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## **DEAR READERS!**

The year 2015 shook Estonia in many ways. Due to events on the global and European scale and changes in the security situation we are forced to re-evaluate the issues regarding our national security. On the other hand, the projections of population decrease (ageing) have made our government think about how to cope with a decreasing number of working age population because, logically speaking, that would also reduce the number of employees on state payroll. The latter will definitely make the majority of government agencies face a difficult task – how to cope with new circumstances. Statistics Estonia does not expect any decrease in workload because due to a reduced number of officials, the few that are left should rely on facts and reliable data in order to avoid loss of quality in state-level decisions.

I believe that Statistics Estonia is, to a great extent, ready to tackle this task and uses existing resources wisely. We have attempted to increase the efficiency of our structure for several years already by reorganising the performance of statistical actions. We are on our way to implementing LEAN management methodology to ensure better, more substantial and purposeful process management. We have applied for funds to modernise and update the statistical system. The first results have been encouraging. In 2015, Statistics Estonia was reviewed by a Eurostat review committee, who found our efforts to be fruitful – the Estonian statistical system's level of compliance with the European Statistics Code of Practice is one of the highest in Europe. Subsequent visit by the Director General of Eurostat only confirmed that Statistics Estonia has managed to achieve excellent results despite limited resources. Reliability and cooperation of Statistics Estonia is also highly appreciated in Estonia, e.g. by journalists. We have become more open, modern and efficient.

A certain contribution to our improvement was the award of the Green Office title, the new building and improvements to increase the satisfaction of our staff. We are proud of our staff and make every effort to give them recognition and feedback. I hope that our adaptability will continue to delight both data providers and statistics users.

Andres Oopkaup Director General

## **MAIN EVENTS IN 2015**

- On 15 January, a new composition of the Statistical Council was given powers, with professor Tõnu Kollo as the Chairman.
- From 13 to 17 April, a Peer Review was conducted in Statistics Estonia based on the European Statistics Code of Practice. The Peer Review team concluded that there is a very high level of compliance with the European Statistics Code of Practice in Estonia.
- In April, the consultation and training company Marketing Institute acknowledged the April Fools' Day blog post of Statistics Estonia with the title of Marketing Hit for mediating a serious topic through the lens of humour.
- On 14 May, Statistics Estonia was awarded the Green Office certificate and also the Best Green Office award.
- In May, Statistics Estonia started issuing a News Bulletin which presents topical issues from different fields.
- From 4 to 5 August, Walter Radermacher, the Director General of Eurostat, visited Estonia and met, among others, the Minister of Finance and the Director General of Statistics Estonia, and held a public presentation in Statistics Estonia.
- The best of 2015 were chosen:
  - Best Achievement 2015 the successful dissemination of statistics: Mihkel Servinski, Greta Tischler, Marika Kivilaid
  - Best Team 2015 the Statistics Estonia media relations team: Anu Ots and Egle Madiste
  - Best Manager 2015 Tauno Tamm, Head of Data Warehouse Department
  - Best Blogger 2015 Anu Tõnurist and Alis Tammur with the April 1st article "Interesting facts about life in Estonia"
  - Best Respondent 2015 AS HKScan Estonia
  - Best Partner 2015 (among registers) Defence Resources Agency
  - Best Partner 2015 (among research institutions) human geographer Rivo Noorkõiv



The main task of Statistics Estonia is to provide reliable and objective information on the environmental, demographic, social and economic situation and trends in Estonia. This information – official statistics – is produced and provided based on the needs of statistics users. Statistics are an essential input for Estonian ministries, European Union (EU) institutions, research institutions, enterprises, trade associations, etc. The official statistics of Estonia are accessible to all people in Estonia and abroad, usually through various media. As a rule, Estonian users need more detailed statistics than European and international organisations.

There are two producers of official statistics in Estonia – Statistics Estonia and Eesti Pank (the central bank). In order to produce official statistics, Statistics Estonia performs statistical actions. These actions are listed in the statistical programme, which is submitted to the Government of the Republic for approval. The list of statistical actions of Eesti Pank is approved by the Governor of Eesti Pank. The statistical programme comprises the statistical actions of both Statistics Estonia and Eesti Pank. The programme is prepared for five-year periods and has five major sections: main statistics, non-regular statistics, development actions, statistical analysis and statistical registers. The programme also includes projects funded by the Structural Funds and the European Commission. For each statistical action, there is an institution (often a ministry) that is the main user of the output or that represents public interest. The producers of official statistics may also fulfil orders of actions not included in the programme (see Statistical actions not included in the programme (see Statistical actions not included in the programme on page 14).

The statistical programme is based on the needs of the users. In the course of compilation of the statistical programme, user needs are voiced by the representatives of public interest, i.e. mostly ministries and professional associations. Public interest representatives ensure the presence of high quality official statistics in their field, which is necessary for promoting life in Estonia and for making decisions on the national level. Among the representatives of public interest, the Ministry of Economic Affairs and Communications, the Ministry of the Interior and the Ministry of Social Affairs are the most active users of official statistics output.

There were 193 statistical actions listed for 2015 in the statistical programme for 2015–2019. The total cost of these actions was 6.8 million euros<sup>a</sup>. The most costly action – totalling 0.8 million euros – was the preparation for the Register-Based Population and Housing Census (REGREL) of 2020.

In 2015 there were 155 annual statistical actions classified under main statistics, 19 one-off or nonregular (carried out after certain intervals) statistical actions, 8 development actions, 9 statistical analysis actions and 2 statistical registers.

Fulfilment of the statistical programme was successful in 2015 – we completed all planned actions. There were a total of 968 releases (821 statistical database objects, 138 news releases, 9 publications). The finished statistics is made available for users at first in the statistical database, and then in other products. Users are informed of the completion of statistics via the release calendar. There were 21 deviations from the release calendar in 2015 (18 statistical database objects, 2 news releases and 1 publication), which constitutes 2% of the number of total releases. However, the number of deviations was still remarkably lower in 2015 than in 2014 (35 deviations). The reason for the majority of deviations consisted in delayed receipt of data and extended period of data processing.

<sup>&</sup>lt;sup>a</sup> The actual costs of 2015 were 8.3 million euros. The cost of list of statistical actions do not include rent to Riigi Kinnisvara AS, totalling one million euros, orders of actions not included in the programme, totalling 0.4 million euros, and expenses related to investments funded from external aid, totalling 0.1 million euros.

Year	Statistical database	News releases	Statistical publications	Total	Share in the 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

## Deviations from the release calendar, 2011-2015

## Statistical actions recurring in 2015

Recurring statistical actions are actions that have been included in the statistical programme in previous years and financed from grants. Then the grant funding has ended and no new funding has been received from the state budget. Moreover, some actions have been left out of the programme in order to perform other actions. There have also been actions that have ultimately still been completed by using external funding, and actions that have been performed as non-programme orders.

Until the end of 2013, the development of the statistical actions "Environmental taxes accounts" (10104) and "Material flow accounts" (10601) was financed by the European Commission through targeted grants. Since 2011, Statistics Estonia has applied for budgetary funds to add these actions to the statistical programme. In 2014, the European Commission's funding for these actions ended and, without state budget funding, Statistics Estonia was unable to fulfil its obligations with regard to the production of environmental economic accounts pursuant to Regulation (EU) No. 691/2011 of the European Parliament and of the Council in 2014. In order to perform statistical actions "Environmental taxes accounts" (10104) and "Material flow accounts" (10601) pursuant to Regulation (EU) No. 691/2011, the following statistical actions were left out of the programme:

- "Air and water monitoring" (10201)
- "Enrichment of water bodies" (10303)
- "Gas emissions causing climate change and binding thereof" (10403)
- "Pollution of ambient air" (10405)
- "Agri-environmental indicators" (10501)

The total cost of the actions not performed was 27,100 euros. In the European Statistical System, statistics producers face constantly increasing demand and in that context it is inevitable that area-specific priorities are set in cooperation with policymakers.

The output of the statistical action "Statistics on total national earnings and weighted average VAT rate concerning the own funds in EC budget" (21410) provides a basis for the calculation of the EU membership fee. Implementation of the ESA 2010 methodology required bringing the methods used for calculating national earnings into compliance with the new situation. The sanctions for not presenting the methodology used are unforeseeable, because it is an indicator which serves as a basis for calculating own funds in the EU budget and the calculation of membership fees is monitored with exceptional attention. In national accounts, the implementation of ESA 2010 methodology must be followed by the preparation and submission of the new description of data sources and calculation methods of gross national income to the European Commission (pursuant to Regulation (EU) No. 549/2013). The statistical action was performed in May 2015 using external aid.

The statistical action "Implementation of the ESA 2010 data transfer program" (21412) for preparing an additional dataset arising from changes in ESA 2010 was completed by using external funding. Methodological changes in national accounts allow achieving readiness to forward national accounts datasets to international organisations (Eurostat, IMF, OECD) (based on Regulation (EU) No. 549/2013).

## New statistical actions performed in 2015

In 2015, there were five statistical actions that were performed for the first time.

Name of statistical action	Туре	Field	Cost, thousand euros
Environmental protection expenditure accounts, macro-level (10107)	Development	Environment	62.7
Satellite account on pension schemes (21305)	Development	Economy	24.8
Young people in the labour market (40712)	Non-regular statistics	Social life	5.7
Access to social services (40020)	Non-regular statistics	Social life	15.0
UOE (UNESCO, OECD, Eurostat) data collection on education statistics (40313)	Main statistics	Social life	15.5
Total			123.7

#### New statistical actions, 2015

In 2015, concerning the area of environment, the statistical programme was supplemented by the statistical action "Environmental protection expenditure accounts, macro-level" (10107), which is funded from EU external funds and which – after being implemented – allows making integrated analyses and introducing the importance of environmental activities in view of value added produced in the total economy, consumption and in total capital investment in fixed assets (based on Regulation (EU) No. 538/2014).

As for the field of economy, the statistical action "Satellite account on pension schemes" (21305) was added to the statistical programme. The action involved development of accounts on social insurance pension schemes that consider pension rights arising from social security schemes and their inclusion in main statistics pursuant to the methodology of Regulation (EU) No. 549/2013.

Three new statistical actions were added to the statistical programme in the area of social life.

In 2016, the Labour Force Survey in all EU countries contains the additional module "Young people in the labour market" (40712). The subject matter of this module draws on the need for measuring the objectives of the strategy "Europe 2020" and the EU initiative "Mobility of young people". Young people represent a special labour market group. On the one hand, finding a job is more complicated for them in comparison with experienced employees, but on the other hand, the beginning of working life has a significant impact on their further success in the labour market. The module provides information on the education, start of working life, compatibility of work and education, and job satisfaction of young people. The last time the labour market situation of the young was studied through an additional module of the Labour Force Survey was in 2009.

The social survey module "Access to social services" (40020) measures access to services, e.g. childcare, formal education, lifelong learning, health care services and home care, including the economic burden on households, general accessibility to services and the relation between those subjects and income, poverty, social inclusion and labour market context, measured by the main part of the social survey. In 2015, a questionnaire was compiled and preparations were made. Data will be collected and results published in 2016–2017.

The purpose of the statistical action "Education data for UOE (UNESCO, OECD, Eurostat)" (40313) is to provide international comparison data on the main aspects of education and training systems, concerning mostly participation in educational programmes and attaining levels of education, but also on the expenditure and types of funding sources in the field of education and training. Under this statistical action, we calculated and submitted to Eurostat education data by educational programmes and levels. Eurostat will publish the comparative education statistics of Member States in the spring of 2016 on its website in the "Education and training" section (http://ec.europa.eu/eurostat/web/education-and-training).

## Methodology developments introduced under a statistical action in 2015

The output of the statistical action "Statistics on total national earnings and weighted average VAT rate concerning the own funds in EC budget" (21410) provides a basis for the calculation of the EU membership fee. Implementation of the ESA 2010 methodology required bringing the methods used for calculating national earnings into compliance with the new situation. In national accounts, the implementation of ESA 2010 methodology must be followed by the preparation and submission of the new description of data sources and calculation methods of gross national income to the European Commission (pursuant to Regulation (EU) No. 549/2013). Eurostat provided a grant for describing this methodology and the actions will be performed from May 2015 to the end of March 2016. Data transfer under action 21410 continues.

## Non-regular statistical actions performed in 2015

The social survey module "Social inclusion" (40007) provides information about people's social inclusion and exclusion. In 2015, data were collected with the main survey. Survey results will be published in the form of a blog post or an analytical article in 2016.

The results of survey modules are not published in the database because modules are one-off or used after long intervals, and thus there is no annual time series. The results will be published in the form of a blog post or an analytical article.

The objective of the second Social Survey module, "Material deprivation" (40019), is to provide information about the material wellbeing of households (financial problems, possession of durable goods, lack of amenities, financial stress; separate indicators for children and people aged 16 and older). The results were published in June 2015 in the Statistics Estonia blog (https://statistikaamet.wordpress.com/2015/06/01/eesti-laste-materiaalsest-heaolust/; only in Estonian).

