statistics
estonia

Annual report

2018

CONTENTS

MAIN DEVELOPMENTS IN 2018

On 30 April 2018, the Minister of Finance signed Statistics Estonia's new development plan until 2022. According to the plan, by 2022, Statistics Estonia must become the most efficient and innovative producer of user-friendly and reliable statistics in Europe. In order to achieve the main objective, seven important measures will be taken according to the development plan.

Based on Statistics Estonia's previous development plans, reliable and up-to-date statistics are of central importance. In 2018, the government's statistical programme was carried out in accordance with the agreed objectives. A large part of the statistical programme consisted of preparing for a register-based population and housing census (REGREL). In addition to preparing for REGREL, producing statistics was made more efficient and the compliance with the release calendar improved considerably. Upgrading the electronic data submission environment eSTAT was important for enterprises.

For Statistics Estonia, reducing the state's administrative burden was significant in 2018. In order to reduce bureaucracy, a large-scale campaign was conducted to find out the extent of the duplicate collection of data. In the project for reducing the administrative burden, "Reporting 3.0", development continued on the next parts of the ontology of the data transmitted from accounting software. This would allow automatic submission of data for data exchange with the state. Samples of questionnaires were reduced considerably, while maintaining the reliability and quality of statistics. At the end of 2018, the government stated in the zero-bureaucracy task force report that Statistics Estonia has made a considerable effort to reduce the administrative burden and, consequently, shall coordinate through data governance the reduction of the administrative burden associated with the state's data also in the future.

Under a government order, Statistics Estonia also developed the state's data governance principles in cooperation with ministries and institutions. However, the main principle of data governance – the once-only principle – is yet to be implemented. In accordance with the Information Society Development Plan, Statistics Estonia will be transformed into a national data agency.

The year 2018 for Statistics Estonia can be considered a year of creating conditions, not a year of results. The results of the coming years will show how well Statistics Estonia is able to cope with the expectations placed on the institution. We at Statistics Estonia are ready for changes and new tasks.

Mart Mägi

Director General of Statistics Estonia

MAIN EVENTS IN 2018

- The Minister of Finance approved Statistics Estonia's development plan for 2018–2022. The greatest change in the new strategy period is transforming Statistics Estonia into a national data agency – an institution which offers users data from various sources, support in using the data as well as classic official statistics.
- "Eesti Vabariik 100. Statistiline album. Republic of Estonia 100. Statistical Album" was published to celebrate the 100th anniversary of the Republic of Estonia. In the publication, an overview has been given of the developments in Estonia in the most important domains of life over the course of 100 years.
- On 20 June, Deputy Director General of Statistics Estonia Andres Kukke presented the Albert Pullerits young statistician's grant to Sven Erik Ojavee from the Institute of Mathematics and Statistics of the University of Tartu for his Master's thesis "Estimating Ancestry Using Genome Data: The Analysis of Estonian Genome Center Data". The aim of the thesis was to examine the ancestry of the gene donors of the Estonian Genome Center by ethnic nationality and within Estonia.
- Statistics Estonia was acknowledged in the promoter of clear message category of the "Selge sõnum" ("Clear Message") competition organised by the Chancellor of Justice and Institute of the Estonian Language.
- The second pilot census of the register-based population and housing census began. The census moment is 31.12.2018.
- Under the project for moving state authorities out from the capital, Statistics Estonia's Viljandi office expanded. Currently, 40 people work in the Viljandi office and the leased premises area is 419 m². In 2016, seven people worked in the Viljandi office and the leased premises area was 103 m².
- Statistics Estonia's Tartu office successfully renewed its European Green Office certificate, which is valid until the end of December 2021.
- The best in 2018 were chosen:
  - Innovation of the year, added value for clients: new infographics on social media – Irmela Klooster, Uku Nurges, Nele Lumiste, Anu Ots, Birgit Hansson, Sille Tiitsmaa, Tiina Nõmm;
  - Innovation of the year, internal efficiency: introducing the price registration application – Viktoria Trasanov, Olga Nikiforova, Airi Kruusmaa, Heino Piiriväli, Kristiina Saar, Eha Kummer, Ama Läte, Ere Kamarik, Sirli Niibo-Tamm, Marjan Rebane;
  - Team of the year: the team behind the publication "Eesti Vabariik 100. Statistiline album. Republic of Estonia 100. Statistical Album" – Mihkel Servinski, Marika Kivilaid, Greta Tischler, Taimi Rosenberg, Irmela Klooster, Kati Coleman, Helerin Äär, Ülle Valgma;
  - Cooperation partner of the year – radio programme "Arvude taga" ("Behind the numbers") on Äripäev radio;
  - Colleague of the year – Tiina Vernik;
  - Newcomer of the year – Siim Nettan.

FULFILMENT OF THE 2018 STATISTICAL PROGRAMME

The main task of Statistics Estonia is to provide reliable and objective information about the environmental, demographic, social and economic situation and trends in Estonia. Official statistics are produced by Statistics Estonia on the basis of the needs of statistics users. Statistics are essential input for Estonian ministries, institutions of the European Union, research institutions, enterprises, business associations, etc. The official statistics of Estonia are available to everyone (usually through the media) in Estonia and abroad. Generally, Estonian users need more detailed statistics than other countries and international organisations.

There are two producers of official statistics in Estonia: Statistics Estonia and Eesti Pank (the central bank of Estonia). In order to produce statistics, Statistics Estonia performs statistical activities, which are submitted as a list of statistical activities to the Government of the Republic for approval. The list of statistical activities of Eesti Pank is approved by the Governor of Eesti Pank. The statistical programme comprises the statistical activities of Statistics Estonia and Eesti Pank.

The statistical programme is prepared every year for the following five years on the basis of national or international statistical needs. The programme includes statistical activities from the population, social, economic and environmental domains. Statistics Estonia's statistical activities divide into six types: main statistics, cyclical statistics, non-regular statistics, development activities, statistical analysis and statistical registers. The programme also includes activities funded by the Structural Funds and the European Commission grants.

The statistical programme is based on the needs of users, which are taken into account by the main representatives of public interest, who are mostly ministries. The main representatives of public interest ensure that there are quality official statistics in their field, which are necessary for promoting life in Estonia and for making state-level decisions. From the representatives of public interest, the Ministry of Economic Affairs and Communications, the Ministry of Finance and the Ministry of Social Affairs are the most active users of official statistics. In addition to official statistics, also contract work outside the programme is performed.[1]

Fulfilment of the 2018 statistical programme

In the statistical programme for 2018–2023, there were 156 statistical activities listed for 2018, the total cost of which was 6.6 million euros[2]. The largest activity was preparing for the 2021 Register-Based Population and Housing Census (REGREL), with the total cost of 0.8 million euros. In 2018, there were 128 annual statistical activities classified under main statistics, 10 cyclical statistical activities, 6 non-regular statistical activities, 6 development activities, 4 statistical analysis activities and 2 statistical registers.

Fulfilment of the 2018 statistical programme was successful – all the planned activities were performed. There were a total of 911 releases (770 statistical database objects, 134 news releases, 7 publications). The produced statistics are made available to users first in the statistical database and then in other products. Users are informed about produced statistics via the release calendar. In 2018, the number of deviations from the release calendar decreased significantly – in total there were only 5 deviations, which constitutes 0.5% of the total number of releases. The main reason for the deviations was the delayed receipt of data and extended period of data processing.

Deviations from the release calendar, 2011–2018

Year	Statistical database	News releases	Statistical publications	Total	Share in total number of releases, %
2011	6	0	0	6	0.5
2012	8	2	0	10	0.9
2013	11	4	0	15	1.5
2014	32	2	1	35	3.6
2015	18	2	1	21	2.1
2016	22	1	2	25	2.5
2017	19	0	3	22	2.3
2018	3	1	1	5	0.5

Determining urban-rural types

In 2017, administrative reform was carried out in Estonia, which significantly changed the earlier administrative division: instead of the previous 213 municipalities, 79 remained.

Before the administrative reform, city settlement regions included cities, cities without municipal status and towns. Rural settlement regions consisted of small towns and villages. After the administrative reform, unusual regions were formed. For instance, Pärnu city municipality included both Pärnu city and a large number of villages. The old and outdated urban-rural

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[1] See statistical activities not included in the programme on pp 9–12.

[2] The total costs in 2018 amounted to 9.7 million euros. The cost of the list of statistical activities does not include rent paid to Riigi Kinnisvara AS (1.1 million euros), statistical activities not included in the programme and externally funded projects (1.5 million euros) and investments (0.5 million euros).

division was rendered unusable from the cognitive as well as practical perspective. With this division, villages in Pärnu city would not have qualified for rural development support.

A working group was formed by a directive of Director General of Statistics Estonia, with Deputy Secretary General of the Ministry of Finance Kaia Sarnet as the chairperson. The working group began to search for a solution to the problem. In 2018, the working group, led by Priidu Ristkok and Ülle Valgma, adapting OSCD methodology to Estonia, reached a solution – Estonia was divided into three regions: city settlement region, town settlement region and rural settlement region, which, according to the working group, solved the problems that had arisen. Detailed guidelines for dividing Estonia into regions have been developed. After the administrative reform, population indicators for administrative divisions were produced on the basis of the aforementioned division. Together with specifying the system of regional statistical indicators, the need and capability of other domains to produce statistics by city settlement, town settlement and rural settlement region was established. This is one of the tasks in 2019.

Register-based population and housing census

Preparations for a register-based population and housing census (REGREL) advanced as planned.

The main objective in 2018 were preparations for the second pilot census of REGREL. The methodology for forming households on the basis of register-based census and statistical data was developed.

In order to specify family and household statistics, partnership index (e.g. signs of partnership, which enable to link partners with each other even if they are registered in separate dwellings) was developed on the basis of register data. It was also important to identify the actual place of residence of a family or household, the nucleus of which is a couple formed on the basis of the partnership index. To solve the task, index-based guidelines were developed, which consider the suitability of every potential dwelling for the family or household.

A comparative survey of household and place of residence data (LEKU) using a combined questionnaire was conducted. The aim was to check the accuracy of indexes – whether the registered places of residence coincided with the actual places of residence. In addition, data collection methods were compared. The survey covered approximately 20,000 persons. The results will be published in 2019.

In connection with the REGREL project, the results of the mobile positioning data pilot survey were presented. The survey was conducted in cooperation with Tartu University and Positium LBS, an enterprise conducting mobility research. Registered places of residence were compared to the claimed places of residence. Positium requested data from mobile operators, calculated anchor points and analysed them. Statistics Estonia analysed register data based on the anchor points. It was confirmed that the anchor point method can be used for organising census data.

In order to solve the problems that occurred during the implementation of the methodology, interviews were conducted with Estonian researchers, with whom the cooperation in explaining the essence, choice of method and organisation of the register-based census was elaborate.

New and substantial work were preparations for the collection of data submitted to the employment register from 2019 onwards. Establishing the related legal framework and developing the register went as planned. The respondents were informed by target groups: at the beginning of the year, public sector institutions were trained, and since September, private companies have received training. The training mostly focused on using the international classification and the employment register application.

IT development for meeting the requirements for a register-based census continued, aiming to implement the address data system in databases, create the capacity for automatic data capture, ensure that datasets in registers comply with census characteristics, etc. With a government decision, the period for organising address data was extended, as local authorities were unable to organise the required address datasets.

Statistics Estonia participated in the work of UNECE (United Nations Economic Commission for Europe) census task forces, where the next census round was prepared. Statistics Estonia was involved in discussions about the data composition and time of future censuses in the European Union.

In May, the 21st regular consultations of the Baltic States on population and housing censuses were this time held in Lithuania.

In the second half of the year, the census team focused on preparing the second pilot census of REGREL. The time, method, objective and tasks of the second pilot census were fixed. The methodology of the pilot census was presented on 22 November 2018 at the conference "Uued andmeallikad ning meetodid registripõhisel rahva ja eluruumide loendusel" ("New data sources and methods in the register-based population and housing census"). The census moment of the second pilot census is 31 January 2018.

New statistical activities in 2018

Compared to 2017, there were 16 new statistical activities in the statistical programme for 2018.

