Quality report

*on innovation activities of enterprises in the
Republic of Kazakhstan*

Content

S.1 Contact details

S.1.1 Organization

Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan

S.1.2 Structural subdivision

Department of Services and Energy Statistics

S.1.3 Name of contact person

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S.1.3.1 Name of the head of the responsible structural unit

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S. 2 Introduction-Relevance

Innovation - the result of scientific and technical activities, to gain practical implementation in the form of new or improved products (goods and services) or technology with quality benefits when used in practice in comparison with peers and having applied economic and (or) public benefit.

The methodological basis for the development and improvement of statistics of innovations is a system of statistical indicators of innovative potential, formed on the basis of systematized results of analysis of foreign and domestic experience in researching innovations.

The purpose of the observation is to collect indicators characterizing the use of the latest technologies and the development of new types of products (goods, services), as well as the collection and analysis of indicators characterizing the innovative activities of enterprises.

The basis for the formation of statistics of innovations is a report in form 1-innovation "Report on innovation".

The main users are the Ministry of Education and Science of the Republic of Kazakhstan, the Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan.

The Bureau of national statistics holds meetings of working groups (focus groups), with the participation of potential users and respondents, representatives of interested government agencies, at which indicators of national statistical forms are analyzed in detail for their relevance and to avoid duplication with indicators of departmental statistical forms and forms of administrative data.

Feedback from users is carried out through the blog of the Minister of National Economy of the Republic of Kazakhstan on the website of the Ministry of National Economy of the Republic of Kazakhstan.

S.3 Updating metadata

S.3.1 Latest confirmation of updated metadata

S.3.2 Latest placement of metadata

S.3.3 Latest metadata update

S.4 Presentation of statistical information

S.4.1 Data description

Basic information about the organization; product, process, organizational, marketing innovation; the total volume of innovative products (goods and services); the volume of sold innovative products (goods and services) and others.

S.4.2 Classification system

During the survey, the following statistical classifiers are used:

1) KATO - Classifier of administrative-territorial objects;
2) OKED - General classifier of economic activities;
3) KFS - Classifier of forms and types of ownership;
4) KRP - Classifier of the dimension of legal entities;
5) CSE - Classifier of sectors of the economy.

These classifiers are posted on the Internet resource Bureau of national statistics www.stat.gov.kz on the main page in the section "Official statistical information (by industry)" - Classifiers

S.4.3 Sectoral coverage

They are represented by legal entities and (or) their structural and separate divisions with more than 100 people - by a continuous method, up to 100 people - by a selective method with the main type of economic activity according to the codes of the General Classifier of Economic Activities 01-03, 05-09, 10- 33, 35, 36-39, 41-43, 45-47, 49-53, 58-63, 64-66, 71, 72, 73, 85.4, 86 and organizations, regardless of the type of economic activity, that carried out innovative activities in list.

S.4.4 Statistical concepts and definitions

1) The circle of respondents: legal entities and (or) their structural and separate divisions with more than 100 people - by a continuous method, up to 100 people - by a selective method with the main type of economic activity according to the codes of the General Classifier of Economic Activities 01-03, 05- 09, 10-33, 35, 36-39, 41-43, 45-47, 49-53, 58-63, 64-66, 71, 72, 73, 85.4, 86 and organizations, regardless of the type of economic activity, carried out innovative activities according to the list.

2) Toolkit: Statistical form "Report on innovation activity" (code 231112109, index 1-innovation, annual frequency).

3) Type of observation: selective.

4) The deadline for the provision of respondents is February 25 (inclusive) after the reporting period. The submission of this statistical form is carried out on paper or electronically. Filling out the statistical form in electronic form is carried out through the information system "Data collection in on-line mode" posted on the Internet resource Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan (www.stat.gov.kz).

The last revision of the form was in 2017, the statistical form was posted on the Internet resource Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan (www.stat.gov.kz) in the section For respondents - Statistical forms for 2019 year - Annual forms.

S.4.5 Statistical object

The statistical object is legal entities and (or) their structural and separate divisions that carry out innovative activities

S.4.6 General population (principle of selection of survey units)

The innovation survey is carried out on an annual basis using a sample method. To determine the general population, the Statistical Business Register (hereinafter referred to as SBR) is used, which contains a complete list of units with the necessary classification and address data.