The statistical action "European health survey" (40610) is the third cross-national survey on the health of the people of Estonia, aiming at assessing the population's state of health, factors affecting it and use of health care services. Statistics Estonia compiled and submitted to Eurostat both the file with survey results and the quality report and metadata. Publication of the survey results in Estonia is the responsibility of the National Institute for Health Development.

The Labour Force Survey module "Immigrant population" (40707) aims at studying the issues related to the entry of the immigrant population into the labour market, labour market situation and opportunities in comparison with the native population. It determines the number of immigrants and their direct descendants in Estonia, and describes the immigrants' social, economic, educational and migration background, the differences in the situation of first and second-generation immigrants on the labour market when compared to that of local people, differences within the immigrant groups in the labour market, and main obstacles for immigrants in finding a job.

The aim of the statistical action "Work-life survey" (40901) is to provide an overview of the organisation of work and working time, occupational health, remuneration, employee development, inclusion and collective employment relations in Estonia. Most people spend more than half of their life at work, thus it is important to study not only the presence of job, but also job satisfaction, to contribute to the improvement of work-life quality. The data are used for employment policy analysis, i.e. employees' and employers' assessment of the situation of working life. These data allow determining problems related to the work environment and safety, the reasons for non-satisfaction with work, which in turn provide basis for developing solutions. The Ministry of Social Affairs and the Ministry of the Interior use the information gained from this statistical action to provide an overview of the situation regarding preparation of strategic framework documents, legislation, impact assessments and operative management and – in the case of the Ministry of the Interior – also as a strategic indicator of work-life quality.



# Changes in the principles of compiling the list of statistical actions for 2016–2020

The need to make the list of statistical actions simpler and better to understand to both the users of statistics and respondents, Statistics Estonia and the Ministry of Finance, in cooperation with the ministries, revised and renewed the principles of compiling the list for the year 2016 and after.

When classifying the statistical actions in 2016, cyclical statistics was distinguished from non-regular statistics as statistics that has a certain and known frequency, but is not annual. This is a statistical action with a steady volume of work (similar to main statistics), which increases the transparency of resources necessary to produce statistics. Non-regular statistics are statistics with unknown frequency and volume. Making those changes in the classification of statistical actions made it possible to approve the list of main and cyclical statistical actions and output indicators for five years (the volume of work is constant year after year) as of 2016. In the period 2017–2020, the list of output indicators of non-regular statistical actions are coordinated annually. Additionally, main and cyclical statistical actions are coordinated annually, if the financial capacity of the statistical action changes by more than 3%. In the fourth year of the period, the statistical programme will be coordinated again in full.

The following changes were made to the principles of statistical actions:

- Upon significant discrepancies between the set of indicators collected and published in different periods, a separate action was created for each period, e.g. year and quarter;
- The non-regular modules of surveys were made into separate statistical actions;
- Statistical actions were combined if it was reasonable to process and analyse their data together.

Since the principles changed and statistical actions were merged and separated, the numbers of statistical actions decreased by 34 actions in the 2016–2020 statistical programme compared to the 2015–2019 programme. For the purposes of improving clarity, the names of some statistical actions were changed, but the codes remained the same.

## Survey of using output indicators in ministries

Statistics Estonia, in cooperation with ministries, organised a survey to determine the bottlenecks in the methodology of statistical actions significant for the ministries, by field of activity, in order to determine the needs of the users. The survey took place in February and March of 2015. The survey covered statistical actions based on state orders and international agreements which are not regulated by EU legislation.

The purpose of the survey was to determine the following:

- Output indicators used (essential part of statistical action);
- Which ministries use these output indicators (dissemination of statistical action);
- Presence of statistical actions performed or output indicators produced by Statistics Estonia that are not used by the ministries and that could be left out to allow performing other actions.

National statistical actions were included in the survey in order to allow instant discontinuation of the production of an output indicator if it appears that nobody uses it. This is not a possibility in the case of actions performed under EU regulations.

In addition to examining whether and how output indicators are used by the ministries, the survey also included a comparative study of the user statistics of the Statistics Estonia database. For that purpose, the number of all downloads of database tables related to the relevant statistical action was summed and the average of three years (2012–2014) was calculated. Statistics on database use is necessary for showing the links between the use of the database by the ministries and the public



A total of 49 state ordered statistical actions and 24 statistical actions performed under international agreements were examined; they accounted for 30% of the statistical works performed in 2015, the indicators of these actions accounted for 40% of output indicators and the budgets formed 9% of the statistical actions budget for 2015.

Options describing the use of output indicators were the following:

- Used as an indicator in strategic framework documents (i.e. all development plans, implementation plans, structural funds plans, State Budget Act, support programmes, etc.);
- Used when providing a situation overview when preparing strategic framework documents (i.e. all development plans, implementation plans, structural fund plans, State Budget Act, etc.), developing legislation, analysing impact, preparing reports to the government, etc.;
- Used for other purposes (e.g. operative management, preparing *ad hoc*-decisions, replying to requests by international organisations, media queries and requests for information, etc.).

In the case of statistical actions deriving from international agreements, the output indicators of 10 statistical actions were used in strategic documents, the output indicators of 22 statistical actions were used when providing a situation overview and the output indicators of 24 statistical actions were used for other purposes. In strategic documents, 44% of output indicators of statistical actions deriving from international agreements are used as indicators and 85% of output indicators of statistical actions, where at least 50% of output indicators show significant<sup>a</sup> use and are used<sup>b</sup> by more than five ministries, were "Research and development" (21701) and "Housing" (20801). In the Statistics Estonia database, these actions had 2,929 and 1,691 downloads a year, respectively. The most used statistical actions, used by up to five ministries, were statistical actions related to vital events ("Vital events. Marriages" (30201), "Vital events. Divorces" (30202), "Vital events. Abortions" (30203)), with respectively 5,402, 2,172 and 1,496 downloads from the statistical database, on average.

Statistical actions with significant use of less than 50% of indicators and used by more than five ministries, were "Innovation in enterprises" (21702) and "Communications" (20507). In a year, these actions had 739 and 396 downloads from the Statistics Estonia database. The most popular statistical actions, used by up to five ministries, were "Forestry" (21001) and "Water transport" (22031) with 3,694 and 2,900 downloads from the statistical database, on average.

The users of the greatest number of output indicators of all statistical actions derived from international agreements<sup>c</sup> were the Ministry of Rural Affairs with 432, the Ministry of Economic Affairs and Communications with 347 and the Ministry of the Environment with 237 indicators.

Out of output indicators of statistical actions arising from domestic needs, the output indicators of 28 statistical actions were used as indicators in strategy documents, the output indicators of 47 statistical actions were used for giving an overview of the situation and the output indicators of 48 statistical actions were used for other purposes.

16% of output indicators of statistical actions derived from domestic need are used as indicators in strategic documents, 74% are used for providing a situation overview and 97% of output indicators are used for other purposes. Statistical actions, where at least 50% of output indicators show significant use and are used by six or more ministries, were "Estonian regional development" (50101) and "Working Life Survey" (40901). These actions had 19,100 and 2,295 annual downloads from the

<sup>&</sup>lt;sup>a</sup> Use is deemed significant if output indicator is used by at least three ministries.

<sup>&</sup>lt;sup>b</sup> Use of statistical action includes the cases where the ministry indicates the use of at least one indicator in the statistical action, regardless of the purpose of use.

<sup>&</sup>lt;sup>c</sup> If the indicator was used simultaneously for multiple purposes, it was necessary to indicate all used options.



Statistics Estonia database. The most used statistical actions which were used by up to five ministries were "Public library" (40410) and "Printed matter" (40415) with on average 2,045 and 1,189 annual downloads from the statistical database.

Statistical actions with significant use of less than 50% of indicators and which are used by six or more ministries were "Annual economic indicators of industrial enterprises" (20326) and "Annual economic indicators of construction enterprises" (20320). These actions were downloaded from the Statistics Estonia database 4,109 and 4,570 times a year, respectively. As for statistical actions used by up to five ministries, the most used statistical actions were "Annual economic indicators of trade enterprises" (20321) and "Annual economic indicators of real estate" (20322). These actions had 3,022 and 517 downloads from the statistical database in a year.

The users of the greatest number of output indicators of statistical actions derived from domestic need were the Ministry of Rural Affairs with 1,457, the Ministry of Culture with 617, the Ministry of Social Affairs with 404 and the Ministry of the Interior with 399 indicators.

No information was received concerning methodological problems. The survey revealed that Statistics Estonia does not produce any indicators that are not used by the ministries. Thus, it is difficult to find indicators that could be left out in order to free up resources.

## Preparations for the register-based population and housing census

The works related to the project of the register-based population and housing census (REGREL) proceeded as planned. Information was distributed to interest groups and project participants and Statistics Estonia made efforts to contribute to international work in preparing the next census round in the European Union and the Baltic States.

The most important action in 2015 was the preparation for the first trial of REGREL. The first trial will take place in 2016 as at 31.12.2015. The second trial is scheduled for 2018 as at 31.12.2017.

The REGREL trial covers the entire permanent population of Estonia and dwellings located in Estonia, irrespective of their occupancy. Unfortunately, Statistics Estonia failed to reach an agreement with the Tax and Customs Board for comprehensive collection of occupation and workplace data in the Employment Register, and thus these significant indicators that are mandatory in the European Union, will not be included in the first trial.

The development of the quality framework of the register-based census in cooperation with registers was an important activity. For the first trial, quality criteria were developed for assessing the census, approved by the REGREL task force and the census committee of the Government of the Republic. The most labour-intensive activity of the methodologists was to determine the number of persons to be enumerated before the pilot, i.e. the number of permanent residents in the country. Census quality depends on an accurate list and number of residents. For Statistics Estonia, knowing the number of residents is important for census-related activities, but also for using the same population figure in all actions of Statistics Estonia; knowing the figure also allows organising censuses more frequently in the future. Determination of the number of residents is based on official registers.

In 2015, the following work was done to determine residency: organising the datasets of registers and sub-registers necessary for residency (a total of over 20 datasets); developing the general theory of residency index, which was used to assess the number of Estonian residents in 2012–2015 and to compare with the standard calculations of the population figure, resulting in *ca* 1% difference. The results were presented at international and domestic forums in the second half of the year (4 and 5 times, respectively) and they have also been published. Works will continue in 2016 with specification of parameters and implementation of the results of the residency index.

Preparations for the census also revealed some bottlenecks, which were introduced to the scientists. The head of the REGREL scientific council introduced to Estonian demographers what Statistics Estonia has done to improve the quality of REGREL (calculation of residents, work with specification

of addresses), and, by comparison with survey results, also demonstrated that data collection the traditional way, e.g. with an online census, would not ensure collection of accurate address data of all permanent residents of Estonia.

The experts and employees of Statistics Estonia agreed that inaccuracy of residence data of the Estonian population (estimated 20% of Estonian residents do not reside at the place of residence registered in the Population Register) is the main obstacle for organising a register-based census and for using Population Register data in the analysis of population distribution and assessment of the household structure of the Estonian population.

On the information day organised for local governments in September, the speakers admitted that neither Statistics Estonia nor the administrator of the Population Register has any means to improve the situation; the solutions have to be found on the state and local government level. On the one hand, more active monitoring of the adherence to the Residence Registration Act would be helpful, on the other hand it would help to lose certain regulations, which is a huge challenge for society.

Determining the source of funding for the development of REGREL ensured that the cooperation regarding information technology was a complicated and time-consuming process. It assumed close cooperation with the ministries. Despite a potential increase in the volume of work regarding individual registers due to preparations for REGREL, it is still useful on a wider national level, because accurate data can be used by significantly more people, and the more data is used, the more it will improve the general data quality of a particular register, because any problems that occur can be solved.

In July, significant progress was made in financing the IT-solutions necessary for a register-based census, when Statistics Estonia, the Ministry of Economic Affairs and Communications and administrators of the registers of 9 ministries involved in preparations for REGREL agreed on the IT development plan of REGREL. Since 3 August 2015, both Statistics Estonia and the administrators can apply for EU structural funds of the REGREL round.

IT-development is completed in two stages. The first stage is related to creating prerequisites for a register-based census: implementation of address data system in registers, establishment of automatic data acquisition capacity, ensuring the presence of datasets corresponding to census indicators in registers, but also the presence and use of organised classifications. The second stage is related to development work for ensuring the integrity and accuracy of data. Since 2016, funding is guaranteed in the framework of REGREL for improving data quality of the Population Register. Parallel to these stages, the IT development project also includes the establishment of an automated production environment at Statistics Estonia.

At the same time, Statistics Estonia, in cooperation with RMIT, continued REGREL development works for establishing a statistical registers system. Follow-up works were completed in December 2015.

