

Processes	Sub-processes	Sub-process description
<i>Specify needs</i>		
	1.1 Identify needs	<p>Taking into account that the Government of the Republic of Armenia declared the information and communications sector ICT as the most important sector for an economic development, thus the statistical information on this sphere is very important, especially, on rendered services, the volume of production and number of employees. The main goal of the collection of indicators is to provide users with quarterly information on the ICT indices. The indicator is used in ICT sphere to develop strategy, to solve strategic tasks, to analyze the business environment, to reveal trends of the development and for other purposes.</p>
	1.2 Consult and confirm needs	<p>The indicator is collected according to the Annual Statistical Program (see: https://www.armstat.am/en/?nid=191), which is elaborated based on the users requirements on the statistical information taking into account the limits of available resources, the capacity of statistical information providers and cost-effectiveness. The users' opinions about statistical information are studied by business discussions as well as through the "User satisfaction survey questionnaire" which is available on Armstat website (see: https://www.armstat.am/en/?nid=131).</p>
	1.3 Establish output objectives	<p>In the process of the collection, use, publication and storage of needed information (data) for the calculation of</p>

		indicators the provisions of Law “On Official Statistics” related to the statistical data confidentiality are strictly followed (see: http://www.armstat.am/file/doc/99486043.pdf).
	1.4 Identify concepts	The need to introduce indicators is stimulated by the requirements of users of statistical information.
	1.5 Check data	Legal entities and individual entrepreneurs in the ICT sector are the main sources for the calculation of the indicators, Data collection is carried out by the statistical reporting form according to the Annual and Five –Year Statistical programs.
	1.6 Prepare business case	The necessary data for calculating indicators are obtained from the statistical reporting forms. Before the approval of the statistical reporting form by the RA State Council on Statistics and its state registration by the RA Ministry of Justice, as a legal act, the discussions on indicators included in them and the instructions for their completion are carried out with different interested institutions, research organizations, and users, as well as the opinion of international experts is taken into account.
Design		
	2.1 Design outputs	The data are collected based on the Law "On Official Statistics" (see: https://www.armstat.am/file/doc/99514643.pdf) and “Five Year Statistical Program” (see: (see: https://www.armstat.am/en/?nid=719), as well as the Resolution No. 05-N of RA State Council on Statistics “On Approval of the Procedure for the collection of statistical data” dated 20 June 2016 (see: https://www.arlis.am/DocumentView.aspx?docID=122973 and Resolution “On Approval of Annual Statistical

		<p>Program” (see: https://www.armstat.am/en/?nid=191), as well as :</p> <ol style="list-style-type: none"> 1. Resolution N 18-A of RA State Council on Statistics, dated 16 April 2020, on Approval of Summary Statistical Reporting Form 1-IT (monthly) “On Information Technologies and Information Services” received from administrative register and the instructions for filling them in”. 2. Resolution of RA State Council on Statistics No. 14-N dated 11 May 2020 on making changes in the Resolutions of 19 October 2018 No. 10-N and No. 13-N. 3. Resolution No 25-N of RA State Council on Statistics dated 19 October 2018 on approval of statistical reporting form on “ On the industrial production of organization” Form 1- production (monthly) and of the instruction of filling in it, 4. Resolution No 67-N of RA State Council on Statistics dated 12 November 2018 on approval of statistical reporting form “ On Preparation and broadcasting of radio programs, on revenues derived from telecommunication activities” Form 13-communication (monthly) and of the instruction of filling in it.
	<p>2.2 Design variable descriptions</p>	<p>For the collection of indicators the collective grouping by of types of economic activities in the field of Information and Telecommunication Technologies is applied according to the Revision 2 of Classification of Types of Economic Activities (NACE Rev. 2), (see: https://www.armstat.am/file/doc/99522988.pdf), as well as the collective grouping of types of economic activities in the</p>

