



Statistical Programme

2022 to 2025



Foreword

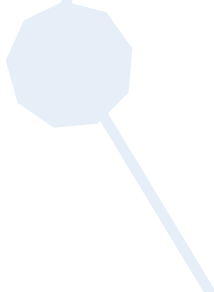
Society is changing ever faster. In today's rapidly evolving world, reliable and impartial data are increasingly important. In order for statistics to provide an up-to-date image of the surrounding world, they must develop continuously.

Changes in the operating environment bring new kinds of possibilities and challenges to the production of statistics. With digitalisation, new kinds of almost real-time data and related information products are available as raw materials for data. Enterprises have started offering information in very up-to-date and interesting ways based on customer data gathered in connection with their business activity. The developed supply of data also pushes users' expectations concerning statistics production.

To illustrate changes in society and the economy, ever more varied statistics are needed. Help is sought from statistics to interpret phenomena such as climate change, sustainable development, wellbeing and globalisation. Reliable information is also needed quickly to support decision-making on changing topical issues, such as the corona pandemic or Brexit.

The development that has taken place along with digitalisation means lowering the response burden and administrative load for data suppliers. To the producers of statistics it opens entirely new possibilities for speeding up statistics and other data production and for producing more accurate data.

However, the need for inquiries and interviews has not vanished. They complement register data and are the only reliable way of acquiring information about people's opinions and feelings in a democratic society. The changed modes of operation, however, challenge data collectors.



Households or young people needed as respondents are no longer reached to respond as well as before.

New data sources and research methods are being sought to fill data deficiencies. The aim is to make the provision of data as easy as possible. In addition, utilisation of new data files, such as data held by enterprises is being explored. However, access to private sector data has been so far very limited.

This Statistical Programme contains information on how statistics production in Finland aims to respond to the evolving data needs. The development of statistics and their promotion are done in close cooperation with different information actors and users of statistics.

Markus Sovala

Statistics Finland's Director General





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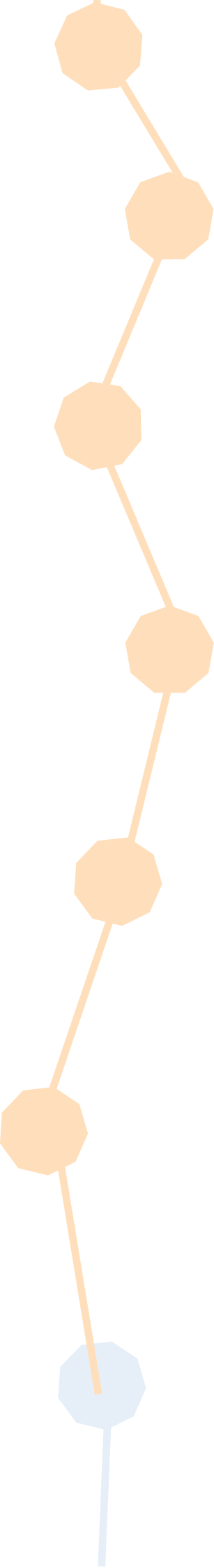


1 Statistics production is developing

The Statistical Programme brings together the reforms of Finland's statistics production for the coming year and aims for long-term development. Efforts will be made to observe better both international and domestic information needs in the development of data production, move towards phenomenon-based statistics production and modernise it by means of new data and methods. Investments are made to promote the use of statistics by means of versatile communication and development is made in close cooperation both nationally and internationally.

The selection of statistics will develop considerably in the next few years because of new EU regulations. In business statistics, the selection of statistics describing the service industry is expanding, statistics are published faster than before and statistics describing globalisation increase. At the same time, enterprises' response burden is reduced. In social statistics, the mutual and international comparability of data is improved, the production of statistics is intensified and the needs of data users are better considered. New statistics will be developed in the area of environmental, energy and emissions statistics concerning such as renewable energy and new fuels, as well as energy solutions integrated into buildings.

The EU's Recovery and Resilience Facility, established as a result of the corona pandemic, will extend the data contents of general government deficit and debt in the national accounts in the coming years. The aim is to respond in future as well to new and faster information needs required by the corona pandemic or similar shocks.



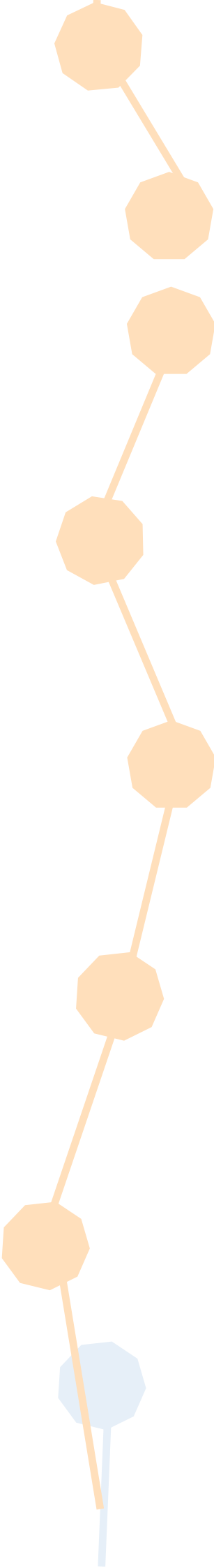
Statistics production will be renewed with consideration to domestic data needs as well. The most significant of these is the health and social services reform, which will add data on the wellbeing services county level to the population, labour market and national accounts statistics. New data will also be produced, for example, in connection with the transition of transport, circular economy, growth companies, organic farming, immigration, child strategy and gender equality.

The adoption of the international Standard Industrial Classification currently under preparation (NACE¹) will have a major effect on these statistics. The new Standard Industrial Classification takes into account activities such as intermediation of services, electronic commerce and bioeconomy better than before. The legislative work on the classification will commence during 2022 and the classification will in all likelihood be adopted in statistics production at the earliest from 2025 onwards.

New data materials are exploited in the renewal of the statistics set and the modernisation of data collection methods, statistical methods and production systems is advanced. The aim is to utilise the data materials generated in the activity of other organisations more than before. The developing administrative data, such as the Incomes Register and educational sector registers, private sector data, such as scanner data and data obtained with web scraping enable the renewal of data contents of statistics production. This also requires the development and introduction of new statistical methods and investments to ensure high data protection of data materials.

The role of statistics and Statistics Finland as part of information utilising ecosystems is actively developed. One significant development target at the moment is the research ecosystem. In the amendment of legislation

¹ NACE, EU classification of economic activities



concerning Statistics Finland, the aim is to strengthen research and data services to be prescribed by law. The renewal strives for faster service for researchers and more extensive utilisation possibilities of data than at present.

In cooperation between the central government register authorities, the aim is also to improve joint usability of data files. A project led by the Ministry of Finance for using and opening up of public data is currently underway. Statistics Finland is responsible for the data quality sub-project. There the aim is to create uniform descriptions for the quality of data in public administration and promote the interoperability and utilisation of data. The project will end in 2022, when further tasks related to quality work will also be agreed upon.

The Statistical Programme covers all the statistics and services produced by Statistics Finland, as well as the statistics of other producers of statistics (Finnish Customs, the Natural Resources Institute Finland, the Finnish Immigration Service, the Finnish Institute of Occupational Health, and the National Institute for Health and Welfare) belonging to the European Statistical Programme and their development. The following sections present by topic the most important reviews of statistics in the coming years and the objectives of long-term development. In addition, more detailed information on data collections, statistics and services is described in the appendices.



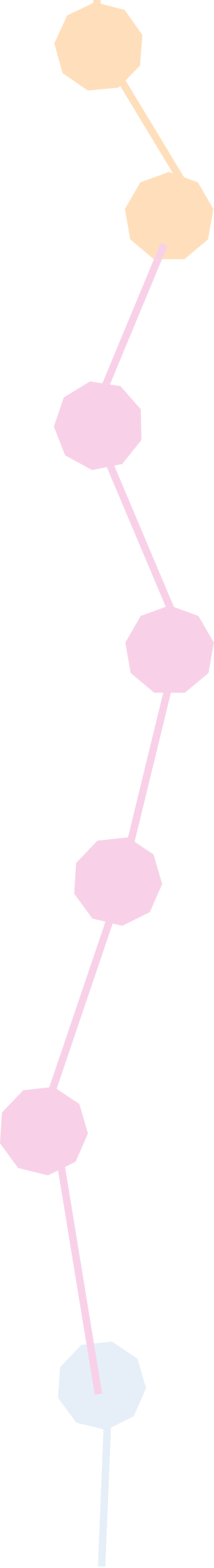
2 Economy and globalisation

The economy is undergoing continuous change both globally and nationally. Economic innovations in society challenge both the content and methods of statistics. Changing information needs can be answered by speeding up statistics and by offering more diversified information about the development of national production, enterprises and consumption. New measuring modes and methods are currently developed in national and international cooperation. The Economy and globalisation area produces statistics on the following topics: national economy, enterprises, prices and consumption, and housing and construction.