The main criteria for the formation of the sample population for the survey of innovation are:

by enterprises (OKED codes: 01-03, 05-09, 10-33, 35, 36-39, 41-43, 45-47, 49-53, 58-63, 64-66, 71, 72, 73, 85.4, 86)

- activity code: 1 and 2 - active enterprise;
- dimension codes: 105-160 (small) (30%);

- dimension codes: 215-225 (average) (100%);
- dimension codes: 305-311 (large) (100%).

The sample is formed on the basis of an order for a sample design in accordance with the "Methodology for conducting sample surveys of enterprises" approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated August 22, 2016 No. 169, posted on the Internet -resource Bureau of national statistics www.stat.gov.kz in the section "Methodology" - Selected population for statistical observations.

S.4.7 Territorial coverage

Republic of Kazakhstan (regions, cities of republican significance and the capital)

S.4.8 Time coverage

In Kazakhstan, an innovation survey has been conducted since 2003 on an annual basis. There are time series for 2003-2018.

S.4.9 Base period

The base period is the year preceding the survey year.

S.5 Unit of measurement

Thousand tenge Kazakh

S.6 Reporting period

year

S.7 Legal basis

S.7.1 Legal framework

1. Law of the Republic of Kazakhstan dated March 19, 2010 No. 257-IV "On state statistics".
2. Rules for the provision of primary statistical data by respondents, approved by order of the Chairman of the Agency of the Republic of Kazakhstan on statistics dated July 9, 2010 No. 173.
3. Rules for the submission of administrative data by administrative sources on a gratuitous basis, approved by the order of the Acting Chairman of the Agency of the Republic of Kazakhstan on statistics dated July 14, 2010 No. 183.
4. The plan of statistical work, approved in accordance with the established legislative procedure of the Republic of Kazakhstan by the Order of the Minister of National Economy of the Republic of Kazakhstan.
5. Schedule for the dissemination of official statistical information, approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan.

6. Rules for the provision on a gratuitous basis of statistical information not provided for by the schedule for the dissemination of official statistical information and developed on the basis of primary statistical data submitted by respondents in accordance with the schedule for submitting primary statistical data by respondents, approved by the order of the Chairman of the Agency of the Republic of Kazakhstan on Statistics of May 20, 2010 No. 113.

7. Rules for the provision and use for scientific purposes of databases in a de-identified form, approved by the Order of the Minister of National Economy of the Republic of Kazakhstan dated December 18, 2015 No. 778.

S.8 Privacy and data protection
S.8.1 Privacy Policy

1. Article 8 of the Law of the Republic of Kazakhstan dated March 19, 2010 "On State Statistics", in accordance with which a guarantee of confidentiality and protection of the submitted data by respondents is ensured.

2. Article 28 of the Entrepreneurial Code of the Republic of Kazakhstan dated October 29, 2015 ensures the protection of information constituting a commercial secret.

3. Information security policy (hereinafter referred to as the Policy) approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated October 31, 2016 No. 252 defines the goals, objectives, guidelines and practical techniques in the field of ensuring information security of the Committee. The main goal of the Policy is to ensure the availability of official statistical information, confidentiality of information stored and processed on the computer equipment of the Committee under the conditions of its integrity and authenticity.

S.8.2 Confidentiality - data handling

The rules for the provision and use of databases in a de-identified form for scientific purposes, approved by the Order of the Minister of National Economy of the Republic of Kazakhstan dated December 18, 2015 No. 778.

S.9 Publication Policy
S.9.1 Publication Calendar

Clause 1, Clause 2 of Article 26 of the Law of the Republic of Kazakhstan "On State Statistics" dated March 19, 2010 No. 257.

The schedule for the dissemination of official statistical information is posted on the website of the Bureau of national statistics www.stat.gov.kz in the section "Home" // "Basic documents".

S.9.2 Access to the Graph

The schedule for the dissemination of official statistical information is posted on the website of the Bureau of national statistics www.stat.gov.kz in the section "Home" // "Basic documents".

