all statistical surveys in the field of business trends included in the National Statistical Programme continued. They are carried out with the financial assistance of the European Commission according to "The Joint Harmonised EU Programme of Business and Consumer surveys". The aim of the program is to provide timely information on the economic analysis and short-term prognosis as a key addition to traditional statistics. Business surveys show how managers evaluate the present and future economic state of the country. The information they provide is up-to-date due to the monthly updates. The data from these surveys can be used as components of advance indicators for analysis and detection of turning points in the economic cycle.

Based on the investment activity in industry data results, data on the investments and investment plans in the sector were published.

The quarterly survey on users provided data on the trends in the development of public opinion on key economic processes and phenomena such as the general economic situation in the country, inflation, unemployment, savings, intentions to make major spending decisions on long-term use objects, and the purchase of a home or a car.

Users of the business trends data are public institutions, the Bulgarian National Bank, the European Commission, the European Central Bank and other.

Indicators for monitoring national and European policies

The NSI provided statistical data on indicators for the implementation of priority objectives in the Strategy „Europe 2020“ and a system of indicators of sustainable development.

In 2018 NSI produced the review “Sustainable Development of Republic of Bulgaria 2005-2016”, involving themes of the system of statistical indicators for sustainable development of EU, operating until 2016.

Environmental Statistics and Accounts

A major priority in the field of environmental statistics and accounts was the improvement of the methodology and the provision of reliable status information, types of pressures and the main trends of the economy's impact on the environment.

The regular statistical surveys carried out provided detailed information in different fields, related to environmental statistics – the amount of emissions generated by the economy, amount of waste generated by the economy and the population (hazardous and non-hazardous, including household and construction waste), the population involved in waste collection services, quantity of released into the market packaging, tangible fixed assets with ecological use, environmental protection and recovery costs by economic activities and directions, produced ecological goods and services, water used and waste water purification, urban waste water purification plants, plumbing and sewage networks built, population involved in water supply, wastewater and sewage services, stock and extraction of underground resources and others.

In 2018 all international obligations of the NSI in the field were completed within the specified deadlines. Pursuant to Regulation (EC) No. 691/2011 of the European Parliament and of the Council on European environmental economic accounts the NSI provided data to Eurostat for the first group of modules: 1) accounts for physical flows of air emissions (including greenhouse gases), 2) material consumption accounts (input/output material flows and changes in inventories in the economy) and 3) accounts for environmental taxes in value terms (national economy revenues from environmental taxes). Pursuant to Regulation (EC) No. 538/2002 of the European Parliament and of the Council data were also reported for the second group of modules: 1) accounts for environmental goods and services, 2) accounts for environmental costs and 3) accounts for physical energy flows.

Pursuant to Regulation (EC) No 2150/2002 of the European Parliament and of the Council of 25 November 2002 on waste statistics in 2018 the NSI submitted to Eurostat data on the generation, removal and disposal of waste by the economy and the population (hazardous and non-hazardous) according to the European list of waste. Source of the data on hazardous waste and treatment facilities is the “Environmental Monitoring and Assessment” Directorate, part of the Executive Environment Agency to the Ministry of the Environment and Water, which is a body of Statistics. The created integrated system of statistical and administrative data provides reliable information for European comparison.

The NSI provided data on the released into the market packaging, recycled and burnt packaging waste, which is part of the reporting package pursuant to European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste. The managing authority is the Executive Environment Agency to the Ministry of Environment and Water.

In accordance with the fulfillment of its obligations, related to national emissions inventory (Directive (EU) 2016/2284 of the European Parliament and of the Council of 14 December 2016 on the reduction of national emissions of certain atmospheric pollutants, amending Directive 2003/35/EC and repealing Directive 2001/81/EC) the NSI provided to the Ministry of Environment and Water data on the emissions in the air generated by the economy. In 2018 the implementation of the new methodology for calculation of the air

pollutant emissions has started, pursuant to the EMEP/EEA air pollutant emission inventory guidebook. NSI experts participated in the review of the data from the national emissions of certain atmospheric pollutants inventory. The data for the emissions were re-calculated starting from 1990, pursuant to the recommendations of the reviewing international team of experts. The development of the methodology and the gradual implementation of the requirements of the new guidebook will continue throughout the next year.

In 2018 the NSI submitted to Eurostat data from 2016 and 2017 for OECD/Eurostat Joint Questionnaire “Inland water” and the regional questionnaire pursuant to the Gentlemen's Agreement in the field of water statistics. The data covers all the quantitative aspects of water usage on national and water source level – availability of water resources, water supply, water usage and sewage waters, population with access to water services etc.

In accordance with the Gentlemen's Agreement in the field of household waste statistics annual data for Eurostat's JQ on the generated and treated household waste, while using the indicators for circular economy were submitted.

In 2018 the NSI aimed its efforts towards developing methodology for the research of new phenomena and processes in accordance with Eurostat's priorities for the introduction of new economic accounts for the environment.

In 2018 the work on the Environmental subsidies and similar transfers- EC project was successfully completed. The newly developed methodology is based on the concept of national accounts. The project was completed on the basis of existing statistical and administrative data without additional burden on the enterprises.

In April 2018 within the framework of the Waste shipment – EC project, data on the import and export of hazardous and non-hazardous waste for three consecutive years was submitted to Eurostat. For the aims of the project statistical data from foreign trade and administrative data from the Executive Environment Agency was used. Methodology for evaluation of the quantity of imported and exported waste through transformation and connection of the data from the Combined Nomenclature to the European waste list was developed. The primary challenge was the differentiation of the categories “waste” and “material”, that had the same code of exported and imported products according to the Combined Nomenclature. In October 2018 a new EC Agreement was signed, for the purpose of further development of the import and export of hazardous and non-hazardous waste statistics.

In 2018 work on the new “Pilot test ecosystem extent and condition accounts in physical units” – EC project has started. The development of the ecosystem accounts as a part of natural capital are among the new priority areas. The project is based on the already existing in the country data on ecosystems, produced within the framework of a series of international projects (KIP INCA, MAES). NSI's primary goal is aimed towards inventory of existing sources of georeferenced data on ecosystems, developed methodologies, integration of administrative and statistical data in a common framework and production of pilot accounts in physical units. The project can be considered an important tool for the acquisition of new knowledge on natural capital and development of accounts, as well as acquisition of skills with spatial information.

In 2018 work on the “Improve methods to assign road transport emissions and energy use to NACE/households for AEA and PEFA” - EC project has started. The project is aimed towards development of methodology for the refinement of evaluation of the emissions, including through usage of additional sources of administrative data (e.g. regarding the parameters of registered vehicles and those that have passed periodical annual check-ups). The produces results should be submitted to Eurostat in 2019.

The NSI presented data on a wide array of indicators on the economy and the effect of anthropogenic activity on the environment, as well as independent thematic research for the National State of the Environment Report, published by Executive Environment Agency to the Ministry of MOEW.