The statistics **on the national economy** contain numerous macroeconomic statistics describing the whole economy, the most important of which are the national accounts and balance of payments. The national accounts describe systematically both the structure of the national economy and changes in it. The best known indicator of the national accounts is gross domestic product (GDP). The balance of payments describes transactions between the national economy and the rest of the world from the perspective of the real economy and financing.

The manuals guiding the compilation of the national accounts and balance of payments statistics are currently being revised under the leadership of the UN and the International Monetary Fund (IMF²). The revision helps to improve the quality, coverage and international comparability of national accounts and balance of payments in terms of globalisation, digitalisation, wellbeing and sustainable development. In addition, the quality of the national accounts data will be improved by developing the comparability of data on multinational enterprises in EU

² IMF, International Monetary Fund



cooperation. One significant measure influencing the quality of data is the revision of the time series of national accounts in EU countries every five years. The revision will be next made in 2024, and it will update the changes caused by new source data and calculation methods throughout the time series.

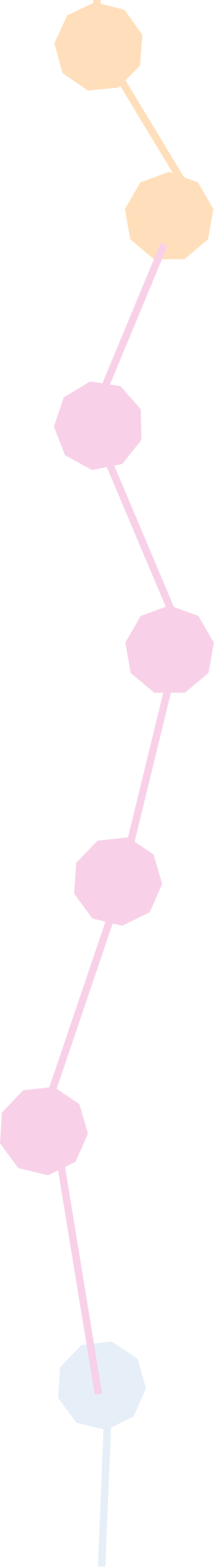
The national accounts started to develop statistics with EU funding concerning productivity, the digital economy satellite, and consumption of the capital stock. The annual publication of the statistics on productivity surveys has been accelerated by five months and it will in future be published twice a year. The coherence of financial accounts and real accounts is also studied in EU cooperation. The data requirements of financial accounts are extended from 2024 onwards to include the breakdown of investments by type of investment.

The data of the statistics describing the national economy are also used in the EU as a basis for administrative evaluations. The evaluations utilise data on gross national income (GNI) and VAT tax bases that affect EU membership fees, as well as data on general government deficit and debt used in monitoring the Growth and Stability Pact. Data concerning the EU's Recovery and Resilience Facility (RRF³) will be added to the statistics describing the national economy as a new whole. The RRF is the largest programme of the EU's recovery plan⁴ to be implemented in the coming decades. The monitoring of the European Semester will be supported by producing even more extensive data than before on general government deficit and debt.

Business statistics describe the structure, economic activity and performance of enterprises in versatile ways. The objectives of the new EU regulation on business

³ RRF, Recovery and Resilience Facility

⁴ NextGenerationEU



statistics (EBS⁵) are clearly visible in the development of the statistics. The most important of these is to respond to new data needs, improve the timeliness of statistics and reduce the response burden.

The compilation of statistics on service enterprises has been limited with regard to their economic significance. In the statistics on the topic significant steps have been taken by starting the publication of the volume index of services and by offering information about producer prices from an increasing number of service industries. The development work will continue in the coming years. As regards producer prices, possibilities for producing export and import prices for services are being investigated.

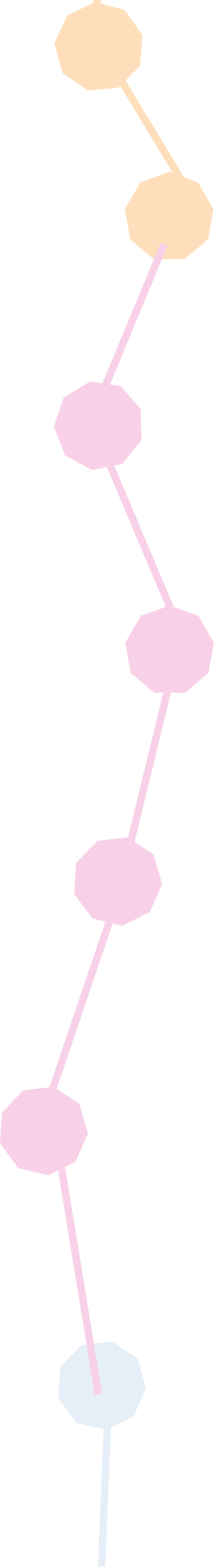
Development of data by the mode of supply of international trade in services⁶ for the information needs of trade policy and development of data by enterprise type⁷ start in cooperation between EU countries. The aim is to publish new data on these starting from 2024. In addition, the contents of the statistics on service industries' commodities will be extended to cover 15 new industries that will be gradually added to the data content of the statistics during 2021 and 2022. The structural business and financial statement statistics will in future also cover data on financial and insurance corporations, and they will be published for the first time in 2022.

The data content of industrial enterprises becomes diversified when, starting from the release of 2022, sold own production and sub-contracting production are included separately in the statistics on industrial output. The data content of the statistics on business subsidies will be widened and their publication accelerated during 2022, when the data will in future come directly from the customer database maintained by the Ministry of Economic Affairs

⁵ EBS, European Business Statistics

⁶ Mode of Supply, MoS

⁷ Services Trade by Enterprise Characteristics, STEC



and Employment. At the same time, the coverage of the data describing grantors of subsidies will improve. The new data include subsidies related to such as research, development and innovation, energy, climate, employment, transport, housing construction and regional policy.

The statistics describing international trade are also being remodelled significantly. Exchange of export data between the EU Member States will commence from the beginning of the statistical reference year 2022 in the statistics on international trade in goods produced by Finnish Customs. The compilation of statistics on internal trade changes essentially when data on imports are supplemented with data on exports collected by some other Member State. In addition, new data will become available on the degree of internationalisation of enterprises when new data on global value chains and outsourcing of activities are published at the beginning of 2022.

Compared to conventional gross values of international trade, indicators of value added-based international trade give a more multidimensional view of Finland as part of global value chains. The publication of these experimental statistics will be speeded up in 2022 and the data content will be developed further while listening to customer needs.

Quarterly data on registrations of new enterprises will be published in 2022 as part of the statistics on enterprise openings and closures. We are also planning to publish regional business demographic data and data on growth enterprises. In connection with the website renewal, data will be compiled into more user-friendly packages, and data on bankruptcies and business restructuring proceedings that have previously been published as separate statistics are combined into a single set of statistics. In the same context, the separate statistics on manufacturing and trade inventories will be discontinued and their data will in future be found in the annual national accounts publications.




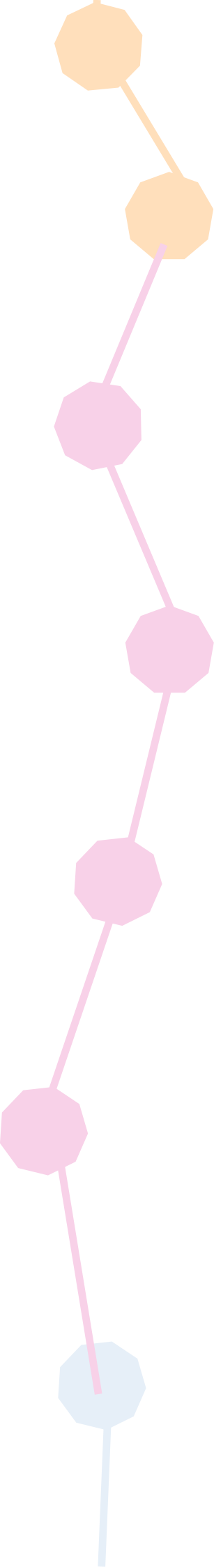
The publication of business trend statistics will be accelerated even further. The monthly publication of indices of turnover by industry was speeded up from the beginning of 2021 to 30 days. The objective is to produce more up-to-date data by publishing turnover indicators of main industries as experimental statistics at a lag of approximately 20 days.