## Actions left out of the list of statistical actions

A total of 11 statistical actions with a total cost of 471,400 euros were left out of the list of statistical actions of 2015 due to budget limits.

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Name	Туре	Field	Main representative of public interest	Cost, thousand euros
European Safety Survey (40804)	Non-regular statistics	Social life	Ministry of Social Affairs	210.8
Wider use of administrative data (20008)	Development	Economy	Ministry of the Interior	97.0
Use of passenger cars (22033)	Non-regular statistics	Economy	Ministry of Economic Affairs and Communications	54.0
Agri-environmental commitments (10501)	Main statistics	Environment	Ministry of the Environment	26.0
Labour force accounts (40715)	Main statistics	Social life	Ministry of Finance	25.0
Restoration of time series (50017)	Development	Other areas	Ministry of Finance	24.0
Development of the services producer price index <sup>a</sup> (20413)	Main statistics	Economy	Ministry of Economic Affairs and Communications	23.0
Air pollution (until 2015) (10405)	Main statistics	Environment	Ministry of the Environment	1.3
Monitoring of air and water quality (10201)	Main statistics	Environment	Ministry of the Environment	0.5
Replenishment of bodies of water (10303)	Main statistics	Environment	Ministry of the Environment	0.5
Emission and capture of gases causing climate change (10403)	Main statistics	Environment	Ministry of the Environment	0.3
Total				471.4

#### Statistical actions left out of the list of statistical actions due to budget restrictions, 2015

The statistical action "Wider use of administrative data" (20008) would allow satisfying the users' need for increasingly detailed statistics (smaller regions, more events, etc.) and reducing the response burden of respondents. The development of the statistical action involves assessment of the suitability of administrative data on a more detailed level for producing statistics based on economic activities, size groups and administrative distribution. Based on the results of the analysis, the methodology for domain-specific statistics will be developed (including regional level) and information systems will be supplemented for producing relevant statistics.

The statistical action "Development of the services producer price index" (20413) is aimed at developing economic indicators that would provide information about the changes in business services consumer price over time. Regulation (EU) No. 1158/2005 specifies production of 20 indexes of business services. As of January 2015, 11 of these indexes were present and 2 were in process. In view of monitoring the developments in the Estonian economy, it is also crucial to be aware of the changes in prices in order to compare the change in the volume of services provided.

The purpose of the statistical action "Use of passenger cars" (22033) is to determine the patterns of population mobility (transportation). The resulting data provide information for those responsible for improving the mobility of people, adjustment of private and public transport to the needs of the people, planning related to urban and regional development and transport infrastructure, etc. Survey results can also be used for preparing the transport policy and measuring its outcome.

The statistical action "Labour force accounts" (40715) will result in combining different data sources and publishing tables about labour force accounts by sex, level of education, and other background indicators. If this action is left out, society will lack the reference base for measuring employment and a key component in budget forecast.

<sup>&</sup>lt;sup>a</sup> The action is mandatory for Estonia under EU legislation.

The statistical action "Restoration of the time series of population statistics" (50017) is a development action that aims at making data of previous periods that are important for Estonia available for users. This work involves collection of statistics that has previously been published only on paper, checking and digitalisation of such data and providing comparison of definitions. The dataset would enable providing overviews and analyses concerning several statistical areas. Availability of long time series is of particular interest for scientists for research purposes. The restored time series are published in the statistical database and they could be used for various purposes.

The statistical action "European safety survey" (40804) should establish residents' exposure to various types of crime. The analysis of information published about crimes will provide relevant institutions with an overview of the impact of security policy measures.

In order to open up resources for performing statistical actions arising from Regulation (EU) No. 691/2011 "Environmental taxes accounts" (10104) and "Material flow accounts" (10601), the following statistical actions were left out of the list of statistical actions:

- The statistical action "Monitoring of air and water quality" (10201) gave an overview of air and water quality, including pollutant content in air and precipitation and the content of radioactive substances in air. Weather data reflect average daily temperatures, average relative air humidity and amount of precipitation and number of days. It also gives an overview of the duration of sunlight on a monthly basis;
- The statistical action "Replenishment of bodies of water" (10303) gave an overview of replenishment of water bodies by fish species;
- The statistical action "Emission and capture of gases causing climate change" (10403) provided information about the gas emissions causing climate change and their natural capture;
- The statistical action "Air pollution" (10405), the purpose of which was to provide information about the pollutants emitted to ambient air from stationary and mobile sources of pollution in Estonia;
- The statistical action "Agri-environmental commitments" (10501), the aim of which was to provide information on the agricultural environment.

Two statistical actions were left out of the programme because they were no longer needed.

One of them is the statistical action "Labour market policy interventions" (40903), the data of which are no longer published by Statistics Estonia since 2015, because the actions related to the Estonian employment policy database are performed by the Estonian Unemployment Insurance Fund, and there is no need to produce duplicate statistics.

The statistical action "Success on the labour market" (40312) was fully transferred to the Ministry of Education and Research.

## Statistical actions not included in the programme

Statistics Estonia also performs actions that are not included in the statistical programme, but are ordered by users. All people interested in statistics can address Statistics Estonia to get access to statistics. If the statistics requested by the user are not yet produced, it can be ordered. Orders can be placed with regard to all statistical areas. Order conditions are specified in the service standard published on the website of Statistics Estonia (http://www.stat.ee/teenusstandardid); only in Estonian.

In 2015, Statistics Estonia fulfilled 347 non-programme orders placed by enterprises, institutions and private individuals, which is 39 more than in 2014. Last year the revenue from orders was 446,100 euros.

More than half of the statistical actions not included in the programme were small-scale orders for statistics that are more detailed than the material already published. The volume of standardised

orders decreased slightly in 2015. These are orders that refer to specific commodity groups or companies based on selected characteristics (e.g. foreign trade statistics, data on economic units). To facilitate orders for statistics, Statistics Estonia has a separate price list for standardised orders for information. 25% of all orders concerned foreign trade statistics, ordered mostly by industrial enterprises in Estonia and neighbouring countries. The share of orders of financial key ratios was 13%.

## Compared to 2014, last year featured a greater number of orders performed based on hourly work and the number individual data prepared for scientific research.

Order for information	Total	euros	Number	
	2014	2015	2014	2015
Survey on Health, Ageing and Retirement in Europe (SHARE)	-	211,800	-	1
Foreign Visitors Survey	75,000	79,200	1	1
Establishment of a joint database of state registers and population censuses	-	28,900	_	1
European Social Survey (ESS)	_	27,700	_	1
Establishment of integrated database of individual data for monitoring integration and publication of indicators	-	18,000	_	1
ESF data collection	-	14,900	_	1
Assessment of the impact of professional training for adults	8,700	13,600	1	1
Preparation of individual data for scientific research	6,000	12,400	24	34
Other orders for information based on hourly work	1,900	9,900	112	179
Orders for information on foreign trade statistics	6,800	5,900	85	77
Survey on the spatial distribution of and ensuring the accessibility to private and public services and on including services in county planning	-	5,000	-	1
Sustainable Development Goals (SDG) Estonian pilot survey	-	2,900	-	1
Order for information by the Ida-Viru County Government	2,000	1,800	1	1
Financial behaviour of Estonian households	-	3,000	_	1
Financial key ratios	700	700	44	43
Forwarding economic units data	400	900	5	5
Pocket-sized reference book "Viljandimaa – arenev päris Eesti"	2,700	-	1	-
Publications	10,300	9,500	260	190
TOTAL	114,500 <sup>ª</sup>	446,100 <sup>b</sup>	534	539

## SHARE

SHARE (Survey on Health, Ageing and Retirement in Europe) is a pan-European longitudinal study involving the elderly population (50+). The person ordering the survey is Tallinn University. On the one hand, the survey focuses on the individual ageing process and the causal relations affecting it, and on the other hand, it represents an important source for monitoring existing policy measures and for initiating new science-based measures. SHARE results have helped to study European demographic changes since 2004. Surveys have been carried out in 20 countries and more than 100,000 people in the relevant age group have given information about their living conditions, family, friends, health and economic state. Estonia has participated in the project since 2010, i.e. since the fourth survey wave. The survey is intended to continue until 2024. In Estonia, approximately 6,900 interviews were carried out in 2011, 6,100 in 2013 and 6,000 interviews in 2015. The survey is

<sup>&</sup>lt;sup>a</sup> In 2014 expenditure for own revenue was 248,500 euros, incl. expenditure from the carryover of the previous year, 134,000 euros.

<sup>&</sup>lt;sup>b</sup> In 2014 expenditure for own revenue was 459,100 euros, incl. expenditure from the carryover of the previous year, 13,000 euros.

planned to be added to the statistical programme in the future. Survey results of previous years are available on the website of Tallinn University at http://www.tlu.ee/public/SHARE/.

## **Foreign Visitors Survey**

The aim of the Foreign Visitors Survey was to determine the expenditures incurred by foreign visitors in Estonia, their travel motivation and behaviour, and satisfaction. The survey was ordered by Enterprise Estonia who will use the collected information to develop the tourism sector. The data gained from the survey is also important for Eesti Pank in order to calculate Estonia's revenue from tourism and present it in the Estonian balance of payments. In addition to Enterprise Estonia and the tourism sector, the survey data are useful for the Ministry of Economic Affairs and Communications and for local governments. Data by types of expenditure are necessary for assessing the impact of tourism on the Estonian economy in a wider sense (direct impact on sectors benefitting from tourism, such as accommodation and travel agents, and indirect impact on the providers of other goods and services). For the purposes of the survey, the tourists leaving Estonia were surveyed at the border crossing points over two periods: from August to September 2014, and from November 2014 to January 2015. Survey results are published in an article in the second issue of the Quarterly Bulletin of Statistics Estonia 2015 (http://www.stat.ee/90734). The survey will continue in 2016. It is planned to add the survey to the statistical programme in the future.

#### Assessment of the impact of professional training for adults

The aim of the assessment of the impact of professional training for adults was to determine whether the labour market situation has improved for people who received training funded by the Structural Funds. This analysis was requested by the Praxis Centre for Policy Studies. Project partners of Statistics Estonia included the Ministry of Finance and the Ministry of Education and Research. The task of Statistics Estonia was to collect data and prepare the data for analysis. To do that, we collected the participants' applications from the training providers, and then entered and encoded the data. The participants' data were linked to the data available in state registers, which provided information about a person's employment before and after the training. The project will result in an analysis to be published on the Praxis website in 2016. Praxis will also organise relevant training courses for analysts.

Statistics Estonia will publish the results in a map application as a grid map. Individual data will be available for researchers for the purposes of more detailed analyses.

## **European Social Survey**

European Social Survey (ESS) is an international social survey and a social sciences infrastructure, with the objective of studying the patterns of social development. The state coordinator of the project is the University of Tartu, who ordered ESS pilot data collection from Statistics Estonia in 2015. The aim of the pilot European Social Survey was to prepare the content for the interview round of 2016 and further improve the main survey. The pilot survey was carried out in October and November 2015. ESS provides statements on people's attitudes towards various areas and asks questions about their life. Data have been collected since 2002. Survey results from previous years are available on the survey website at http://www.ess.ut.ee/.

## Establishment of a joint database of population censuses and state registers

The objective of the action is geocoding the spatial data of the 1989 population census which would enable projecting the data of the 1989 population census on a map and generating a common spatial dataset of the previous three censuses, which in turn could be used to produce time-continuous spatial analyses. The action was ordered by the University of Tartu. The building-based data from three censuses allow detailed presentation of spatial changes, studying segregation and solving various spatial tasks. We continue cooperation with the Department of Geography at the University of Tartu and the Estonian Institute for Population Studies at Tallinn University in order to extend



coverage with detailed spatial data from 1989 census to the entire Estonia. Statistics Estonia will publish the results in a map application as a grid map. Access to micro-data is granted to researchers for more detailed analysis.

## Survey on the spatial distribution of and ensuring the accessibility to private and public services and on including services in county planning

The objective of the survey was to establish, based on substantive criteria, an approach for planning the service network. That would help to reach a common, reasoned and functional solution in handling the service network in county-level planning, and thus provide a single basis for managing the distribution of services in the entire country. The survey was ordered by the Ministry of the Interior and it was carried out by the Centre for Applied Social Sciences (CASS) of the University of Tartu. The main task of Statistics Estonia was producing the maps representing work-related migration and service areas. Besides that, Statistics Estonia cooperated with CASS in distinguishing potential social infrastructure service areas, and the size and centres thereof, as well as in calculating the customer base. The survey results provided substantial information for making decisions in the process of renewing county planning. The survey results were published in May website of the 2015 and are available on the Ministrv of the Interior at https://www.siseministeerium.ee/sites/default/files/dokumendid/Uuringud/ Ruumiline planeerimine/2015 teenuskeskuste uuringu lopparuanne.pdf.