In 2018 the statistical tools on water usage was updated in accordance of the changes of the legislation and requirements of water accounting. As a result of the changes, optimization of the process of collection and processing of statistical data was achieved, as well as improvement of quality and reduction of the burden on respondents.

In 2018 improvements in the structure and content of the publication “Environment” were made. The material was structure in a new way, for the purpose of easier understanding of statistical information by a wider range of users. New themes “Environmental taxes” and “Material flows” were introduced, included with an indicator, measuring the productivity of the resources. This indicator holds the top spot on the “Table of resource efficiency” and is developed within the framework of leading initiative “Europe for efficient use of resources” (Europe 2020).

Housing Fund Statistics

In 2018, the NSI continued the production of data from the surveys on new residential buildings and dwellings, destroyed buildings and dwellings and housing fund.

Regional Statistics and Geographic Information Systems

In 2018, the work on dissemination of regional statistics continued in the thematic rubric “Regional Statistics”.The data published in the electronic publication “Regions, districts and municipalities in the Republic of Bulgaria” were presented at the highest level and in compliance with the survey's methodology and statistical confidentiality. The produced data were from territorial level NUTS 0-3 to settlement level.

In order to answer the specific IT needs of external users, the work on the GIS application for creation of thematic spacial layers of statistical information and the support of digital models of big urban areas continued. During the year the update, based on collected statistical data, of the building and housing fund in the country, as well as the work on digital map-based representation of the results of statistical surveys in NSI issues continued. In 2018 a “Population Grid 2016” was developed, which represents the total number of the population as of 31.12.2016, distributed in a reference grid with resolution 1km²

The NSI participated in the permanent working group to the interinstitutional council on spatial data and the thematic working subgroups „Administrative Units“ and „Address“ as data holder. The NSI is a reference authority on the themes of statistical units and distribution of population of Annex III of the Spatial Data Access Act and Directive 2007/2/EC of the European Parliament and of the Council establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).

Science, Technologies and Innovations

The work on production and dissemination of statistical data for R&D and Innovation continued in accordance with the methodology of Eurostat and the requirements of Commission Implementing Regulation (EU) № 995/2012 of 26 October 2012 laying down detailed rules for the implementation of Decision № 1608/2003/EC of the European Parliament and of the Council concerning the production and development of Community statistics on science and technology.

The data from regular statistical surveys for R&D, on R&D budget costs and for

innovation activities of enterprises were published on the NSI website and submitted to Eurostat within the specified deadlines and with the required quality.

Work on the Statistics on research & development (R&D) and innovation in 2018 (CIS 2018) – EC project has started in 2018. The main goal of the project is to improve the level of harmonization of the national questionnaire on enterprise innovation activity during the 2016-2018 period with the harmonized innovation questionnaire of the EU (CIS 2018) and to form internationally comparable data using new indicators for innovations. As a part of the project action during the year new statistical tools were developed and new scope statement for innovation survey data processing was introduced, which will be conducted in 2019.

Information Society

In 2018 the NSI continued work on the regular annual statistical surveys in the field of Information Society, pursuant to the recommendations of Eurostat and the requirements of Commission Regulation (EU) 2017/1515 of 31 August 2017 implementing Regulation (EC) No 808/2004 of the European Parliament and of the Council concerning Community statistics on the information society for the reference year 2018. The data from these surveys provide reliable and internationally comparable data on the ICT usage in households and enterprises in Bulgaria.

Indicators, assessing the development of Information Society were updated and new variables in relation to the dynamic development of information technologies and services were added.

Specialised training for RSO employees tasked with surveying ICT usage in households and individuals were conducted, during which the aims, tasks and organisation of the 2018 survey were presented and the methods for improvement of the quality of the data were discussed. During the year experts participated in working groups, tasked with drafting opinions, recommendations and reviews, related to the development of strategic and program related documents, draft bills and methodologies in the field of IS.

Annual data on the ICT usage in households and enterprises for 2018 were processed, in accordance with the data quality requirements and published in December.

III.6. Information and communication technologies, statistical infrastructure and other activities

Information and Communication Technologies

The main priority was to increase the capacity and degree of information systems backup by using effective means for storage and restoration of information systems and data from statistical surveys. The NSI applied reliable policies for backup of databases and components of information systems through specialized software and maintenance of a backup media library. Important information from certain workstations was additionally backed up.

In order to facilitate the respondents of statistical surveys the processing of user requests received by the Support center via phone and other channels (e-mail, letters, etc.) continued. The center assisted users on technical and/or methodological problems. The implemented system for management and control of users' requests is a guarantee for timely response to requests.

In view to effective maintenance of actual data on enterprises, the NSI and the Registry Agency implemented replication of data on registries in the Commercial Register and in Bulstat Register. The NSI updated the system for receiving data from Bulstat register

after upgrading the system by the RA. An access to files of traders registered in the Commercial Register was ensured to some NSI's employees via digital certificates.

The NSI improved the exchange of data with other administrations (NRA, CA, NSSI) by using a direct connection through the united network of the state administration, which ensured the security of exchanges and data protection. With the view of maximum protection of individual data in exchange of microdata on intra-Community trade, the NSI communicated with Eurostat and other Member States via the National Gateway of Common Customs Network (CCN).

The NSI maintains the National register of populated places (NRPP) and the General Register of the traders. All changes in territorial and administrative-territorial units reflected in NRPP. The NSI ensured Internet access for references in NRPP. In addition, in order to facilitate other administrations the NSI developed and published on its website up to date version of the Unified classifier of the administrative-territorial and territorial units.

The process of building centralized information systems and building new virtualisation environments continued in 2018.

Development of statistical information systems

In 2018 scripts used to define the surveys were developed, as well as rules for logical control (metadata update). Existing and newly created pdf forms for data input in different forms for annual surveys in 2018 were updated.

In 2018 the development of analytical outputs and specific analyses for various statistical surveys that use the statistical package SPSS Statistics Server (20.0), which is the primary analytical platform in NSI continues.

The work on the support and update of information system "Business Statistics" continues, as well as the work on update, development and exploitation of apps, developed in previous years.

In 2018 the process of gradual re-engineering of existing software apps and migration to centralised systems with decentralised input of statistical forms, using modern technological platforms -.Net, continues.

ICT Infrastructure

The development of information and technology infrastructure was a key priority in 2017 to overcome the technological lag in technical means used in the NSI. Moreover, another key objective was to achieve reliable operation of the information systems and to ensure continuity of the services provided to respondents and users of statistical information

For those purposes, facilities for a modern datacenter, meeting all requirements for storage and protection of data and information assets, were built in the NSI. NSI's experts perform continuous monitoring of the performance of technical resources and information systems building the information structure of the NSI, and carry out maintenance of all components of the IT infrastructure.