1. The nationally commissioned statistical activity "Population projections" (30004) is carried out every five years. By analysing the trends of previously registered vital events (births, deaths, migration), a population projection will be made for Estonia and counties. In the analysis, the population as at 1 January 2018 (1 January 2019, if possible) is used. Two to three scenarios will be constructed for Estonia as a whole, and one main scenario for counties. Migration, birth and mortality trends are taken

into consideration, on the basis of which, changes in the coming 30 years will be projected. The population projection will be published in June 2019.

2. Another statistical activity added was "Testing and piloting the survey on gender-based violence" (40616). The aim is to test whether the questions developed by Eurostat are suitable for studying gender-based violence. Also a pilot survey needs to be carried out and new questionnaire wording formulated. The statistical activity is commissioned internationally (paragraphs 1 and 2 of Article 11 of the Istanbul Convention) and is financed from external funding.

3. In 2018, the four-year period started when the statistical activity "Household Budget Survey" (40203) is conducted. The survey provides information about the daily expenditure and consumption of households (the expenditure of Estonian residents on food products, consumables, housing and various services) and also about the socio-demographic indicators (employment, education), economic situation, living conditions of household members, availability of durable goods and products produced for own final use. Providers of products and services and ordinary consumers will receive information from the survey about what households spend most on and what is consumed the most over the course of the year. The Household Budget Survey enables to analyse in depth the expenditure and budget of families in Estonia. This survey is the only survey in Estonia which looks into the expenditure and consumption of the whole Estonian population, and it provides the state with the information required for making decisions in the social sphere. The survey has been carried out since 1996 in all European Union countries on the basis of a harmonised methodology. The statistical activity serves as an input for a statistical activity arising from European Union legislation. Preparations for the statistical activity took place in 2018, data are collected and processed in 2019 and 2020 and the data will be published in 2020 and 2021.

4. The statistical activity "Consumption expenditure forecast" (40204) is carried out every two years. The aim is to forecast the consumption expenditure of households in the years when the Household Budget Survey is not conducted. Previous results of the Household Budget Survey and additional data were used to project the consumption expenditure of households in the 4th quarter of 2017 and year 2018. The consumption expenditure projection will not be published, as it serves as an input for a statistical activity arising from European Union legislation.

5. The statistical activity "Time Use Survey" (40101), which lasts four years and is conducted every ten years began. The survey provides information about the time use of the Estonian population (paid work, housework, studying, refresher training, free time, etc.) and the difference between the time use of women, men and children. The survey complements national accounts with an estimation of the volume of unpaid work of household members. The survey also enables to get an overview of the time spent on travelling from one location to another, mode of travel (on foot, by car, public transport vehicle, etc.) and places where time is spent. The survey enables to look into the communication in the family as well as between households and generations and assess the well-being and quality of life of Estonian families and children. The results of the survey can be used to plan family, employment, social and transport policies. The survey is commissioned by Eurostat and is carried out in the European Union countries on the basis of a harmonised methodology. The survey comprises four parts: household interview, personal interview, personal diaries and weekly diary. Data are collected in 2019–2020 and the results will be published in 2021.

6. From non-regular statistical modules, the module "Well-being" (40015) of the Estonian Social Survey started again (previously in 2013). The aim is to define the concept of well-being through measuring the subjective satisfaction based on a person's self-esteem – this means has been used seldom in Estonia. Assessment covers satisfaction with life and various emotions, taking into consideration the situation and needs of the country as well as international tendencies and suggestions. Describing the actual well-being presupposes collecting and publishing the respective data, which comprehensively characterise a person's situation and options. Data were collected in 2018 and results will be published in 2019. The statistical activity is based on a European Union regulation.

7. The non-regular statistical activity "European Social Survey" (40022) began. This is an international social survey, which measures attitudes, beliefs and people's behaviour in more than thirty countries. The state coordinator of the project is the University of Tartu, who ordered the ESS ninth wave data collection from Statistics Estonia in 2018. Data for the statistical activity, which is conducted from spring 2018 until spring 2019, were collected from October 2018 until January 2019. Participants of the survey were asked questions about their lives and their attitudes were investigated with various statements. The survey has been conducted since 2002. Results of previous surveys are available on the survey website (See the website of the University of Tartu). In 2019, the data will be cleaned and coded, and transmitted to an international consortium for analysis. In 2020, the tenth wave data collection has been planned to be carried out – it should take place from October 2020 until the end of January 2021. In 2017, this statistical activity was among non-regular statistical activities.

8. Every four years, the statistical activity "Input-output tables" (21409) is conducted. The statistical activity provides information for economic analysis, e.g. for producing econometric models and economic forecasts. The symmetrical input-output table is a matrix created on the basis of products, where domestic production processes and transactions of the national economy in products are described in detail. The statistical activity is based on a European Union regulation. The statistics were published in December 2018.

9. With the statistical activity "Better access to differences in wages and salaries" (21109), database and survey data were prepared for the cooperation project "Narrowing the gender pay gap" (2019–2021) of Tallinn University, Tallinn University of Technology and Statistics Estonia. The reasons for the pay gap will be examined and a methodology for assessing the pay gap on the basis of database data will be developed.

10. Preparatory work was started for the statistical activity "Agricultural census" (21210), which is carried out every ten years. The census provides the state and research institutions, entrepreneurs and international organisations with comprehensive

and accurate agricultural data. A regulation is being prepared in the European Union to regulate the presentation of the agricultural census results when planning the following policy areas:

- common agricultural policy, incl. direct payments, measures for market organisation and rural development programmes;
- the Water Framework Directive, incl. the Nitrates Directive and Groundwater Directive;
- air-related directives, incl. the National Emissions Ceilings Directive on the control of air quality and air pollution and the prevention of the pollution;
- climate change policy (related to the Kyoto Protocol to the UN Framework Convention on Climate Change);
- legislation related to nature protection, Birds and Habitats Directives and other biodiversity policy measures;
- soil policy, incl. soil strategy and the Sewage Sludge Directive;
- legislation in the fields of food safety, plant protection, animal welfare;
- regional policy;
- European Union Action Plan for the Circular Economy.

These data are also required by the European Union Joint Research Centre, who uses the information for researching the development of the above-mentioned policy areas, for developing models, etc. The results of the agricultural census will be published in 2021–2022.

11. The statistical activity "Fleet-based economic and social indicators" (20013) was commissioned by the Ministry of the Environment. The aim is to collect economic indicators for fulfilling the national programme "Estonian national action plan for the collection of primary biological, technical, environmental and socio-economic data of the fisheries sector in 2017–2019" and to produce statistics by the length class of vessels and by fishing gear. The methodology was developed and data sources were established in 2018 and data will be collected in 2019.

12. According to the vision of the European Statistical System for 2020 (ESS Vision 2020), the changing needs of users require more rapid response, the administrative burden of respondents needs to be reduced and better coherence between statistics of different domains must be ensured. For this, in 2011, a revision of the contents of the legislation governing business and foreign trade statistics and the creation of a new and flexible legislation system were started under the guidance of Eurostat. According to Eurostat's schedule, the processing of the Framework Regulation Integrating Business Statistics (FRIBS) began in 2017, and the new regulation is scheduled to take effect in 2021. The new framework regulation shall introduce bigger or smaller changes into statistical activities with the following codes: 20007, 20102, 20103, 20300, 20319, 20401, 20403, 20408, 20413, 20505, 20903, 21300, 21308, 21601, 21701, 22201, 22203, 20312 and 21702. According to the preliminary schedule, the new requirements should be implemented within two years.

The most significant changes are the following:

- the statistical activity "Financial statistics of enterprises (annual)" (20300) shall include cyclical statistics on global value chains and international procurement;
- the statistical activity "Financial statistics of enterprises (quarterly)" (20007) shall include monthly volume statistics on the wholesale of goods and sale of business services by economic activity;
- the statistical activity "Service producer price index" (20413) shall include a double amount of business services for which service price indices must be calculated;
- the statistical activity "Business demography" (20903) shall include quarterly statistics on the registration and bankruptcies of enterprises;
- in the statistical activity "Foreign trade" (22303), the data source for the production of statistics on imports of goods shall be changed. Currently, data are collected from importers, but to reduce the administrative burden, microdata collected by other Member States on exports are planned to be used (exports of other countries to Estonia are imports of Estonia from other countries). Changing the data source makes the production of statistics more expensive.
- the statistical activity "Integrating business statistics (FRIBS) into the European statistical system" (20011) is an activity created only for the development phase, after which, main statistics shall be produced under the above-mentioned statistical activities.

13. Work was commenced with the statistical activity "Hourly earnings of male and female employees" (21102), which is conducted every four years. The activity will provide information about the hourly earnings of employees by occupation, economic activity, education, age group, length of service and type of employment contract as well as about the deciles and median of monthly gross earnings and hourly gross earnings by major group of occupation and economic activity. The produced statistics are used for making labour force projections and developing vocational programmes, estimating the gender wage gap, completing the annual social security code report and in other areas where the information on the structure of occupations and wage levels is required. The survey is based on a European Union regulation and is conducted in all European Union countries on the basis of a harmonised methodology, which ensures that the data are internationally comparable. The statistics for 2108 will be published in 2020.

14. The project "Reporting 3.0" gave rise to a separate statistical activity "Reporting 3.0" (20012).

The project "Reporting 3.0", which stems from the zero-bureaucracy initiative, creates a solution for the automatic submission of data required by the state. This is a joint project of the Tax and Customs Board, Statistics Estonia and Eesti Pank, the first

priority of which is to reduce the burden of enterprises in submitting wages and salaries and labour force data. By 1 January 2018, a taxonomy was prepared to collect the wages and salaries and labour force data from enterprises, and Statistics Estonia was ready to collect the data. Over the next two years, a taxonomy for the remaining data to be transmitted from the accounting software shall be developed and automatic submission of the data enabled.

Automatic data collection shall be introduced in several steps. The priority are the wages and labour force data. Automatic data transmission takes place via X-Road, the data exchange layer for information systems, and the data structure will be standardised, i.e. a cross-institutional taxonomy will be developed and the new international data transmission standard, eXtensible Business Reporting Language Global Ledger (XBRL GL) introduced.

Currently, the second part of the ontology, which forms the basis for the complete machine-to-machine data transmission is being developed: the taxonomy of revenues and expenditure. The complete ontology is scheduled to be ready by 2021. First software developers have already started to include the first part of the taxonomy in their software. After the first developments have been completed, the volume of development work required by enterprises will be clearer and the inclusion of state finances may become necessary.

The project is coordinated by Statistics Estonia, who also leads the work of the inter-institutional project team. The steering group of the project includes entrepreneurs, software developers and representatives of public interest.

15.–16. In 2018, under statistical development, the development of a model for analysing the impact of legislation was started with the statistical activity "Model for quantitative assessment of policy impact" (50021), and implementation of new applications in the production of statistics was commenced with the statistical activity "Development of statistics" (50022). The statistical activities were commissioned nationally.

Statistical activities left out from the 2018 list of statistical activities

10 statistical activities were left out from the list of statistical activities in 2018 compared to 2017.

The nationally commissioned statistical activity "Accommodation establishment providing rehabilitation services" (40602) was left out in agreement with the Ministry of Social Affairs. The finances that became available are used for performing the statistical activity "Reporting 3.0" (20012).

The statistical activity "Financial statistics of agricultural, forestry and fishing enterprises (annual)" (20003) was included in the statistical activity "Financial statistics of enterprises (annual)" (20300). Also the costs of the statistical activities were added together. The data of the resulting statistical activity are published in a single multidimensional table in the statistical database.

The statistical activity "Financial statistics of agricultural, forestry and fishing enterprises (quarterly)" (20004) was included in the statistical activity "Financial statistics of enterprises (quarterly)" (20007). Also the costs of the statistical activities were added together. The data of the resulting statistical activity are published in a single multidimensional table in the statistical database.

In 2018, compared to 2017, the following cyclical or non-regular statistical activities were not included in the list of statistical activities: one-time module "Access to social services" (40020) of the Social Survey, one-time module "Young people in the labour market" (40712) of the Labour Force Survey, statistical activities "Labour costs" (21103), "Farm Structure Survey" (21208), "Continuing Vocational Training Survey (enterprise survey)" (40305) and "Adult Education Survey (household survey)" (40309), which are conducted every four years, and the statistical activity "Participation in culture" (40422), which is conducted every other year.

Statistical activities not included in the programme

In addition to statistical activities in the statistical programme, Statistics Estonia also performs activities that are not included in the statistical programme but are ordered by statistics users. Everyone interested in statistics can contact Statistics Estonia for statistics. If the statistics requested by the user are not yet produced, they can be ordered. Orders can be placed with regard to all statistical domains. Conditions for orders for information are specified in the service standard published on Statistics Estonia's website.

