Annual report
2020

Contents

Foreword

The importance of statistics always grows during crises

The mission of Statistics Estonia is to reflect the situation and changes in the Estonian society and offer information that is important for the demographic, social, economic and environmental development of Estonia. Such information is necessary for making development plans and projections, for policy planning, for scientific and applied research and for making informed decisions. Our main aim is to offer relevant information to various stakeholders and contribute to high-quality public debate.

In 2020, our efforts were devoted to making the statistics produced by us more relevant and timely than ever before. During the coronavirus pandemic, we were able to offer much needed short-term statistics to support decision-making. At the same time, we have always kept our data providers in mind: we reduced the administrative burden of data collection and processing.

One of the indicators of the reliability of Statistics Estonia is compliance with the release calendar, which in 2020 was **97.6%**. The materials produced by Statistics Estonia are published in the media, which shows their confidence in us. Last year, the number of media mentions increased, totalling **8,252** (in 2019, there were 8,080 mentions). Our website and new web environments attract more and more attention and the satisfaction of our clients is increasing. In 2020, the websites of Statistics Estonia were visited **1.5 million times** (the year before, 1.3 million times). We repeatedly saw that successful communication means considering the needs of our target groups more than before. In 2020, as in prior years, we reviewed our questionnaires. Abandoning some questionnaires helped to reduce the administrative burden of enterprises by **12,441** hours. We will continue to adopt new datasets and big data to reduce the administrative burden further.

In 2020, we continued developing the population and housing census methodology. The results of the pilot censuses confirmed that Estonia is ready to transition to a register-based census, as all the mandatory census variables required by the European Union are available in quality registers. Preparations for the population and housing census will continue in 2021; the census moment is 31 December 2021.

Implementation of the framework regulations on European social statistics and business statistics as well as the hugely successful agricultural census should also be highlighted.

Statistics Estonia is also responsible for data governance in Estonia. In 2020, the focus was on compiling data descriptions, preparing guidelines for data quality, developing other data governance principles and organising training. Data governance will continue to be quickly implemented in the country in 2021.

In 2020, we developed several client applications, launched a new database and wages and salaries application, upgraded the Tree of Truth application and the website of Statistics Estonia. We also started developing a new data collection application. Changes were also made in the organisation, primarily to increase the efficiency of development work, so that we could achieve our objectives faster and more successfully. We were able to quickly respond to the pandemic-related restrictions and make it possible for all employees to work from home office. I would like to thank the whole team of Statistics Estonia, as even during this critical time, we were able to produce quality statistics and adhere to deadlines.

On the occasion of the 100th anniversary of our organisation, I am delighted that Statistics Estonia has achieved recognition in Estonia and abroad, and the statistics produced by us serve as a basis of decisions and debates in the society. We can say on the 100th anniversary that "Statistics Estonia is the top statistical authority in Europe."

Mart Mägi

Director General of Statistics Estonia

Fulfilment of the 2020 statistical programme

Each year, the Government of the Republic approves for the following five years a list of demographic, social, economic and environmental statistical activities. In the statistical programme for 2020–2024, there were 146 statistical activities listed for 2020, with a total cost of nearly 11 million euros. In 2020, there were 125 statistical activities classified under main statistics carried out annually, 13 cyclical statistical activities, 1 non-regular statistical activity, 2 development activities, 1 statistical analysis activity and 4 statistical registers.

In 2020, the most statistical activities, both in terms of the number and cost, were in the domain of economy, followed by statistical activities in the domain of social life. Table 1 gives a more detailed overview of the distribution of statistical activities by domain.

Table 1. Statistical activities by domain, 2020

Domain	Cost		Number	
	thousand euros	%	number	%
Multidomain statistics	159	1	2	2
Environment	395	4	12	8
Economy	6,572	60	79	54
Population	1,022	9	9	6
Social life	2,810	26	44	30
Total	**10,958**	**100**	**146**	**100**

Statistical activities are carried out on the basis of European Union legislation or commissioned nationally (primarily strategic plans, international statistical requirements). Table 2 shows that in 2020, 74% of statistical activities were based on European Union legislation, accounting for 84% of the total cost.