Price and consumption statistics form an important part of the overall picture of the economy. The data of the statistics measure consumers' confidence in the economy, households' consumption, structure of consumption and price development, for example.

The consumer price index describes development in the prices of goods and services purchased by households in Finland. The consumer price index is used as a general measure of inflation. In the development of price indices, new data are used to improve the coverage and quality of statistics. At the same time, the aim is to reduce direct data collections and increase cost-effectiveness. This is done by utilising the big data obtained from enterprises on realised sales transactions. The use of big data will continue for commodities and the aim is to make the data available for production use from the beginning of 2023. In addition, collection of data using the web scraping method is meant to be extended even further. In 2022, data on average fuel prices will be published for the first time.

The development of price indices will continue in international cooperation, and Statistics Finland has applied for the coordination of the entire Europe-wide international consumer price comparison programme for 2022 to 2025. During 2022, a development project will be launched for the revision of the Classification of Individual





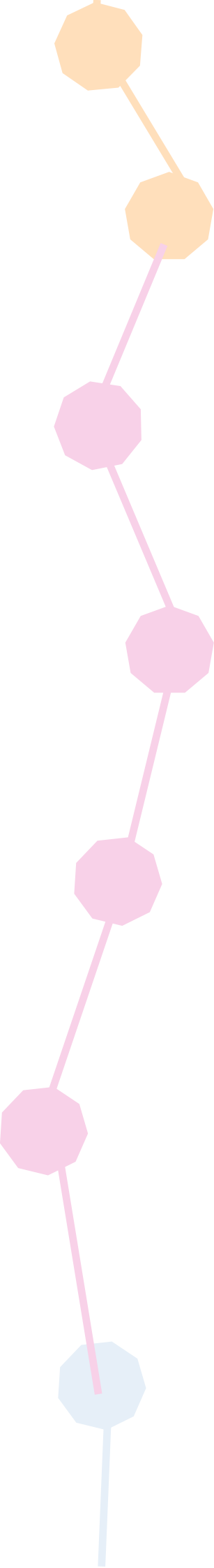
Consumption According to Purpose (COICOP⁸) for the consumer price index.

The main data source for households' consumption is the Household Budget Survey conducted roughly every five years. The Household Budget Survey, last carried out in 2016, will be done again in 2022. The survey produces data on households' consumption expenditure, differences in consumption, consumption structure and housing conditions, means of transport and income. In the 2022 data collection, it is also possible to reply with a web form or use a special mobile application for responding. New data on changes in consumption produced by the Household Budget Survey will be published towards the end of 2023 and in 2024. In addition to the previous classification, the Household Budget Survey will also adopt the new COICOP classification so that the data will also serve as the basis for the upcoming COICOP revision of the national accounts and the consumer price index.

Statistics on housing and construction describe the life cycle of dwellings and buildings from their construction stage to dwelling transactions or renting use, as well as repair and maintenance costs. The statistics also describe the structure of the dwelling and building stock and people's living conditions.

The development of statistics on housing and construction is particularly focused on price indices. The development work on industry indicators will continue during 2022 and the review will focus on the price index of office premises. The price index of newly built one-dwelling houses will be developed to meet the needs of the legislative review under preparation. In the long term, the aim is to include data on owner-occupied housing in the Harmonised Index of Consumer Prices in accordance with the objectives of the

⁸ COICOP, Classification of Individual Consumption According to Purpose



European Central Bank. In addition, the renewed building cost index will be adopted during 2022. Web scraped data and scanner data are used for compiling the index.

The calculation methods of price statistics on old dwellings will also be reviewed. After the review, clearer regional data and the plot tenure status are better taken into account in price statistics. New data will be released during 2022 both on old dwellings in housing companies and on real estate prices. The objective of the review is a more uniform regional classification and better analysis of regional price development.

Statistics Finland is responsible for producing valuation data on buildings and for defining age discounts for buildings as part of the real estate taxation revision project of the Ministry of Finance. The target date for the implementation of taxation is 2024. The Building Classifier service and the new price calculator, where the annual new prices of buildings are published, are maintained as work related to real estate taxation.



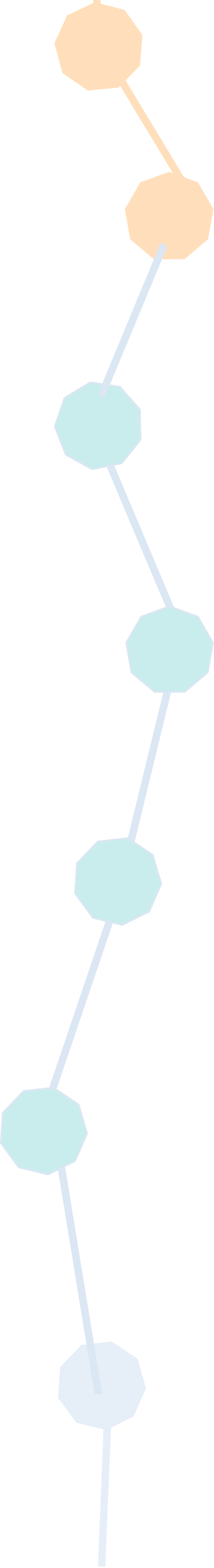
3 Innovations and digitalisation

Digitalisation has become an important factor shaping society. The corona pandemic has in its part specifically shown the possibilities of digitalisation for doing things in a new way. In addition to advancing digitalisation, research and development activities and innovations play a key role in the competitiveness of the economy. The topic covers a total of five sets of statistics on innovation, research and development, and use of information and communications technology.

Enterprises' use of information technology is examined annually in the statistics on the use of information technology in enterprises. It provides information on the utilisation of digital solutions by enterprises in business operations. In 2022, the statistics contain new data on the digitalisation of enterprises especially in terms of remote work, the environment, cyber security and robotics. In the coming years, monitoring of the utilisation of AI and the Internet of Things will be continued.

The use of digital services by households and the population is described by the annually published statistics on the use of information and communications technology by individuals. The statistics contain population group-specific data on the use of social media services and on the tools and purposes for which the Internet is used. From 2022 onwards, more data than before will be released on the use of online services of public authorities and public administration.

The importance of measuring the digital economy has also become highlighted in the national accounts. The work led by the OECD has developed a supply and use table framework for the digital economy. Work will continue in an



international project where the supply and use tables of the digital economy will be prepared for the first time in compliance with the new guidelines. Finland's data will be published in the course of 2023.

The annually published statistics on research and development describe the resources used for research and for product and process development. The statistics are used to monitor, for example, the objective set in the Government Programme for R&D expenditure⁹. The statistics cover enterprises, the public sector, universities and the private sector's non-profit activities. The content of the statistics will be renewed by adding, in accordance with international recommendations, statistics on the personnel participating in the organisation's research and development without an employment relationship.

Data on the public funding of research and development are obtained from the annual statistics on government R&D funding in the state budget. The data content of the statistics will be extended as concerns the specification of the funding of research infrastructures.

The statistics on innovation describe the prevalence of innovation among enterprises and the characteristics and measures related to it. The statistics published every second year contain data on development activity and innovations inquired regularly from enterprises as well as changing topical themes. Besides innovation activity, the statistics published in 2022 also contain data on the effects of climate change on enterprises' business activities and on the utilisation of new innovations that produce environmental benefits. Data are also produced on the importance of different competence areas and the adequacy of the competence needed in the enterprise's innovation activity.

⁹ The target size of expenditure is four per cent of GDP by 2030



The currently ongoing EU-funded project at Statistics Finland aims to improve the combination of data on this topic with other business statistics data. In the future, combining of data makes it possible to examine the development of innovative enterprises or enterprises investing in R&D relative to other enterprises.