The migration of the E-mail service to the new Microsoft Exchange Server 2010 platform has been successful, improving capacity, performance, reliability, and new functionalities. A part of the active communication equipment was replaced, which contributed to the better network connectivity and the fail-safe operation of IS in the NSI.

Replacement of network equipment in RSO and Divisions „Statistical Studies“ is on the way.

One of the highlights of the activity was the administration of operating systems, tools for antivirus protection and installation and updating of software used in the NSI.

Methodology, statistical metadata, classifications and standards

During the reporting year, the NSI continued to work on implementation of the Special standard for data and metadata exchange (SDMX) in the national statistical practice. The NSI transmits reference metadata to Eurostat through web application “National Reference Metadata Editor” (NRME).

In 2018 the loading and storage into the national IT tool for reference metadata repository of National Process Metadata Structure (NPMS) for all statistical surveys continued. This type of metadata describe the technology of the business process for each and every statistical survey, in compliance with the national “Generic Statistical Business Process Model (GSBPM) ver.5.0. In this manner, NSI fulfills its obligations under one of the Peer Review recommendations 2014.

One of the main tasks in 2018 was to keep statistical classifications up-to-date and to provide methodological help to users in their use of statistical and social practices.

For the purposes of statistical processing and continuation of the time series and because of changes occurred in the Combined Nomenclature, the NSI developed code tables of transition. The NSI updated the lists of T and Z codes for the purposes of the PRODCOM survey, and carried out annual update of self-explanatory texts of the Combined Nomenclature (CN) for the purposes of foreign trade statistics and IS “Intrastat” of the NRA.

For the purposes of transport statistics, the NSI developed tables for connection between Unique Classification for transported goods and Classification of Products by Economic Activities and Combined Nomenclature 2018.

In order to facilitate users to use classifications, the NSI developed Rules for the classification of problem cases in Classification of Economic Activities (NACE.BG-2008) and Classification of Products by Economic Activities (CPA.BG-2015), Methodological guidelines on the classification of holding companies and head offices according to NACE.BG-2008 and Guidelines on outsourcing. They can be used as a mean of classifying statistical units, interpreting the Classification of Economic Activities, supporting the statisticians in carrying out statistical surveys and improving comparability in an international perspective.

During the year, the NSI continued its participation in maintenance of the National Classification of Occupations and Positions 2011 (NCOP-2011) and in the update of the list of the names of positions and of the corresponding tables. During the year, an extraordinary update of the List of positions was made due to changes in the legislation of the Republic of Bulgaria.

During the reporting year, the provision of data and metadata continued in accordance with the International Monetary Fund's Special Data Dissemination Standard Plus (SDDS Plus).

Activities related to the ongoing maintenance of the Information System Statistical Classifications, the electronic dictionaries of the statistical terms and the standardization and harmonization of the statistical terminology continued during the year. A "List of the Standard Statistical Indicators for 2018" was prepared.

In the course of the current year, a quarterly bulletin containing analysis of macroeconomic indicators was developed for the NSI management.

The ESSnet project „Big Data Pilots - I, SGA-II” successfully completed, with NSI being an active partner in WP 2 “Web scraping/Enterprise Characteristics”, WP 8 “Methodology” and WP 9 “Dissemination”. This successfully completed project initiated the experimental use of the "big data" approach in official statistical practice. The project has a

practical value as an additional data source for other statistical areas like statistical business register and survey on ICT usage in enterprises.

In May this year, within WP 9, the NSI hosted and co-organized (together with the Belgian Statistical Institute) an international conference on Big Data where the results of the various work packages included in the current first grant agreement (SGA-II) were discussed with all European countries - participants in the project, interested experts, representatives of Eurostat, the European Commission, international organizations, the scientific community and business in Bulgaria. The closing session of the seminar was attended by Mrs. Mariana Kotzeva, Director-General of Eurostat and was devoted to a broad discussion on the influence of Big Data on official statistics and the future of so-called “trusted smart statistics”.

In the beginning of November 2018, the NSI started the work on ‘Big Data Pilots – II’ project which is a natural extension of SGA-I. The NSI expanded its participation and work on the following areas in the field of Big Data: online job vacancies, enterprise characteristics, financial transaction data, innovative tourism statistics and shared online platforms.

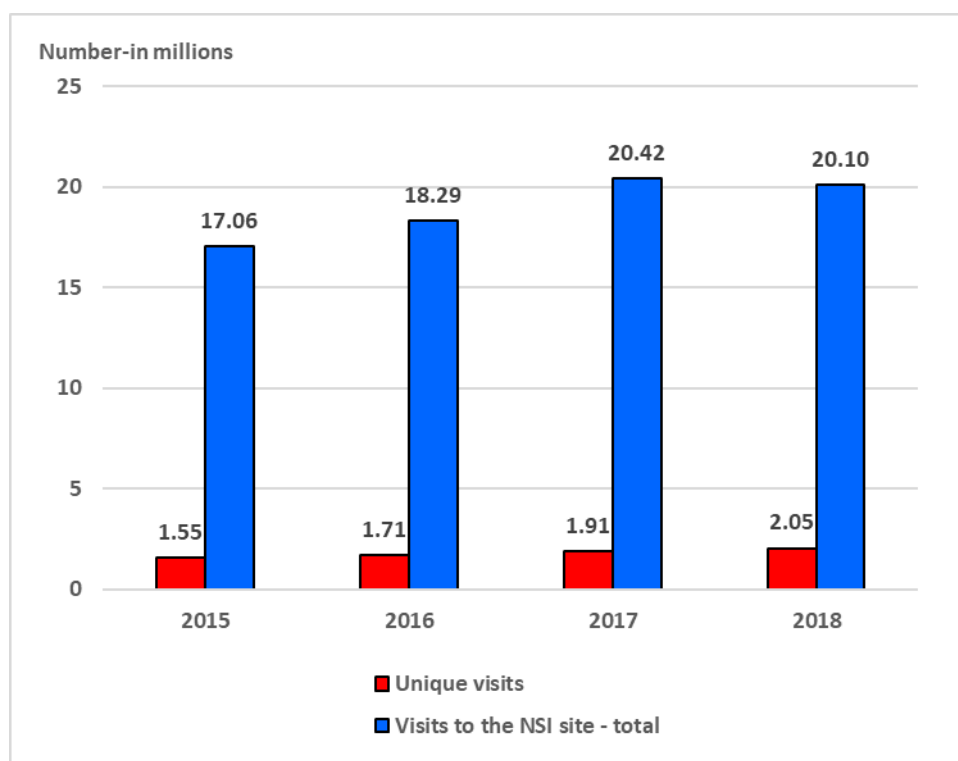
In 2018 the NSI started work on two new directions:

- modeling and forecasting of indicators included in short-term business statistics in order to facilitate the activities on non-financial national accounts;
- improving the quality of Labor Force Survey under a grant agreement with Eurostat.