In 2018, Statistics Estonia fulfilled more than 421 non-programme orders placed by enterprises, institutions and private persons, which is 3% less than in 2017. Last year, the revenue from orders was 756,700 euros – 11% more than in 2017.

Most of the statistical activities not included in the programme were small-scale orders for statistical information more detailed than the already published statistics. The volume of standardised orders in 2018 decreased somewhat. These are orders that can be placed for commodity groups or companies on the basis of specific characteristics (e.g. foreign trade statistics, data on economic entities). To facilitate orders for statistics, Statistics Estonia has a separate price list for standardised orders for information. 6% of all orders concerned foreign trade statistics, which are ordered mostly by industrial enterprises in Estonia and neighbouring countries. Since the end of 2017, more detailed foreign trade statistics have been available in the new statistical database, which is why the number of orders for foreign trade statistics has decreased. The share of orders for financial key ratios was 6% and orders for publications accounted for nearly a quarter of all orders.

The number of orders fulfilled based on hourly work and the number of preparations of microdata for research purposes remained at the level of the previous year.

Non-programme orders fulfilled by Statistics Estonia and incurred income, 2018

	Total, euros	Number
Real time data mining	400,000	1
Youth data reusing project	38,290	1
Survey on Health, Ageing and Retirement in Europe (SHARE)	33,330	1
Data harvesting from participants of the European Social Fund activities in Statistics Estonia 2014–2025	28,100	1
Household Finance and Consumption Survey	24,650	1
Foreign Visitors Survey	23,630	1
Creating the Sport Satellite Account	23,110	1
Risks, potential and impact of the excise policy	13,000	1
Automatic transmission of state's mobility information	2,980	1
Processing and publishing forest and water statistics	2,855	1
Brochure "Business opportunities in Eastern Estonia"	1,800	1
Analysis of the survey on the mental health of offenders	1,700	1
Using microdata collected for statistical purposes for research	15,900	16
Orders for foreign trade statistics	5,700	25
Orders for information based on hourly work	136,355	241
Orders for publications	4,900	102
Financial key ratios	400	25
TOTAL	756,700	421

Description of larger statistical activities not included in the programme

Real time data mining

The aim of the data mining project is to increase in cooperation with researchers and the private sector the use of real time data for making management decisions which support economic development. Projected data and real time data models presuppose combining and visualising the data of different domains.

Statistics Estonia has at its disposal the datasets of different registers and databases. It is important to use economic datasets in real time (at least in the case of monthly datasets) – this way better and more considered management decisions can be made. In order to do this, tools and methodology for visualising real time data must be developed. With this project, conditions for analysing real time data will be created and the use of real time data by entrepreneurs will be tested. In addition, the project will help improve the competitiveness of the economy in the promising field of using big data, which includes developing a framework for enterprises for using public sector data to test business models and support business decisions. The general government sector can make more substantiated economic policy decisions and provide better services by better use of data. The project will run until 2021.

In 2018, the main activities were getting an overview of datasets, preparing the first pilot studies and technological preparedness. First, real time data was planned to be used in the pilot studies to support the EUROMOD economic forecasting model used by the Ministry of Social Affairs, Ministry of Economic Affairs and Communications and Ministry of Finance. Instead of sample survey data, EUROMOD uses the dataset on the income and subsidies of the whole population.

Additionally, technological readiness will be established for data exchange, storing and processing big data. A team of data scientists has started work. The statistical activity was commissioned by the Ministry of Economic Affairs and Communications.

Youth data reusing project

The aim of the project commissioned by the Estonian Youth Work Centre is to increase knowledge about the Estonian youth, to offer young people better services mainly through youth policy and youth work. The project lasts three years (November 2016 – November 2019) and has four stages. In the first stage, it was established, what kind of data are collected on the youth (7–26-year-olds) in state databases, large social surveys and other available high-quality data sources. The overview is available on the Estonian Youth Work Centre website. In the second stage, a survey reusing the already collected data was organised and conducted, the results of which were included in the project report and in Statistics Estonia's regional development publication. In the third stage, a youth monitoring dashboard shall be added to the website of Statistics Estonia, which enables the user (mainly someone who provides or organises youth services) to see visualised youth data. In the final stage of the project, positions shall be formulated on the basis of the completed work and development proposals prepared in three fields: activities of the state in collecting youth data, supporting the strategic management of the youth field and systematic development of youth monitoring.

Survey on Health, Ageing and Retirement in Europe (SHARE)

SHARE is a longitudinal survey with permanent respondents which is used in Europe to collect data about the ageing, health and retiring from the labour market of persons aged 50 or older. For the European Commission, SHARE data are the most important source for assessing the situation in the field of social protection and social inclusion in the Member States and for making relevant decisions. Estonia has participated in the SHARE survey since 2010, i.e. from the fourth survey wave. In Estonia, there have been four survey waves; the first and the last two waves were conducted by Statistics Estonia. So far, SHARE has been financed on a project basis and mainly from external funding: initially with the support of a European Commission grant and afterwards by the Ministry of Education and Research with funding from the Structural Funds. Co-financing for both external funding cases has been mainly provided by the Ministry of Social Affairs, Ministry of Education and Research and Tallinn

University Institute for Population Studies. The last SHARE wave was mostly financed from external sources and a small part was co-financed by Tallinn University. In 2018, the data collected in 2017 were cleaned and the eighth wave data collection in the world and fifth wave data collection in Estonia were prepared. The new wave data collection was supposed to begin at the beginning of summer 2019, but as no funding has been allocated, the collection of data has been postponed indefinitely.

Statistics Estonia can include SHARE in the list of statistical activities only if regular instead of project-based funding is provided. The main representative of public interest is the Ministry of Social Affairs.

Data harvesting from participants of the European Social Fund activities in Statistics Estonia 2014–2025

The aim of the statistical activity is to assess the success of using the funding provided by the European Social Fund (ESF). For this, the improvement of the labour market position of the participants in activities is assessed four weeks and six months after the end of the activities in comparison with the initial position. Implementing entities submit to Statistics Estonia the agreed input data on the participants in activities, to which Statistics Estonia adds data received from databases (the employment register, population register, Töötukassa (Estonian Unemployment Insurance Fund), etc.). Statistics Estonia also conducts a monthly online survey to assess the improvement of the labour market position of employed persons. Based on the input data, the participants' labour market position is established at three points in time (at the beginning of the activity, four weeks and six months after the end of the activity) and internationally established indicators on the improvement of the labour market position are calculated. For example, the number of persons who were unemployed at the beginning of the activity but have started work after the activity, the number of persons having obtained professional qualifications. Statistics Estonia compiles a report on the results to the European Commission and the state. The activity is commissioned by the Ministry of Finance.

Household Finance and Consumption Survey

The Household Finance and Consumption Survey (HFCS) is conducted in cooperation with Eesti Pank. The aim of the survey is to collect information about the assets, liabilities, income and expenses of households. The collected data are used by Eesti Pank for carrying out economic surveys and economic policy analysis, e.g. for assessing the impact of the monetary policy or financial stability and tax systems analysis. The survey has been conducted twice in Estonia: in 2013 and 2017. In 2018–2019, survey data are processed in cooperation with Eesti Pank and the European Central Bank. Data of the 2017 survey are published in 2020. In the same year, the third survey wave shall be conducted in Estonia.

Creating the Sport Satellite Account

In the second half of 2018, Statistics Estonia created a sport satellite account for 2014. The satellite account includes the contribution of the economic activities in the sport sector to the Estonian gross domestic product. The importance of sport has been highlighted in the White Paper on Sport published by the European Commission in 2017: "Sport is a growing social and economic phenomenon which makes an important contribution to the European Union's strategic objectives of solidarity and prosperity. The Olympic ideal of developing sport to promote peace and understanding among nations and cultures as well as the education of young people was born in Europe and has been fostered by the International Olympic Committee and the European Olympic Committees." In the development strategy "Estonian sport 2030", it has been stated that although all the sport-related targets cannot be measured every year, development can be observed on the basis of the number of participants in sport, financing as well as the contribution of the economic activities related to sport to the economy as a whole. In the National Health Plan 2009–2020, the proportion of participants in sport is the basis for the indicators of the social inclusion of residents, physical activity, mental health and access to leisure services.

Sport satellite account is an extract of economic indicators, which reflects the level of sports education, infrastructure and services, the total consumption of sport-related products and services as well as the contribution of the activity to Estonian economy. Activities related to physical education and sport often coincide with other areas, e.g. broadcast sports programmes are part of both culture and sport. As a result of this statistical activity, an overview of sport-related areas will be given.

In satellite accounting, the sport sector has been defined using the Vilnius definition, which takes both a broader and narrower view on sport-related activities in economy. Using the Vilnius definition ensures comparability with other countries, which is an important reference basis for analysing developments in sport and assessing the situation in Estonia. The broad Vilnius definition includes economic activities which are required for sporting activities as well as what sport requires as an input but which may be connected with sport or also with other areas. The broad definition includes everything that is related to sport. The narrow definition includes all sport-related products and services required for sporting activities. The core of sport is the narrowest definition of sport and focuses only on the division (93) "Sporting services and amusement and recreation services" in the products and services classification. The activity is commissioned by the Ministry of Culture.
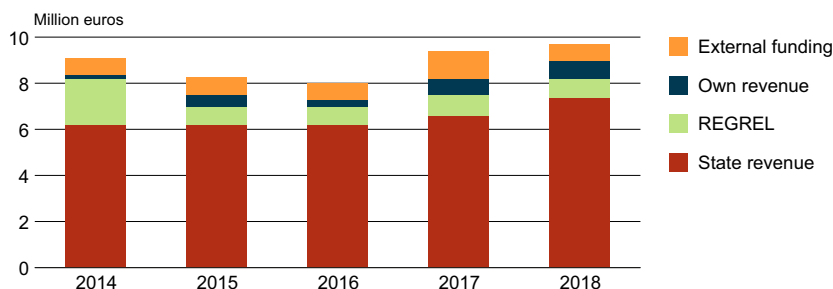
Risks, potential and impact of the excise policy

The analysis "Risks, potential and impact of the excise policy on the economic environment in the context of border trade" was commissioned by the Ministry of Finance and is carried out by AS PricewaterhouseCoopers in cooperation with Statistics Estonia. The aim of the analysis is to give an overview of the wider impact of alcohol, tobacco and motor fuel excise duty increases in the past 3–5 years resulting from border trade. The analysis must include quantitative and qualitative data, and based on the data, the impact of the excise policy on enterprises and economy should be assessed. As a result, the state can make informed decisions. The task of Statistics Estonia is to collect the statistical data on the consumption, production, import and export of excise goods, which are used to analyse the changes in the purchase and consumption of alcohol and tobacco and the consumption of fuel by households and enterprises, in the production of alcohol, export and import of excise goods and the volume of border trade. For assessing the socio-economic impact of the excise policy, the analysis of economic indicators of those enterprise groups (producers, importers, retailers and transporters of excise goods) that are affected the most by the excise policy is used. The project ran from October 2018 until February 2019.
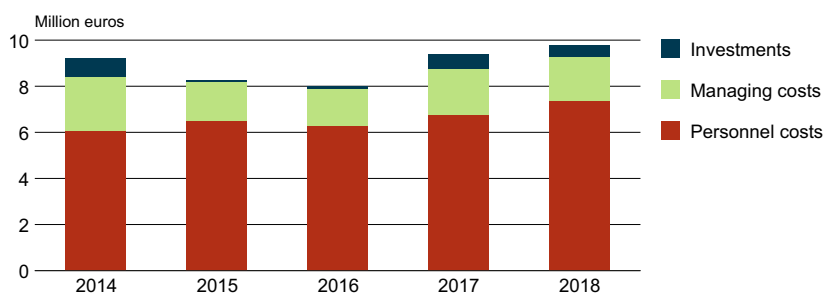
Financing

Statistics Estonia's activities are financed from state revenue, own revenue (income from economic activities) and external funding. Register-based population and housing census (REGREL) receives separate funding from the state revenue.