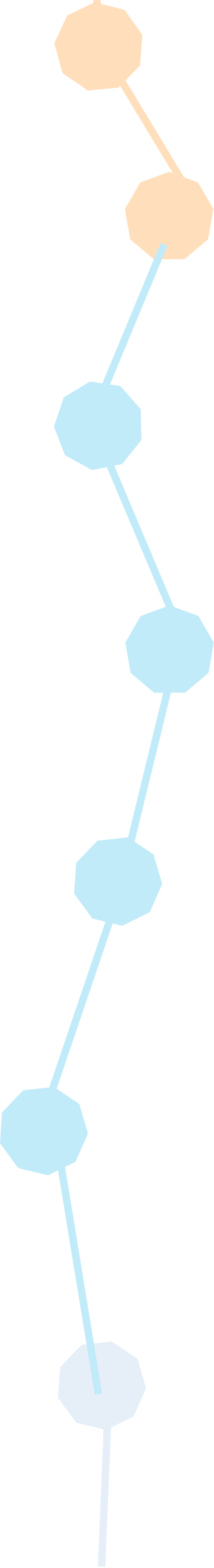
4 Society and equality

In addition to recovering from the coronavirus crisis, topical social issues include wellbeing, changes in the age structure of the population, employment situation and immigration. New data contents with which the areas not covered by data are complemented and the introduction of new electronic data collection methods are in focus in the development of social statistics. Improved international comparability also helps to piece together the situation in Finnish society. Statistics are produced in the area of society and equality on the following topics: population and society, work, wages and livelihood, education, culture, media and time use, as well as health and social protection.

The statistics in the area of **population and society** contain data on population changes and population structure, as well as Finland's population projection. Population statistics contain data on families, migration and causes of death. The state of democracy is monitored with election statistics, and criminal and justice statistics describe the development of offences and coercive measures, restructuring of debts and enforcement matters in Finland. In addition, data are produced on gender equality and equality.

One of the key data sets to be published in the statistical area in 2022 is the population census of 2021. Data on population, household-dwelling units and families are released in stages and publishing will continue until 2024. The weekly statistics on the number of deaths started during the corona pandemic will be published in 2022 for the time being.

As part of the mass digitalisation project of the National Archives of Finland, Statistics Finland's paper death certificates have been transferred in digital format to the



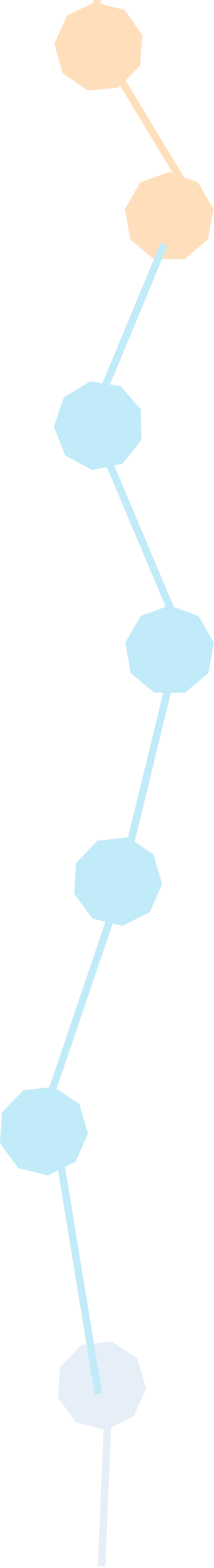
National Archives and the work will be completed in early 2022.

A comprehensive information base for monitoring the wellbeing of children and young people will be produced by the end of 2023 for the implementation plan of the national Child Strategy. In addition, Statistics Finland participates in the production of follow-up indicators for the Government Action Plan for Gender Equality.

New data on violence experienced by women and intimate partner violence will be published in the statistics on gender equality. The data are collected in the Gender Based Violence research project, which is implemented through co-funding with national and international actors. We also participate in a project funded by the Government, which examines the costs caused by intimate partner violence. The results of the study will be published in the course of 2022.

The Finnish Immigration Service (Migri) has revised its statistics starting from 2021 to comply with the requirements of the Regulation on migration statistics, and the data content of the statistics describing immigration will be supplemented during 2022 with data on the reasons for immigration. The changes in immigration statistics concern statistics on asylum applications and decisions, data on decisions and measures on removal from the country as well as denials of admittance or stay at the border and illegal immigrants. In addition, statistics are published on residence permits granted and withdrawn on various grounds.

Statistics on employment, wages and salaries and livelihood produce data on the functioning of the labour market, such as employment, unemployment and open job vacancies. In addition, statistics are produced on working conditions, labour disputes and labour costs. The population's income level is described with the help of



statistics on wages and salaries and income. The overall picture of the population's activity and livelihood is complemented by statistics on debts and assets, as well as on living conditions.

The development of the statistical area is strongly affected by the framework regulation for the production of European statistics on persons and households (IESS¹⁰) that entered into force in 2021 and the implementation of the changes required by it.

With the introduction of the framework regulation, the data contents of the statistics have been revised and data from the EU Member States have been harmonised on a more detailed level than before.

From the beginning of 2022, the data collection for the survey on income and living conditions will be renewed by offering one-person households the option to respond to the survey online. Web responding will also be introduced in the Labour Force Survey in the collection of household data. The aim is to offer the respondents more flexible ways than before to participate in surveys and produce a common information basis.

In future, more comprehensive data than before will be released on immigrants' labour market position when data on the duration of living in the country, the previous country of residence, the reason for immigration, and one's own and parents' country of birth are added to the Labour Force Survey starting from 2022. New data will also be published in 2022 on children's health and on material deprivation experienced by children, and data will be published yearly on quoted share and mutual fund assets. The results of the

¹⁰ IESS, Integrated European Social Statistics




impact of the COVID-19 crisis on gender equality in Finland project will be published in 2022¹¹.

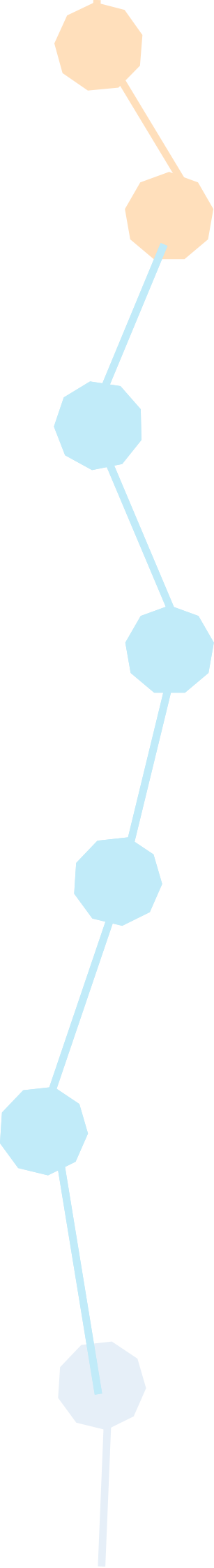
Labour market statistics will be developed by utilising new data materials (e.g. the Incomes Register, the Varda database for early childhood education) in the production of statistics. Machine learning models are used to make the processing of data files more efficient, for example, when classifying occupations. New experimental statistics will be produced on the topic, such as statistics on wages and salaries based on the data of the Incomes Register, statistics on labour flows based on the data of the Labour Force Survey, and a paired comparison index of labour costs.

The results of the labour cost survey carried out every four years will be released during 2022 and the production will also be started on the structure of earnings statistics for the EU made at regular intervals. The labour cost survey provides information on the cost level and structure of the labour force (wages and salaries, employer's contributions, other costs). Structural statistics on wages and salaries describe the numbers, hourly and monthly earnings, and formation and distribution of employees' wages and salaries in all employer sectors.

In the **education statistics** data are published on educational institutions, education, the population's educational structure and student flows. In the education statistics, the centralised KOSKI integration service of national rights to study and completions has been gradually taken into use, containing data on pre-primary and comprehensive school education, general upper secondary education and vocational education, for example. The use of the service will reduce the response burden, speed up



¹¹ VN TEAS project belonging to the Government's analysis, assessment and research activities



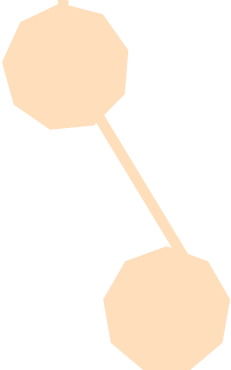
the publication of statistics and diversify statistics production.