Dissemination of statistical information

In 2018 the internet sites of the NSI were visited 20 104 362³ times. The number of unique visits reached 2 052 151 (Figure 3), i.e. an average of 6 863 visits per day. March 27 2018 was the day with most visits – 23 377.

Figure 3. Visits to the NSI internet site



At the end of the year, there were 1 368 time series, 1 585 latest data, corresponding metadata and 712 methodological documents in 44 statistical sections available to users in

³ Data on the internet site visits and number of the published materials are as of the end of October 2018.

Bulgarian and English. During the year other materials were also published – 376 press releases in Bulgarian and in English, 124 news (66 in Bulgarian and 58 in English), 1 version of EKATTE, 47 competitions, 51 lists of admitted/not admitted competitors, 3 public contracts, 6 public invitations and 10 tenders.

In 2018, 632 press releases with regional statistical data were published, as the number of visits reached 37 412.

The following new sections and sub-sections containing statistical data were created during the year and some of the existing ones were updated:

- The "Register of Declarations" section was restructured and the declarations of the employees were published under Art. 35, para. 1 of the Anti-corruption and Forfeiture of Assets Act (AFAA).
- Annual report on applications received for access to public information in 2017 was published in "Legal Basis" section.
- New headings "Business surveys" and "Labour force survey" were created in "For respondents" section.
- New subsections: "Pension entitlements in social insurance" in "Macroeconomic statistics" section; "Self-employment - Ad-hoc module to the Labour Force Survey in 2017" in "Labour Force Survey" – "Labour Market" section; "Residence permits for foreigners" in "Demographic and social statistics" section; "Municipal waste by municipalities" in "Environment and Energy" section and "Forestry" in "Agriculture and Forestry" section.

A separate page with information on preliminary public consultations on the preparation of the 2021 Population Census and Census of Housing Act was created on the internet site.

In 2018, the NSI satisfied 4500 single requests for statistical information. The NSI provided statistical information to users in the country (77) and abroad (1) who wished to receive the data from a specific survey immediately after their official announcement (Table 3).

Table 3. Responses to requests for periodical provision of information

| | (Number) |
|----------------------------------|-----------|
| Requests from the country | 77 |
| Monthly data responses | 648 |
| Quarterly data responses | 84 |
| Annual data responses | 3 |
| Requests from abroad | 1 |
| Monthly data responses | 12 |

In 2018, six requests were served in order to provide anonymised individual data for scientific and research purposes in accordance with the Rules for Provision of Anonymised Individual Data for Scientific and Research Purposes of the NSI.

In 2018, the Bulgarian center for European Statistical Data Support to users, part of the European net of user centers, received 19 requests via the web-based tool of Eurostat (ASSIST) and by the NSI email, of which 14 standard requests and 5 unconventional requests sent by students, scientists and other users.

The tradition of publishing **infographics** on the NSI website as well as on the NSI Facebook page has been established. They provide users with statistical information from

different statistical themes in an accessible and interesting way. In the past year, infographics were devoted to the following topics and events: [25 January – Bulgarian Radio Day - The Radio in Bulgaria in figures](#); [14 February - Day of Love and Wine](#); [Accommodation establishments 2017](#); [15 March - World Consumer Rights Day](#); [3 April - Sofia - a symbolic capital of the European Union on the occasion of the Bulgarian Presidency of the Council of the European Union](#); [1 June - International Children's Day](#); [25 Infographics](#), specially developed as an annex to the Statistical Yearbook 2017 on the occasion of the 138th anniversary of the establishment of the statistical institution in Bulgaria.

The publication activity of the NSI was successful over the past year with its new editions as well as with the traditional ones issued each calendar year. The NSI publishes rich in volume and content statistical information in accordance with the high European standards for reliability, timeliness and quality of statistical information. A total of **24 publications – printed** (with electronic version on CD) **and electronic** with total circulation of 34 840 items were presented to the users of statistical information according to the Editing Plan of the NSI. Most of the publications are available in two languages – Bulgarian and English. The publications consist of national and regional data which characterize the population, the economy, the environment, the health, the education, the culture, the tourism and other important sectors. With the publications issued, the NSI strives to meet the expectations and needs of state institutions, businesses and the whole society of objective, useful and qualitative statistical information.

Main publication of the NSI is the **Statistical Yearbook**, which continues the long tradition of presenting a clear and accurate picture of the state and dynamics of socio-economic and demographic processes in the country. The published figures present the contemporary image of Bulgaria and are a reliable basis for both scientific analyzes and forecasts, as well as effective management decisions for future development of the country. The edition also includes an International Review that contains the latest data on the other countries in the world available at NSI at the time of its preparation.

The Statistical Yearbook 2018 contains latest results of the statistical surveys conducted by the NSI, which outline the state and trends in public processes. The included International Review provides an opportunity to compare life and conditions in other countries in Europe and the world.

The publication "**Women and Men in the Republic of Bulgaria 2017**" was issued in 2018. It presents basic data and indicators for women and men in the Republic of Bulgaria in the areas of demography, education, health, labour market, social inclusion, wage structure, decision-making, use of information and communication technologies and the time use. The publication is available in Bulgarian and English.

In 2018, the NSI issued **a publication containing main results of the project “Poverty mapping in the Republic of Bulgaria”** implemented by the National Statistical Institute and the World Bank. The publication is available in Bulgarian and English.

The "Statistics" magazine has its significant place in the general history of the National Statistical Institute. Articles presenting the latest developments in the field of statistical science and practice, the experience and traditions in statistical practice were published in the magazine in 2018. The magazine also contains information from international conferences, symposiums and other meetings on issues of statistical science and practice. The authors of "Statistics" magazine are persons well known in the field of statistics, as well as NSI experts who have a modern vision of the world and Bulgarian science.

The published **Annual Report 2017** confirms that the NSI is a constantly evolving structure towards modernizing the organization and management, the application of new methods and technologies for collection, processing and dissemination of statistical data. The

publication aims to familiarize the general public with the results of NSI activities in the respective year and to promote them.

The NSI publications are oriented towards a wide range of users - government bodies, non-governmental organizations, students, prospective students, as well as the public. The information is presented in an accessible and understandable way.

The periodically provided information to ministries and institutions by a list approved in advance by the NSI President started only electronically - via electronically signed emails.

This year the NSI published advertising leaflets and brochures promoting statistical surveys in different socio-economic areas, as well as a Catalogue of statistical publications with information on publication activity in the next year.

During the past year the NSI prepared a number of **additional publications directly related to the Bulgarian Presidency of the Council of the EU:**

- **Bulgaria in the mirror of statistics** - Bulgarian and English version of a mosaic of curious facts from the country's statistical information, selected from the NSI's rich repository and designed to extend the knowledge of a wide audience of professionals and non-specialists to the multilateral activity of the institution.