Table 2. Statistical activities by demand, 2020

	Cost		Number	
	thousand euros	%	number	%
European Union legislation	9,242	84	108	74
Commissioned nationally	1,716	16	38	26
Total	**10,958**	**100**	**146**	**100**

The fulfilment of the 2020 statistical programme was successful – all the planned activities were performed. There were a total of 831 releases, of which 711 were statistical database objects and 120 were news releases. The produced statistics are made available to users first in the statistical database and then through other products. Users are informed about the produced statistics via the release calendar. In 2020, there were 21 deviations from the release calendar, which constitutes 2.4% of the total number of releases (See Table 3). The main reason for the deviations was the delayed receipt of data and extended period of data processing.

Table 3. Deviations from release calendar, 2015–2020

Year	Statistical database	News releases	Statistical publications	Total	Share in total number of releases, %
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
2019	9	1	1	11	0.2
2020	21	0	0	21	2.4

Census preparations

Statistics Estonia will mostly use data available in state databases for the population and housing census, which takes place at the end of 2021. In addition to database data, a short sample survey will be used to ask for self-assessed information, for which there are no data in the registers.

The main goal of the census is to achieve high-quality results about Estonia. Therefore, during the preparation stage, it has been carefully observed that all results would comply with the United Nations and European Union quality requirements. To organise a census fitting for a digital society, major work has been done to improve the data quality of registers. A world-class system of databases has been established, where there are data on all Estonian residents and dwellings.

In 2020, the focus was on the automation of data collection and improving methodology for the register-based component of the census. The methodology has been developed in cooperation between statisticians and researchers; it has been internationally recognised and set as an example. In the organisation of the population and housing census, Statistics Estonia works together with nearly 30 registers.

The objective of the survey component of the census is to collect information about the population, which is not available in registers but is necessary for the country. People will be asked to answer only a few questions. Each person living in Estonia can contribute to a successful population census by checking and confirming data on oneself and one's household members at www.rahvastikuregister.ee.

A new software application will be used to collect data during the population and housing census. Statistics Estonia and software enterprise Helmes started developing a modern data collection system. In 2020, also a graphic identity was created for the census. Information on the population census is available on the census website www.rahvaloendus.ee, on Facebook and Instagram pages.

At the end of 2020, Statistics Estonia organised a population and housing census test survey to check readiness for the census. Nearly 2,000 persons across Estonia participated in the main rehearsal of the population census.

New digital services

In February 2020, we introduced the new Dashboards application, which includes business data, regional statistics as well as indicators of development plans. The data are sourced in the statistical database and are automatically updated. The dashboards display the most important trends in these areas, with the relevant indicators shown on data graphs. Everyone can create a personal view of the indicators of interest, download the information in different formats and also share with others. The application is a tool for public authorities, enterprises, journalists and everyone else for making informed and data-based decisions. We have continued to develop the application and have added dashboards for several domains, regions and the public sector.

In the spring, during the coronavirus-related state of emergency, we provided the government crisis commission with an overview of whether people adhere to movement restrictions. In cooperation with mobile network providers Elisa, Tele2 and Telia, we monitored and analysed regional mobility of people on the basis of mobile phone data. Anonymous data were used in the analysis, which gave a picture of the whole country. The anonymous mobile numbers were divided into three groups: fully sedentary mobile phones, minimally moving, i.e. 95% sedentary mobile phones, and moving mobile phones. The results of the mobility analysis can be viewed on the map: liikumisanalyys.stat.ee.

At the end of April, the wages and salaries application was launched, where 2019 and 2020 median wages of the most common occupational groups are visualised by Estonian regions and counties. The wages and salaries application uses the data of the employment register (TÖR) and Annexes 1 and 2 of the tax return TSD (income and social tax, mandatory funded pension tax and unemployment insurance tax return). The application allows a business owner to evaluate the labour market situation and compare the wages level of one's enterprise with that of other enterprises. Also, everyone can use it to compare one's earnings with the median wage of a specific group of occupations in Estonia.