S.9.3 User access

Bureau of national statistics website www.stat.gov.kz. Official statistical information> Operational data (express information, bulletins)> Science and innovation

S.10 Propagation frequency
year
S.11 Dissemination format, accessibility and clarity
S.11.1 News publications

S.11.2 Publications

1) Statistical bulletin "On innovative activities of enterprises in the Republic of Kazakhstan", posted on the Internet resource Bureau of national statistics in the section Official statistical information (by industry) - Operational data (express information, bulletins) - Science and innovation - Bulletins;
2) Statistical collection "Science and innovation activity of Kazakhstan", posted on the Internet resource Bureau of national statistics in the section Official statistical information (by industry) - Collections, quarterly publications, spreadsheets, analytics - Statistical collections;
3) Indicators of the State Program "Informational Kazakhstan
4) 2020 ", posted on the Internet resource Bureau of national statistics in the section Official statistical information (by industry) - Indicators of state and government programs;
5) The main indicators and dynamic tables are posted on the Bureau of national statistics Internet resource in the section Official statistical information (by industry) - Science and innovation.

S.11.3 Databases in on-line mode

Information-analytical system "Taldau".

S.11.3.1 AC1. Data tables-consultation

Not implemented

S.11.4 Microdata access

The rules for the provision and use of databases in a de-identified form for scientific purposes, approved by the Order of the Minister of National Economy of the Republic of Kazakhstan dated December 18, 2015 No. 778.

S.11.5 Other

unacceptably

S.11.5.1 AC2. Metadata consultation

not implemented

S.12 Availability of Documentation

S.12.1 Methodology documentation
1) "Methodology for the formation of indicators of statistics of research and development work and innovations", approved by order of the Chairman of the Bureau of national statistics dated October 6, 2016 No. 232 and registered with the Ministry of Justice of the Republic of Kazakhstan on November 8, 2016 No. 14404. Posted on the Bureau of national statistics Internet resource www.stat.gov.kz in the "Methodology" section - R&D and innovation statistics;
2) "Methodological regulation on statistics 2018" fourth edition, addition. Posted on the Bureau of national statistics Internet resource www.stat.gov.kz in the "Methodology" section;
3) Oslo Handbook "Recommendations for the collection and analysis of data on innovation" 2006, posted on the Eurostat website www.ec.europa.eu.
S. 12.2 Quality documentation
1. Policy in the field of quality, approved by the order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated April 23, 2015 No. 67.
2. Quality objectives Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan, Quality objectives of the Office of Services and Energy Statistics.
3. Documented information of the quality management system: Quality manual; Documented procedures; Instructions; Process maps.
4. Standard methodology for describing the process of production of statistical information by state bodies, approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated March 30, 2015 No. 53;
5. Methodology for assessing the quality of official statistical information, approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan dated May 23, 2018 No. 63.

S.13 Quality management

S.13.1 Quality assurance

The quality and reliability of data on statistics of innovation is supported by generally accepted procedures:

- monitoring the list of potential innovative enterprises provided by administrative sources;
- compliance with the basic principles of primary accounting;
- use of standard statistical classifications of goods, products, services;
- development and implementation of various controls (format-logical, arithmetic) at the stages of collection and processing of primary data;
- obtaining additional information from respondents to confirm the reliability of primary data;
- carrying out a comparative analysis of statistical data in dynamics;
- the definition of a plausibility check at the level of inputting primary data in electronic format, as well as the inclusion of various format and logical controls in the software for processing primary statistical information to improve the quality of data, check the correctness of filling out the statistical form and minimize the lack of answers on some questions of the statistical form.

S.13.2 Quality control

The survey results on innovation in terms of accuracy and reliability can be rated as good. The used method of simple random sampling, based on the use of a table of random numbers and constant monitoring of the quality of the survey, ensures the accuracy, reliability and representativeness of the survey results.

S.14 Relevance

S.14.1 Needs

Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan, local executive bodies and other state bodies - for analytical work

S.14.2 User satisfaction

An annual survey of users of official statistical information is carried out according to the questionnaire Q-002 "Survey of users".

S.14.3 Completeness / R1. Data completeness-share

S.15 Accuracy and reliability (to be completed according to the type of observation)

S.15.1 Overall accuracy

The national survey on innovation statistics is designed in such a way that possible errors can be minimized and controlled. Nevertheless, when conducting a survey, inaccuracies are possible, called in statistics random errors (incorrect filling of data on cost, operator error when filling a report, etc.), even if the survey was carried out with the greatest care. Such errors are identified and corrected by the regional departments of statistics and the Bureau of national statistics in the course of statistical observation.

S.15.2 Sample errors - indicators / A1.

The innovation survey is conducted on the basis of a random sample survey.

In this way, the accuracy of the results can be assessed in terms of the error calculation.

The relative standard error is calculated after a sample survey. The "relative standard error" value estimates the percentage of deviation of the obtained sample results from the true value of the general population.