The data contents of education statistics will be improved by adopting Varda, the database for early childhood education. The database provides data on children, personnel and establishments in early childhood education. The data in the database will be made available to statistics production during 2022, which will enable introduction of statistics compilation on early childhood education.

Data on the statistics on continuing vocational training concerning the year 2020 will be published at the end of 2022. These statistics based on EU legislation are produced every five years. The data collection for the statistics on participation in adult education will be carried out in autumn 2022 as a combination of a web collection and a telephone interview, and the first results from the statistics will be published towards the end of 2023. The statistics compiled in accordance with the IESS framework regulation are produced at six-year intervals.

Social statistics also include **statistics describing culture, the media and time use**. Publication of data from the Time Use Survey on the structure of time use in Finland will commence in autumn 2022. The results will describe people's time use during the pandemic. New data collection methods, such as web responding and the digital Time Use diary were utilised in the implementation of the survey.

The National Institute for Health and Welfare produces and develops statistics related to **health and social protection**. The health survey conducted among the EU Member States describes the health of the population in the Member States, the use of health care services and factors related to health. The publication of the statistics on social protection expenditure and financing uniform in the EU area will be accelerated in coming years. In addition, a project will be launched in 2022 in which the data of the statistics

Two orange octagons are positioned in the top left corner. The top one is slightly larger and has a thin line extending downwards to a second, smaller orange octagon.

will be harmonised with national accounts data. The aim is to speed up the publication of data and harmonise the collection of preliminary data.

The statistics on occupational diseases and suspected occupational diseases produced by the Finnish Institute of Occupational Health will be improved by adding to the description new variables with which predisposing factors and diseases can be grouped better statistically. Eurostat's development measures are also taken¹², which also have an effect on national statistics and data on occupational diseases.

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¹² Eurostat, the Statistical Office of the European Union

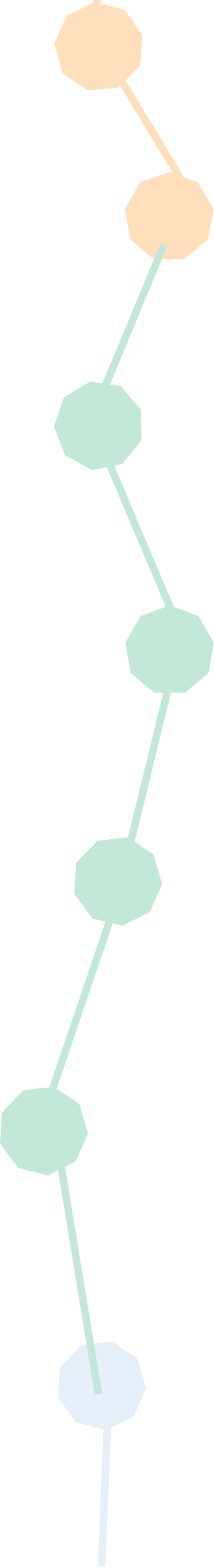


5 Sustainable development and the environment

Climate change and the measures taken to mitigate it require renewal of statistics on the topic. EU Member States will have more binding and stricter targets for emission reductions, for which monitoring data are needed. There is a need for new statistical data describing energy efficiency, sustainable development, circular economy, organic production and low-emission transport modes. Statistics are produced in the area of sustainable development and the environment on the following topics: energy, the environment, transport and tourism, and agriculture, forestry and fishing.

Energy statistics contain exhaustive data on the production and consumption of energy by energy source, production mode, sector and industry. Statistics are also produced on energy imports and exports, emissions in the energy sector, production capacity, energy reserves, energy prices and public financing. **Environmental accounts** produce data on the interaction between the economy and the environment, such as material, energy and waste flows, emissions into air, environmental protection expenditure, environmental goods and services sector, and environmental taxes.

In the coming years, the development of **energy statistics and environmental accounts** will focus on improving the statistics contained in the EU Regulations on energy statistics and on environmental accounts. The development of statistics is steered by the European Commission's Green Deal programme and changes in the statistical topics, such as the technological development of the energy sector. A significant part of the new requirements of energy statistics also derive from the governance of the EU's Energy Union, which is a key



instrument in the transition of the EU to low-carbon energy systems.

Energy statistics will focus in 2022 to 2024 on improving statistics describing the production and use of renewable energy, new fuels and new technology. Hydrogen and new synthetic fuels are used to replace fossil fuels, for instance, in industrial processes and transport. The content of statistics will expand as wind and solar power are supplemented by energy reserves, and waste heat, environmental heat and heating solutions integrated into buildings are utilised in heating. Statistics on energy consumption will be developed for industry, services and agriculture, and new data will be published on the energy systems of the built-up environment.

The compilation of statistics on environmental taxes, environmental protection expenditure and the environmental goods and services sector is speeded up in the environmental accounts. The production processes of monetary environmental accounts will be harmonised and the combinability of data with other environmental accounts and national accounts will be developed. Statistics on environmental subsidies and forest and ecosystem accounts are planned to be conducted in the whole EU starting from the statistical reference year 2024. The development of waste statistics will focus on more detailed data concerning recycling.

The statistics on **greenhouse gases** are based on the annual reporting of greenhouse gas emissions and removals in accordance with the United Nations Framework Convention on Climate Change and the Kyoto Protocol, which are also reported to the EU. Finland's eighth National Communication and fifth Biennial Report will be prepared in 2022. The reports describe widely our country's policy measures, greenhouse gas emission trends and forecasts for the development of emissions, the effects of climate change and adaptation to climate change, and the



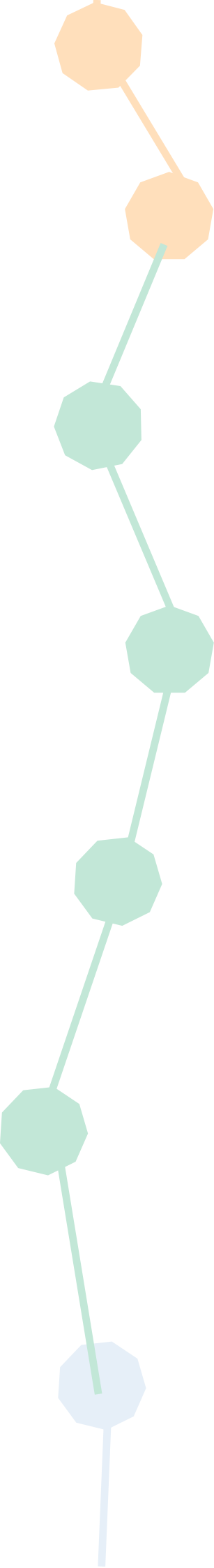
achievement of emission reduction commitments and promises. Statistics Finland will compile reports by the end of 2022 concerning materials produced by the ministries and expert organisations. Reporting under the Paris Climate Convention will start in 2024.

The data of the national Greenhouse Gas Inventory are continuously improved. For example, the Natural Resources Institute Finland is carrying out a project to specify the calculation of carbon stock changes in the soil of drained peatlands in forestry use. The implementation of the results requires national and international evaluation.

The indicators on the business activity of the circular economy contain data from several different statistics and describe, for example, production relating to the circular economy, consumption, services, and reuse, recycling and other material flows. In 2022 to 2023, the production of a set of indicators will be continued and the compilation of statistics on material flows will be developed as a monitoring tool for the circular economy.

The transport and tourism statistics produce exhaustive data on mobility, means of transport and the transport infrastructure. Statistics are produced on the road, water, air and railway transport network, the use of the network and vehicles. In addition, the statistics describe domestic and foreign tourism: the volume of tourism and accommodation, as well as data on the destinations of tourism.

During 2020 in the renewal of the compilation of **transport statistics**, statistics on merchant fleet, domestic waterborne traffic and foreign shipping traffic, as well as railway statistics and Finnish road statistics were transferred from Traficom and the Finnish Transport Infrastructure Agency to Statistics Finland. At the same time, statistics describing air transport were established. In 2022, work will be continued on the possibilities of revising



the content of the statistics on goods transport by road. In addition, a preliminary study will be carried out to improve the contents and coverage of statistics on road traffic accidents. The production of statistics on game accidents and on transport networks supplementing the statistical selection under the topic will be continued as experimental statistics.