		<p>field of Information Technologies is used according to the Revision 2 of Classification of Types of Economic Activities (NACE Rev.2) (see: https://www.armstat.am/file/doc/99522993.pdf).</p>
	2.3. Design collection	<p>Respondents can submit statistical reports both in paper and electronic form. Reports received both in paper and electronic forms are kept.</p> <p>For the calculation of the ICT index, information on trade and services is collected from legal entities and individual entrepreneurs according to the statistical reporting form approved by the RA State Council on Statistics. According to the annual program the information on production and telecommunications is collected from the relevant units of Armstat, and data on information technology services is collected from the state body endowed with administrative powers.</p>
	2.4 Design frame and sample	<p>The design of the general population is implemented to provide complete information regarding the sphere. For this purpose, the receiving of information from all possible sources on the fact of activity of economic entities of ICT sector previously known is implemented and immediately, economic entities of the relevant sectors are informed about being covered in the statistical observation field and then the relevant statistical information is collected.</p>
	2.5 Design processing and analysis	<p>After the collection of information the statistical indicators are subject to arithmetical and logical checks, and in case of necessity the appropriate adjustments are carried out also by contacting the relevant organizations that provide the information.</p>
	2.6 Design production systems and workflow	<p>The preparatory work is carried out for all processes from the collection of information and until its publication,</p>

		particularly, related to the appropriate notification of respondents, the training of the staff through professional courses and etc.
<i>Build</i>		
	3.1 Build collection instrument	The statistical reporting form needed for the collection of information and the instruction for filling it in, are available in paper and electronic form (see: https://www.armstat.am/am/?nid=547).
	3.2 Build or enhance process components	The guidelines and instructions necessary for information verification are available. Input software (Microsoft Office Access) has necessary tools for arithmetical and logical checks of input data, systems for checking the sum total, logical relations, organizations' registration, identification and tax codes compliance and other automated checks ' systems.
	3.3 Build or enhance dissemination components	The dissemination of information is possible in paper, as well as in electronic form of publication of information on quarterly, semiannual and annual basis in accordance with the Annual Statistical Program.
	3.4 Configure workflows	The derivation of statistical product is carried out by the following successive stages: <ol style="list-style-type: none"> 1. collection of information, 2. arithmetic and logical checks and adjustments, 3. information input through the pre designed input software (Microsoft Office Access software), 4. comparison of obtained summary data with the corresponding time series, 5. dissemination of information in paper or electronic forms through the yearbooks, information reports, statistical handbooks, as well as through the official

		response letters upon the official requests.
	3.5 Test production system	Due to indicators changes in the statistical reporting form the input software is regularly undergoing to relevant changes. The testing of software is also carried out in case of need.
	3.6 Test statistical business production	In parallel with the inclusion of the indicators in the statistical reporting form, the field examination of the latter is implemented to reveal the opportunities of the respondents to provide with the indicators, as well as to test their understanding of it.
	3.7 Finalize production system	The composition of methodological clarifications on the completion of indicators available in statistical reporting form and provision to the statistical information providers (respondents) is carried out. The consents of information providers on indicators got during the workshops are summarized.
<i>Collection</i>		
	4.1 Create frame and select sample	Main information is collected both from organizations and individual entrepreneurs (taking into account last year's turnover), as well as from a state body endowed administrative powers.
	4.2. Set up collection	In order to organize the collection of data from statistical reports provided by organizations in paper form, , the formation of order on printing of relevant statistical reporting form and in case of need of the instruction of filling in it, their printing and distribution to the relevant organizations is implemented according to the number of organizations previously known as subject to observation. At the same time the statistical reporting forms and the instruction of filling them in are accessible on the Armstat

		<p>official website (see the link: https://www.armstat.am/am/?nid=547).</p> <p>The required network resources for the report collection in the electronic form are in place.</p> <p>The responsible staff of structural and territorial units has relevant knowledge and skills for the organization of the statistical information collection process.</p>
	4.3 Run collection	<p>Statistical data collection is carried out by the relevant structural-territorial subdivisions of Armstat regional and Yerevan City departments by hand, mail and electronic system means according to the Resolution of RA State Council on Statistics No 05-N on the “Approval of the Procedure of the collection of Statistical Data” dated 20 June 2016 (see https://www.arlis.am/DocumentView.aspx?docID=122973).</p>
	4.4 Finalize collection	<p>The collected information, after being arithmetically and logically cross checked, is input in the electronic environment. The information input is carried out automated, as well as by direct input of information in electronic environment.</p> <p>The reports received by electronic forms after being entered in the electronic environment are archived, keeping their confidentiality in accordance with legislative requirements (see: https://www.armstat.am/file/doc/99514643.pdf, Chapter 7, Article 23).</p>
<i>Process</i>		
	5.1 Integrate data	<p>The unification of relevant data received from the Armstat Yerevan and marz (regional) departments in one common database is implemented, in a result of which the duplications would be excluded.</p>
	5.2 Classify and code	<p>The coding process by the main type of activity of the</p>