Summer's end was a time of anticipation for Statistics Estonia, as the long-awaited new website was finalised. At the end of August, we introduced the new home of reliable data, i.e. the upgraded website stat.ee, which is intended to disseminate statistics more effectively and offer a better use experience. The new website makes it easier to find official statistics, which are also better visualised. We improved the website search function and reviewed the domains of published statistics. Each domain, or theme, has its own page, where its most important data are collected. The website also has a mobile view; therefore, data can be accessed more conveniently from any device.

The upgrades of 2020 also included Statistics Estonia's statistical database. The new database is an upgraded version of PxWeb, which is one of the most popular database softwares of statistical authorities. Previously, two databases were in use at Statistics Estonia, but the database built on PxWeb is more convenient for the user and more dependable than the parallel database on .Stat software. The new database has API functionality. In addition to a fresh look, one can create graphs from the tables, which makes it easy to read data.

At the end of the year, a new appearance was also given to the Tree of Truth, the gauge of the country's most important indicators, first introduced in October 2019. The upgraded Tree of Truth is easier to navigate and has been fitted with the indicators of "Estonia 2035" strategy. The application covers 163 indicators and the goals set for these in the 2019−2023 government action plan and strategies "Estonia 2035" and "Sustainable Estonia 21". For strategy "Estonia 2035", an entirely new indicator of caring and cooperation was developed together with the Government Office. It can be used to evaluate whether and when the goal of the Estonian society being caring, cooperative and open-minded can be attained. There are also new indicators on accessibility and participation in employment, culture, sports and voluntary work.

Statistical activities outside the programme

In addition to statistical activities in the statistical programme, Statistics Estonia performs activities that are not included in the statistical programme but are ordered by statistics users. Everyone interested in statistics can contact Statistics Estonia. 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 contract work have been specified in the service standard published on Statistics Estonia's website.

In 2020, the revenue from data mining, various surveys, methodological developments and individual indicators ordered from Statistics Estonia was 1.4 million euros (See Table 4). Compared to 2019, the total value of contract work increased by 56%. Most of the activities outside the programme were smaller orders to get more detailed statistical information than publicly available. Compared to 2019, there were also more microdata prepared to be used for scientific purposes. In 2020, Statistics Estonia also contributed to the evaluation of the coronavirus-related emergency measures and development of necessary support measures by producing short-term statistics on the labour market, enterprises' turnover and labour costs, people's mobility and mortality.

Table 4. Non-programme statistical activities and revenue, 2020

Contract work	Revenue, euros
Real time data mining for economic information	550,000
Survey on Health, Ageing and Retirement in Europe (SHARE 8th wave)	272,876
Contract work with hourly pricing	134,480
Programme for the International Assessment of Adult Competencies (PIAAC)	105,311
Household Finance and Consumption Survey	55,520
Collection of fleet-based economic and social indicators	42,713
Development of R&D methodology for the adoption of new data sources	31,000
Survey on satisfaction with local government services	27,270
Data collection for the ESF	21,853
Infotechnological Mobility Observatory	19,395
Adult education priority target groups by county	19,000
2nd phase of the application of employment indicators – pension indicators	17,929
European Social Survey	14,540
Order of the Estonian Youth Work Centre (ENTK) – "Young People in Estonia"	12,043
Activities related to RITA project on mobile life	9,435
Design of the mobility study of the Estonian population	9,360
Quantitative analysis for the study "Impact of COVID-19 on tourism-specific industries and associated influence on other sectors of the economy"	6,600
Collection of data on informal learning through the Estonian Labour Force Survey	5,225
Preparation of data for the project on offering integrated services	5,000
Publishing life insurance indicators	4,000
Development of the methodology for brand value index	3,000
Processing and publishing forest and water statistics	2,855
Regular monthly accommodation statistics	2,760
Analysis and infographics of theatre statistics	2,675
Statistics on e-residents' businesses	2,600
Transmission of statistical data for Startup Estonia programme	1,483
Calculating weights for the price index of regular transport services	1,280
Requests for foreign trade statistics	1,176
Total	**1,381,379**

Administrative burden of respondents

Two indicators are used in Statistics Estonia to assess the reporting burden: the number of questionnaires per enterprise and time spent on completing and submitting questionnaires. These indicators are calculated per enterprise.