**Financing of Statistics Estonia's activities, 2014–2018**

Million euros

Legend: External funding, Own revenue, REGREL, State revenue

Statistics Estonia's operating costs and investments, 2014–2018

Million euros

Legend: Investments, Managing costs, Personnel costs

In 2018, operating costs totalled 9.2 million euros, of which personnel costs were 7.4 million, managing costs 1.9 million and investments 0.5 million euros. Compared to 2017, the expenditure increased by 5%, incl. a 9% increase in personnel costs. Managing costs and investments remained close to the 2017 level.

Statistics Estonia's personnel costs, 2014–2018

Million euros

Legend: External funding, Own revenue, REGREL, State revenue
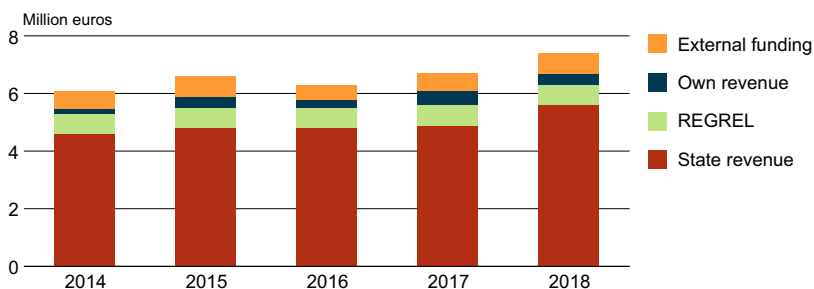
5.6 million euros, i.e. 76% of the personnel costs in 2018 were financed from state revenue. Compared to 2017, the share of personnel costs financed from state revenue (14%) as well as from external funding (22%) increased. The financing of REGREL from the budget decreased by 6%. Financing from own revenue decreased by 34% due to changes in the volume of work.

Personnel costs went up due to an increase in the average salary.

Statistics Estonia's managing costs, 2014–2018

Million euros

Legend: External funding, Own revenue, REGREL, State revenue
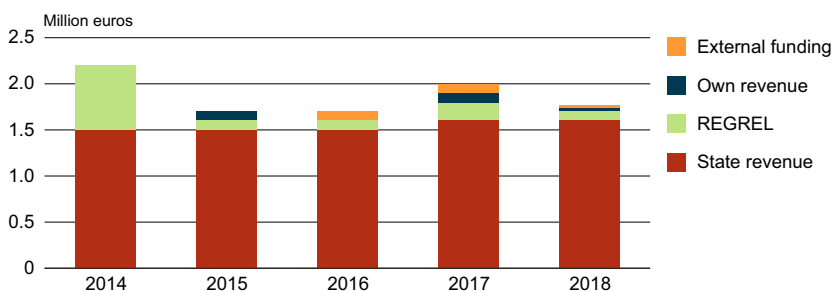
1.6 million euros, or 88% of the managing costs in 2018 were financed from state revenue. These costs are mostly related to the rent and maintenance of offices, business trips, training and ICT needs. Due to changes in the cost structure of grant projects, expenses financed from external funding decreased three times in 2018, and expenses financed from own revenue decreased four times due to smaller volume of commissioned work. The 20% increase in REGREL costs was related to changes in the census project plan.

Statistics Estonia's investments, 2014–2018
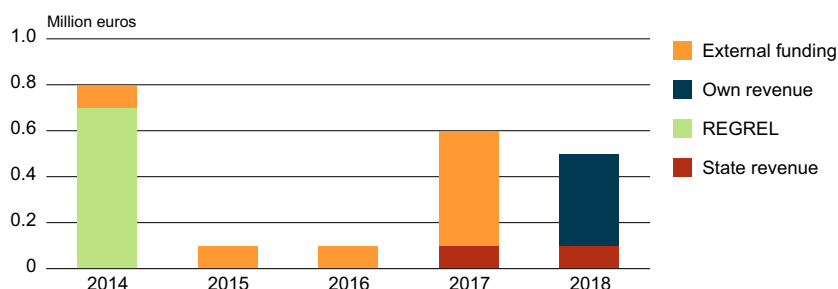
Investments made in 2018 amounted to 0.5 million euros, of which 0.4 million euros was used for purchasing the data virtualisation software Denodo for the project "Reaalaja majandusinfo andmekaeve" ("Real time economic information mining"), and 0.1 million euros was used for improving the existing applications.

Statistics Estonia's operating costs and investments, 2014–2018
Thousand euros

	2014	2015	2016	2017	2018
Total expenditure	**9,208.9**	**8,279.1**	**7,985.2**	**9,398.1**	**9,683.7**
Operating costs	8,377.4	8,210.4	7,896.2	8,764.4	9,207.3
personnel costs	6,121.2	6,498.2	6,265.2	6,760.3	7,355.1
managing costs	2,256.2	1,712.2	1,631.0	2,004.1	1,852.2
IT investments	819.1	68.7	89.0	633.7	476.4
Other investments	12.4	0.0	0.0	0.0	0.0
Expenditure from state revenue	6,189.2	6,242.6	6,237.5	6,626.2	7,370.4
operating costs	6,144.8	6,242.6	6,237.5	6,506.6	7,255.3
personnel costs	4,606.5	4,775.4	4,784.0	4,918.5	5,621.7
managing costs	1,538.3	1,467.2	1,453.5	1,588.1	1,633.6
IT investments	32.0	0.0	0.0	119.6	115.1
Other investments	12.4	0.0	0.0	0.0	
Expenditure from own revenue	248.5	459.1	307.5	679.3	756.7
operating costs	226.9	447.7	307.5	679.3	395.4
personnel costs	207.6	376.5	272.9	539.4	355.6
managing costs	19.3	71.2	34.6	139.9	39.8
IT investments	21.6	11.4			361.3
Expenditure from external funding	730.9	793.9	685.3	1,162.5	714.3
operating costs	646.2	736.6	596.3	648.4	714.3
personnel costs	604.0	686.9	541.9	562.9	685.2
managing costs	42.2	49.7	54.4	85.5	29.1
IT investments	84.7	57.3	89.0	514.1	
PHC 2011 expenditure	194.6	0.0	0.0	0.0	0.0
operating costs	194.6	0.0	0.0	0.0	0.0
personnel costs	161.0	0.0	0.0	0.0	0.0
managing costs	33.6	0.0	0.0	0.0	0.0
IT investments	0.0	0.0	0.0	0.0	0.0
REGREL expenditure	1,845.7	783.5	754.9	930.1	842.3
operating costs	1,164.9	783.5	754.9	930.1	842.3
personnel costs	542.1	659.4	666.4	739.5	692.6
managing costs	622.8	124.1	88.5	190.6	149.7
IT investments	680.8				

Personnel

The main objective of Statistics Estonia's personnel strategy is to ensure that in the organisation there are motivated and competent employees needed for achieving the objectives and performing the tasks of the organisation.

Staff and number of employees

The total number of places of employment in Statistics Estonia has not changed: on 31 December 2018, there were 397 places of employment in the staff, including 153.5 posts and 243.5 jobs. Over the course of the year, the proportion of posts and jobs in the total number of places of employment changed significantly. In 2017, posts accounted for 60% of the total number of places of employment and jobs accounted for 40%; on 31 December 2018, the situation was the reverse: the number of posts had fallen to 39% and the number of jobs had risen to 61%. The total number of employees as at 31 December 2018 had somewhat increased compared to a year earlier, but the average annual number of full time equivalent employees decreased in 2018 by 3%.

Statistics Estonia's employees, 2014–2018

Year	Number of places of employment in staff as at 31.12	Number of employees as at 31.12		Average annual number of employees		Average annual number of full time equivalent employees	
		Total	Without interviewers	Total	Without interviewers	Total	Without interviewers
2014	419	434	348	413	331	349	313
2015	415	402	336	397	321	337	302
2016	397	392	329	398	319	335	295
2017	397	390	316	378	312	320	290
2018	397	399	324	371	312	315	281

82% of the staff (incl. interviewers) of Statistics Estonia are women and 18% are men; the average length of service in the organisation is 10 years and 7 months and the average age is 49 years. 77% of employees have higher education (86% without interviewers), which is significantly higher than the average for public authorities (60%). Over the past year, the distribution of employees by sex and education did not change significantly. The average age decreased by one year but continues to be considerably higher than the average for public authorities (42 years). In 2018, the voluntary turnover in Statistics Estonia, which reflects only those who left the organisation on their own initiative, was 10.9% (8.9% without interviewers). Compared to previous years, the turnover has not changed considerably.

Remuneration

The average gross salary of Statistics Estonia's employees increased by 12% in 2018. The increase in the gross salary was affected the most by the 10.5% increase in the average basic salary – at the end of 2017, the average basic salary stood at 1,320 euros, but on 31.12.2018, at 1,474 euros. An increase in salaries has been possible due to better use of the organisation's human and financial resources and additional funds in the budget.

Average gross salary, 2014–2018

Year	Monthly gross salary	Change on previous year, %
2014	1,153	
2015	1,202	4.2
2016	1,231	2.4
2017	1,334	8.4
2018	1,518	12.1

Family and employee-friendly employer

At the end of 2016, Statistics Estonia decided to participate in the family and employee-friendly employer project of the Ministry of Social Affairs and apply for a Family-Friendly Employer label. In September 2017, Statistics Estonia was awarded an initial Family-Friendly Employer label in recognition of the achievements thus far in making the organisation more family and employee-friendly and as a confirmation of the organisation's aim to reach a Family-Friendly Employer higher-level label.

In 2018, as part of the project, an individual training room equipped with two rowing ergometers, and in April, the in-house health trail were opened to support the healthy and active lifestyle of employees. Since 2018, besides three paid health days, Statistics Estonia has provided for its employees sickness benefit from the second day of sick leave (70% of the salary).

In 2018, an employee satisfaction and commitment survey was conducted, according to which, the overall satisfaction with Statistics Estonia as an employer is approximately 72%. The survey was part of the development of the employer's image – this work will continue in 2019.

Development and training

Compared to 2017, the training volume (number of hours) increased by nearly 10%. On average, an employee had four training days a year. In-house training continued to account for more than 50% of the total training volume and increased by 16% compared to a year earlier. Despite the overall increase in the training volume, training costs were 28% lower than the year before.

The largest share of training was related to the main activity of the organisation (53% of total training hours), which was followed by management training (13%), communication psychology (13%) and IT training (11%).

In 2018, the focus was on increasing management capacity and developing public speaking skills. The volume of management training increased by nearly a quarter compared to the previous year. Over the course of the year, five commissioned training sessions for two groups of managers took place: introduction to management, team management, performance management and employee evaluation training. A development day for managers also took place. On average, managers had 11.5 hours of management training over the year.

In 2019 and coming years, the main focus is on the analysis software "R" training, which already commenced in 2018, to ensure a smooth transition to a wider use of the software. Information briefings on the capabilities of "R", held in April and May, were very popular. In August and September, 23 employees participated in more in-depth training. Given the considerable need for training, preparations were started for the in-house training of "R" (incl. online training) in the coming years.

European Statistical Training Programme (ESTP) training (13 participants) and in-house training of interviewers and registrars (12 training sessions with 257 participants) accounted for a significant share of training related to the main activity of the organisation. The largest number of participants was recorded in new employee training (46 participants) and two in-house public speaking training sessions (42 participants). In addition, 28 information briefings on topical issues took place during the year (891 participants in total).

International cooperation

In 2018, Statistics Estonia's employees visited 43 different destinations. The furthest – 17,100 km away as the crow flies – was Wellington, the capital of New Zealand, and the smallest was Slivek with 121 permanent inhabitants in Bulgaria. Expectedly, the largest number of trips – 95 – was made to Luxembourg, home of Eurostat.

Although the tight schedule as the holder of the presidency of the Council of the European Union in 2017 did not allow making major plans for the future, international cooperation in 2018 was still pleasantly diverse.

The Estonian Presidency ended in 2017, but meaningful contacts between the presidency trio continued. At the end of January, representatives of the Bulgarian, Estonian and Austrian presidency teams met in the training centre of Statistics Bulgaria to exchange ideas about the processing of draft legislation in the European Union. The high level of cooperation between the trio was evident also from the fact that already on 23–24 April, the representatives of Estonia, Bulgaria and Austria met in Tallinn. Another meeting was held in Plovdiv in June, when Bulgaria handed over the presidency to Austria, and in December in Vienna, where the presidency was handed over to another presidency trio. In January 2019, Romania became the chair of the Council Working Party on Statistics.