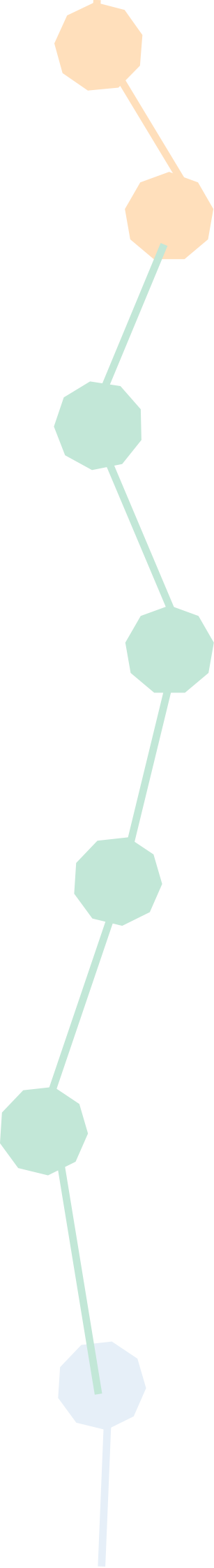
The coverage of **tourism statistics** will be improved in 2022 by combining the platform economy data obtained from Eurostat with the existing statistics production. The publication of preliminary data on the statistics on Finnish travel will also be speeded up.

The aim in the development of tourism statistics is to utilise increasingly new data in production of statistics, such as mobile data or web-scraped data, with which completely new data can be produced on both domestic and foreign tourism. The production of the statistics on cottage accommodation published as experimental statistics will be continued.

The Natural Resources Institute Finland produces the majority of statistics on **agriculture, forestry and fishery** in Finland. Reforming the legal basis of agricultural statistics on the EU level will continue in 2022. The most important ongoing amendment to the Regulation is the so-called SAIO¹³ Regulation, the requirements of which are taken into consideration in the data contents and methods used in agricultural statistics.

As a result of the regulation change, the obligation to report organic production to the EU will increase. Rent prices of arable land based on the data on profitability of agriculture are published in 2022, and in future, data will be published yearly instead of a five-year publication cycle. The data

¹³SAIO, Statistics on Agricultural Input and Output, proposal for a Regulation concerning statistics on production inputs and outputs in agriculture



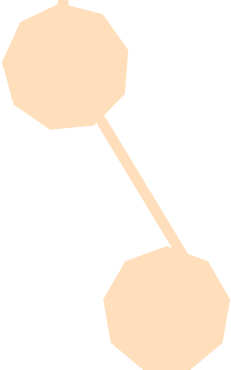
content and data collection of milk statistics will be revised starting from the beginning of 2022. The changes to agricultural statistics required by the SAIO Regulation will be specified during 2022.

Final data on the global Agricultural Census 2020 will be published during 2022. The Agricultural Census examines the structure, labour force and entrepreneurial activity of Finnish agriculture, and it will be implemented following the recommendations of the Food and Agriculture Organization of the United Nations (FAO).

Statistics Finland will restart the production of regional economic accounts on agriculture after several years. The Economic Accounts for Agriculture are an extension of the national accounts, by means of which market producers' share of agriculture is described better than in the national accounts description. The statistics were last published in 2014, and from 2022 onwards the statistics will be regulation-based in the EU.

Work on the revision of the regulations on fishing statistics has also begun and will be completed in the mid-2020s. It would appear that amendments to EU legislation will not cause major changes to the production of statistics on fishing and aquaculture. According to preliminary data obtained, statistics on organic aquaculture may become mandatory and statistics on leisure fishing would be produced every year.

Environmental accounts will be widened to cover forest accounts, environmental subsidies and ecosystem accounts. The Natural Resources Institute Finland will start to develop forest accounting in 2022 if the application for EU funding is approved. The aim is to publish forest accounts data in 2025. In addition, possibilities for starting the compilation of statistics on new forest industry products is being investigated. The statistics on forest protection, which are made roughly every three years, will be published



in autumn 2022. In terms of ecosystem accounts, development work is carried out in cooperation between the Natural Resources Institute Finland, the Finnish Environment Institute and Statistics Finland.





6 Vitality of areas

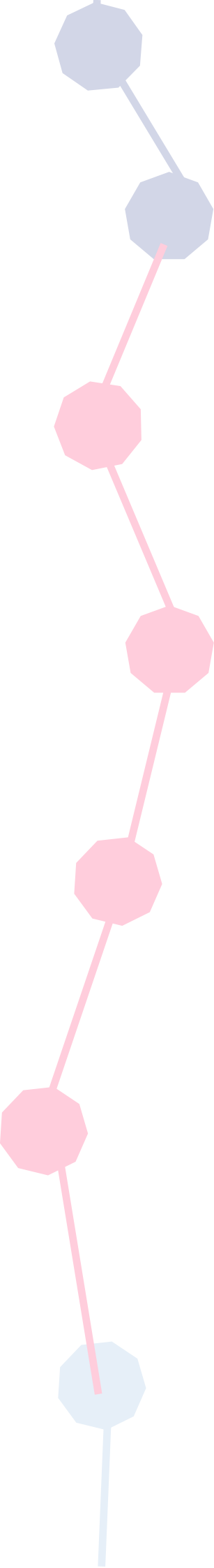
High quality regional data are needed for monitoring economic, social and ecological sustainability.

At the moment, regional accounts, regional statistics on entrepreneurial activity and local government sector wages and salaries are produced as separate statistics. In addition, regional data are published as part of several different statistics and information services. The coverage of regional statistics will be improved especially for the information needs of the health and social services reform. Higher quality geographic data are also needed for the development of regional data.

The objective is to respond to the information needs of the health and social services reform confirmed in summer 2021 by expanding regional statistics production within the scope of the resources. New statistical data will be produced on the county elections in January 2022, data on wellbeing services counties will be collected, labour market statistics will be renewed to cover wellbeing services counties and preparations will be made for expansions of the data content of the national accounts.

In addition, the widely used Classification of Sectors will include wellbeing services counties and the classification of wellbeing services counties will be introduced to the use of all statistics. In connection with the reform data according to the classification of wellbeing services counties will be added to several statistics and services at the latest starting from the data for 2023. Funding is also sought for wider opening of regional services.

Regional statistics are also developed in international cooperation by taking part for the ninth time in Eurostat's project on data collection for city and subnational



statistics¹⁴. The project gathers population, education, labour market and economic statistics for Finland's nine largest towns and surrounding areas. Apart from the statistics produced by Statistics Finland, statistics compiled by these towns are also utilised in the production of the statistics. The data are published in Eurostat's City Statistics database together with other towns in Europe. The database contains a long time series of comparable city statistics that are not available from elsewhere.

Statistics Finland also develops further the map service¹⁵ where Statistics Finland's open geographic data can be viewed and downloaded. Open geographic data include municipality-based statistical areas complemented with population data, postal code area data and road traffic accidents. Improving regional statistics and extending the utilisation of data entails developing the linking of statistical data to geographic data and location data. The aim is that the regional statistics and geographic data published by Statistics Finland could be better implemented in the data and services belonging to the national geographic infrastructure.

To promote interoperability, a national network has been established for integrating statistics and geospatial data. The integration is developed by participating in international cooperation. The EU project coordinated by Statistics Finland produces the GSGF Europe¹⁶ operating model and examples and guidelines that assist the actors of the European Statistical System in the successful integration of statistics and geospatial data in the development of different statistical topics.

¹⁴ Data collection for City and Subnational Statistics

¹⁵ Statistics Finland (swgis.fi)

¹⁶ GSGF Europe, Implementation Guide for the Global Statistical Geospatial Framework in Europe

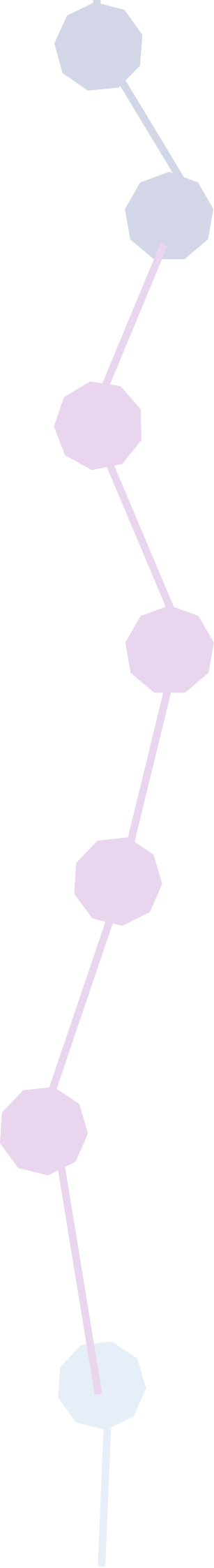


7 New data sources and methods

Enterprises' business activities, activities and interaction of the public sector and citizens are increasingly taking place digitally, which enables utilisation of new types of data materials produced in the activity for the compilation of statistics as well. New data materials replace conventional data and they enable faster production of new information on different phenomena and renewal of data production methods. The development of legislation can influence how new data can be utilised in statistics production. When new data are introduced, data security and data protection are ensured in compliance with the Statistics Act, the national Public Information Management Act and the EU's General Data Protection Regulation (GDPR).