		organization according to the classification of types of economic activities (NACE Rev. 2), as well as the encoding of marz and territorial units in accordance with a predetermined order is implemented.
	5.3. Review and validate	The cross checking of incomplete and corrupted presented data, as well as the compiling of incorrect encoded data with requirements of pre-approved classifications is implemented. In the case of need, the validation of relevant codes on registration in the tax bodies, identification, registration of organizations in state register is implemented using the data provided by the business register maintained by Armstat and by the body of the RA Ministry of Justice implementing state register of legal entities being used as an administrative data source.
	5.4 Edit and impute	The completion of the missing data is implemented using the data on the indicator presented for the previous period in case of the lack of the alternative information on them. The completed data in case of being available for the next periods is subject to adjustment.
	5.5 Derive new variables and units	Additional calculations and estimation are not implemented.
	5.6 Calculate weights	As the provided information ensures the statistical completeness of ICT sector, thus there is no need to calculate additional weights.
	5.7 Calculate aggregates	The summary data by separate statistical indicators are derived based on the input data through the pre-designed software.
	5.8 Finalize data files	Often, the calculation of primary indicators that are subject to further adjustment is done due to the necessity to obtain operative statistical data. The first published data is classified as preliminary. The changes in the published data are guided by explanatory notes.

<i>Analyze</i>		
	6.1. Prepare draft outputs	The creation of indicator groups, as well as time series of statistical indicators is implemented based on obtained statistical summary data. The received indicators calculation is used to present the summary information, as well as to create the time series of indicators.
	6.2 Validate outputs	The methodological requirements to the received indicators are strictly followed during the whole process of indicators receiving according to the pre-defined classifications, methodological guidelines and the instruction on completing the statistical reporting form. Output data are compared with the previous month (period) indicators, as well as with the relevant month (period) of the previous year. The study of differences between the data is carried out.
	6.3 Interpret and explain outputs	The logical analysis of the received summary indicators is carried out taking into account the impact of various phenomena taking place in the economy on the given sphere.
	6.4 Apply disclosure control	The confidentiality of statistical indicators (not containing individual (personal) data) that is subject to publication, as well as requested by the users of statistical information is strictly followed according to the Law “On Official Statistics” (see: https://www.armstat.am/file/doc/99514643.pdf , Chapter 7, Article 23).
	6.5 Finalize outputs	Before the dissemination of summary information an analysis of the summary indicators of the service sector by time series, as well as by comparison of the relevant indicators with other types of formation sources is carried out.

<i>Dissemination</i>		
	7.1 Update output systems	The work on the derivation of relevant tables of statistical indicators that are subject to publication and final adjustments are carried out, as well as the time series update is implemented. In the case of the need the changes and/ or additions are made in the concepts and methodological explanations of the relevant indicator.
	7.2 Produce dissemination products	<p>All the production steps are implemented for the disseminating products: preparation of explanatory text, tables, charts and other materials, editing of these products and making them compliant with publishing standards.</p> <p>The information on the statistical indicators is published in Armenian, Russian and English through the yearbooks, statistical handbooks and monthly informational reports.</p> <p>1. Social- economic Situation of the Republic of Armenia (monthly)</p> <p>(https://www.armstat.am/en/?nid=82).</p>
	7.3 Manage release of dissemination products	The dissemination of statistical information is carried out according to the schedule envisaged by the Five-Year and Annual Statistical Programs. In case of the changes and adjustments made in the indicators provided by the providers of statistical information the indicators already published by the Armstat are also being changed and adjusted correspondingly.
	7.4 Promote dissemination products	Various information presented on the Armstat official website (indicators, metadata, notifications, news about the sphere, micro-data, etc.) is not only a statistical tool, but also dissemination tool of information on the Armstat activity, which promotes the effectiveness of the sector's activities.

	7.5 Manage user support	In case of the official request of the users of statistical information related to the information not being published, the calculation of additional indicators is carried out at possible extend and submitted to them following the principle of confidentiality of statistical information.
<i>Evaluation</i>		
	8.1 Gather evaluation input	In case of need, the collection of data received from the same source and/ or from the administrative register on relevant organizations is carried out for the purpose of comparison.
	8.2 Conduct evaluation	The comparisons of data received from the same source included in the different reporting forms of the same organizations are implemented from the point of view of the quality management of statistical indicators. The relevant information provided by administrative register serves as informational basis for the evaluation of information quality.
	8.3 Agree an action plan	In the case of detection of discrepancies between the information received from different sources on the same indicator being compared, the revealing of the possible reasons is carried out, and the corresponding final adjustment is implemented based on it.