In June 2018, Statistics Finland invited the Deputy Director General Tuulikki Sillajõe to share the experience of chairing the Council Working Party on Statistics before, during and after the Estonian Presidency. The discussions during two intensive working days covered all questions from forming the presidency team, training, budgeting, establishing the draft legislation likely to be processed, preparing the meetings and making conclusions of meetings, creating and maintaining the website, to details regarding cooperating with the state's other foreign missions in the European Union, other Member States, the European Commission, the Council Secretariat and Legal Service, and the European Parliament. The information was highly valued by the Finnish side.

The activities in 2018, however, were not only related to the Presidency. In April, for instance, the delegation of the statistical office of Oman visited Statistics Estonia. They were mainly interested in preparations for a register-based census.

There were other foreign visitors in 2018 as well. On 21 August, the delegation of the Committee on Internal Affairs and Communications of the House of Representatives of Japan arrived in Estonia. They were interested in the specific features of the Estonian statistical system, state registers, producing statistics on the basis of the registers, and generally about how statistics are used by state authorities.

Undoubtedly the furthest destination visited by Statistics Estonia's employees was Wellington. Deputy Director General Andres Kukke and the Head of Statistics Design Department Maiki Ilves visited the statistical office of New Zealand to learn from their experience in the production and dissemination of statistics and data governance. New Zealand, which similarly to Estonia is one of the D7 countries (Digital Nations), is considered the most progressive country which uses their own data for state-level decision-making. This is confirmed by the fact that a representative of the statistical office participates in all government sessions and refers to important statistical data where necessary when decisions are being made. The most important knowledge gained in New Zealand relates to how Statistics Estonia can support other state institutions with data governance and inform the society about how and for what purposes the data and statistics are used. Based on this knowledge, Statistics Estonia's action plan for providing the data governance service to other state institutions was later specified. This was a joint visit with the same-level delegation from Statistics Finland. Among the members of the Estonian delegation was Priit Raspel from Health and Welfare Information Systems Centre.

The most exotic destination was probably Juiz de Fora in Brazil. International input-output conferences usually take place in summer, but this time, Leading Analyst Iljen Dedegkajeva from the Economic and Environmental Statistics Department visited the local winter, as a large part of Brazil is located south of the equator. The conference was informative: during five days, more than 300 visitors could choose from 150 different presentations. The main objective of the conference – to promote the exchange of ideas between economists, producers of official statistics, officials, policy-makers and others interested in the analysis of input-output tables – was fully reached.

Earlier, the employees of Statistics Estonia have usually visited conferences alone, but in 2018, two or more of our people were sent to a number of events. Often someone made a presentation during the visit. On 26–29 June in Kraków, Poland, in the official statistics quality conference Q2018, which is held every two years, a joint presentation "Geospatial mobile data to increase the quality of usual place of residence" by Kaja Sõstra and Kristi Lehto was accepted for oral presentation, which is a recognition of both the presenters as well as Statistics Estonia.

Autumn and the last months of the year were full of study visits. In September, environmental statisticians made a study visit to Statistics Netherlands in the matters of implementing a Eurostat grant. Discussions concerned energy accounts, and the hosts made many suggestions, which are worth a try in Statistics Estonia.

In October, the representatives of the Statistics Design Department and Data Service Department visited Statistics Austria and acquainted themselves with the local administrative data management system and description of captured data.

In November, members of the questionnaires team visited Statistics Finland in order to become acquainted with the questionnaire design process and testing methods. In the final month of the year, employees from the Statistics Design Department and Enterprise and Agricultural Statistics Department visited Statistics Sweden in Örebro to acquaint themselves with the matters of the industrial products report (PRODCOM).

In certain matters, however, the level of Statistics Estonia is so good that we can be of help to countries much larger than Estonia.

Statistics Estonia took part in the compilation of the OECD methodological manual on environmental taxes accounts, after which, the statistical office Rosstat of the Russian Federation, which recently started calculating environmental taxes, asked help from Statistics Estonia's environmental statisticians. Kaia Oras and Kaia Aher helped Estonia's eastern neighbour to identify potential environmental taxes and replied to Rosstat's methodology-related and practical questions. The experience of advising a large country and using Russian environmental statistics terminology (with the help of Russian-speaking specialists from the Economic and Environmental Statistics Department) was invaluable.

NEW STATISTICAL ACTIVITIES IN 2019–2023

The list of statistical activities for 2019–2023 includes six new statistical activities.

Name of statistical activity	Expected cost, thousand euros					Basis for need for statistical activity	Type of statistical activity
	2019	2020	2021	2022	2023		
Integration	7.0	7.0	7.0	7.0	7.0	Commissioned nationally	Main statistics
Labour Force Survey module "Work organisation and working time arrangements"	10.5	10.5	–	–	–	European Union legislation	Non-regular statistics
Statistical register of buildings and dwellings	2.6	2.6	2.6	2.6	2.6	European Union legislation	Statistical register
Statistical register of persons	2.6	2.6	2.6	2.6	2.6	European Union legislation	Statistical register
Participation in culture	14	195	–	14	195	Commissioned nationally	Cyclical statistics
European Health Interview Survey	391.1	18.2	–	–	–	European Union legislation	Cyclical statistics

The aim of the statistical activity "Integration" (40023) is to publish integration statistics in state databases and reflect the integration processes of Estonians and the Estonian population with a different mother tongue in employment, social life and education. This information is required by ministries and their cooperation partners; the main representative of public interest is the Ministry of Culture.

Work will start with the Labour Force Survey module "Work organisation and working time arrangements" (40721), the aim of which is to get a better overview of the flexibility of working time arrangements, incl. the possibility of employees to decide on their working time and out-of-office hours and about how often they are required to change their working-time arrangements. Information is also collected on the registration of presence and working time, time pressure, direct management and independence allowed in the working environment, workplace and time spent on commuting. The results will be published in 2020. The statistical activity is carried out under a European Union regulation.

The aim of the statistical activity "Statistical register of buildings and dwellings" (20014) is to establish and maintain the population of buildings and dwellings, which forms the basis for statistical activities in the field of social life, population and housing, incl. the register-based population and housing census. The statistical register of buildings and dwellings is updated on the basis of legal databases and data of statistical activities.

The aim of the statistical activity "Statistical register of persons" (30011) is to establish and maintain the population of persons, which forms the basis for statistical activities in the field of social life and population, incl. the register-based population and housing census. The statistical register of persons is updated based on legal databases and data of statistical activities.

Preparatory work will begin for the statistical activity "Participation in culture" (40422), which is carried out every other year. The aim of the statistical activity is to provide information about the cultural participation habits and cultural activities of the population and related social aspects. The statistical activity is commissioned nationally and the main representative of public interest is the Ministry of Culture. The results of the statistical activity will be published in 2020.

The aim of the statistical activity "European Health Interview Survey" (40610) is to assess the health status of the Estonian population, factors affecting it and the use of health services, and to compare the changes that have occurred to the results of previous surveys. "Estonian Health Interview Survey" is part of the "European Health Interview Survey", the aim of which is to enable better monitoring of the European Union programmes related to population health, and policy areas including social integration and social protection, health inequality and healthy ageing. The statistical activity "European Health Interview Survey" is governed by European Union regulations. The first "Estonian Health Interview Survey" was conducted in 2006 and the second in 2014.

# ADMINISTRATIVE BURDEN OF RESPONDENTS

In Statistics Estonia, two indicators are used to assess the reporting burden: the number of questionnaires per enterprise and the time spent on completing and submitting questionnaires. These indicators are assessed for enterprises (hereafter also "companies").

For the production of statistics, Statistics Estonia mostly uses databases and reuses the already collected data. Data are collected from enterprises only if they cannot be obtained from other sources. If possible, sample surveys are used in the case of small-scale enterprises, which means that data are collected only from part of the survey target group.

Data from state registers are used to partly of fully perform two thirds of the statistical activities. In order to reduce the administrative burden of enterprises, Statistics Estonia actively looks for alternative data sources and possibilities to reduce sample sizes. In order to distribute the burden of respondents more evenly, samples are coordinated, i.e. sampling is carried out in a way that different surveys would not overlap.

In ten years, from 2010 to 2019, the number of companies registered in the commercial register has nearly doubled and the number of active enterprises has increased by approximately two thirds. However, due to the use of sample surveys and databases, the number of enterprises required to submit data has not increased but rather decreased.

Number of registered and active companies and companies required to submit data, 2010–2019
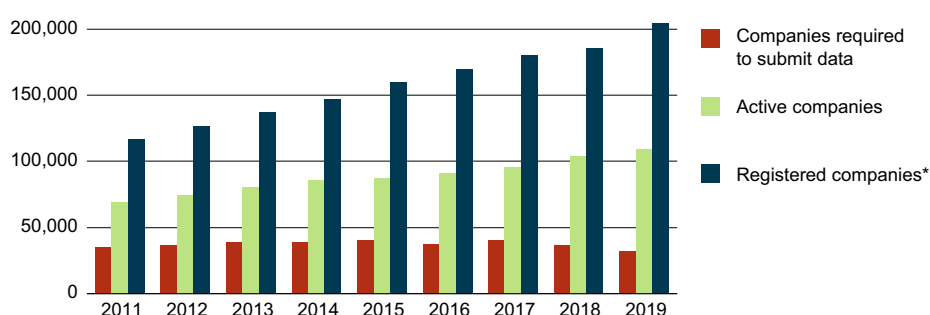
* Source: commercial register (as at start of year)

The number of respondents in 2019 is currently preliminary, as new enterprises will be added to samples during the year; e.g. to the sample for the statistical activity "Foreign trade", those enterprises will be added whose export or import turnover exceeds the set threshold. Also new large enterprises will be added to the sample.

Statistical activities affecting the administrative burden of enterprises in 2018 and 2019

5,000 small enterprises no longer had to submit wages and salaries and employment data in 2018, because the relevant questionnaires and samples were completely redesigned.

Redesigning employment and wages and salaries questionnaires and samples, 2017–2018

Size group	2017		2018	
	Total sample of questionnaires "Wages and salaries" and "Job vacancies and labour turnover"	incl. inclusion in both samples	Sample of questionnaire "Wages and salaries and labour force"	Change in 2018 sample compared to 2017
1–9 employees	8,780	8,378	3,737	−5,043
10–19 employees	1,099	821	1,226	127
20–49 employees	1,152	975	1,233	81
At least 50 employees	1,936	1 936	1,851	−85
Total	12,967	12,110	8,047	−4,920

In 2018, the statistical activity "Financial statistics of foreign affiliates" (sample size 135) was carried out (previously by Eesti Pank). The statistical activity "Accommodation establishment providing rehabilitation services" was no longer performed and data for statistical activity "Pension funds" are received from the websites of pension funds.

In 2019, newly established enterprises are not required to submit data for the statistical activity "Business Register for Statistical Purposes" (sample size 17,000 enterprises). Cyclical statistical activities "Innovation in enterprises" (sample size 2,011) and "Hourly earnings of male and female employees" (sample size 9,998), and non-regular statistical activity "Fleet-based economic and social indicators" (sample size 154) will be carried out.

Number of questionnaires per enterprise

In 2018, an enterprise required to submit data to Statistics Estonia had to submit on average 1.9 questionnaires. In 2017, the respective number was 2.5.

The number of questionnaires per enterprise can be reduced by reducing and coordinating the samples in the group of enterprises with 1–9 and 10–19 employees and by using alternative data sources instead of surveys, which affects the administrative burden of all enterprises in all size groups.

Two thirds of active enterprises did not have to submit any questionnaires to Statistics Estonia in 2018. A third of enterprises had to submit data with at least one questionnaire.

The administrative burden decreases proportionally to the decreasing number of employees in the enterprise. Compared to 2017, administrative burden decreased in all size groups of enterprises. 43% of enterprises had to submit data to Statistics Estonia in 2017, while in 2018, only 35% were required to do so, i.e. 8% of enterprises no longer had to submit data to Statistics Estonia. In 2018, the administrative burden was heaviest for large enterprises, which were required to submit data with 23 questionnaires. The number of questionnaires to be submitted decreased in all size groups. 60% of enterprises with at least 50 employees had to submit data with at least 11 questionnaires in 2017, but in 2018, the share of such enterprises was 28%. According to estimates, administrative burden will lighten further in 2019.