The relative standard error of the sample is inversely proportional to the sample size, i.e. when the sample size is quadrupled, the standard error is halved.

S.15.3 Non-sampling error

S.15.3.1 Coverage error

unacceptably

S.15.3.1.1 A2. Overcoverage-share

unacceptably

S.15.3.1.2 A3 General units-ratio

unacceptably

S.15.3.3 No response errors

S.15.3.3.1 A4. Absence unit-fraction

Errors not caused by a sample survey: due to the obligatory provision of primary statistical data, there are no non-responses during the survey. In the survey on innovations, there were no non-sample surveys.

S.15.3.3.2 A5.No answer item - share

unacceptably

S.16 Timeliness and punctuality

S.16.1 Timeliness

S.16.1.1 TP1 Waiting period - first results

The results in the newsletter are published annually on May 16th and are final.

S.16.1.2 TP2.Waiting Period - Latest Results

Results are final

S.16.2 Punctuality

S.16.2.1 Punctuality / TP3

The data are published in accordance with the Plan of statistical work, approved in accordance with the legislation of the Republic of Kazakhstan by the Order of the Minister of National Economy of the Republic of Kazakhstan and the Schedule for the dissemination of official statistical information, approved by the Order of the Chairman of the Bureau of national statistics of the Agency for strategic planning and reforms of the Republic of Kazakhstan.

S.17 Comparability

S.17.1 Geographic comparability

Data is comparable across regions

S.17.1.1 Asymmetry in mirror flow statistics-coefficient / CC1

unacceptably

S.17.2 Length of comparable time series / CC2

unacceptably

S.18 Consistency

S.18.1 Consistency, external, cross

The methodology for generating R&D and innovation statistics indicators has been developed in accordance with international recommendations received within the framework of the KAZSTAT Project (Project to Strengthen the National Statistical System) and Eurostat standards. The experience of the statistics office of Finland was used.

S.18.2 Internal consistency

The methodology for the formation of indicators for statistics of research and development work and innovations has been agreed with all structural divisions of the Bureau of national statistics.

S.19 Load

Data collection is carried out electronically and on paper at the discretion of the respondent.

When collecting data online, the respondent is provided with automated arithmetic and logical controls, excluding the possibility of typical input errors. Information processing processes are automated using local software systems, control of input and output information is provided. The average time taken to fill out the form is 1-2 hours. Duplication with other examinations is excluded. Administrative data is used only to ensure coverage of respondents.

S.20 Revision of data

S.20.2 Revision of data / A6

unacceptably

S.21 Processing of statistical data

S.21.1 Input data

Statistical information on statistics of innovation is formed on the basis of primary reports of respondents in the form 1-innovation "Report on innovation activity".

Statistical observation is carried out by a sample method.

The statistical business register (SBR) is used as the general population.

In this case, the main criteria for the formation of the general population should be:

by enterprises (OKED codes: 01-03, 05-09, 10-33, 35, 36-39, 41-43, 45-47, 49-53, 58-63, 64-66, 71, 72, 73, 85.4, 86)

- activity code: 1 and 2 - active enterprise;
- dimension codes: 105-160 (small) (30%);
- dimension codes: 215-225 (average) (100%);
- dimension codes: 305-311 (large) (100%);

When forming the sample population for statistics of innovation, a stratified sample is used using the method of simple random sampling.

In this survey, the target population is stratified by economic activity, enterprise size and region.

The sample data is disseminated to the general population using the spreading factors.

Propagation coefficients are calculated per stratum.

S.21.2 Inspection frequency

year

S.21.3 Method (method) of collecting primary statistical data

According to statistics of innovations, the provision of a statistical form is carried out on paper or in electronic form. Filling in the statistical form in electronic form is carried out through the information system "Data collection in on-line mode" posted on the Internet resource Bureau of national statistics (www.stat.gov.kz).

S.21.4 Reliability of primary statistical data

In order to improve the quality of data, check the correctness of filling out the statistical form and minimize the lack of answers on some questions of the statistical form, plausibility checks are defined at the level of input of primary data in electronic format, and various format-logical controls are also included in the software for processing primary statistical information. Format-logical controls: between sections, within sections.

S.21.5 Imputation - share / A7

unacceptably

S.21.6 Correction

Correction of data is carried out directly in the course of statistical observation.

S.21.6.1 Seasonal adjustment

unacceptably

S.22 Notes

In the future, continue to work to ensure data quality.