- **Statistical Yearbook 2017 in infographics** - bilingual (in Bulgarian and English) annex to the main edition of Statistical Yearbook 2017, in which statistical data are presented through infographics in order to assist users in the daily use of statistical information.

- **Advertising Leaflet "Working Group Statistics"** - non-standard "smart" publication for the activity of the Working Group "Statistics" during the Bulgarian Presidency of the Council of the European Union (1 January - 30 June 2018).

- **Advertising Leaflet "Sofia - capital of the European Union"** - presents key data on demographic and socio-economic development as well as on the educational and cultural institutions of the Bulgarian capital.

The four publications were widely used in communication between the NSI and Bulgarian and foreign users and were highly appreciated by specialized and non-specialized audiences in Bulgaria and abroad.

On the occasion of the **European Statistics Day - 20 October**, the NSI presented the digital publication "The life of women and men in Europe - a statistical portrait 2018", issued jointly by Eurostat, the National Statistical Institutes of the EU Member States and the EFTA countries.

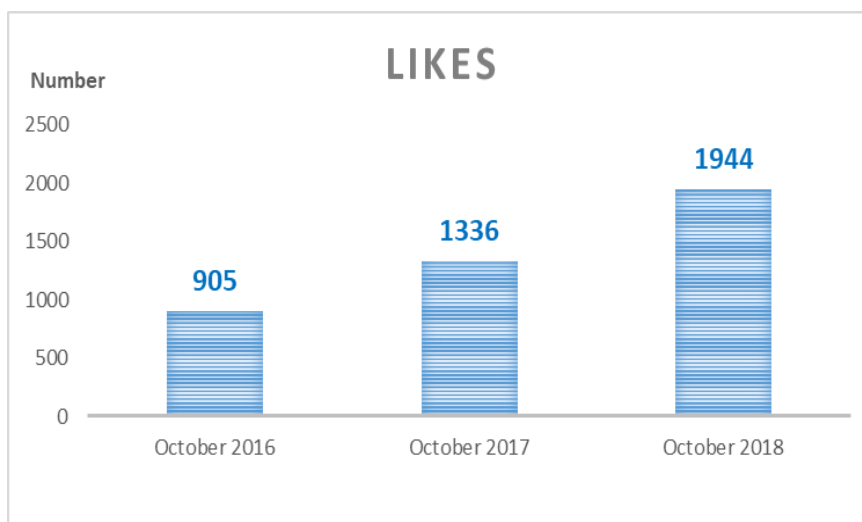
Within the framework of a project for international statistical literacy from the International Association for Statistical Education - the educational section of the International Statistical Institute, the NSI organized a national competition for **International Poster Competition for 2018-2019**. The initiative aims to provoke students' interest in statistical surveys, to develop teamwork skills, interpretation of statistical data, and usage of mathematical and graphical methods to visualize them.

In order to promote statistics and search for a practical solution for a statistical case from the Household Budget Survey, the NSI participated in the **Datathon International Competition** with a wide range of data on income, COICOR expenditure, population by sex, age, economic activity and education, average number of pensioners and average pensions.

The NSI Facebook page became popular channel for communicating with younger users. It provides access to statistical information in an easy and comprehensible way by using innovative dissemination methods. The content of the Facebook page is synchronized with the content of the NSI website - infographics, videos, up-to-date events organized by the NSI, as well as digital publications reaching a record number of likes and engagements are very

popular among Facebook users. The number of users who liked the NSI Facebook page as of 29.10.2018 is 1 944, which is 46% more than the previous year to the same date (1 336) (Figure 4).

Figure 4. Likes of NSI Facebook page



In 2018 the NSI actively participated in the European Statistical System Facebook page, providing 34 articles in English for publication. Four of the shared infographics held top positions in their weekly activity reports in Facebook - Sofia in figures (Sofia-Capital of the European Union), Accommodation establishments 2017, 14 February - Day of Love and Wine, and 1 June – International Children's Day.

From the beginning of 2018, the NSI publishes at the end of each working week a Calendar for dissemination of the results of the statistical surveys with forthcoming press releases for the new week, which is very well accepted by the followers of the page.

In 2018, the NSI began to develop of **video clips**, which present the activity of NSI in an easy and accessible way. Two video clips were published on the Facebook and YouTube channels of the NSI: Births and Births of the Twins 2000 - 2017 and first European Statistics Competition for Students 2017 - 2018 in figures.

An analysis of the activity of users shows that this kind of visualization tools enjoys huge interest among a wider audience of users. In 2018, the most popular posts on Facebook were:

- Posts related to the work of Working Group “Statistics” within the framework of Bulgarian Presidency of the Council of the European Union;
- News related to the first European Statistics Competition for Students 2017 - 2018, as well as the announcement of the start of the Second European Statistics Competition for Students 2018 - 2019;
- Posts, which focus users’ attention to digital publications of Eurostat and their adapted versions in Bulgarian.

The provision of free online access to the digital archives is the main priority of the NSI, as in 2018 **the library’s activities** were traditionally aimed at enriching digital information resources. The creation of user-oriented digital database continued - convert PDF files to PDF pages, to develop contents, full text, and index of digital copies. The processed databases were attached to iLib-browser in the electronic catalogue of the integrated information-search library system. The implemented activities enabled full and free internet

access to the new digital resources. A total of 28 328 PDF digital pages were created and processed. The “Census 1965 Collection”, incl. Census of Housing, was published on the NSI website.

The annual growth rate of users' visits to the digital library is 12.7%, 14 675 visits were registered, 89 764 digital pages were reviewed by users, showing an increase of 71.9% compared to 2017.

The NSI's library continues to hold a leading position nationwide in the field of building, managing and online dissemination of digital information resources.

In 2018 a new questionnaire for **users' satisfaction survey** was developed from the proposed statistical information products and services. The questionnaire is focused on the quality of services and assessment of the ways of dissemination of statistical information. More than 160 questionnaires were filled in online.

Other activities

The NSI developed and provided statistical data on the crisis events occurred in 2017.