## Pocket-sized reference book about Ida-Viru county

The publication "Ida-Virumaa. Olukord ja strateegilised eesmärgid" provides an overview of the development strategy of Ida-Viru county. The overview is supplemented with statistics about the development of Ida-Viru county and illustrated with photos of success stories from the area. The pocket-sized reference book was ordered by Ida-Viru county government and it was released in publication available Statistics Januarv 2016. The is on Estonia's website at http://www.stat.ee/317911.

## Establishment of integrated database of individual data for monitoring integration and publication of indicators

The aim of integration indicators is to determine whether Estonian residents with different ethnic, cultural and linguistic background and origin are provided equal opportunities for successful managing and well-being. The indicators were produced based on an order submitted by the Ministry of Culture. Statistics Estonia determined currently present integration-related surveys and registers and analysed their usability for the purpose of producing integration statistics. In order to create integration indicators, data from different sources were linked and additional variables requested by the Ministry of Culture were calculated. The results were used as a basis for generating statistical database indicators, which are published in the Statistics Estonia database along with relevant explanatory methodology. Integration indicators are published on Statistics Estonia's website at http://pub.stat.ee/px-web.2001/Database/Eri\_valdkondade\_statistika/Loimumine/Loimumine.asp

(both in Estonian and in English). In cooperation with the Ministry of Culture, we plan to continue existing time series, supplementing them with data about upcoming years.

Integration indicators reflect attainment of education, participation in the labour market, socioeconomic managing and living conditions of groups of people who have different domestic languages, nationality and origin. These indicators could contribute to measuring integration in Estonia.

## Individual data collected for statistical purposes used for research

To generate as much value as possible in society by reusing available data, research institutions have the possibility to access the individual data collected by Statistics Estonia, provided that the data will be used for scientific purposes. The decision to grant access is made by Statistics Estonia

on a case-by-case basis, taking into account the risk of identification of individuals and data confidentiality. The type of access to individual data depends on these two factors. References to relevant research are made available on Statistics Estonia's website.

Research institutions are showing increasing interest in the use of individual data. In 2015, a total of 36 applications for using the data were submitted. Agreements were concluded with 34 institutions, two-thirds of which use the data through a VPN-connection and the rest of them either via FTP or in the premises of Statistics Estonia.

In the end of 2015, there were 60 valid agreements for use of confidential data, approximately one out of six agreements is concluded with a foreign research institution (11 out of 60).



#### Agreements of using individual data, 2010–2015

The data most often used for scientific purposes include those of personal surveys, i.e. the Estonian Social Survey, the Population and Housing Census, the Labour Force Survey, the Innovation Survey and foreign trade statistics and financial statistics of enterprises.



The list of statistical actions for 2016–2020 contains five new statistical actions: one action is required by international agreements, one action serves as an input for a statistical action based on EU legislation, and three statistical actions arise from European Union legislation.

No.	Name of statistical action	Expected cost, thousand euros		Explanation of the need for the statistical action	Type of statistical action		
		2016	2017	2018	2019	2020	
1	Simplifying intrastat (22305)	9.6	-	-	-	<ul> <li>International order</li> </ul>	Non-regular statistics
2	Consumption expenditure forecast (40204)	-	-	4.0	4.0	<ul> <li>Input for statistical action based on EU legislation</li> </ul>	Non-regular statistics
3	Module "Youth on the labour force" of the Labour Force Survey (40712)	16.0	1.9	_	-	<ul> <li>Arising from EU legislation</li> </ul>	Non-regular statistics
4	Module "Entrepreneurs and Sole proprietors" of the Labour Force Survey (40713)	5.7	16.0	1.9	-	<ul> <li>Arising from EU legislation</li> </ul>	Non-regular statistics
5	Module "Reconciliation of work and family life" of the Labour Force Survey (40714)	7.5	16.0	7.5	-	<ul> <li>Arising from EU legislation</li> </ul>	Non-regular statistics

## **USERS' SATISFACTION WITH OFFICIAL STATISTICS**

All the information published by Statistics Estonia is available to the public for free on the website of Statistics Estonia at www.stat.ee. The number of visitors to the website has increased year by year. Compared to 2014, the number of visitors increased by 2% in 2015. The average number of visitors per week was *ca* 11,000, with 82% of visits coming from Estonia. 9% of the visitors accessed the website via a mobile phone or tablet (6% in 2014). The number of visitors peaked in February and March and was the lowest in July and August.

The most popular source of statistical information is the Statistical Database. Although the number of database users decreased by 4% in 2015 compared to 2014, the number of visits and table views remained at the same level. However, there was a significant increase (15%) in the number of views of the pre-defined tables presenting statistics on Estonia. The number of users of the portal of regional statistics and the e-publication "*Piirkondlik portree Eestist*" (Regional portrait of Estonia, only in Estonian) continues to grow. The number of users of main indicators fell by approximately a half in a year due to the fact that five key indicators are now presented on the home page, meaning that users no longer have to look for them in the pre-defined tables.

The number of requests for information submitted to Statistics Estonia remained on the same level as in 2014, but the number of publication downloads from the website increased by about one third – 27,000 downloads in 2015.

Similar to previous years, the most popular subject areas in 2015 were population indicators and vital events, wages and salaries and labour costs, agriculture, national accounts and the labour market. The ranking of popular subject areas has remained unchanged for years.



## Most popular fields of statistics, 2014, 2015

## Media coverage

There were 7,262 media mentions concerning official statistics and the activities of Statistics Estonia in 2015, i.e. the number of media mentions increased by approximately 1,000 compared to the previous year. It includes 3,503 mentions concerning news releases and 441 mentions concerning blog posts by Statistics Estonia. In 2012–2013 the number of media mentions was significantly influenced by conducting the 2011 Population and Housing Census (PHC 2011) and publication of its results, the impact of which decreased in 2014. However, both media and the public showed renewed interest in official statistics in 2015 and the number of media mentions per year exceeded 7,000 (as in 2013). Contributing factors to the increase in media mentions included the introduction of the new Eurostat information system Census Hub (presenting the results of the Population and Housing Census carried out in the Member States of the European Union and European Free Trade Association in 2011) in the beginning of the year, enabling the comparison of Estonia with other countries based on PHC 2011, as well as provision of information for certain terms (1 April, start of summer holidays), and blog articles written with regard to the Month of Estonian Food in September.



Year	Total of mentions	Average per month	Average per day	Increase in the total of mentions compared to the previous year, %
2010	6,630	553	18	36
2011	7,606	634	21	15
2012	8,941	745	24	18
2013	7,853	654	22	–12
2014	6,275	523	17	-20
2015	7 262	605	20	16

#### Media mentions, 2010-2015

On average, there were approximately 20 media mentions per day based on or discussing official statistics, up from 17 mentions per day in 2014. There were 605 media mentions per month in 2015, on average (523 in 2014).



#### Media mentions by month, 2013-2015

## **News releases**

In 2015, Statistics Estonia published 138 news releases, all of which received media coverage. According to the media monitoring, each news release received 25 media mentions, on average (23 in 2014). The media showed the most interest in news releases concerning economic growth and wages and salaries. Media reporting on news releases accounted for approximately half of all media mentions.





During the year, the news releases were viewed more than 188,700 times on Statistics Estonia's website, which means approximately 516 views per day (the corresponding indicators in 2014 were 178,700 and 490).



Press release views on Statistics Estonia's website, 2013–2015

## Articles

In 2015, the employees of Statistics Estonia contributed seven articles that were published in the media (11 in 2014). Ene-Margit Tiit was the most prolific contributor with four articles published. All seven articles discussed official statistics.

## Yearbook presentation

In July, the Statistical Yearbook of Estonia 2015 was presented to the press. At the yearbook presentation, Principal Analyst Siim Krusell gave an overview of the changes occurring in the Estonian population and social life in 2014 and Senior Analyst Alis Tammur talked about the links between education and migration. After the presentation, there were approximately 130 media mentions in two weeks. Media mentions include news releases, interviews at the presentation and facts picked by the journalists from the yearbook. The issues highlighted at the presentation were widely used (migration, labour market participation, population, access to medical aid), but there were also many issues picked from the yearbook by the press (e.g. abortions, marriages, students, economic units, children starting their first school year, number of occupied dwellings).

## Statistics Estonia in social media

## **Statistics blog**

In 2015, the blog reached the highest annual number of visits – 132,000 over the course of the year. The previous record dates back to 2014 with 106,400 visits to the blog. There were 40 blog posts in 2015 (31 in 2014) and they received 441 media mentions.

In the years 2014–2015, the boost in the number of visits to the blog was supported by the fact that since July 2014, when the structure and design of Statistics Estonia website was renewed, the focal area of the website also displays published blog posts and directs the visitors to read them.





The most popular blog post in 2015 was published on 1 April to celebrate the April Fool's Day. The post titled "Huvitavaid fakte Eesti elust" ("Interesting facts about life in Estonia", only in Estonian) was written by Anu Tõnurist and Alis Tammur. They took real data and used them in unreal associations, which led to funny conclusions. On the day of publishing, the post was viewed approximately 3,000 times, which is the second best result in the history of Statistics Estonia's blog (since 2010). On the day it was published, the post reached approximately 14,000 people via Facebook (FB) and within five working days, it had reached 15,400 people. The blog post received media coverage in ETV news programme "Aktuaalne kaamera" and broadcast "Ringvaade". The consultation and training enterprise Marketing Institute acknowledged the April Fool's Day post of Statistics Estonia with the title of "marketing star" for mediating a serious topic through the prism of humour.

In September 2015, the month of Estonian food was celebrated for the first time under the leadership of the Ministry of Rural Affairs. Statistics Estonia supported the celebration of the Estonian Food Month by publishing six blog posts based on the data of Statistics Estonia.

The most active blog contributor in 2015 was Anu Tõnurist, who wrote six stories in the year. More than 20 authors contributed to the blog last year.

Title	Author	Number of views in blog on publishing day	FB reach <sup>a</sup> in five working days
Huvitavaid fakte Eesti elust	Anu Tõnurist, Alis Tammur	2,730	15,352
Eesti emad 21. sajandil	Tiiu-Liisa Laes	1,709	2,687
Unistad suvepuhkusest asustamata paigas?	Berit Hänilane	1,510	12,380
Eesti kodakondsuse ja päritoluga inimesed Euroopas	Anu Tõnurist	1,146	2,105
Kümne aastaga on ettevõtete arv suurenenud	Marielle Borthwick	1,060	1,735
Eesti rahvastikuprognoos 2040: neli positiivset stsenaariumi	Alis Tammur	1,034	1,784
Millest koosneb puudega inimeste sotsiaalne kaitse?	Marianne Leppik	1,001	368

#### Blog posts that were read the most on publishing day, 2015

<sup>a</sup> The number of Facebook users whom the Statistics Estonia post has reached directly or through friends.

## Statistics Estonia on Facebook

Since 2010, Statistics Estonia has had a Facebook account to mediate news releases, blog posts, publications and news by Eurostat and statistical organisations of other countries. While the number of account followers has annually increased by approximately 200–300 fans, it rocketed by 900 in 2015, reaching approximately 2,200 fans by the end of the year. The number is similar to that of Statistics Lithuania – 2,400 (Statistics Latvia does not have a Facebook page). As for Estonian government agencies, the Rescue Board is the most popular one with approximately 40,000 fans, and in the administrative area of the Ministry of Finance, the Facebook account of the Tax and Customs Board has the greatest number of followers (approximately 6,100).

## Statistics Estonia on Twitter

In September 2015, Statistics Estonia re-introduced its Twitter account that was last used for mediating news about PHC 2011. Tweets are automatically generated upon publication of news releases and blog posts. In late 2015, Statistics Estonia had over 1,000 followers on Twitter.

## New products for users

#### Newsletter

In 2015, Statistics Estonia started to publish a newsletter that combines topical news from various domains. Depending on topics, the target groups of the newsletter also include ministry analysts, enterprises, respondents, local governments, etc. In 2015, two issues of the newsletter were published. The newsletters are available for viewing on Statistics Estonia's webpage at http://www.stat.ee/uudiskirjad.

# Publication "Eesti maakondade rahvastik. Hinnatud ja loendatud" (in Estonian)

The publication discusses the population trends of Estonian counties from a statistical aspect. Information is presented from the point of view of a mathematician-statistician rather than a demographer. It describes the population of counties based on the data of population and housing census of 2011. The book has two parts: the first part compares the situation of population in counties and major cities and describes common tendencies, and the second part observes population by counties and also on the city and rural municipality level. All counties are treated based on the same pattern. This publication could be considered as a follow-up to the book "Eesti rahvastik. Hinnatud ja loendatud" by Ene-Margit Tiit, which discussed the development of the entire Estonian population without paying too much attention to particular features of regional development. The publication provides an overview of the population of counties and its sex and age distribution and spatial distribution. The population is also described based on ethnicity and other identifiers, and it gives an overview of the population's education and state of health, work and family life, and dwellings and living conditions. The publication was released in March.