The common and uniform solutions adopted by central government make it possible to use extensive **novel register data** and various interfaces in statistics production. Up-to-date register data may enable faster production of data than before in many statistical topics. New types of data are obtained from the Tax Administration's Incomes Register, the Koski information system developed in the field of education and the Varda database on early childhood education.

Most of the data needed for statistics compilation derive from administrative registers, but it is estimated that the amount of private sector data as raw material for statistics production will gradually grow. New data can be obtained, for example, from scanner data and from shared systems established in the electricity and gas markets, i.e. data hubs



that unite data producers and users. Their potential for statistics production is significant if the data can be utilised in full extent. New data are used to reduce data collections in statistics compilation.

The acquisition of data from large enterprises and actors in the platform economy is also promoted in international cooperation. Eurostat has concluded agreements with platform economy enterprises providing short-term accommodation and by means of them countries can obtain operator data through Eurostat. The first regular data deliveries will start at the beginning of 2022 and the intention is to publish data in 2022 as part of accommodation statistics.

New data collection methods are developed in statistics production in order to improve the service for data providers, lower the response burden and improve the quality of statistics. At the moment, data collected by smart devices are analysed in international cooperation¹⁷.

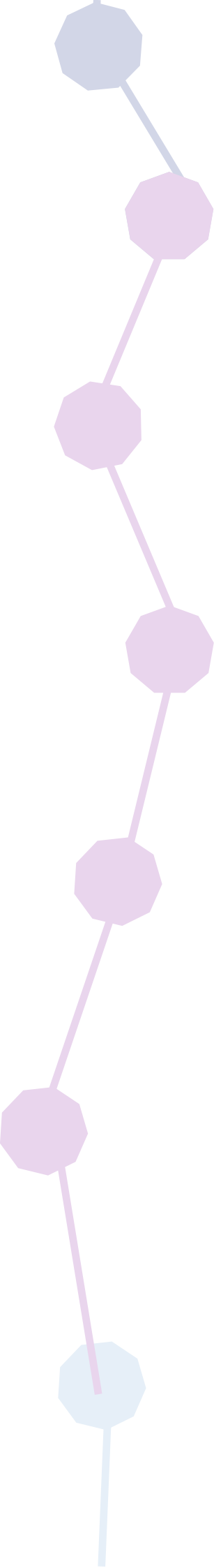
In future, mobile responding, the Internet of Things¹⁸ and data produced by various sensors can be utilised in data production as long as the relevant infrastructures and methods are sufficiently advanced. Statistical institutes can play an important role in the harnessing of data produced by such real-time, automatic and interactive technology into information. This may in future contribute to the development of the role of statistical authorities from a producer of statistics into a producer of information.

The aim of the enterprises' digital economy project (RTE¹⁹) is to facilitate the digital movement of economic data between different actors in the ecosystem. Statistics Finland participates in the project which aims to lower

¹⁷ Eurostat: Smart statistics and Smart survey

¹⁸ IoT Internet of Things

¹⁹ RTE, real-time economy



enterprises' data response burden considerably. The project would improve the coverage, timeliness and quality of several statistics.

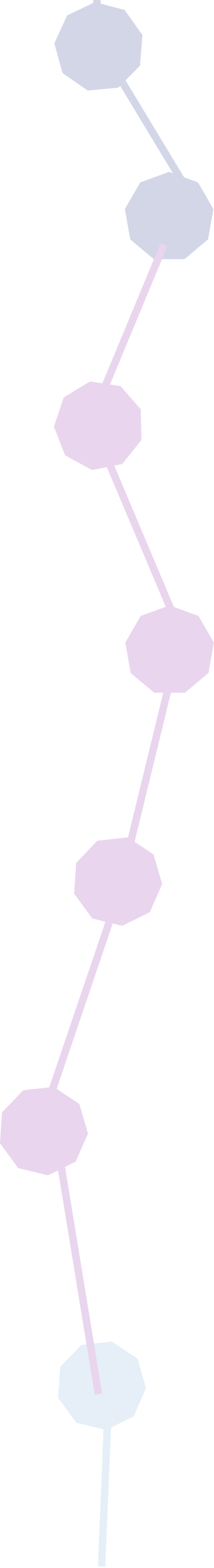
The data needed in the compilation of the statistics are also collected from the websites of various operators by web scraping. EU cooperation in web scraping will continue in 2022 to 2025 by adopting already acquired and web-scraped data and by developing the architecture, methodology and quality.

The suitability of satellite data for the production of sustainable development indicators is currently being studied in collaboration with other national and international actors. These could enable faster and more accurate statistics on the environment and climate change.

Methodological development is needed to utilise new data, increase analysis and speed up data production. In addition to more quickly available source data, accelerating the publication of statistical data requires more automation of data processing and utilisation of machine learning methods and time series analysis, for example. Machine learning models can be used to replace several manual work phases in statistics production and they are used to raise the automation rate of statistics production considerably.

The so-called nowcasting methods, or short-term projection models, help speed up the releasing of statistics. They have already been utilised to accelerate turnover indicators. In addition, models can also help to produce data at a more detailed level than before and increase regional data, for example.

Fast and accurate data improve the quality of statistics as they are implemented with sufficient input into the development and testing of the required methods. In the



coming years, Statistics Finland will conduct, for example, empirical research needed to extend the use of scanner data. In addition to introducing data, methods supporting data collections should be developed. For example, forecasts on the response probability broken down by data collection method are utilised in the data collection.

By re-utilising the present data and combining data from different statistical topics, new data can be produced, for example, on international trade without increasing the response burden. A good example of this is the value added based statistics on international trade, where micro level data on enterprises and employees have been linked to the input-output framework of the national accounts. In future, this framework can be extended from the viewpoint of sustainable development to measure the green transition and emissions.



8 Communication and promotion of the use of information

Statistics compete for the time and attention of users among a vast flood of information. For this reason, increasing attention has also been paid in the statistical production process on the dissemination of statistical data and communication of statistics in recent years. Communication is developed based on the needs of data users and consideration to topical social discussions. In future years, communication on statistics will also be challenged by users' different usage habits and needs and by the rapidly changing communication environment.

Comprehensive information about the Official Statistics of Finland can be found on Statistics Finland's website, which is currently being revised in stages. The statistical data section of the renewed web service will be published in early 2022 and all new statistical data will be published there according to the new publication model. By renewing the service we try to increase the accessibility and usability of statistics and increase the efficiency and uniformity of the process of releasing statistics.

Information is also provided on statistical data in other ways than when the most recent data are published. The aim is to bring statistics into topical discussions on social media channels, for example. In addition, four topical themes or phenomena in society are identified in advance and related statistics and data are raised to public debate by means of communication during 2022.



Experts of Statistics Finland's 12 different phenomenon-based areas participate actively in discussions related to the phenomena and bring related statistics to the discussions and help in the use and interpretation of statistics. The communication environment and users' habits are changing fast, which is why new communication methods that reach different target groups are actively tested to promote the use of statistical data. In spring 2022 one-season podcast series "Fact Guard" will be produced and streamed live webcasts containing the latest statistical data started in autumn 2021 will continue. Once experiences have been gained, the effectiveness of the new methods will be evaluated as support for statistical communication.

The utilisation of information in society is promoted by organising the Datamenestyjät (Data achievers) competition open to all, in which the participants are awarded for high-quality implementations utilising Statistics Finland's open data files. Statistical literacy is supported by arranging for students a statistical poster competition and the Statistics Olympics. In addition, statistics and statistical data are made more readily available to all by continuing the review of statistical guides. The series of statistical guides is supplemented with still non-updated course contents of eCourse in Statistics and by publishing completely new topics.