IV. RESOURCE ASSURANCE

Personnel

The National Statistical Institute is organized into a Head office and six Regional Statistical Offices. The Regional Statistical Offices perform the functions and tasks of the NSI for production and dissemination of statistical information at the regional level. The Regional Statistical Offices of the NSI are as follows:

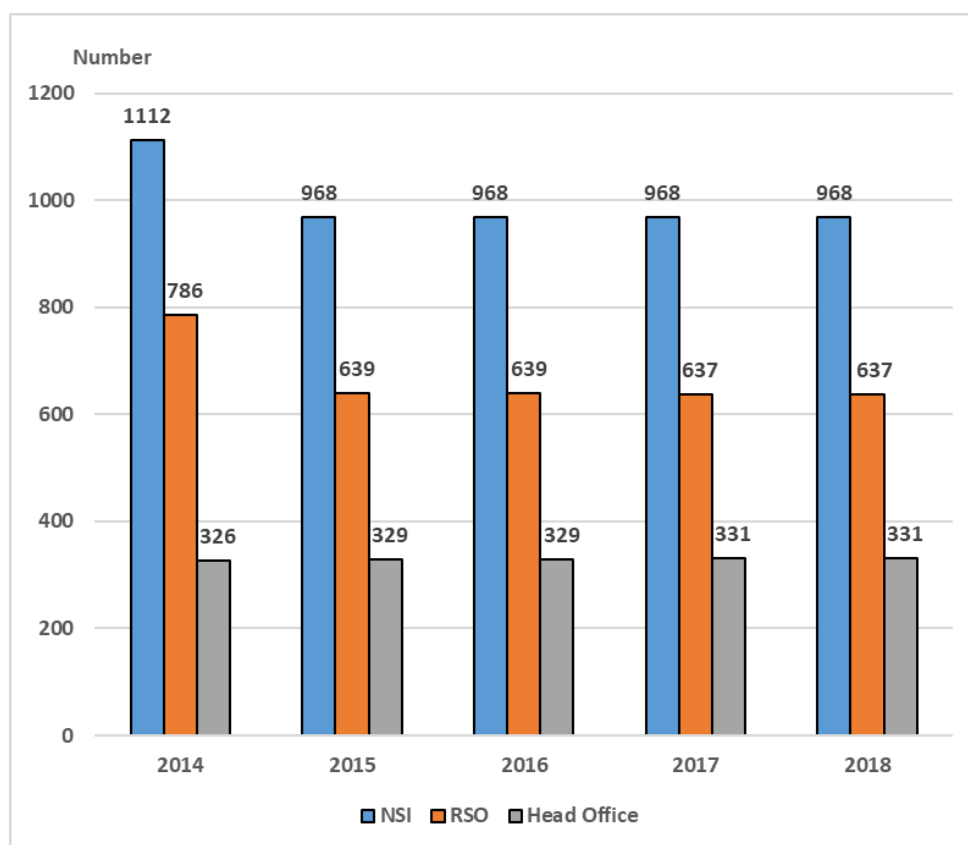
- The RSO - Severozapad
- The RSO - Sever
- The RSO - Severoiztok
- The RSO - Yugoiztok
- The RSO - Yug
- The RSO – Yugozapad.

The structural units in the NSI's Head Office are organized into General administration and Specialized administration according to the Administration Act.

The total number of personnel within NSI's structural units in 2018 was 968⁴, of which 331 on the pay roll at the Head office and 637 - at RSOs (Figure 6). According to the Rules of Procedure of the NSI, the Head Office is organized into seven directorates: “Business statistics” Directorate, “Demographic and Social statistics” Directorate, “Macroeconomic statistics” Directorate, “Multi-Domain Statistics and User services” Directorate, “Information systems and Infrastructure” Directorate, “General administration” Directorate and structures directly subordinated to the President of the NSI: “Methodological and Training Center” Directorate, Expert on Public relations, Expert on security of Information and communications technologies, “Security of Information and DM” Division, “Inspectorate”, Finance Controller, “Internal Audit” Unit and “International Cooperation” Department. Six directorates are in the specialized administration and one directorate – in General administration.

⁴ Staff positions include vacant positions.

Figure 6. Staff positions in NSI within the period 2014 - 2018



Over the last five years, due to the optimization of the structure of the Regional Statistical Offices and the NSI's Head Office and due to the introduction of new organizational approaches in the management of the processes of collection, processing and production of statistical information and in the management of the staff there is no decrease in the employed within the NSI system. For the period 2015 – 2018 the number of staff remains the same.

Carrying out competitions for vacant positions

The organizational changes led to implementation of policies on recruitment of personnel aiming at replacement of retiring employees with young people with perspective thinking, who have just completed their tertiary education or continuing their education in Bulgarian universities. The NSI carried out 58 competitions on vacant positions during the period from the beginning of the year until the end of October. In the NSI's Head Office the competitions were 23 and in the RSOs - 35.

Employees by age groups and by education in NSI

The situation of the National Statistical Institute's staff is presented in Tables 4 and 5, which summarize the structure of total NSI's staff, including for NSI's Head Office and for RSOs.

4. Structure of the employees by age groups in NSI

| Structures | Age groups | | | | | Total |
|-------------|------------|---------|---------|---------|---------|-------|
| | Up to 29 | 30 - 45 | 46 - 55 | 56 - 65 | Over 65 | |
| Head Office | 30 | 115 | 82 | 74 | 8 | 309 |
| RSO | 33 | 203 | 219 | 171 | 0 | 626 |

(Number)

| | | | | | | |
|-----|----|-----|-----|-----|---|------------------|
| NSI | 63 | 318 | 301 | 245 | 8 | 935 ⁵ |
|-----|----|-----|-----|-----|---|------------------|

5. Structure of the employees by education in NSI

(Number)

| Structures | Education degree | | | | | | Total |
|-------------|------------------|--------|----------|-----------------------|---------------------|-------------------|------------------|
| | Doctor | Master | Bachelor | Professional bachelor | Secondary education | Primary education | |
| Head Office | 7 | 254 | 29 | 2 | 17 | 0 | 309 |
| RSO | 1 | 418 | 79 | 9 | 119 | 0 | 626 |
| NSI | 8 | 672 | 108 | 11 | 136 | 0 | 935 ⁵ |

The data show a high level of education among NSI's employees as the share of employees with tertiary education is over 85%. The analysis shows that highlighted trend towards a predominance of specialties with economic orientation persists as they are about 60% of all specialties. Statisticians who work in specialized administration, stand out as the most numerous - 38% of the total on the pay roll. Similar to the other administrations, the predominance of employees in the higher age groups is observed in the NSI.

Table 6 shows the number of employees who are continuing their education as of 2018 in order to acquire a higher education degree.

6. Education of NSI's employees in Bulgarian universities

(Number)

| Type of education | NSI | Head Office | RSO |
|---|-----------|-------------|-----------|
| Tertiary education to obtain an educational degree | | | |
| Doctor | 6 | 6 | 0 |
| Master | 9 | 2 | 7 |
| Bachelor | 6 | 1 | 5 |
| Total | 21 | 9 | 12 |

Budget

The implementation of the NSI's budget 2018 is according to the adopted Law on State Budget of the Republic of Bulgaria for 2018 and adjustments made as of 31.10.2018 (Annex 1).

The planned revenues are implemented according to the specified plan as of 31.10.2018 - 40%.

The implementation of the total expenditure for the same period amounts to 71%, including current costs (wages, salaries and other payments to staff and maintenance) - 77%.