## Publication "Rahvastiku areng. Population Trends"

The central subject of the publication concerning the development of the Estonian population consists in the processes that are important for the development and survival of the Estonian population and that determine the number, composition and distribution of population. It analyses natural demographic processes – birth rate, mortality and ageing. It focuses on examining migration, describing both internal and external migration. Based on these topics, the publication gives an overview of Estonian regional population projection, its sources and the estimated demographic situation until 2040. The publication was published in September.

## Publication "Soolise võrdõiguslikkuse näitajad. Indicators of Gender Equality"

The biggest gender pay gap of the European Union has been recorded in Estonia. In order to reduce the gap, it is vital to observe its dynamics and factors which may influence the emergence and persistence of the pay gap. The publication examines changes in the gender pay gap over time based on different background variables (ethnicity, education, etc.), and the factors (sex segregation, activity in entrepreneurship, work and family life, parental benefit, paternity leave, parental leave) which impact on the pay gap. The publication has been compiled in the framework of the project "Increased availability of gender pay gap statistics". The publication was released in December.





## Peer review of the Estonian Statistical System

In the spring of 2015, independent European experts and external experts of the European Statistical System (ESS) reviewed the compliance of the Estonian Statistical System with the principles of the European Statistical System Code of Practice. The same methodology was used for reviewing all other EU Member States and Eurostat, for the first time in 2006–2008 and for the second time in 2014–2015.

The European Statistical System (ESS) Code of Practice includes 15 principles covering the institutional environment, the processes of the production of statistics and the output of statistics. The review of the compliance with the Code of Practice is based on a set of indicators of good practice for each of the 15 principles. The quality criteria of European statistics are stipulated in European legislation on statistics.

The European Statistics Code of Practice and the peer reviews serve the following purposes:

- maintain and enhance the reliability of the ESS;
- ensure and improve the capacity to produce European statistics and the quality of the statistics;
- support the Member States in development actions undertaken for compliance with the Code of Practice;
- benefit from the development of various parts of the ESS.

The audit-like peer review consisted of two stages: a self-assessment and a review by independent experts. Statistics Estonia completed the self-assessment in 2014 by filling in three long questionnaires and covering more than 400 statements. Then, independent external experts with statistical experience reviewed the answers and additional documents provided by Statistics Estonia and met the employees, partners and users of statistics (including representatives of the public and private sectors, scientists, media representatives) of Statistics Estonia during the peer review in April 2015. The results of the review were published as a report in the autumn of 2015, containing the most important conclusions of the experts and recommendations for improvement actions. The conclusions and recommendations of the review have different weight and some of them arise from non-compliance with the requirements, while others only concern the strengthening of compliance. Statistics Estonia has prepared a plan for improvement actions in order to eliminate the deficiencies referred to in the report, and Eurostat will perform regular checks on the performance of this plan.

All in all, the Estonian statistical system and Statistics Estonia meet a large part of the requirements set in the Code of Practice. Moreover, the official statistical systems of Estonia and the Netherlands are the only ones whose compliance was rated very high. According to the report, the strengths of Estonia include highly educated and skilled employees, well-developed and comprehensive IT-system, a close-to-maximum use of state databases, excellent use of international standards, classifications and methodologies, and the Official Statistics Act as an excellent example for other countries. The report also repeats that the central coordination of the production of statistics provides a good basis for developing the statistical system.

However, besides an excellent result there are some shortcomings to be attended to. Reviewers refer to three types of improvements needed in the Estonian statistical system:

- ensure sufficient resources, because lack thereof has caused failure to fulfil some obligations under European regulations, it is complicated to ensure recruitment and keeping of qualified employees, and there are also limitations to the amount of development and participation in the development projects of the ESS;
- enhance the services needed by users and respondents, incl. existing descriptions of the process of statistics production and standard quality indicators, establish clear links between the Statistical Council and Scientific Council, prepare and publish more analyses and promote statistical literacy;
- strengthen the institutional environment, incl. a more detailed description of the confidentiality
  of data in the Official Statistics Act and reflect all European statistics produced in Estonia in
  the statistical programme.



Walter Radermacher, the Director General of Eurostat, who visited Estonia in August 2015, acknowledged that the Estonian Statistical System is on a level comparable with the best statistical offices in the European Union. His main concern was the issue revealed during the review that at current level of funding, Estonia has not been able to fulfil all obligations towards the European Union.

The peer review report on the Estonian Statistical System and the plan for improvements actions of Statistics Estonia are available on the website of Eurostat at http://ec.europa.eu/eurostat/web/quality/peer-reviews.

## Survey on satisfaction with eSTAT

From July to December 2015, Statistics Estonia organised a satisfaction survey for respondents, with the purpose of determining the assessment of eSTAT, the electronic data submission channel of Statistics Estonia. Satisfaction was examined by using promoter index methodology, which is based on the presumption that when people recommend something or someone to their friends, they would assume responsibility for the quality of the recommended object.

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 -40 to -1, "poor" from -41 to -70 and "very poor" from -71 to -100.

We received more than 5,200 responses, allowing assessment of more than 60 questionnaires. The average promoter index of respondents was –7, which can be considered a satisfactory result. The highest score was given to filing out the questionnaires "Sales revenue" (+12) and "Export price" (+18), respondents were the least satisfied with filling out the questionnaires "Music" (–56), "Enterprises' innovation survey" (–28), "Non-profit organisations" (–36) and "Yield" (–24).

The lowest scores are usually given to eSTAT by managers of small-scale enterprises, who fill out the questionnaires only a couple of times a year, and also respondents who fail to submit data in time. Higher grades were given by accountants, who submit data more frequently and thus are more familiar with the system.

Respondents pointed out the following positive aspects:

- data submission is quick, convenient, easy;
- questionnaires are pre-filled;
- it is possible to immediately check the accuracy of submitted data.

The reasons for not recommending eSTAT:

- eSTAT is not user-friendly, filling out questionnaires is inconvenient and time-consuming, page navigation is complicated;
- instructions are lacking or unclear;
- cannot find the right questionnaires;
- many of technical problems: eSTAT is slow, does not open, prompts various error messages.

Respondents mostly wish to gain from Statistics Estonia information about the economic activity or sector of their own enterprise or institution, e.g. market share, production capacity, export-import, etc. They also request quicker publication of statistics and improved information technology of data collection – opportunity to link data and increased use of registers and other data sources to reduce the response burden.

## Information days and training

The year 2015 was eventful for Statistics Estonia. Statistics Estonia participated in approximately 20 conferences, seminars and other events. In addition to that, we organised 26 training sessions for statistics users – state officials, pupils and university students, librarians and other people interested in statistics. The number of training participants exceeded 630, which is the largest number of participants in recent years. 430 people participated in training provided by Statistics Estonia in 2014.

An overview of some of more significant events in 2015 is provided below.

In February, Statistics Estonia held an information day for users, providing an overview of the issues discussed in the analytical publications "*Muutuv majandus ja tööturg*. Changes in the Economy and Labour Market", "*Eesti piirkondlik areng*. 2014. Regional Development in Estonia" and "*Puudega inimeste sotsiaalne lõimumine*. Social Integration of Disabled Persons". The participants gave a very high rating to the seminar. The number of seminar participants was 110.

In April, Statistics Estonia in cooperation with the Committee of Sustainable Development held a presentation for the publication "*Säästva arengu näitajad*. Indicators of Sustainable Development". 80 people participated in the event.

In September, in cooperation with the administrators of registers of ministries and umbrella organisations of local governments, the information day "Register-based census – balancing expectations and opportunities" was held, being mostly intended for local government representatives. The information day had more than 100 participants.

On 20 October, the World Statistics Day was celebrated under the auspices of the United Nations. For that purpose, several events took place during the week: open house at Statistics Estonia, statistics quiz on Facebook, the conference "Registers and big data in statistics" introducing the opportunities of using register data and big data in producing statistics and dedicating a special section to REGREL. More than 90 persons participated in the conference.

In November, the annual seminar of the Board of Accounting Teachers "Digital revolution in accounting" took place, dedicating two hours on official statistics. The representative of Statistics Estonia talked about the role of official statistics in society and introduced statistical products that teachers could use in academic work and that might be of interest to the students as well (e.g. blog as study material, opportunities of visualising statistics, statistics app, interactive map application, wider options of using public data after the implementation of the new statistical database software, etc.). Use of statistical products will contribute to the spreading of statistical literacy in society. Statistics Estonia also organised a quiz that received very positive feedback.

In December, a seminar was held under the lecture series for the mathematics teachers of Tallinn, introducing Statistics Estonia and giving an overview of the development of the Estonian population. The second seminar was held in February this year.

At the end of the year, Statistics Estonia organised a seminar for its main users titled "Using register data in national surveys and the census". The aim of the seminar was to give an overview of the data acquisition, data quality and data accuracy of the register-based population and housing census.

Besides the events listed above, Statistics Estonia was also present on the annual City and Rural Municipality Days, the GIS-day, the Enterprise Day in Tallinn and other information days and seminars.

## ADMINISTRATIVE BURDEN OF RESPONDENTS

Statistics Estonia uses two indicators to assess the response burden: the number of questionnaires per respondent and the time spent on completing a questionnaire. To achieve a more even distribution of the burden between respondents, sample surveys are used if possible, i.e. the questionnaires are completed by only a part of the target group. Also, survey samples are coordinated, preventing an overlap between different survey samples. In the period 2012–2016, the number of companies registered in the Commercial Register has grown by a third and the number of active enterprises has grown by approximately a quarter. At the same time, the number of reporting entities has remained at 40,000 for a few last years due to the use of sample surveys and introduction of registers. Despite the number of data submitters in 2016 is so far preliminary, we may estimate a slight decrease in their number compared to previous years.



Companies registered in the Commercial Register, enterprises in the statistical profile and enterprises with data reporting obligation, 2010–2016

Samples can be coordinated better in the group of small enterprises (1–9 employees), where the number of enterprises is high and relatively small samples will suffice. In 2015, 58% of small enterprises did not have to submit any questionnaires, while 41% submitted up to 5 questionnaires and only a small proportion had to submit more than 5 questionnaires. The burden of enterprises with 1–9 employees remained on the same level in 2015 as it was in 2014. The average number of questionnaires in this group was 1.9 per respondent. In the group of enterprises with 10–19 employees, 92% of enterprises were required to complete a questionnaire of some kind. The burden is considerably bigger for enterprises with 50 or more employees: 68% of these enterprises submitted more than 10 questionnaires a year.



#### Companies by size and number of questionnaires completed, 2014–2016

The average number of questionnaires per respondent was 2.5, which is greater than in 2014 when it was 2.2. One enterprise had to submit 26 questionnaires at most. When considering the frequency of questionnaire completion, i.e. 12 separate completions for monthly questionnaires and 4 completions for quarterly questionnaires, the average number of questionnaires to be completed is as follows: enterprises with 1–9 employees submit fewer than 6 questionnaires per year on average, while enterprises with 50 or more employees have to complete more than 4 questionnaires per month on average.



#### Number and frequency of questionnaires completed by size of company, 2015

In 2015, the non-regular statistical actions "Structure of earnings", "Innovation" and "Working Life Survey" were performed, which increased the response burden of enterprises. In 2016 the non-regular statistical action "Adult in-house training" was performed, which increases the response burden of enterprises to a certain extent.

Statistics Estonia has done the following to reduce the administrative burden of enterprises:

- started using data from databases for pre-filling questionnaires and for their partial or full substitution;
- cross-used data gathered from enterprises;
- decreased the number of small enterprises subject to submitting questionnaires if the impact of the reduction to the quality of statistics is minimal;
- improved the quality of the questionnaires.

Data from databases are used for pre-filling questionnaires and for their partial or full substitution. Data for pre-filling questionnaires is taken from enterprises' annual reports, the register of taxable persons and ARIB (Agricultural Registers and Information Board). Annual reports' data have been used since 2012, the other sources since 2014. The pre-filling of questionnaires using data from annual reports reduced time spent on filling out the questionnaire by up to 50%.

Due to the introduction of the annual report, the sample of the EKOMAR questionnaire has been continuously decreased. In three years, the EKOMAR sample has decreased from 11,000 to 8,000. This means a significant reduction in the response burden of micro-enterprises. Also, it was decided to discontinue the monthly collection of financial data of trade enterprises, meaning that 800 enterprises were no longer subject to reporting. The sample of the environmental protection expenditure questionnaire has been decreased by approximately a quarter. The volumes of the samples of the crop production questionnaire and the Farm Structure Survey have also been decreased. In total, the volume of samples for 2016 decrease by 10% compared to 2013.

The burden on enterprises has also been decreased as a result of cross-using collected data within Statistics Estonia, which means that questionnaires were pre-filled using data from the same questionnaire from the previous period or from other questionnaires. To improve the quality of the questionnaires, a specialist on questionnaires started working in Statistics Estonia in 2015 to revise the content of problematic questionnaires and test questions on respondents.