For the production of statistics, we mostly use database data and reuse the already collected data. Data are collected from enterprises only if they cannot be obtained from other sources. If possible, we use sample surveys for small enterprises and do not collect data from the whole target group.

Two-thirds of statistical activities used either entirely or partially the data of state databases in 2020. In order to reduce the administrative burden of enterprises, Statistics Estonia actively looks for alternative data sources and possibilities for reducing sample sizes.

Statistical activities affecting the administrative burden of enterprises in 2020

In 2020, there were 113 questionnaires used to collect data from enterprises for 53 statistical activities.

Each year, Statistics Estonia stops collecting data with questionnaires in some statistical activities, switching to database data.

In 2020, four questionnaires were abandoned in the data collection of three statistical activities:

- questionnaires "Livestock farming. Sheep. Year" and "Livestock farming. Bees. Year" for the statistical activity "Livestock farming and meat production";
- questionnaire "Stocks of agricultural products. Year" for the statistical activity "Supply balance sheets of agricultural products";
- questionnaire "Music. Year" for the statistical activity "Music".

In 2020, data were not collected for cyclical statistical activities "Innovation" and "Structure of earnings".

The number of enterprises in survey samples in 2020 decreased significantly compared to 2019 in the case of the following questionnaires: "Energy. Year", "Non-profit institutions", "Manufactured goods. Year", "Economic activity. Quarter", "Livestock farming. Milk", "Livestock farming. Goats" and "Wages and salaries and labour force".

In 2020, additionally, the agricultural census took place, which is organised every ten years in most world countries and all European Union countries. Agricultural holdings were asked for main data on management of the holding, land use and number of animals in 2020. The data on land and animals registered with the Agricultural Registers and Information Board (ARIB), of land cadastre of the Land Board and of the employment register were pre-filled in the questionnaires whenever possible.

Number of questionnaires per enterprise

In 2020, the average reporting burden of enterprises was 7.3 questionnaires per year, which is slightly smaller than the year before (in 2019, it was 7.4).

Figure 1. Number of mandatory questionnaires per enterprise by number of employees, 2017–2020
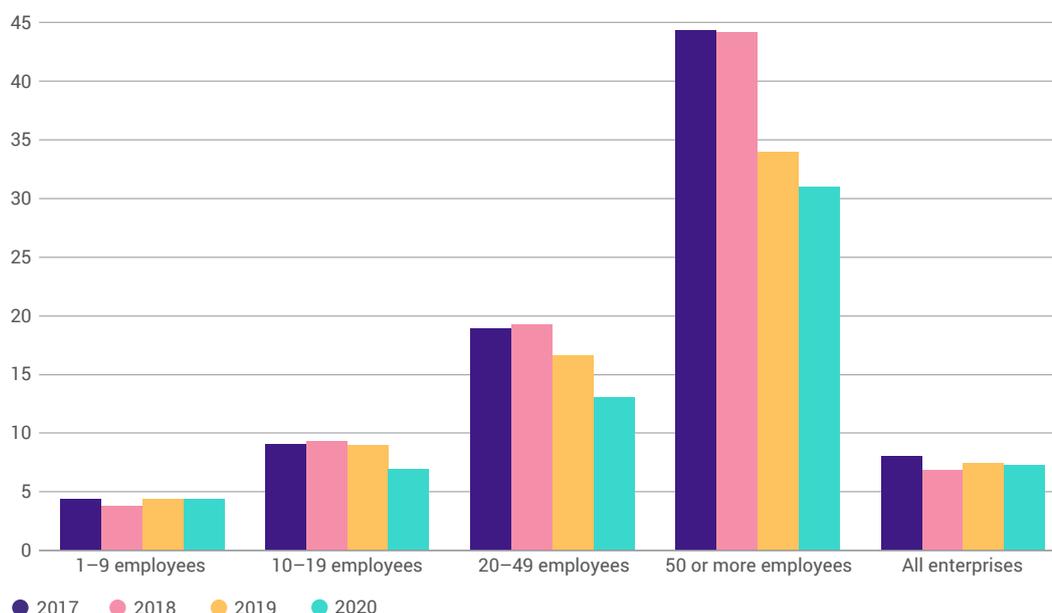
The number of questionnaires per enterprise can be reduced by decreasing sample sizes as well as adopting alternative data sources. These steps affect the administrative burden of enterprises in all size groups.

