

**GENERIC MODEL OF STATISTICAL BUSINESS PROCESS
OF THE REPUBLIKA SRPSKA INSTITUTE OF STATISTICS
v. 1.0**

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INTRODUCTION

In order to increase the efficiency and transparency of the production process of official statistics, the Republika Srpska Institute of Statistics defined the Generic Model of the Statistical Business Process (RSIS GSBPM) and developed a document that enables the documentation of statistical surveys and activities in a harmonised way.

RSIS GSBPM was developed on the basis of the international Generic Statistical Business Process Model (GSBPM v. 5.0)¹, a comprehensive matrix of the process of production of statistical data, widely accepted in the global community of official statistical organisations, and one of the pillars of the modernisation of statistical production.

The model of the statistical business process of the Institute is a generic model, independent of data sources and applicable to all statistical business processes – total enumerations, sample surveys, surveys based on administrative records and other non-statistical or combined data sources. The model is applicable to processes in which revision of existing data or the revision of time series as well as the development and maintenance of statistical registers are carried out. The model does not include the functional activities of an organisation such as strategic planning, human and financial resources management, project management, management of legal and organisational frameworks. The RSIS GSBPM, however, includes overarching activities that extend to the entire data production process, such as quality management, data, metadata and process data management, knowledge management, management of statistical programme and frame as well as data providers and users management. Archiving of data and information, metadata, documentation and programmes is included in an overarching data and metadata management process to reflect the view that archiving can happen at any stage in the statistical production process. Overarching processes of quality and metadata management are specifically highlighted in the model diagram and are elaborated further in Section II.

Application of the model

RSIS GSBPM is set as a general framework, so it is possible that the phases and sub-processes shown are not the same for all statistical business processes. The order of phases and sub-processes presented in the matrix structure of the model is not necessarily the order of their execution. Certain phases and sub-processes do not necessarily take place during some statistical activities or they can be repeated several times or occur in parallel. The goal is to enable the statistical business processes of the Republika Srpska Institute of Statistics to be described by combining existing elements of the model.

The generic model of the statistical business process of the Institute can be applied as a standard framework for:

- documenting the process using harmonised terminology;
- managing process quality through systematic monitoring and identifying possible areas of improvement;
- knowledge management through maintenance of process documentation;
- standardisation of methodology, IT structure and mechanisms of production of statistics.

¹ See: <https://statswiki.unece.org/display/GSBPM/GSBPM+v5.0>

Structure of the model

RSIS GSBPM comprises three levels:

- Level 0, the statistical business process;
- Level 1, the eight phases of the statistical business process;
- Level 2, the sub-processes within each phase.

The current model comprises 8 main phases and 38 sub-processes.

QUALITY MANAGEMENT / METADATA MANAGEMENT							
Specify needs	Design	Build	Collect	Process	Analyse	Disseminate	Evaluate
1.1 Determining data needs	2.1 Design outputs	3.1 Build collection channels and instruments	4.1 Create frame and select sample	5.1 Integrate data	6.1 Prepare draft outputs	7.1 Update output systems	8.1 Gather evaluation inputs
1.2 Check data availability	2.2 Define concepts, variables and classifications	3.2 Build and configure IT systems and tools	4.2 Set up collection	5.2 Classify and code	6.2 Validate outputs	7.2 Produce dissemination products	8.2 Conduct evaluation
1.3 Prepare business case	2.3 Design collection	3.3 Test statistical business process	4.3 Run collection	5.3 Review and validate	6.3 Detail analysis and output interpretation	7.3 Manage release of dissemination products	8.3 Agree an action plan
	2.4 Design frame and sample	3.4 Finalise production systems	4.4 Finalise collection	5.4 Edit and impute	6.4 Apply disclosure control	7.4 Promote dissemination products	
	2.5 Design processing and analysis			5.5 Derive new variables and units	6.5 Finalise outputs	7.5 Manage user support	
	2.6 Design production systems and workflow			5.6 Calculate weights			
				5.7 Calculate aggregates, estimates and errors			
				5.8 Finalise data files			

Figure 1. Generic Statistical Business Process Model of the Republika Srpska Institute of Statistics v. 1.0 (according to GSBPM v. 5.0)

I LEVELS 1 AND 2 OF THE GENERIC STATISTICAL BUSINESS PROCESS MODEL

PHASE 1 – SPECIFY NEEDS

Specify needs		
1.1 Determining data needs	1.2 Check data availability	1.3 Prepare business case

This phase is triggered when a need for new statistics is identified, or feedback about current statistics initiates a review. The primary objective of this phase is the collection, systematisation and harmonisation of external (users, data providers) and internal (for the realisation of the statistical data production process) needs for statistical data and information, based on which a decision is made on their relevance and a detailed planning of the data production process is initiated.

In addition to the new needs for statistics, in this phase, the proposals related to changing the existing statistical business processes are also considered, in order to increase the level of detail or to improve the quality of the data.

1.1 Determining data needs

This sub-process involves examining, collecting and describing external and internal needs for new or modified existing statistics. It may be triggered by a new request for information due to new or changed needs of decision-makers, requirements of domestic and European regulations or international recommendations, the needs of professional organizations (associations, chambers, research communities), different user communities and internal users from statistical domains within the organisation, and as a result direct feedback from users (through researching user needs or via satisfaction survey).

During this sub-process consultations with stakeholders take place in order to confirm their needs (in terms of the necessary concepts, periodicity of data production and quality of statistical data), recognize those that are not met with existing practice and analyse the possibility of implementing new or changing existing surveys. Identified necessary concepts from the point of view of users, which will be measured by the business process, do not have to be harmonised with existing statistical standards at this stage (harmonisation, selection and definition of statistical and other concepts and variables takes place in the "Design" phase). Priorities in needs are determined in accordance with the Statistical Program of Republika Srpska.