	Questionnaires total	Pre-filled questionnaires	incl those pre- filled with data from the same or another questionnaire	incl those pre- filled with data from databases
Questionnaires in eSTAT	130	63	60	15

#### Pre-filling questionnaires on the electronic data submission channel eSTAT, 2016

In the years 2016–2017, the following activities have been planned in Statistics Estonia to reduce administrative burden:

- optimise data collection in the framework of the project "Reporting 3.0";
- upon the production of statistics, extend the use of data from databases already used to other statistical actions and look into possibilities of using new databases. For example the questionnaire "Job vacancies and labour mobility" is pre-filled using data from the employment register and the respondent only needs to insert the number of job vacancies for which there is no full information in databases;
- analyse the possibility of using other data sources besides state databases. The data warehouse of Elering has provided the hourly dataset for electricity consumption and data is being analysed to assess their suitability for producing statistics. In 2016, the possibility of using mobile positioning data for improving the place of residence data quality in the register-based population and housing census will be studied. The results of the study will form the basis for planning the next steps for using mobile positioning data. Vehicle counters data are used on the Latvian border to assess the number of foreign visitors for the Foreign Visitors Survey;
- if resources are available, develop a survey lab which would enable testing all the questionnaires of Statistics Estonia.

The Ministry of Finance has planned the following activities to reduce administrative burden:

- order an analysis in 2016, the objective of which would be to measure the use of the indicators of all statistical actions, the relevance of the indicators, etc. The analysis would cover all statistical activities and include the standpoints and needs of both Statistics Estonia and users (state institutions and entrepreneurs). The results of the work would be used to cancel statistical actions or indicators, justify budget applications and initiate political discussions on the topic on the Eurostat level;
- introduce the interim results of reducing the administrative burden to the cabinet in December 2016.

## Most significant reductions in the number of enterprises subject to submitting questionnaires by statistical action, 2013–2016<sup>a</sup>

Name of statistical action	Number of		Number of respo	Measure <sup>b</sup>	
	questionnaires, 2016	2013	2016	Change, 2013–2016	
All statistical actions	130	127,880	114,668	-13,212	
Environmental protection expenditure accounts	2	2,279	1,717	-562	В
Annual economic indicators of enterprises	f 14	11,139	7,946	-3,193	A
Financial institutions accounts	; 3	1,672	754	-918	В
Monthly economic indicators of trade enterprises	of 1	809	0	-809	A
Crop production	1	2,362	1,700	-662	А, В
Farm Structure Survey	1	9,890	7,500	-2,390	А, В

<sup>a</sup> The table includes the statistical actions for which the sample has been decreased the most.

<sup>b</sup> Measure A – using data from databases; measure B – reducing the number of enterprises subject to submitting data in the group of small enterprises, if the impact of reduction on the quality of statistics is minimal.



#### Reducing the sample for the questionnaire EKOMAR<sup>a</sup>, 2013–2016

	2013	2014	2015	2016
Total population	66,500	69,970	72,392	75,575
Sample	11,139	10,559	10,174	7,946
Decrease in sample compared to 2013		-580	-965	-3,193

<sup>a</sup> Statistical action "Annual economic indicators of enterprises"

## Size of sample of the questionnaire EKOMAR in economic activities with reduced sample sizes and size groups, 2013–2016

Economic activity	Size group	2013	2014	2015	2016
Manufacturing	1–9 employees	917	124	0	0
Construction	1 employee	303	336	39	0
Retail trade	1 employee	182	222	18	0
Mining and quarrying, energy, water supply	1–9 employees	146	190	187	0
Wholesale trade activities and retail sale of motor vehicles	1 employee	386	384	328	0
Service activities	1 employee	1,205	1,199	1,413	1

The number of questionnaires to be completed in 2016 is a preliminary estimate, because over the course of the year new entities will be subjected to reporting (for example, an enterprise may be added to the samples of foreign trade questionnaires, if the enterprise's exports or imports turnover exceeds the set threshold). Also, the samples for some questionnaires are drawn at a later time.

To assess the response burden, Statistics Estonia has since 2008 asked respondents to indicate the time spent on completing a questionnaire submitted through the eSTAT electronic data transmission channel. Since the response rate for this question is relatively low (10–20%), we use imputation to calculate the total burden.

Questionnaires are grouped by the volume of the questionnaire, and the time spent on the completion of each questionnaire is estimated. Foreign trade questionnaires are an exception, because most of them are received through a special channel where respondents are not asked to specify the time spent on completion. The total time spent on completing foreign trade questionnaires has been estimated based on the Intrastat burden survey conducted in 2007 and in 2014 as well as on the number of questionnaires received and the number of items.

# Average time spent on completing a questionnaire by frequency of questionnaires completed, 2012–2015

(minutes)

Frequency of questionnaire comple	eted 2012	2013	2014	2015
1–2 a year	120	116	125	136
4 times a year	34	33	36	35
12 times a year	79	71	73	73
Total	73	70	70	73

In 2015, the average time spent on completing a questionnaire remained on the same level as in 2014. On average, the completion of a questionnaire took 1 hour and 13 minutes in 2015. Annual questionnaires take more time, while the quarterly questionnaires are less time-consuming. The average time spent on completing monthly questionnaires is primarily influenced by the extensive foreign trade questionnaires. The average time spent on an Intrastat form was 2.5 hours. Other monthly questionnaires take 0.5 hours, on average. All in all, Estonian enterprises, institutions and organisations spent 42,300 working days on the completion of statistical questionnaires in 2015.



## Total time of completing questionnaires, 2010–2015

(working days)

	2010	2011	2012	2013	2014	2015
Main statistics	48,000	49,000	43,900	40,200	41,000	38,300
incl. Intrastat	22,000	23,000	20,900	19,400	19,800	18,500
Non-regular statistics	1,200	6,200	200	3,200	0	4,000
Total	49,200	55,200	44,100	43,400	41,000	42,300

The figure outlines those statistical actions, which in 2015 had a burden exceeding 1,000 working days.

#### The distribution of response burden by statistical action, 2015



## Approval of classifications

In 2015, 7 new classifications were submitted for Statistics Estonia's approval via RIHA (administration system for the state information system), and all of them were approved. No classifications were withdrawn from approval. Versions of 18 classifications were updated.

In the year, the administration system for the state information system reviewed and, where necessary, consulted 86 database classifications submitted for approval. Users have been consulted at 828 occasions with regard to classifications (list of industrial products, combined classification, Estonian Classification of Economic Activities (EMTAK), Occupations Classification).

## Approving classifications and terminology upon preparing for REGREL

State databases use developed classifications which in general do not match the internationally harmonised classifications and definitions of censuses. Moreover, when preparing for the census it became clear that classifications that are used in state databases might not be described in the administration system for the state information system.

In order to conduct REGREL, it was necessary to approve the data compositions necessary for the census in different databases with the administrators of state databases.

The meta-analysis of REGREL trial census characteristics was a big step which resulted in the creation of descriptions of characteristics based on legislation along with recommendations for amending the legislation and calculating the respective characteristics with an overview of the registers necessary. The results with regard to the legislation aspect of this operation were introduced in a database meeting in January 2015. Additionally, data compositions were agreed upon with most administrators of registers. The descriptions of characteristics served as a basis for administrators of registers for specifying the starting task, which included determining specific activities both in legislation and in IT developments. The action plan was approved by the census committee of the Government of the Republic.

Proposals for legislation amendments were made to the administrators of state databases with the objective of supplementing the database to meet the requirements of the register-based census.



## DATA QUALITY IN STATE DATABASES

Pursuant to subsection 50 (2) of the Official Statistics Act, Statistics Estonia is obligated to assess the quality of databases. To that end, a common database quality assessment framework was developed within the REGREL project in 2015, serving the following purposes:

- Describe the metadata (incl. quality attributes) following a common system;
- Provide the databases with systematic feedback on data quality;
- Improve the availability of data on using databases.

The quality working group of the REGREL project developed a framework for assessing the quality of state databases, approved in March 2015 by the REGREL leading team. As a part of this activity, the guidelines for describing the metadata of statistical actions was supplemented with a part on describing the metadata of databases. Standard metadata contain concepts described in the standards ESMS (Euro-SDMX Metadata Structure) and ESQRS (ESS Standard for Quality Reports Structure) and which are complemented based on the needs characteristic to the working processes of information systems of Statistics Estonia.

Describing metadata in a standardised way enhances the efficacy of their use. Moreover, as a result the harmonisation of metadata in the European Statistical System (ESS) will increase and they (incl. data on data quality) become more accessible to the users.

The metadata standard contains the definitions and descriptions of the presentation of statistical metadata that are necessary for documenting statistics and providing comprehensive information for the purpose of supporting data quality assessment, documentation of methodology and the production of statistics in general. For the purpose of simplifying describing the content, the guidelines for describing metadata now also include Eurostat and Statistics Estonia guidelines and also practical examples.

Describing metadata regarding data obtained for databases for the purposes of producing official statistics takes place in cooperation with the administrators of state databases. The process of describing the metadata of a database is initiated by the leading specialist on administrative data in Statistics Estonia. After compilation of the description and supplementations made by subject area specialists at Statistics Estonia, it will be sent to the representative of the database for further complementing.

Concept		Described by Statistics Estonia	Described by database
1.	Contact information	x	x
2.	Updating metadata	Х	
3.	Presenting statistics	Х	Х
4.	Unit of measurement	Х	
5.	Reference period	Х	
6.	Legislation and other agreements	Х	Х
7.	Confidentiality	Х	
8.	Publication principles	Х	
9.	Dissemination frequency	Х	
10.	Form of dissemination	Х	Х
11.	Access to documents	Х	Х
12.	Quality management		Х
13.	Relevance	Х	
14.	Accuracy and reliability	Х	Х
15.	Timeliness and punctuality	Х	
16.	Comparability	Х	Х
17.	Coherence	Х	Х
18.	Cost and burden	Х	Х
19.	Data revising		Х
20.	Statistical processing		X
21.	Notes	Х	Х

#### ESMS concepts and their description



In 2015, descriptions were produced for the ESMS metadata of the address data system (ADS), State Register of Construction Works (EHR), Population Register (PR), Register of Employment (TÖR). Describing databases will continue in the years 2016–2017 following a schedule and the objective is to finish describing the databases necessary for REGREL by the end of 2017. The next step is the publish ESMS descriptions of databases on the website.



## NEW TRENDS IN PLANNING AND ORGANISATION OF WORK

When we started with LEAN methodology in 2014, Statistics Estonia was, to its knowledge, the first state authority in Estonia to actively implement that methodology. In 2015, that methodology found its way to several other ministries and state authorities, while Statistics Estonia continued to implement LEAN with the same eagerness as during its introduction in autumn 2014.

Last year the number of improvement projects aimed at greater efficiency of internal work processes increased to 12. Besides that, improvement proposals are collected from employees on a weekly basis. Proposals can be made by all employees of Statistics Estonia, either on paper or in digital format via the intranet. Each Friday, the management takes a tour around the house, visiting all departments and gathering the proposals. That gives the management a first-hand insight into in-house processes and allows communication with employees. It is important that each employee would understand their role and responsibility in producing high quality statistics and contribute to an enhanced work process.

Another remarkable issue was educating employees in the field of LEAN methodology. Two deputy department heads successfully completed Lean Six Sigma green belt training, which included completing a Lean Six Sigma improvement project. Three people completed Lean Transformation training, which provided necessary knowledge for leading LEAN-projects. A training session on new trends in planning and organisation of work was organised as in-house training for department heads and key specialists, introducing how LEAN and its modifications have made planning and the organisation of work more flexible and quicker.

We also continue cooperation with the Estonian Association for Quality. The members of the Estonian Association for Quality visited Statistics Estonia to study the implementation of LEAN and several employees of Statistics Estonia took part in lectures on LEAN and Lean Six Sigma, organised by the Estonian Association for Quality.

Statistics Estonia also started using a new intranet portal that is structured based on main process stages and serves as a huge quality manual. This is a rather special approach that has caught the attention of both domestic and foreign visitors. In the course of implementing LEAN, a sort of a library, containing the most important LEAN-related books that the employees of Statistics Estonia have read in the year, has developed in the intranet.

One of the most central improvement projects started last year and continued in 2016 is OP 2.0 or operative planning 2.0. The number 2 refers to a sequel to the project that took place in February 2015. The name of the project is somewhat misleading, because its content is not just limited to better planning, it also helps to make significant changes in the organisation of work and exchange of information. Among other things, teams will be composed of employees of several departments who work towards the same goal.

OP 2.0 has the following objectives:

- reduce build-up of work by using a well-organised management system (including clearly determined components and component owners, management and planning meetings);
- increase efficiency in exchange of information between employees, forming teams around components, so that every team would have full competence and means necessary for producing the relevant component;
- achieve better cohesion of plans on the strategic, tactical and operative level and visualise the completion of the work plan by using the opportunities provided by the planning and project management software JIRA.