Time spent on questionnaire completion and submission

Statistics Estonia assesses the time spent on questionnaire completion and submission based on the information collected from enterprises. At the end of each questionnaire is a table "Time spent on completing the questionnaire", where the respondent can indicate the time that was spent on the completion and submission of the questionnaire in hours and minutes. This information is asked once a year.

Table 5. Average time in minutes spent on questionnaire completion and submission by questionnaire completion frequency, 2012–2020

Questionnaire completion frequency	Year								
	2012	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
1–2 times a year	120	116	125	136	104	97	90	126	77
4 times a year	34	33	36	35	40	35	44	47	64
12 times a year	79	71	73	73	77	62	59	40	22
Average	**73**	**70**	**70**	**73**	**70**	**60**	**60**	**55**	**64**

In total, Estonian enterprises, institutions and organisations spent 29,369 working days on submitting data to Statistics Estonia in 2020. The average time spent on filling in a questionnaire was 64 minutes.

Reducing the administrative burden of enterprises

To reduce administrative burden, we will continue to do the following:

- implement the machine-based data collection "Reporting 3.0";
- develop a new data collection application;
- introduce additional big data and administrative data sources;
- apply once-only principle for data collection;
- make maximum use of database data for producing statistics;
- make maximum use of the data collected from enterprises with questionnaires for performing other statistical activities;
- reduce data collection with questionnaires;
- make questionnaires easier to understand and to complete for data providers.

Customers' satisfaction with official statistics

In 2020, Statistics Estonia updated the methodology of asking feedback from customers. Feedback collection according to the new methodology was started in April; therefore, the following information is about the period April 2020 – December 2020.

Two customer segments – data providers and users of statistics – are asked for feedback about satisfaction. Data providers are enterprises, public sector organisations and private persons who submit data to Statistics Estonia by answering questionnaires. Users of statistics are enterprises or private persons who have submitted a request for information or ordered data as contract work from Statistics Estonia.