Companies by size and number of questionnaires to be completed, 2017–2019*
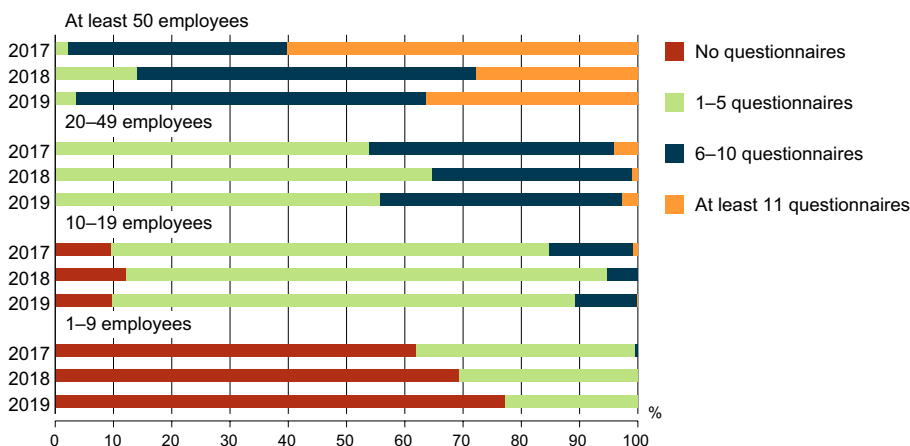

* 2019 data are preliminary.

Questionnaires must be submitted once a year, quarter or month. Taking the monthly questionnaires into account 12 times and quarterly questionnaires 4 times, the number of questionnaires including the frequency of questionnaire submission is obtained.

In 2018, the distribution of the number of questionnaires including submission frequency was as follows: enterprises with 1–9 employees had to submit on average fewer than 4 questionnaires per year and enterprises with at least 50 employees had to submit on average 44 questionnaires per year, i.e. nearly 4 questionnaires a month. Enterprises with 10–19 and 20–49 employees had to submit respectively an average of 9 and 19 questionnaires, i.e. 1–2 questionnaires a month.

In 2018, compared to 2017, the number of questionnaires declined in all size groups of enterprises. The overall number of questionnaires to be submitted dropped, but increased somewhat in size groups of enterprises with 10–19 and 20–49 employees.

Average number of questionnaires by size of company, 2017 and 2018
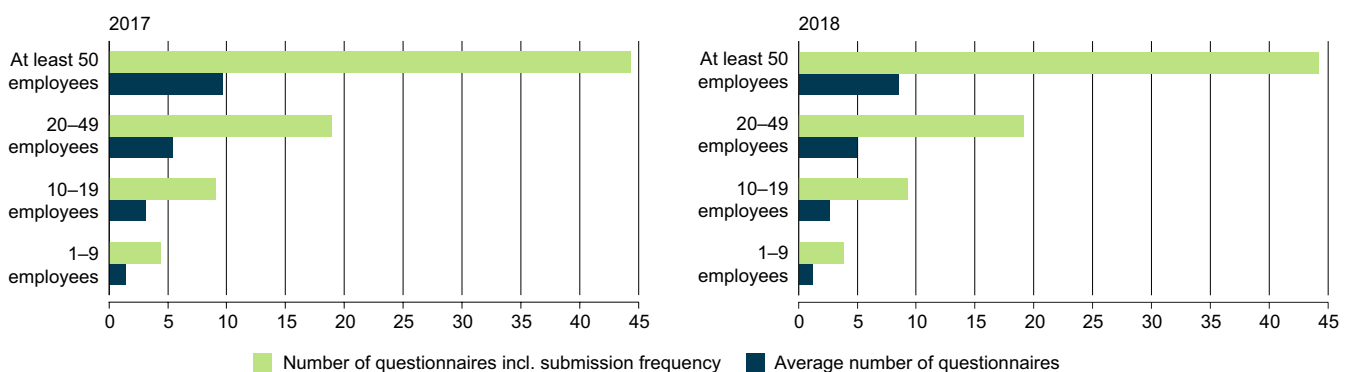
Time spent on questionnaire completion and submission

Since 2008, Statistics Estonia has assessed the time spent on questionnaire completion and submission on the basis of information collected from enterprises. At the end of each questionnaire is a table "Time spent on filling out the questionnaire", where the respondent can indicate the time that was spent on the completion and submission of the questionnaire in hours and minutes. Since 2016, the completion time for monthly and quarterly questionnaires has been asked for one period per year only. In this period, completing the table on questionnaire completion time is mandatory for enterprises who submit data electronically via eSTAT. In the remaining periods, indicating the time spent is voluntary. The total time spent by an enterprise is determined on the basis of answers for one period. Missing or improbable values are imputed.

Year after year, less time is spent on data submission. In 2018, on average, submitting a questionnaire took one hour, which is the same as in 2017. On average, less time was spent on submitting monthly and annual data than in 2017, but somewhat more time was spent on submitting quarterly data. The average time spent on completing and submitting monthly questionnaires is affected primarily by extensive foreign trade questionnaires. The average time spent on an Intrastat form is approximately two hours. The completion of other monthly reports takes half an hour on average. In May 2018, the electronic data submission environment eSTAT was upgraded, affecting the data submission time: initially, users had problems with finding the buttons they were accustomed to using in eSTAT. By now, users are used to the new eSTAT.

Average time spent on questionnaire completion and submission by frequency of questionnaire completion, 2014–2018

(minutes)

Frequency of questionnaire completion	2014	2015	2016	2017	2018
1–2 times a year	125	136	104	97	90
4 times a year	36	35	40	35	43
12 times a year	73	73	77	62	59
Total	70	73	70	60	60

In total, Estonian enterprises, institutions and organisations spent 33,000 working days on submitting data to Statistics Estonia in 2018. This is 2,100 working days, i.e. 6% less than in 2017. As a result of redesigning the wages and salaries and labour force questionnaires and samples, 1,200 fewer working days were spent on submitting the respective data. The total questionnaire completion and submission time was affected also by the improved data submission discipline in 2018, when the response rate increased by 2% compared to 2017.
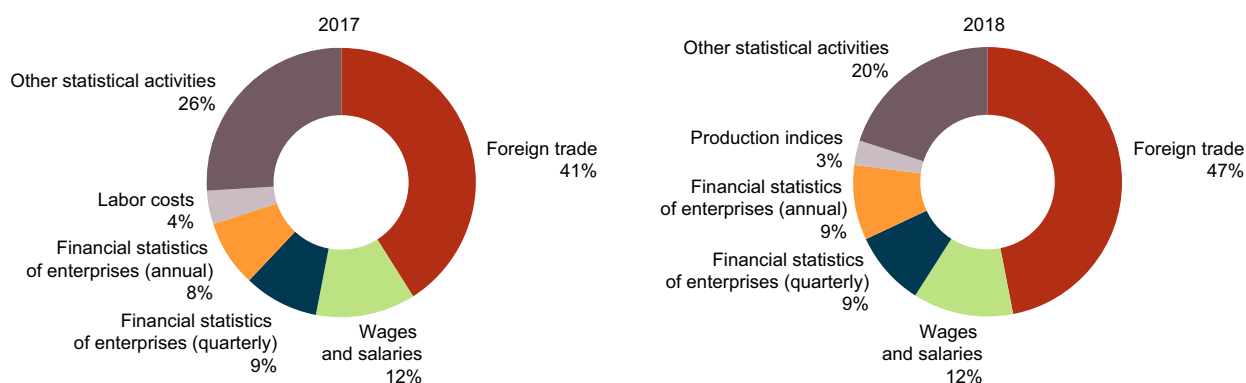
Total data submission time, 2011–2018

(working days)

	2011	2012	2013	2014	2015	2016	2017	2018
Main statistics	49,000	43,900	40,200	41,000	38,300	38,200	33,400	33,000
Intrastat	23,000	20,900	19,400	19,800	18,500	18,200	14,400	15,600
Non-regular statistics	6,200	200	3,200	0	4,000	4,000	1,700	0
Total	55,200	44,100	43,400	41,000	42,300	42,200	35,100	33,000

In the following figures, those statistical activities have been included in the case of which the administrative burden exceeded 1,000 working days a year.

Distribution of administrative burden by statistical activity, 2017 and 2018

2017

Other statistical activities 26%
Labor costs 4%
Financial statistics of enterprises (annual) 8%
Financial statistics of enterprises (quarterly) 9%
Wages and salaries 12%
Foreign trade 41%

2018

Other statistical activities 20%
Production indices 3%
Financial statistics of enterprises (annual) 9%
Financial statistics of enterprises (quarterly) 9%
Wages and salaries 12%
Foreign trade 47%

Activities aiming to reduce the administrative burden of enterprises

- Using database data for pre-filling questionnaires and for their partial or complete replacement

  The possibility of using new databases for producing statistics is explored.

  Database data are used for pre-filling questionnaires and for their partial or complete replacement. Questionnaires are pre-filled with data from annual reports, the register of taxable persons (employment register, value added tax return, declaration of income and social tax) and Agricultural Registers and Information Board (ARIB). Annual reports were first used in 2012, other sources in 2014. Pre-filling questionnaires with annual report data reduced the time spent on filling in a report at most by 50%.

- Cross-using the data collected from enterprises

  Data previously collected from enterprises are used to perform statistical activities, and questionnaires are pre-filled with data from the same questionnaire of the previous period or from other questionnaires.

- Optimising samples

- Improving the quality of questionnaires

  In 2015, Statistics Estonia hired a questionnaire specialist, who reviews the content of problematic questionnaires and tests questions on respondents.

- Developing the electronic data submission environment eSTAT

  In May 2018, eSTAT design was upgraded. As a result, data submission took more time during the period of familiarisation. By now, respondents are used to the upgraded eSTAT. In order to develop eSTAT, feedback is collected with the promoter index survey. Feedback from respondents is also received via calls to the contact centre of respondents.

- Developing and implementing new solutions for data submission

  Developing data-based reporting via machine-machine interface, project "Reporting 3.0" and other developments.

USERS' SATISFACTION WITH OFFICIAL STATISTICS

All the information published by Statistics Estonia is available for free on Statistics Estonia's website. The number of visitors to the website decreased by 5% compared to 2017. A significant contribution to the increase in the number of visitors in 2017 was made by the popular family name statistics application, which was published in summer 2017. In 2018, visits to Statistics Estonia's website numbered 1,176,000.

The website received an average of 16,000 visits per week, of which 70% were made from Estonia. The highest visitor numbers were recorded in January, February and November, and the lowest in June and July.

Number of visitors to the website by month, 2013–2018
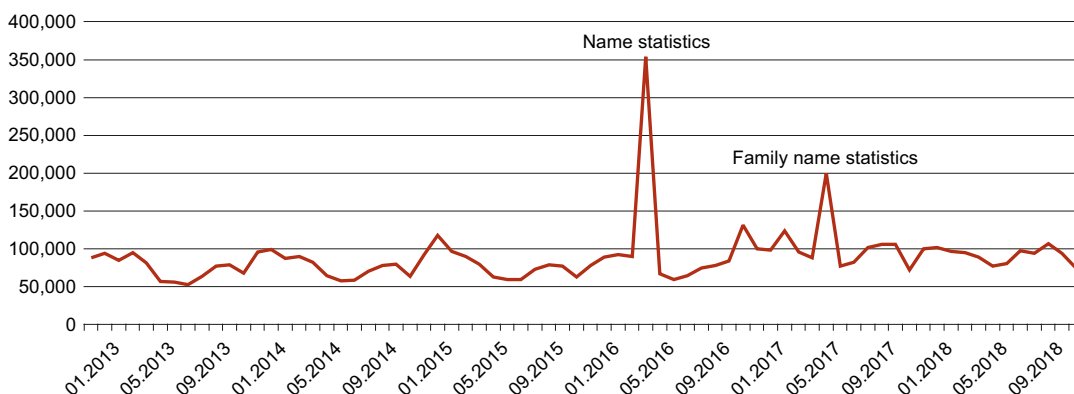
The most popular source for statistical information is the statistical database with 128,000 visitors in 2018; the number increased by 13% compared to 2017. The number of users of pre-defined tables has increased considerably (more than 60%). Next in popularity from channels used for finding statistics were news releases and the regional portrait. The use of main indicators continues to decrease, which can be explained by an increase in the popularity of pre-defined tables. Compared to 2017, the number of users of main indicators decreased also in 2018 (13,400 views), the reason for which was the great popularity of pre-defined tables and the fact that five main indicators were displayed on the main page of the website and these data no longer have to be looked up in pre-defined tables.