OP 2.0 represents a logical continuation to the series of changes that started in 2013. Back then, Statistics Estonia was the first statistical office in the world to centralise the data processing stage. Additionally, the structure was subject to reduction in the number of management levels. OP 2.0 improves the informal organisation of work and management system that filled the place of the lost management levels.

Besides implementing LEAN, Statistics Estonia continued the transfer to the data processing system created for the census. A new version of the system was completed in mid-2015 (VAIS 3.0). The creation of a data warehouse, transfer to a new analysis software and implementation of a new statistical database has been hindered by lack of resources, absence of investments, and software failures.

## CHANGE IN THE COMPOSITION OF THE STATISTICAL COUNCIL

When the new wording of the Official Statistics Act entered into force in 2010, Estonia was the second-to-last EU member state to gain a Statistical Council after a period of 70 years. Although the authority of the Estonian Statistical Council is not comparable to that of, for example, the Danish Statistical Council, which approves the statistical programme (statisticians' work schedule) and reports on programme performance, it was still a leap forward in the organisation of statistics. The presence of the Statistical Council improved significantly the involvement of different interest groups in deciding on the extent and type of official statistics the Estonian society needs.

The first Statistical Council in 2011–2014 was led by demographer Luule Sakkeus. Council members admitted that the statistical programme did not comply with user needs and thus, the statistics sector had to be given priority among other strategic areas of the state. The Council recommended setting the principles of the statistical programme by preferring base statistics that does not change much in the long term, the need of which had been agreed on in society, particularly through accepting directly applicable EU regulations, and the next council was to focus on prioritising new development actions. Statistical Council pointed out a great risk involved in the lack of funds granted to the producers of official statistics from state budget, which may indicate a lack of independence, which is a key quality requirement of statistics, and cause negative assessment of the state on the international level.

In its four years of operation, the previous Statistical Council considered it important to draw attention to the fact that the main task of producers of official statistics is to ensure time series that allow describing long-term development of the country, comparable in time and space; compose a sustainable and professional team that ensures the compliance with international quality requirements to develop, acquire and make available all main statistical sources; be on the forefront of developing and systemic presentation of significant indicators that describe the development needs of the country; ensure wider introduction of administrative data and thus create synergy from combining registers and databases, and coordinate the development of state information systems.

The second Statistical Council was granted authority on 15 January 2015. The council elected a chairman – statistics professor Tõnu Kollo, who was also member of the first Statistical Council. Five of the 13 members were also in the previous Statistical Council: representatives of Statistics Estonia, Eesti Pank and Data Protection Inspectorate, a statistics expert and a social expert. The other seven experts of the Statistical Council were determined based on the principle of ensuring representation of experts in the fields of population, the environment, the economy and agriculture. That ensures the transfer of knowledge from the first Statistical Council to the second. However, most of the first year of the Statistical Council include taking a stand on the so-called zero bureaucracy initiative and generate ideas on how to make the voice of the Statistical Council better heard on strategic state level. It is possible because while the first Statistical Council was more specialist-inclined, the second Statistical Council involves more strategic leaders from both the public and private sector.

## PERSONNEL

The objective of Statistics Estonia's personnel policy is to ensure recruitment of employees required for performing the tasks of the organisation, their successful settling and development, valuation and motivation of employees, and generation of a transparent and understandable wage system.

## Number of employees

The number of employees of Statistics Estonia has been decreasing over the last few years. The number of employees is viewed separately with and without interviewers, because the number of interviewers may differ year by year depending on the cyclic nature of the statistical actions. At the end of 2015, Statistics Estonia employed 402 people (413 at the end of 2014). The full-time equivalent of average number of employees of Statistics Estonia was 337 in 2015 (349 in 2014). Compared to 2013, the average number of workers in full-time equivalent has decreased by 6%, without interviewers the decrease is 7%.



#### Statistics Estonia's employees, 2013-2015

84% of the employees of Statistics Estonia are women and 16% are men, the average length of service is 10 years and the average age is 48 years. 75% of employees have higher education (86% without interviewers). The gender-specific distribution and the share of employees with higher education has not changed significantly over the last few years. Compared to 2014, both the average length of service and the average age of employees increased by a year in 2015.





## Staff

Compared to 2013, the staff of Statistics Estonia (number of posts) has decreased by approximately 5.5%.

In early 2015, six departments were merged, resulting in three departments. That continued the process started already in 2013, with the purpose of optimising the number of structural units and managers.

Data Collection Department (AKO) was combined with the Data Processing and Registers Department (ARO) to ensure smooth and quick collection, specification, correction and processing of data, from data submission to placing the prepared data in the reference database.

Joining the Population and Social Statistics Department (RSSO) and the Methodology and Analysis Department (MAO) provides better links between the production of demographic statistics and preparation and implementation of the Register-Based Population and Housing Census (REGREL).

Combining the former Development Department (AO) with the General Department (ÜO) made it possible to integrate significant resource planning and management activities, including general quality management, strategic planning, development planning, development of statistical information system, financial management and human resources management. All these activities are necessary to ensure a smooth and efficient process of statistics production.



The new structure of Statistics Estonia has 8 departments.

This caused another decrease in the number of managers. In the previous stage of structural reform in 2013, the number of managers was reduced from 36 to 25, and the most recent change reduced it to 21.



Manager positions in the staff of Statistics Estonia, 2012–2015

## Labour turnover

In 2015, the voluntary turnover of Statistics Estonia<sup>a</sup> was 9.8%. Compared to 2013 and 2014, it has decreased, but it is still greater than the average turnover in state agencies (6.6% in 2015). Keeping the voluntary turnover rate below 10% is important for maintaining the organisation's institutional memory, knowledge and inter-institutional cooperation.

## Voluntary turnover, 2013-2015

Year	Turnover	
2013	10.4	
2014	10.2	
2015	9.8	

## Remuneration

The average monthly earnings of Statistics Estonia's employees have increased by 4.3% over the past year. Compared to 2012, the monthly earnings increased by 25.6% in 2015. The increase in earnings has been possible due to an increase in the wages and salaries budget in the previous years and the structural reform, which resulted in a reduction in the number of employees.

#### Average monthly earnings, 2012–2015

(euros)

Year	Average monthly earnings
2012	957
2013	1,035
2014	1,153
2015	1,202

<sup>a</sup> Voluntary turnover percentage reflects only those who left on their own initiative.

## Employees' satisfaction and improvement activities

Statistics Estonia held another employees' satisfaction survey in 2015 in order to get an overview of employees' expectations regarding the organisation, their level of satisfaction and work motivation, and changes in their views compared to the previous year. The survey measured employees' satisfaction with significant factors shaping work motivation, such as management, organisational culture and inner climate, development options, exchange of information, teamwork, organisation of work, content of work, work conditions, recognition and feedback, remuneration and benefits.

A response rate of 76% can be considered a good result (the response rate was remarkably lower last year – 59%). Without interviewers and registrars, the response rate was almost 90%. The level of overall satisfaction of the employees of Statistics Estonia is still satisfactory, but it is slowly improving. The share of satisfied employees has increased by 3 percentage points in a year. The level of satisfaction is highest among new employees who have worked here for less than a year, and those who have worked here much longer (at least 16 years). The level of satisfaction is lowest among people who have worked here for 11–16 years.

Similar to previous years, the highest score was given to immediate superiors, closest colleagues (department) and dedication to quality. Good evaluation was given to the management, work content and work environment. Organisational culture and inner climate was considered satisfactory. Respondents were most critical about valuing employees, development opportunities and wage competitiveness. The reputation of Statistics Estonia as an employer is still deemed a problem.

Main areas of improvement in 2015 were remuneration and benefits, organisational culture and inner climate, recognition and feedback, development opportunities and organisation of work.

Significant improvements performed last year include the following:

- Earnings (incl. basic wages, premiums, bonuses paid based on results) increased by more than 4%, on average (except for interviewers and registrars).
- We commenced continuous monitoring and updating of the business trip budget.
- We started to organise regular briefings introducing the activities of the departments.
- We implemented a new process-based intranet and started to collect and organise relevant data.
- We continued to implement the principles of LEAN for more cost-efficient process management and improved cross-organisational cooperation.
- We improved the departments' referent service.
- We continued and extended recognition of the best employees, including external partners.
- We organised a Shrove Tuesday event, Summer Days, Christmas party for children and employees, hiking trips to bogs, exhibitions in the information centre, a photo competition, book sharing, exchange of plants, battery collection campaign, and celebration of the World Statistics Day.
- The bicycle cage was placed under the roof and connected to the access system.
- The digital house guide received a new design and it started to display scheduled meetings in seminar rooms based on the Outlook calendar.
- The building's security was improved.
- Concrete flower boxes were installed in the parking lot.
- Seats were placed in front of wardrobes and armchairs in printer sections.
- We labelled trash bins in kitchenettes, prepared recycling instructions and started recycling.
- Yellow tapes were placed on the stairs to reduce the risk of falling.
- An agreement was concluded for leasing out the parking places in the parking lot of the Tallinn office building that are not used by the employees of Statistics Estonia.
- We acquired a boot-cleaning device, exercise balls, bicycle and scooter with helmets and pumps, patio umbrella for the terrace, and benches and blow-driers in the washrooms.

## **Development and training**

In 2015, the volume of professional training for employees of Statistics Estonia increased by 44%, primarily due to increased in-house training (including department briefings). Over the year, the capacity of in-house training increased by 52% and accounted for 40% of total training capacity.

The average annual number of hours of training per employee was 8.9, i.e. it increased by 26% compared to 2014. The most voluminous area of training consisted in courses related to our main activity (71% of total training hours), followed by IT courses (7%) and management courses (3%). There were 17 briefings and 3 information days for new employees during the year.

Despite almost doubled training capacity, the training costs increased by only 7% in 2015 and the cost per training day decreased by as much as 38%. Increasing the training capacity without significant additional expenditure was possible due to the extensive use of in-house training, which is the cheapest training format.

## Internal communication

In April 2015, Statistics Estonia adopted a new intranet version for organising and sharing the internal knowledge of the organisation, structured based on the main process model of Statistics Estonia. All information materials related to the main activity are now classified on the intranet by main activity stages: specification of needs, production system design, production system implementation, data collection, data processing, statistical analysis, dissemination, archiving and evaluation of statistics. Information materials describing the main activities are in turn divided into principles, instructions, document templates and documents. Besides that, intranet has a separate division for support activities, including information materials related to management, human resources, internal communication and other ordinary support activities.

## INTERNATIONAL COOPERATION

The main event in the area of international cooperation in 2015 was the brief visit of Walter Radermacher, the Director General of Eurostat to Tallinn on 4–5 August. The last time the head of Eurostat visited Estonia was several years ago, in 2009. After his arrival, Radermacher met the representatives of the management of Statistics Estonia. During the meeting, the guest was given an overview of the state of the Estonian Statistical System, certain shortcomings and recent updates. When summing up the meeting, the Director General of Eurostat noted with appreciation that the Estonian statistical system is at a comparable level with the best statistical offices of the European Union. At the same time, the current level of funding has prevented Estonia from fulfilling all its obligations to the European Union, which was the main concern for Radermacher.

Radermacher also met with the Minister of Finance. One important message to the minister was that in a rapidly changing world both the need for statistics and the volume of statistical actions will grow. This led to the issues of sufficient resources and statistics quality. Radermacher pointed out that high quality statistics should not be considered as an expense, but as a worthy investment.

After the lunch break, Radermacher held a public lecture at Statistics Estonia on "European Union statistics 2015–2020. Vision, programme, quality". The audience received an overview of the modernisation plan of the European Statistical System "Vision 2020" and its assumed impact on the statistical systems of Member States.

In his lecture, Radermacher noted that statistics has an increasingly decisive role in modern society. He said that independent, impartial and timely information has become an integral part of democracy in Europe and there is an increasing demand for statistics. Information is requested about very different areas, including relatively new topics such as globalisation, well-being and climate change. According to Radermacher, the recent financial and economic crisis has created a need for reliable statistics to ensure the proper management of the EU economy. In that context, it is extremely important to understand that only European statistics, published by statistical offices of Member States and Eurostat, i.e., the producers of official statistics, represents the highest quality of statistical information. That statistics relies on commonly agreed principles, norms and methods, which distinguishes it from other information available on the Internet.

On 27–29 September, Statistics Estonia was visited by statisticians from Albania, Bosnia and Herzegovina, Kosovo, Montenegro, the Serbian Republic and Serbia. The study trip financed by the European Commission aimed at gaining information on the production of statistics on cattle and dairy farming in Estonia, including on the methodology used, data processing, quality and distribution. The visitors were particularly interested in the use of administrative data, good cooperation between Statistics Estonia and other agencies and Estonia's experience in harmonising agricultural statistics with EU regulations. According to the participants, it was an extremely useful event, and it was also a valuable experience for Estonian agriculture statistics experts.