To determine the level of satisfaction, we use the promoter index methodology (NPS – Net Promoter Score). Assessments on a scale of 1 to 10 are given to three questions. 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.
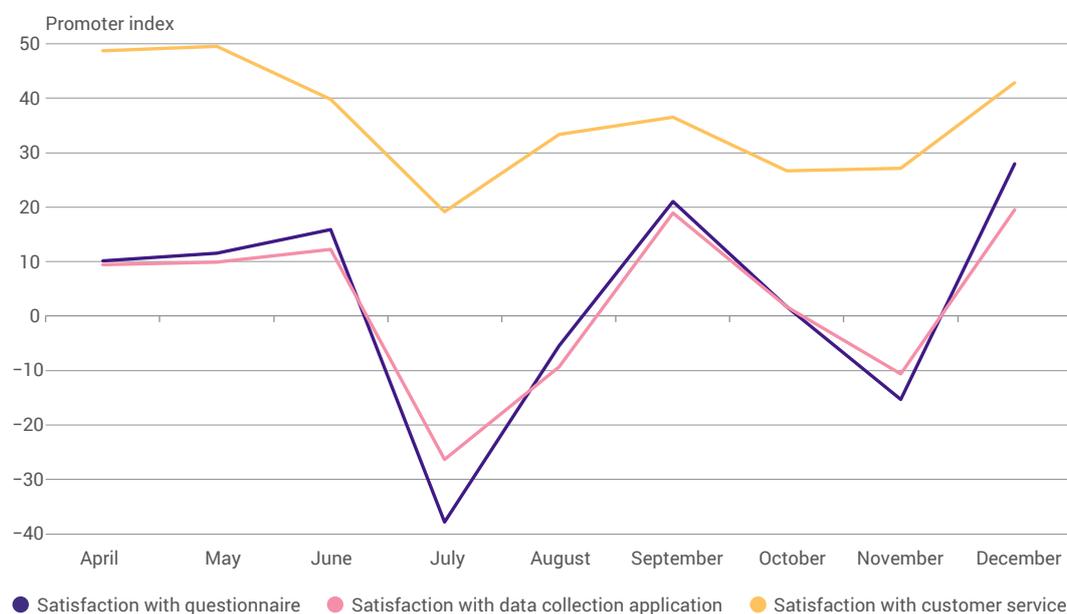
During the period April to December 2020, Statistics Estonia asked more than 20,000 data providers for feedback and suggestions on eSTAT, questionnaires and customer service. The following questions were asked: "In your opinion, how easy was it to fill in the questionnaire?", "In your opinion, how easy was it to use eSTAT", "If you contacted customer support, were you satisfied?"

We received approximately 2,300 answers (response rate 11%) on almost 80 questionnaires. The general promoter index for eSTAT rose considerably. Whereas in 2019 the eSTAT promoter index was −39, in 2020, it was 4, which is a good result. The promoter index for questionnaires was 5 and the customer service index was 40.

According to data providers, the positive aspects of submitting data are that questionnaires have been pre-filled, it is easy to upload and edit reports and the questionnaire structure is stable. Respondents evaluate customer service highly, highlighting constructive assistance, competence and good cooperation.

The dissatisfaction of data providers is caused by the high administrative burden. They suggest combining questionnaires on the same topic. Users consider the design of the data collection application eSTAT unfriendly and not intuitive enough. Navigation in the application is difficult and the overview of a questionnaire in progress is lacking.

Figure 2. Data providers' assessment of Statistics Estonia's activities, April – December 2020

● Satisfaction with questionnaire　● Satisfaction with data collection application　● Satisfaction with customer service

During the same time period, i.e. from April to December 2020, Statistics Estonia asked more than 1,000 users of statistics for feedback and suggestions about requests for information, completed contract work and customer service. The customers responded to the following questions: "How satisfied are you with the response / to what degree did the result of the contract work meet your needs?"; "How satisfied are you with customer service?"; "How likely is it that you would recommend Statistics Estonia to a friend or colleague?"

We received more than 200 answers (response rate 20%). Users' satisfaction has constantly increased. In 2020, Statistics Estonia's promoter index was 76 (in 2019, it was 60). The index for satisfaction with responses to requests for information or orders was 65 and the customer service satisfaction index was 78.

The users of statistics point out quick, convenient and professional customer service. As for responses, the customers are satisfied with the cooperation to identify their needs, with the level of detail and meeting the customer's requests. The users are not satisfied if the data they are looking for is not published. It was also noted that finding the necessary data on the website of Statistics Estonia and in the statistical database is relatively complicated and could be simplified.

Statistics Estonia participates in the survey on the reliability of institutions conducted by the market research enterprise Turu-uuringute AS. Once a quarter, 1,000 randomly sampled persons in Estonia are asked the question "In your opinion, how reliable are the following institutions?". Every quarter, the survey covers 26 or 27 institutions, whose average reliability in 2020 was 67%.