V. INTERNAL AUDIT AND ADMINISTRATIVE CONTROL

At the beginning of the year, after collection and analysis of information (financial, human resources, normative documents, filled-in questionnaires on self-assessment of internal control, etc.), a risk assessment of all structures within the NSI system, including the Regional

⁵ Actually occupied positions.

Statistical offices - second level spending units to the President of the NSI was made. A Strategic Plan for the **“Internal Audit” Unit** was developed, covering the period January 2018 - January 2020. In accordance with the Strategic plan, the NSI prepared an Annual plan on activity of the Internal Audit Unit as well as Training plan of internal auditors in 2018, both approved by the President of the NSI.

In 2018, the “Internal Audit Unit” carried out the following activities:

- Development of report on risk management of the IAU and an annex to it for the previous year as well as a risk register of the IAU for 2018.
- Active participation with assessment and discussion in the preparation of the NSI Summary Report on risk management for 2017 and the NSI Summary risk register for 2018. At the end of January, the developed and presented report and risk register prepared by the chairman of the Working Group on Risk Management were agreed and approved by the President of the NSI in due time.
- An analysis of risks with high exposures was made by the IAU and Progress report on risk management for the IAU for the six-month period of 2018 was presented
- An Annual activity report and a questionnaire with summary information on the activities of the “Internal Audit” Unit at the NSI for the previous year were prepared and submitted to the President of the NSI and sent to the Minister of Finance within the statutory deadline. In questionnaire with summary information fully implemented during the year audit assignments were recorded - a total of 8, of which 5 audit assignments for giving confidence and 3 assignments for consultation, the number of staff of the IAU for 2017, as well as a total number of given recommendations - 47, followed - 63, including for the past period, and 55 implemented, including for the past period.
- Active participation in establishment of organization, order and deadlines for submission of separate questionnaires and reports on the elaborated financial management and control systems in 2017 by all NSI structures. The summary questionnaire and report on the FMCS for 2017 of the NSI were presented to the Head of the IAU for assessment and comparison of the recorded with the actual established by the audit engagements. The documents were approved by the President of the NSI and sent to the Minister of Finance within the statutory deadlines.
- Three audit assignments for giving confidence were implemented. The first audit assignment was carried out between February and April 2018, in compliance with a letter sent by the Ministry of Finance on “Review and assessment of Policy for Protection of Personal Data and Privacy at the NSI in order to assure protection of individuals in connection with the processing of personal data - the introduction of framework for protection of personal data within the EU in relation to Regulation 2016/679/25.05.2018“. The audited period was from January 2016 to February 2018. The audit ended with the preparation of an audit report and a copy of the report was sent to the MoF in due time. In order to ensure the fulfillment of the requirements of Regulation (EU) 2016/679 of the European Parliament, in force since 25.05.2018, and introduced at present conditions and procedure for the administration and protection of personal data at the NSI, the Head of the IAU proposed eight measures to be undertaken. The measures were approved and are in the process of being implemented. They will be subject of monitoring by the IAU in the

next final audit for the year. The second audit assignment was carried out in the period April - August 2018 on „Assessment of the internal control and introduced procedure for reporting of the budget funds in the RSO - Severoiztok. The audited period was from January 2017 to April 2018. Twelve recommendations were formulated and adopted. The third audit assignment is also under implementation according to a letter from the MoF and is entitled “Review and assessment of compliance of the ex-ante legality control exercised by the Financial Controller and other officials at the NSI’s HO with the applicable legal framework, the internal rules and acts”. The audit period is from January 2017 to August 2018.

In accordance with the International Standards on Professional Practice on Internal Audit and the approved internal Training plan for the Internal Audit Unit 2018, the following trainings were carried out:

- Training course entitled “Introduction to Management Systems for information security ISO/IEC 27001:2013”, held in Training and Qualification Center “Slivek” in March 2018;
- Training on „Planning the needs of Human Resources”, held at the facilities of Institute of Public Administration at the Council of Ministers in Bankya in May 2018;
- Training on „Preparing an Audit Report and monitoring of the implementation of recommendations”, held at the Public Finance School in September 2018;
- Training on „Preliminary control of legality of financial activity”, held at the Public Finance School in October 2018;
- Participation in Working group for updating the internal normative documents of the NSI.

In relation to the improvement of the enacted rules for implementation, the Status and Internal rules for the Audit activities of the IAU were updated. They were accepted and approved by the NSI President’s order in September 2018.

In 2018, **the Inspectorate's activities** were conditioned by the NSI top management's aspirations for timely and qualitatively implementation of tasks laid down in the NSP. In this connection, the achievement of following objectives was of great importance:

- Ensuring an independent and objective **assessment of the efficiency of work** of the structures in the NSI for the implementation of state policy in the field of statistical activity;
- **Improvement of anticorruption environment** for optimal functioning of all structures/units of specialized and general administration;
- **Imposing preventive measures** as a decisive factor in complying with laws, regulations and internal acts, rules and procedures, and preventing violations in the functioning of administrative authorities.

To achieve the objectives, particular attention was paid to the timely identification of the factors on which the optimization of the work of the inspectors. As a result, the process of planning and organizing the activity has become of great importance as a factor for increasing the effectiveness of control exercised. In the course of inspections carried out, the approach already taken to provide timely assistance and to remove identified gaps and weaknesses before completion of inspection was widely used.

Significant efforts have been made to clarify and provide in due time a competent response to received at the NSI’s HO signals and proposals from both citizens and employees.

The Inspectorate actively and successfully co-operated in accordance with its position and role within the structure of NSI in the course of inspections carried out by external control authorities, including as a subject of control by the Chief Inspectorate to the Council of Ministers.

During the period, a priority of Inspectorate's work has been the implementation of the provisions of the newly adopted Anti-corruption and Forfeiture of Assets Act. In connection with this, the declarations of the NSI's employees under Art. 35, para. 1 of the Anti-corruption and Forfeiture of Assets Act were received for processing and storage within the specified deadlines. A Register for declarations was developed and according to the requirements of the law, the declarations of interests were published on the NSI's website in accordance with the Personal Data Protection Act.

At the beginning of the year on the Inspectorate's initiative a procedure for updating all internal normative acts started. A number of opinions on drafts of normative acts to which the Inspectorate was concerned were agreed. In implementation of the Anti-corruption and Forfeiture of Assets Act internal rules on the organization and procedure for verifying declarations and establishing conflict of interest were developed.

In 2018, the Inspectorate carried out six administrative checks in departments of the NSI's HO, of which two planned and four unplanned. Significant efforts have been made in daily day-to-day monitoring covering the implementation of the President's orders, the resolutions of the top management, the decisions of the Council to the President, the results of international missions, the contracts concluded and others. The implementation of requirements of 11 inspections carried out by external control authorities was controlled.

During the year a total of 16 signals and proposals concerning issues related to both the general and the specialized administration were received. In all signals promptly regard was taken and statements were provided to their senders.