In September, the Estonian and Finnish statistical offices were visited by the communication and dissemination specialists from the Ukrainian Official Statistics Service. The Ukrainians have started to build a modern statistics dissemination system and face the changes that all the parts of the modern European Statistical System, including the producers of official statistics, have gone through. The visitors were shown how the publication process of Statistics Estonia has gradually developed since the Soviet times to reach its current level. The visit is part of the EU twinning project for providing consultations for the current and future Member States of the European Union.

In November, Statistics Estonia welcomed guests from the statistical office and census specialists of Ireland. The Irish intend to develop an information system for the production of statistics using metadata, and thus they asked Statistics Estonia to introduce their systems, as well as implementation-related experience and plans. The guests were given an overview of the production process at Statistics Estonia and the information systems supporting it. Considering that the meeting lasted only for a day, it could not have been a very thorough introduction, but it laid ground to further friendly contacts. The statistics experts from Ireland were very pleased with the outcome of their short visit and proposed another meeting, which may take place already in 2016.



One of the crucial international trips last year placed Estonian statistics on the world map. Tuulikki Sillajõe, Deputy Director General of Statistics Estonia, and Jaanus Kroon from Eesti Pank went to the world statistics congress to introduce Estonia's unique experience in using mobile positioning data for producing official statistics. The 60<sup>th</sup> congress, organised by the International Statistical Institute (ISI) took place in Rio de Janeiro. This grand conference with up to ten different sessions at a time, brought together approximately 2,000 participants representing statistical offices, universities, institutes, as well as enterprises etc. in 113 countries.

According to general knowledge, Estonia is the first and only county in the world where mobile positioning data is regularly used to produce statistics. Although it is actually produced by Eesti Pank, not Statistics Estonia, this nuance was insignificant in global view and therefore the invitation was primarily sent to the representative of Statistics Estonia. However, the presentation was performed by two persons: Jaanus Kroon, the Head of the Statistics Department of Eesti Pank talked about previous practice and Tuulikki Sillajõe presented the future perspective in using mobile positioning data for producing official statistics. The presentation was well received, we have received requests for contact and information even in 2016.

More distant trips took the employees of Statistics Estonia to Sydney, where the Voorburg Group meeting on service statistics took place, and to Mexico City, where they shared experience at the international conference on input-output tables.

On the European scale, we were busy implementing Vision 2020, the modernisation plan of the European Statistical System. There were 12 relevant work groups or task forces, which 9 people took part in, the majority of meetings took place in Luxemburg. Moreover, the employees of Statistics Estonia were able to improve their knowledge at 18 international trainings.

## STATISTICS ESTONIA – THE BEST GREEN OFFICE OF THE YEAR

Statistics Estonia launched the Green Office project in the autumn of 2014. The aim of the project was to bring the office building at Tatari 51 in line with the principles of Green Office and motivate employees to think about a sustainable way of life both at work and at home.

For starters, Statistics Estonia completed Green Office training provided by Tallinn Centre of Stockholm Environment Institute (SEI Tallinn), then learned how to use its resources more efficiently, and prepared an environmental policy (http://www.stat.ee/environmental-policy), an environmental action plan and an information sheet on environmental-friendly behaviour at work.



The Green Office project of Statistics Estonia was a success and on 14 May 2015, it received the certificate of Green Office. Statistics Estonia also received the award for the best Green Office of the year. According to Harri Moora, the programme manager of SEI Tallinn, it is a rare example in terms of the environment, especially in the public sector, because of excellent technical solutions of the office building and involvement of people in environmental activities, Statistics Estonia could be a good example for others, not only on the Estonian, but even on the European level.



In its daily work, Statistics Estonia avoids and reduces the use of paper and promotes paperless documentation and use of digital signature. There are no drinking water fountains in the office building of Statistics Estonia; people drink tap water and recycle waste.

Statistics Estonia has two remote offices in Tartu and Viljandi. Before, it was often necessary to drive to Tallinn for a meeting. This changed after introducing video conference equipment, a large share of meetings are now held as video conferences. It has reduced both the time spent and environmental impact from transportation.

Employees of Statistics Estonia take part in both health and environmental initiatives. In view of occupational health, we acquired a few exercise balls to test their effect on relieving problems arising from a sedentary lifestyle. Exercise balls turned out to be so popular that they are now used even in meeting rooms.

In order to promote mobility, we purchased a bicycle and a scooter. In the spring, we had an intercom campaign promoting cycling, featuring the cycling skills of both the Director General and other employees.

It is now possible to use a wheelchair in the Tallinn office of Statistics Estonia. Namely, the Office of the Gender Equality and Equal Treatment Commissioner approved the request of Statistics Estonia to use the marking of "Accessible by wheelchair" campaign in the Tallinn office of Statistics Estonia. The relevant marking was placed on the front door of the office.



In 2015, we improved the bicycle parking opportunities for the employees who cycle to work. The bicycle container intended for safe storage of bicycles was placed under a roof and connected to the building's access system.

In the spring, the employees organised a plant sharing session on the terrace of the building.

In May, we displayed an exhibition of recycled items made by our employees with the purpose of drawing attention to recycling.

We had a successful campaign for collecting used batteries, including those brought from home.

We have a nice tradition of going hiking together. Last year, our employees went hiking in Pääsküla and Viru bogs.

In October, there was an exhibition of employees' homemade preserves; colleagues selected the best recipes that received recognition. At the end of the year, a book sharing event took place in the information centre.

## **FINANCING**

Statistics Estonia covers its operating expenses with state revenue, own revenue (income from its economic activities) and foreign funding. Population and housing censuses (PHC 2011 and REGREL) receive separate funding from the state budget.



## Financing Statistics Estonia's expenses, 2010–2015

## Statistics Estonia's operating expenses and investments, 2010–2015



Operating expenses in 2015 totalled 8.2 million euros, including personnel costs 6.5 million and administration costs 1.7 million euros. Compared to 2014, the costs had decreased by 2%, including a 6% increase in personnel costs and a 24% decrease in administration costs.



## Personnel costs of Statistics Estonia, 2010–2015

In 2015, 4.8 million euros or 78% of personnel costs were financed from state revenue. Compared to 2014, personnel costs had increased by nearly 4%. Personnel costs have been steadily increasing already since 2013, the reason for that is allocating additional funds to the labour cost budget.

#### Additional funds from the state budget, 2013-2015

(thousand euros)

Purpose for giving additional funds	2013	2014	2015
Performing new statistical actions <sup>a</sup>	45.8	0.0	73.8
Partial fulfilment of additional requirements set for actions in the list of statistical actions <sup>b</sup>	17.0	0.0	0.0
Wage increase	340.0	206.4	63.2
Covering the increase in minimum wage	0.0	0.0	6.2
Total	402.8	206.4	143.2

<sup>a</sup> In 2013, new statistical actions included "Dwelling acquisition price index", "Air emissions accounts", "Production of environmental-agricultural indicators"; in 2015, new statistical actions included "Environmental taxes accounts", "Material flow accounts" and "Satellite account on pension schemes".

<sup>b</sup> In 2013, "Structure statistics of service sector" and "Price indices of services".

Since 2013, Statistics Estonia has gained extra money from the additional sum allocated in the ministries' budget for wage increase and for performing the three statistical actions that were left out of the list of statistical actions in 2013 due to lack of resources. In 2015, Statistics Estonia had to use the additional funds granted for wage increase to cover the costs of three new statistical actions. However, due to enhanced organisation of work and increased efficiency, the increase in average wages in 2014–2015 exceeded the increase in wages budget.

#### Million euros 40 Own revenue 3.5 -External funding 3.0 -PHC/REGREL 2.5 -State revenue 2.0 -15 -1.0 -0.5 -0.0 -2010 2011 2012 2013 2014 2015

## Operating costs of Statistics Estonia, 2010–2015

1.5 million euros or 85.7% of the administration costs in 2015 are financed from state revenue. The costs are mostly related to the lease and maintenance of the office in Tallinn, business trips and trainings. The increase in administrative costs starting from 2013 was due to moving into new office building.

The 2.6-fold decrease in the cost of PHC and REGREL is due to the fact that since 2015, the supply and maintenance of census software and hardware is financed from the budget of the Information Technology Centre of the Ministry of Finance (RMIT). The increase in expenditure covered from own revenue relates to an increased number of orders.



## Statistics Estonia's investments, 2010–2015

Since 2009, the only funds Statistics Estonia allocated for investments were for PHC and REGREL. An exception was the state funding of acquisitions necessary for moving to the new office in 2013, and Statistics Estonia used 32,000 euros out of its unused balance (44,400 euros) for acquisition of software licences in 2014.

In 2015, REGREL developments were no longer financed from state revenue. As of then, they will be financed from the funds of the current proposal round "Modernising of services necessary for production of register-based statistics" of the measure of the European Regional Development Fund "Development of provision of public services". The volume of the proposal round in 2015–2017 is 2.8 million euros.

The investments in 2015 are associated with the development of functionality of exchange of foreign trade data. Development works are financed from external support and own revenue. External support was used to cover the development costs and own revenue was used to cover ineligible VAT costs.

In 2015, RMIT mediated one-off financing of software development required for establishing the statistical registers system related to preparations for REGREL in the sum of 247,400 euros.

#### Statistics Estonia's operating costs and investments, 2010–2015

(thousand euros)

	2010	2011	2012	2013	2014	2015
Total expenditure	7,469.2	11,235.4	15,212.3	9,053.1	9,208.9	8,279.1
Operating expenses	7,035.9	8,395.2	14,999.4	7,920.5	8,377.4	8,210.4
personnel costs	5,340.0	6,083.6	11,259.2	5,990.9	6,121.2	6,498.2
administration costs	1,695.9	2,311.6	3,740.2	1,929.6	2,256.2	1,712.2
IT investments	433.3	2,840.2	212.9	1,100.7	819.1	68.7
Other investments	0.0	0.0	0.0	31.9	12.4	0.0
Expenditure from state revenue	5,359.2	5,414.7	5,515.3	5,788.7	6,189.2	6,242.6
Operating expenses	5,322.1	5,414.7	5,515.3	5,705.1	6,144.8	6,242.6
Personnel costs	4,180.8	4,279.3	4,393.2	4,420.0	4,606.5	4,775.4
Administration costs	1,141.3	1,135.4	1,122.1	1,285.1	1,538.3	1,467.2
IT investments	37.1	0.0	0.0	51.7	32.0	00
Other investments	0.0	0.0	0.0	31.9	12.4	0.0
Expenditure from own revenue	62.7	34.1	98.4	218.7	248.5	459.1
Operating expenses	62.7	34.1	98.4	218.7	226.9	447.7
Personnel costs	52.3	33.7	76.5	176.2	207.6	376.5
Administration costs	10.4	0.4	21.9	42.5	19.3	71.2
IT investments	0.0	0.0	0.0	0.0	21.6	11.4
Expenditure from external funding	863.2	1,044.1	965.5	877.4	730.9	793.9
Operating expenses	748.0	937.9	965.5	767.6	646.2	736.6
Personnel costs	524.8	659.5	704.8	634.7	604.0	686.9
Administration costs	223.2	278.4	260.7	132.9	42.2	49.7
IT investments	115.2	106.2	0.0	109.8	84.7	57.3
PHC 2011 expenditure	1,156.2	4,557.2	8,132.1	1,007.3	194.6	0.0
Operating expenses	875.2	1,823.2	8,086.4	544.6	194.6	0.0
Personnel costs	559.7	970.2	5,785.1	294.8	161.0	0.0
Administration costs	315.5	853.0	2,301.3	249.8	33.6	0.0
IT investments	281.0	2,734.0	45.7	462.7	0.0	0.0
REGREL expenditure	27.9	185.3	501.0	1,161.0	1,845.7	783.5
Operating expenses	27.9	185.3	333.8	684.5	1,164.9	783.5
Personnel costs	22.4	140.9	299.6	465.2	542.1	659.4
Administration costs	5.5	44.4	34.2	219.3	622.8	124.1
IT investments	0.0	0.0	167.2	476.5	680.8	0.0

## **PUBLICATIONS IN 2015**

Eesti maakondade rahvastik. Hinnatud ja loendatud Eesti piirkondlik areng. 2015. Regional Development in Estonia Eesti statistika aastaraamat. 2015. Statistical Yearbook of Estonia Eesti Statistika Kvartalikiri. Quarterly Bulletin of Statistics Estonia Eesti. Arve ja fakte 2015 Estonija. Faktõ i Tsifrõ 2015 Mini-faits sur l'Estonie 2015 Minifacts about Estonia 2015 Põllumajandus arvudes. 2014. Agriculture in Figures Rahvastiku areng. Population Trends Soolise võrdõiguslikkuse näitajad. Indicators of Gender Equality Säästva arengu näitajad. Indicators of Sustainable Development



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