The Rescue Board, the Emergency Response Centre and the Police and Border Guard Board are considered the most reliable institutions. Around four-fifths of the population consider the Tax and Customs Board reliable. With slight fluctuations, the same institutions have ranked at the top for years. In 2020, an average of 59% of residents considered Statistics Estonia to be reliable (3 percentage points less than the year before). The share was biggest among persons aged 25–44, persons with higher education, middle level specialists, residents of smaller cities, Northern and Northeastern Estonia and Tallinn, and among persons with higher income. The share of those who consider Statistics Estonia reliable is below average in rural areas, among persons aged 45–64 and residents of Central Estonia. Persons with a lower level of education (students), with lower income and residents of Western Estonia were most often unable to give an assessment of Statistics Estonia. In 2020, Statistics Estonia was 20th in the reliability ranking.

New statistical activities 2021–2025

Changes in statistical activities in 2021–2025

The biggest change in the list of official statistical activities for 2021–2025 is based on a previous recommendation of the Statistical Council (2019) to increase the transparency of statistical activities. In the interest of clarity, the concept of statistical activity and the legal basis for the emergence of statistical activities has been reviewed. As a result of the change, the focus is shifted from the volume to the content of the draft programme and bases are established for annual negotiations on the content of the statistical programme. After regrouping statistical activities according to the legal bases, there are 68 statistical activities instead of the prior 147. This change did not affect the number of output indicators.

According to the new breakdown, statistical activities are divided between main statistics (regular, cyclical and irregular statistics), statistical registers, experimental statistics, data governance and management of the classifications system. Main statistics include the statistical domains of environment, economy, population, social life and multidomain statistics.

Changes in main statistics in 2021–2025 concern additional cyclical statistical activities, methodological changes due to amended legislative acts, methodological changes to reduce the administrative burden of data providers and requirements of new national development strategies.

As of 2021, two new cyclical statistical activities are added to the statistical programme.

- The statistical activity "Agricultural small units" is carried out every ten years. The statistics on agricultural production cover only bigger units; therefore, to obtain data on crop and livestock production for Estonia as a whole, a survey of agricultural small units is needed to supplement annual surveys of agricultural holdings. The data continue to be collected through the Household Budget Survey. The statistical activity is carried out under a European Union regulation. The data were collected in 2020 and the results will be published in 2021.

- In the statistical activity "Wages and salaries and labour costs", employer's expenditures on employees are surveyed every four years. The purpose of the activity is to offer information on the average labour costs of employers per employee and hour worked by main economic activity. This information is used for planning labour taxes. The survey, established by a European Union regulation, is carried out in the member states on the basis of a harmonised methodology, which ensures international comparability of the data. The data for 2020 are collected in 2021 and the results will be published in 2022.

The biggest methodological changes leading to an increase in the volume of statistical activities result from the requirements of various sectoral policies agreed in the European Union.

- In the domain of environment, it is planned to make mandatory the environmental accounts modules of the Regulation (EU) No 691/2011 concerning ecosystem accounts, forest accounts, water accounts and environmentally related transfers (subsidies).

- In connection with the new framework regulation (EU) 2019/2152 of European Union business statistics, the methodology and output indicators of at least eight statistical activities will be reviewed. The changes will apply according to the adoption of the implementing provisions of the said framework regulation and the deadlines for implementation established in these.

- The agricultural statistics system of the European Union will be updated and complemented in the light of the new Common Agricultural Policy, the European Green Agreement, climate change and environmental policy changes.

- In the domain of social life, the changes in methodology are due to the alignment of statistical activities with the new social statistics framework Regulation (EU) 2019/1700.

In the statistical activity "Wages and salaries", it is planned to calculate average wages on the basis of register data, using data from the joint database of the employment register of the Tax and Customs Board and form TSD (Declaration of income and social tax, unemployment insurance premiums and contributions to mandatory funded pension). We are looking for opportunities to transition to database data also in other statistical activities.

We have also started the development of the production process of "Estonia 2035" indicators as part of contract work. The basis of the planned new statistical activity is the national long-term development strategy "Estonia 2035", which was approved by the Government of the Republic and submitted to the Riigikogu in October 2020.