Compared to the previous year, the number of requests for information more than doubled. This is mostly due to the introduction of online chat at the end of 2017 as a new communication channel for users, which proved very popular. 50% of requests for information were made via online chat, the number of requests by e-mail has remained at the same level and the number of requests by phone increased somewhat.

In 2018, most popular statistics were wages and salaries and labour cost statistics, which replaced population indicators, which had been the most popular domain in many of the previous years. The popularity ranking of other domains has remained unchanged in recent years.

Most popular statistical domains*, 2016, 2017, 2018
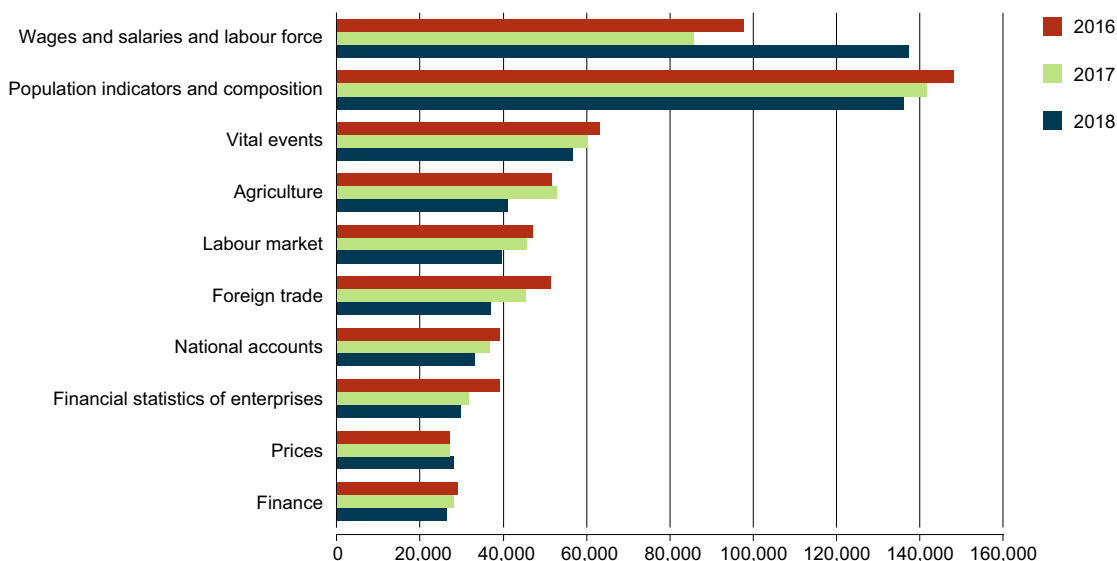
* According to the number of views of the database and pre-defined tables.

User surveys

Reliability of institutions

In 2018, Statistics Estonia joined the "Survey on the reliability of institutions", organised by market research enterprise Turu-uuringute AS. Once a quarter, a face to face interview is conducted in the Omnibus environment with approximately 1,000 persons aged over 15 from all over Estonia. The respondents are randomly selected, which ensures that all countries and settlement types are represented in the sample. The result can be extrapolated to all Estonian residents aged over 15. The question asked and optional answers are: "In your opinion, how reliable are the following institutions? Completely reliable, rather reliable, rather unreliable, completely unreliable, cannot say."

This survey does not cover only active users of statistics but all Estonian residents. The survey sample includes 25–26 institutions and their average reliability in 2018 was 66%. The Rescue Board, the Emergency Response Centre and the Police and Border Guard Board continue to be the most reliable institutions according to residents of Estonia. More than ¾ of the population also consider the Defence Forces and the Tax and Customs Board to be reliable. The same institutions, with small fluctuations, have remained at the top of the list already for years. An average of 61% of residents considered Statistics Estonia to be reliable. The share is biggest among younger people, residents of bigger cities and in Northern Estonia. In rural areas and in Western Estonia, the share of those who consider Statistics Estonia to be reliable is smaller than average. Persons aged over 64 and pensioners most often were unable to give an assessment of Statistics Estonia.

Change in reliability by quarter, 2018
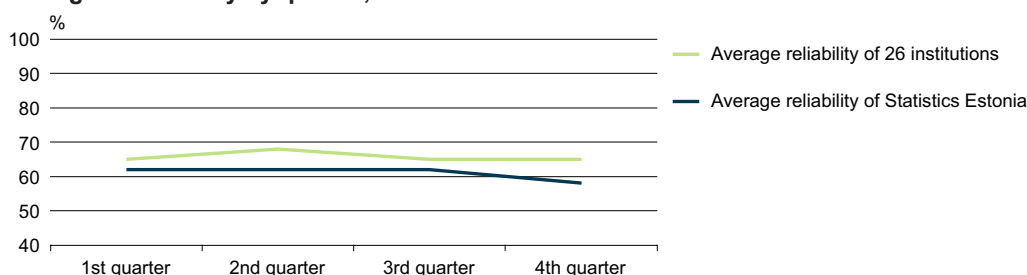
Satisfaction of users with eSTAT

From February to December 2018, Statistics Estonia conducted a satisfaction survey of respondents to obtain an assessment of eSTAT, the electronic data submission channel of Statistics Estonia. A total of 11,300 letters were sent to respondents, inviting them to participate in the promoter index survey. Nearly 1,400 responses (response rate 12%) were received, with assessments given to more than 50 questionnaires.

Satisfaction was examined by using the promoter index methodology, which is based on the presumption that if people recommend someone or something to their friends or acquaintances, they assume responsibility for the quality of the recommended object. The result of the promoter index may range from –100 to 100. "Excellent" ranges from 100 to 60, "very good" from 59 to 20, "good" from 19 to 0, "satisfactory" from –1 to –40, "poor" from –41 to –70 and "very poor" from –71 to –100. The overall negative assessment of the convenience of using eSTAT has decreased compared to the previous year. The average promoter index in 2018 was –39 (–43 in 2017), which can be considered a result bordering "satisfactory" and "poor".

The highest scores were given to completing the questionnaires "Wages and salaries" (–3) and "Financial indicators" (–10); users were least satisfied with questionnaires "Livestock farming. Beekeeping" (–79), "Information technology in enterprises" (–64) and "EKOMAR" (–58).

Managers of small-scale enterprises who fill in questionnaires only once or twice a year usually give the lowest scores to eSTAT. The highest scores are given, for example, by accountants, who submit data more frequently and are thus more familiar with the system.

Respondents pointed out the following positive aspects:

- data submission is quick, convenient, easy;
- questionnaires are pre-filled;
- the accuracy of submitted data can be checked immediately.

The reasons for not recommending eSTAT to others can be divided into three:

- problems with the data submission environment (the environment is not user-friendly, it is difficult to find the questionnaires, etc.);
- problems with the questionnaire to be filled in (the questionnaire is complex, instructions are lacking);
- reasons related to the reputation of Statistics Estonia (data submission is considered annoying and time-consuming, the same data has to be submitted twice).

Statistics Estonia has asked respondents for feedback and proposals on eSTAT since 2015. Most of the questionnaire improvement activities were carried out in 2017, and this work will continue. In the middle of 2018, the user interface of eSTAT was upgraded. Data submission in the upgraded environment is easier and the channel is more user-friendly. The development was carried out in cooperation with accounting companies and accountants and also daily feedback from users was taken into consideration. The new eSTAT design was created in cooperation with design agency Velvet.

Change in the eSTAT promoter index by quarter, 2018
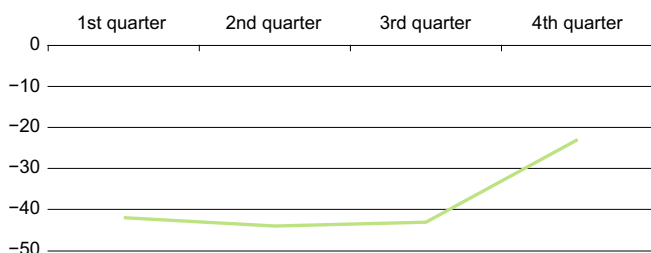
Monitoring statistics users' satisfaction

Since November 2017, Statistics Estonia has asked the users submitting requests or orders for information and users of the database about their satisfaction with the received replies and with Statistics Estonia. Users who have submitted requests or orders for information are sent the questionnaire once a month, and in the same period, the satisfaction questionnaire is also available at Statistics Estonia's database. Assessment can be given on a scale of 1 to 10 to three questions. To calculate the results, the methodology of the promoter index has been used, where the share of users who gave negative evaluations (<7) is deducted from the share of users who gave positive evaluations (9, 10).

**User satisfaction with Statistics Estonia, 2018**
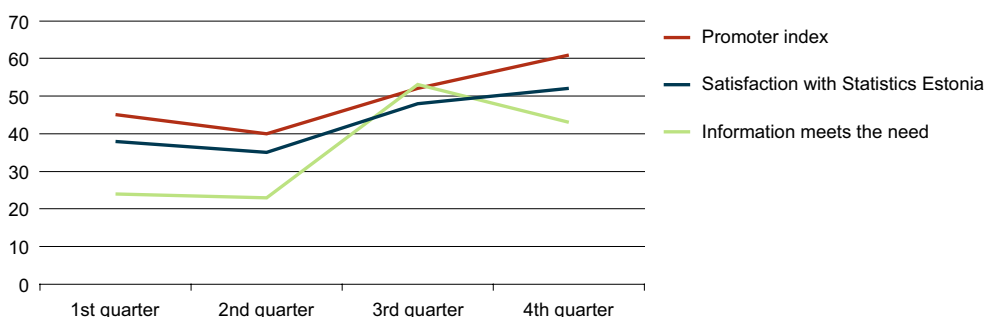
STATISTICS ESTONIA AND OFFICIAL STATISTICS IN THE MEDIA

There were 7,449 media mentions concerning the activities of Statistics Estonia and official statistics in 2018. This is 7% more than a year ago. 3,370 mentions concerned Statistics Estonia's news releases and 489 mentions were about blog posts.

Media mentions, 2014–2018

	Total number of mentions	Average per month	Average per day	Change in total number of mentions compared to preceding year, %
2014	6,275	523	17	−20
2015	7,262	605	20	16
2016	7,068	589	19	−3
2017	6,958	580	19	−2
2018	7,449	621	20	7

Media mentions by month, 2016–2018
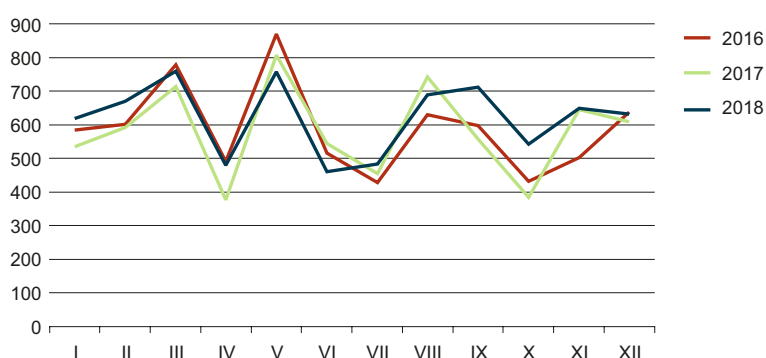
News releases

In 2018, Statistics Estonia published 135 news releases, all of which were covered in the media. According to media monitoring, each news release received 25 media mentions on average. The media was most interested in news releases about wages and salaries and prices. Media reporting on news releases accounted for nearly half of all media mentions.