In order to increase the efficiency of the control activity carried out and to improve vocational training and qualification in 2018 the Inspectorate's employees took part in four training courses and five specialized meetings.

For the period from the beginning of 2018 to the end of October, a total of 2162 records were registered and inspected in **the Financial Controller's** Register. A total of 2165 checklists were issued for undertaking obligation and performing expenditure.

The Finance controller has always performed his opinion on the proposals for undertaking obligations and performing expenditure within the deadlines appointed by the President of the NSI and described in the Internal Rules on implementation of ex-ante control in the NSI.

During the period, in order to optimize the control and to give accurately and efficiently opinion in filling the checklist the Financial controller often requested an additional presentation of documents or information, and also made on-the-spot-visits.

In the first half of 2018, the Financial controller participated in the preparation of the Summary questionnaire and the Report on the state of the financial management and control systems within the NSI in 2017. The Financial controller took part in Working group for updating the internal normative documents, documents defining the overall activity of the NSI.

In April 2018 in the implementation of Annual Training plan the Financial controller participated in a specialized seminar entitled "Practice in the application of the Public Procurement Act and its rules", organized by the Public Finance School to the Ministry of Finance.

During the period, in order to pursue optimal control on the implementation of the

contracts on time and to protect the interests of NSI, at the beginning of each month, the Financial controller provided the Head of Inspectorate, Head of „Legal Activities“ Department, Head of „Property Management and Maintenance“ Department and Head of “Information and communication infrastructure” Department with reference for contracts that expire in the next six months. The Financial controller provided the “Financial - Accounting Activities” Department with permanent access to all information on all contracts (commitments and all payments made to date).

The analysis of results from the performed preliminary control imposes the following conclusions:

- The preliminary control on the files did not find illegal activities and events as well as presence of grave and substantial violations related to providing and compiling files with the necessary documents;
- All submitted files were processed promptly and the work of NSI was not hindered. In order to optimize preliminary control, in many cases, one checklist was issued for the same types of liabilities and expenses, although all the documents submitted for these groups of costs and liabilities were checked. In order not to delay the process, the Financial Controller has repeatedly had to check files both in non-working hours;
- Notes on the undertaking obligation/or performing expenditure was expressed in only a few isolated cases, which is a good characteristic of maturity in the processes of selfcontrol and professionalism in the structural units at the NSI Head Office.

Annex 1. NSI Budget 2018

| Indicators (in BGN) | Law on state budget of the Republic of Bulgaria for 2018 | Specified plan for the year as 31.10.2018 | Report as of 31.10.2018 | Implementation of the plan/ report (%) as of 31.10.2018 |
|---|--|---|----------------------------|--|
| 1 | 2 | 3 | 4 | 5 |
| I. REVENUES - TOTAL | 950000 | 950000 | 381849 | 40 |
| Own revenues | 950000 | 950000 | 381849 | 40 |
| Non-tax revenues | 950000 | 950000 | 381849 | 40 |
| Property revenues and incomes | 950000 | 950000 | 466237 | 49 |
| - Net revenues from sales of services, goods and production | 850000 | 850000 | 428866 | 50 |
| - Rental property revenues | 100000 | 100000 | 37371 | 37 |
| State fees | | | 8 | |
| Fines, sanctions and penalties | | | 200 | |
| Other revenues | | | 11914 | |
| Revenues from the sale of non-financial assets | | | 7670 | |
| VAT paid | | | -104180 | |
| II. EXPENDITURES - TOTAL | 21281300 | 21493106 | 15303241 | 71 |
| Total expenditure | 21281300 | 21493106 | 15303241 | 71 |
| Current expenditure | 17957300 | 18074106 | 14990019 | 83 |
| Personnel | 14441800 | 14449241 | 11965089 | 83 |
| Salaries and remunerations to the personnel under the Labour Code and the Civil Service Act | 10110000 | 10115000 | 8223196 | 81 |
| Salaries and remunerations to the personnel under the Labour Code | 1215000 | 1215000 | 1069446 | 88 |
| Salaries and remunerations to the personnel under the Civil Service Act | 8895000 | 8900000 | 7153750 | 80 |
| Other salaries and payments to the personnel | 1077400 | 1079475 | 1088432 | 101 |
| Mandatory social security contributions from employers | 3254400 | 3254766 | 2653461 | 82 |
| Social insurance contributions from employers for the State Social Insurance (SSI) | 1960700 | 1960900 | 1668772 | 85 |
| Health insurance contributions from employers | 799600 | 799700 | 663330 | 83 |
| Contributions to additional compulsory insurance from employers | 494100 | 494166 | 321359 | 65 |
| Taxes paid, charges and administrative sanctions | 130000 | 130000 | 113399 | 87 |
| Expenditure for membership contributions and participation in non-profit organizations and activities | 25000 | 25000 | 23766 | 95 |
| Capital expenditure | 3324000 | 3419000 | 313222 | 9 |
| Fundamental repair of tangible fixed assets | 100000 | 195000 | 1719 | 1 |

Annex 1. NSI Budget 2018

| (Continued and end) | | | | |
|--|-----------------|-----------------|-----------------|-----|
| Acquisition of tangible fixed assets | 600000 | 600000 | 286800 | 48 |
| Acquisition of intangible fixed assets | 2624000 | 2624000 | 24703 | 1 |
| NATURAL INDICATORS | | | | |
| Staff positions - total | 968 | 968 | 901 | 93 |
| Average annual full-time positions - total | 968 | 968 | 910 | |
| Staff positions | 968 | 968 | 901 | |
| III. TRANSFERS | 20331300 | 20543106 | 14998342 | |
| III. A. TRANSFERS (SUBSIDIES, CONTRIBUTIONS) BETWEEN CENTRAL/STATE BUDGET AND OTHER BUDGETS | | | | |
| Transfers (grants/contributions) from the central budget (Net) - Transfers (subsidies) from the central budget (+) | 20731300 | 20831300 | 14896719 | 72 |
| III. B. TRANSFERS BETWEEN BUDGET ACCOUNTS AND EXTRABUDGETARY FUNDS/ACCOUNTS | | | | |
| - Transfers received (+) - Transfers granted (-) - Transfer from MLSP under programmes of temporary employment (+/-) | | 109365 2441 | 199365 3050 | 125 |
| III. C. TEMPORARY NON-INTEREST LOANS BETWEEN CENTRAL BUDGET, BUDGET ACCOUNTS AND EXTRABUDGETARY FUNDS AND ACCOUNTS | -400000 | -400000 | -100792 | 25 |
| IV. BALANCING ITEM (+/-) (I - II + III) | 0 | 0 | 76950 | |
| V. FINANCING OPERATIONS | 0 | 0 | -76950 | |

Annex 2. Organization chart of the NSI

Organization Chart 16/03/2018