In the development of future years, efforts will be made to compile content wholes describing social phenomena on the new web pages and continue the development of our web service by sub-section. The aim is also to support the communication of data collections and search for data visualisation solutions that meet users' needs.

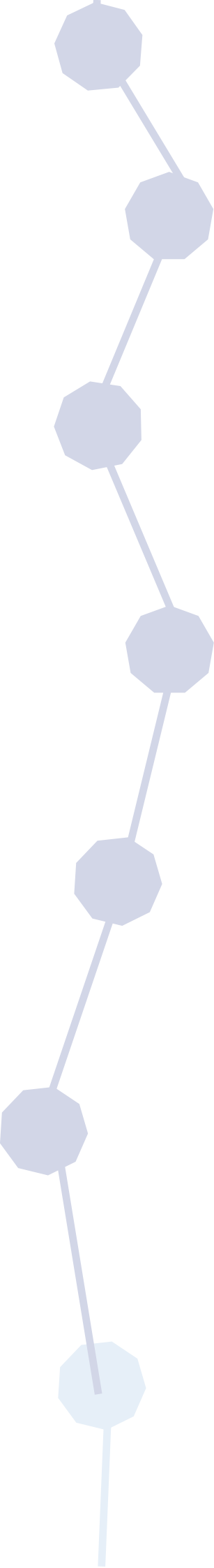


9 Information ecosystem and partnerships

Statistics are produced and developed in international and national cooperation. A sustainable and temporally evolving information ecosystem will be built together with various actors. This requires close cooperation with various stakeholder groups and new kinds of operating methods. A good example of the review carried out in close international cooperation is the revision of the industrial classification that has a wide impact on statistics production. In domestic cooperation, quality control of public administration data is developed.

The compilation methods of statistics and the concepts and classifications used in them are based on the standards established in international statistical cooperation. The main forums for their compilation are the bodies responsible for statistics compiled by the UN, the EU and OECD. Finland, too, is closely involved in their work. Eurostat, the Statistical Office of the European Union, is Finland's most important partner. Often the statistics are developed and reviewed with EU funding.

Within the European Union, the standardisation of statistics and other regulation are based on EU legislation. The Finnish statistical ecosystem, Statistics Finland and other stakeholders actively participate in the drafting of EU legislation on statistics. In recent years, EU statistical regulations have been combined into larger entities, i.e. framework regulations. For example, social statistics are regulated by the IESS Regulation and business statistics by the EBS Regulation. In 2022, work is underway on a set of statistics describing agricultural production and



production inputs, SAIO. As new legislative projects, the framework regulation for population statistics (ESOP²⁰) and the framework regulation for enterprise-based labour market statistics (LMB²¹) are being prepared. An assessment and consultation of the effects of these regulations is under way with the aim of bringing the framework regulations into force in 2023.

The Standard Industrial Classification widely used in the compilation of the statistics is currently being reviewed in international cooperation. The objective of the United Nations and Europe is to complete a new, accurate and policy-relevant industrial classification at the beginning of 2022. The preparation for an EU Regulation on the use of the classification will commence in spring 2022 in Europe. Finland has started to update its national TOL 2008²² classification in accordance with the European classification. Industry associations and other stakeholders are currently being consulted on the content of the reform. The new classification will be introduced in statistics in 2025 at the earliest.

In addition to regulations related to statistics production, several other regulation projects related to statistics production are being prepared in the EU, such as the proposal for the Data Governance Act being processed by the Council and the proposal for the Data Act being prepared by the Commission. In the Data Governance Act it is proposed that new services be established to facilitate the research and product development use of data materials. The Data Act will discuss the powers of public administration to obtain information from private sector organisations. Statistics Finland and other actors in the

²⁰ European Statistics on Population

²¹ Labour Market Statistics on Businesses

²² TOL 2008, Finland's Standard Industrial Classification 2008 (Finland's TOL classification is derived direct from the European NACE classification, which in turn is derived from the UN's ISIC classification).



statistical ecosystem participate in the national preparation of the regulations.

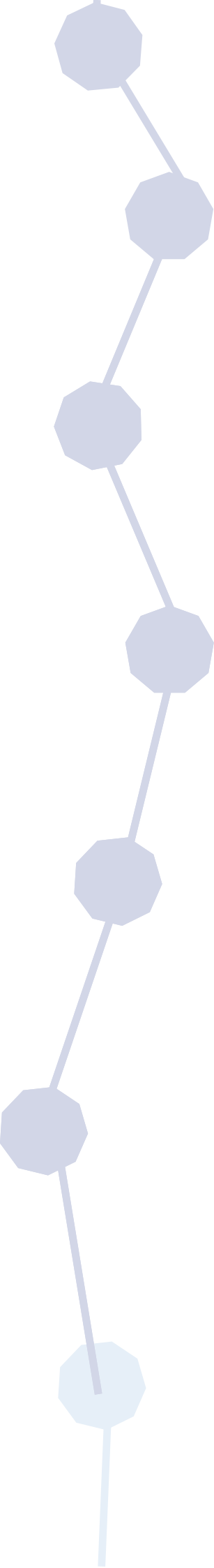
The sharing of good practices and competence between statistical institutes is one of the principles of the international statistical service. From 2021, Statistics Finland has been heading an EU-funded development project on business statistics for Azerbaijan that will end in 2022. Finnish statistical experts also take part in other consulting projects that improve the statistical systems of developing countries, such as the EU's Pan African Statistics project (PAS). Consulting is also carried out in Bosnia and Herzegovina, Russia and the Turkish Cypriot community.

In Finland, Statistics Finland coordinates the statistical work of authorities producing statistics included in the European Statistical System (ESS) and the Official Statistics of Finland (OSF) and, if necessary, issues guidelines and recommendations concerning official statistics. The aim is that international standards and procedures are followed in the compilation of statistics irrespective of the publisher of the statistics. The cooperation takes place in the Advisory Board of Official Statistics of Finland that comprises all producers of official statistics. The development targets of Finland's national statistical service are described in the Development strategy for the statistical ecosystem for 2021 to 2023²³.

The producers of statistics are committed to implementing the development strategy and Statistics Finland monitors its realisation. In addition to the development strategy, the Finnish National Statistical Service will be developed on the basis of recommendations from the peer review of the



²³ https://www.stat.fi/org/tilastotoimi/tilastotoimenkehittaminen_en.html



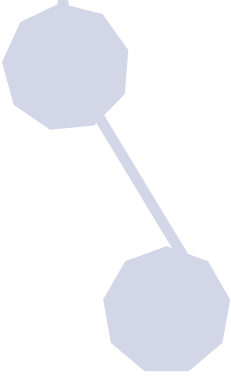
European Statistical System conducted in 2021. The recommendations will be completed by the end of 2021.

The most important project in domestic information ecosystem work is the amendment of the legislation on statistics started by the Ministry of Finance. In the first stage, the intention is to specify more clearly than at present that Statistics Finland's task is to provide research data services. The demand for research data has grown and the coronavirus period highlighted the need for fast produced research data. These new needs require amendment of the legislation concerning Statistics Finland. In addition, it is proposed to amend the Statistics Act so that access to certain new administrative data, such as data on early childhood education and care, would be more clearly recorded in legislation.


The next stages of the amendment of the statistical legislation will take into account changes caused by the Data Governance Regulation and other EU legislation in the tasks and roles of authorities producing and using data and evaluate the division of responsibilities between Statistics Finland, the statistical ecosystem and the information ecosystem of public administration.

Statistics Finland is currently exploring funding for a data room project intended for researchers, where in the first stage a pilot data room is established and the content, definitions and steering model of the service are specified, listening to the needs of data room users. Tasks in the first stage also include supplementing the selection of ready-made data and developing the technical infrastructure required by the service.

As part of the Ministry of Finance's project on using and opening up data, Statistics Finland coordinates the quality of data sub-project that develops public administration's quality control of register and other data together with other



authorities. The aim is to advance understanding of the quality of data, to draw up quality criteria and indicators for public sector data and a governance model. They support the opening up, interoperability and utilisation of data. Understanding and making the quality of data visible helps to increase further utilisation of public sector data in decision-making in society and by enterprises.





10 Appendices

Appendix 1

[Statistics of Statistics Finland and of other producers of statistics belonging to the European Statistical Programme in 2022](#)

Appendix 2

[Statistics Finland's information products and services in 2022](#)

Appendix 3

[Statistics Finland's data collections in 2022](#)

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