Top ten news releases by media mentions, 2018
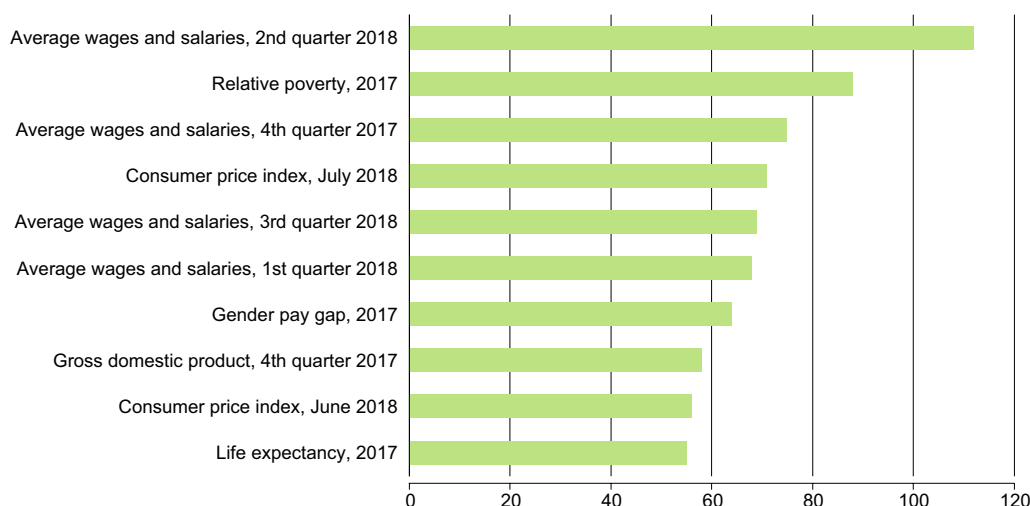
Over the course of the year, the news releases were viewed 193,200 times on Statistics Estonia's website, which is approximately 529 views per day (the corresponding numbers in 2017 were 189,500 and 519).

News release views on Statistics Estonia's website by month, 2016–2018
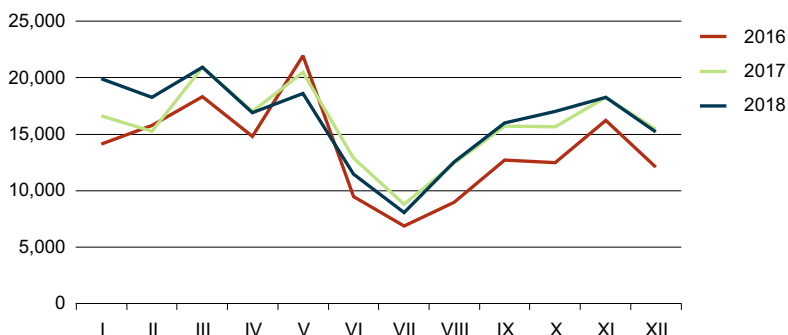
Articles

11 articles written by the employees of Statistics Estonia were published in the media in 2018 (three in 2017). All the articles introduced official statistics.

Press conferences

In 2018, Statistics Estonia held five press conferences.

In February, the publication "Eesti Vabariik 100. Statistiline album. Republic of Estonia 100. Statistical Album" was presented. In the publication, an overview is given of the developments in Estonia in key areas over a century. The publication was presented by the compiler of the publication, Mihkel Servinski. After the presentation, there were three media mentions.

In March, a press conference was held where Leading Statistician Kai Maasoo spoke about the main trends in the salary market in 2017 and Project Manager Tõnis Tähe about significant changes in collecting wages and salaries and labour market data due to the implementation of "Reporting 3.0". After the presentation, there were 75 media mentions.

In April, a joint press conference of Statistics Estonia and the Ministry of Finance was held, where the Minister of Finance Toomas Tõniste and Director General of Statistics Estonia Mart Mägi introduced the plans for the coming years to establish a state data service, significantly improve the quality of national data and reduce the burden of enterprises. The press conference took place after the approval of Statistics Estonia's five-year development plan, which provides for the development of Statistics Estonia into a national data agency, which offers for users data from various sources, provides support in using the data as well as provides classic official statistics. The press conference received ten media mentions.

In May, Statistics Estonia introduced the comparative survey of household and place of residence data, which lasted until October. The survey was used to test the quality of the register-based population and housing census methodology. The purpose and organisation of the survey were introduced by Kaja Sõstra and Ene-Margit Tiit. The press conference received 11 media mentions.

At the end of the year, Statistics Estonia published the results of the 2018 Estonian Social Survey. At the press conference, Leading Analyst Anett Müürsoo gave an overview of the net income of households and Analyst Anu Õmblus about the relative poverty and material deprivation of households. The topic received 19 media mentions.

Statistics Estonia in the social media

Statistics blog

In 2018, Statistics Estonia published 40 blog posts, which were mentioned in the media 495 times (in 2017, the respective numbers were 40 and 489). Over the course of the year, the blog was visited 165,700 times.

Visits to statistics blog by month, 2016–2018
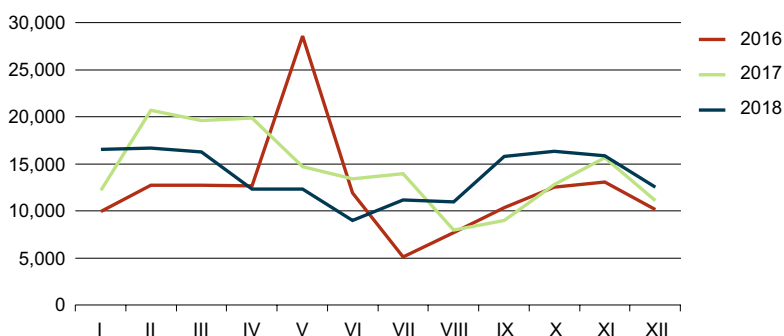
Three articles had more than 1,000 readers on the publishing day: 1) "Suurandmed eraisikute elektritarbimist mõõtmas ja tühje eluruume kindlaks tegemas" ("Using big data to measure electricity consumption of private persons and detect empty dwellings"), authors Toomas Kirt and Helerin Äär; 2) "Eesti külanimed pakuvad suvepuhkuseks tegevust" ("Names of Estonian villages as a pastime for your summer vacation"), author Ülle Valgma; 3) "Üldhariduskoolis on meesõpetajaid alla kuuendiku" ("Less than a sixth of general education school teachers are men"), author Krislin Metsis.

Two posts received the most media mentions (more than 40): 1) "Sündide buum on koondunud suvekuudesse" ("Birth rate booms in summer months"), authors Kadri Raid and Alis Tammur and 2) "Head naistepäeva!" ("Happy women's day!"), author Evelin Puura.

In 2018, the most active contributor to the blog was Kadri Raid, who was the author or co-author of six posts. Alis Tammur was the author of five articles and Mihkel Servinski, Jaan Õmblus and Kaia Oras each wrote four articles. In total, approximately 20 people wrote articles for the blog.

Facebook

Estonian population is 1.3 million. Facebook is the most popular social media channel, which is used in Estonia by nearly 600,000 people. Therefore it can be said that in general every second Estonian resident uses Facebook. Statistics Estonia has had a Facebook account since 2010, which has been used to report Statistics Estonia's news releases, blog posts, publications and information by Eurostat and statistical organisations of other countries. Over the course of the year, the number of followers of Statistics Estonia's Facebook page grew by approximately 900, and in the middle of 2018 (in May), Statistics Estonia had 3,500 Facebook fans. The number is among the smallest compared to the number of Facebook fans of other statistical offices in Europe, but as a ratio, it is probably the largest. Conscious work on increasing the number of followers enables to quickly multiply it, and it is also possible to serve as a model to others with quality content. Therefore, in 2018, we decided to involve the social media marketing agency Goal Marketing as an external expert and formulate together Statistics Estonia's social media strategy on the basis of the strengths and weaknesses and opportunities of Statistics Estonia's Facebook page.

Statistics Estonia's social media strategy until 2020 focuses on:

- improving the image and reliability of the organisation (the goal is to reach by 2022 the top five most reliable state authorities according to the reliability survey of institutions conducted by Turu-uuringute AS);
- bringing statistics and data science closer to ordinary citizens (the goal is for the number of Facebook fans of Statistics Estonia to reach 30,000 by 2022).

The primary target group in terms of improving the organisation's image are infrequent users, who account for the largest number of users and affect the public opinion and image the most. To reach the largest number of people possible, the target group selected for content creation were women aged 25–34, who are most active in social media. Communicating with and including this target group takes the information smoothly to other target groups.

To improve Statistics Estonia's image, content will be created for as large an audience as possible, showing Statistics Estonia as a good consultant, adviser and information bank.

To reach a large audience, Statistics Estonia:

- creates visually attractive and interesting content;
- uses questions and inclusive solutions;
- includes its employees in content creation and dissemination;
- boosts popular Facebook posts financially;
- organises campaigns and quizzes.

The content of Facebook posts is clear, simple, topical, comparative and sparks emotions and debates.

Results

At the end of 2018, Statistics Estonia had 5,240 Facebook fans – a growth of 50% (+1,743) over a year.

Statistics Estonia's Facebook fans, 2017–2018
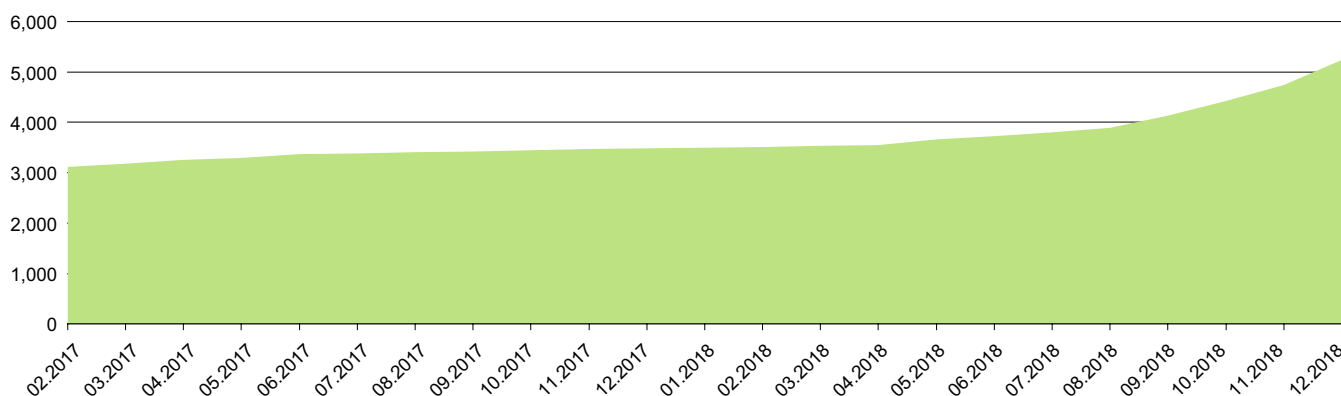
70% of Statistics Estonia's Facebook fans are women; the age group most represented is 25–44.

In 2018, Statistics Estonia published 290 Facebook posts. The average reach of posts was 2,700; at the beginning of implementing the new strategy, 3,700. Statistics Estonia began boosting its posts.
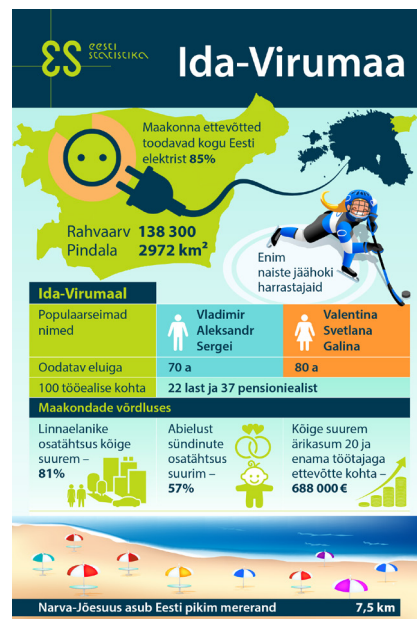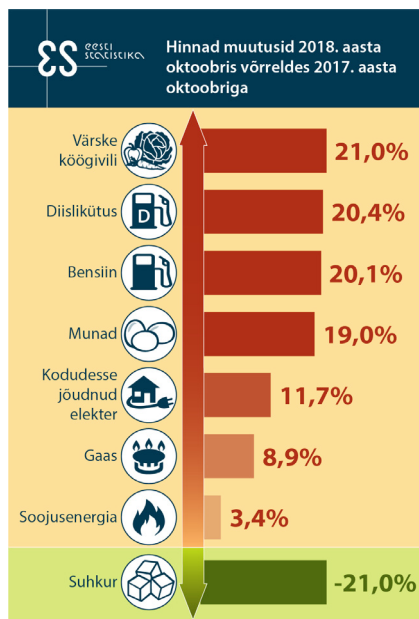
Most popular posts

	Change in prices (October)	Saare county infographic	Ida-Viru county infographic
Reach	43,600	33,400	27,300
Impression	68,400	50,500	52,250
Engagement	5,200	2,730 incl. sharing 136	2,140

Christmas and European statistics day quizzes were also very popular.

When using or quoting the data included in this issue, please indicate the source.