The sub-process includes consideration of the practices of other domestic and foreign statistical organisations that produce similar data, and in particular the methods they apply. Action plans from evaluating previous iterations of this process or from other processes can also provide input information for this sub-process. During the second and all subsequent iterations of this sub-process, the main task is to determine whether the previously identified needs have changed.

1.2 Check data availability

This sub-process assesses whether and to what extent existing statistical surveys and available and potential administrative or other non-statistical sources can satisfy user requirements. The compatibility of existing or potential data sources with new or changed user needs (in terms of methodology, periodicity, purpose of data collection, etc.) is tested, including all restrictions on their use. The performed assessment should provide input information for decision making on the use of data from existing sources, redesign or introduction of new statistical surveys. This sub-process includes a general assessment of the legal framework in which data will be collected and used, and possible proposals for amending existing legislation or introducing a new legal framework.

1.3 Prepare business case

This sub-process documents the findings of the other sub-processes in this phase in the form of a business case with recommendations for implement the new or redesign the existing survey or the secondary use of available data sources. Such a business case should include elements such as:

- A description of the "As-Is" business process (if it already exists), with information on how the current statistics are produced, highlighting any inefficiencies and issues to be addressed;
- The proposed "To-Be" solution, detailing how the statistical business process will be developed and implemented to produce the new or revised statistics;
- An assessment of the resources needed, i.e. costs and benefits, as well as any other external constraints.

This subprocess provides input information for the development of a detailed plan of a regular or pilot statistical survey, including the content and results of the activities as well as the time frame for the implementation. Upon approval of a business case, the information on survey generated in this sub-process is included in the planning and programming documents.

PHASE 2 - DESIGN

Design					
2.1 Design outputs	2.2 Define concepts, variables and classifications	2.3 Design collection	2.4 Design frame and sample	2.5 Design processing and analysis	2.6 Design production systems and workflow

At this phase, the process of production of statistical data is being designed. It includes activities of planning, development and design, which are needed to define statistical outputs, concepts, methodologies, collection instruments and operational processes. This phase defines all relevant metadata, ready for use later in the statistical business process, as well as quality assurance procedures. In designing the survey, domestic and international standards are used to a significant extent, in order to reduce the length and cost of the planning process and increase the comparability and usability of outputs.

2.1 Design outputs

This sub-process contains the detailed design and specification of the statistical outputs, products and services to be produced, including related development work and preparation of the systems and tools used in the "Dissemination" phase. Disclosure control methods, as well as processes governing access to any confidential outputs are also designed here. Outputs should be designed to monitor existing standards wherever possible, so that inputs to this process can include metadata from similar or previous data collection, international standards and information about the practices of other statistical organisations discussed in subprocess 1.1 (Determining data needs).

2.2 Define concepts, variables and classifications

This sub-process defines the concepts and statistical variables to be collected via the appropriate collection instruments as well as any other variables to be performed in subprocess 5.5 (Derive new variables and units), and any statistical classifications and nomenclatures that will be used during the statistical business process. When defining concepts, variables and classifications, domestic and international standards are respected wherever possible.

2.3 Design collection

This sub-process determines the most appropriate data collection method(s) and instrument(s), depending on the type of research (full coverage, sample survey, etc.), observation unit (business entity, person, etc.) and the availability of different data sources. Activities in this sub-process vary depending on the defined data collection tools (computer assisted interviewing, paper questionnaires, interface of administrative databases, data integration techniques). The sub-process includes the design of data collection tools and all formal agreements on obtaining administrative data, as well as confirmation of the legal basis for data collection.

2.4 Design frame and sample

This sub-process applies only to statistical surveys which involve data collection based on sampling. It identifies and specifies the population of interest, defines a sampling frame (and, where necessary, the register from which it is derived), and determines the most appropriate sampling criteria and methodology. Common sources for a sampling frame are administrative and statistical registers, censuses and data from other sample surveys. This sub-process describes how these sources can be combined if needed. While the frame analysis (checking whether the frame covers the target population is) and the actual sampling plan is being made during this sub-process, the actual sample is created in sub-process 4.1 (Create a frame and select a sample), using the methodology designed in this sub-process.

2.5 Design processing and analysis

In this sub-process, a statistical processing methodology is designed to be applied during the "Processing" and "Analysis" phases. This may include determining procedures for encryption, editing, imputation, evaluation, integration, validation, and finalization of datasets. Where necessary, methods and methods of seasonal adjustment, small area estimates, procedures for the protection of primary and secondary confidentiality of data are defined.

2.6 Design production systems and workflow

This sub-process determines the workflow, from data collection to archiving and dissemination, taking an overview of all processes within the whole statistical production process, ensuring their effective integration. A general principle in the production of statistics is to reuse of processes and technology across many statistical business processes, so existing production solutions (e.g. services, systems and databases) should be examined first, to determine whether they are fit for purpose for this specific process, then, if any gaps are identified, new solutions should be designed. This sub-process also considers how staff will interact with systems, and who will be responsible for what and when.

PHASE 3 - BUILD

Build			
3.1 Build collection channels and instruments	3.2. Build and configure IT systems and tools	3.3 Build and configure IT systems and tools	3.4 Finalise production systems

This phase builds and tests the production solution to the point where it is ready for use in the "live" environment. According to the outputs of the "Designing" phase, data collection tools are built, necessary IT systems and tools are developed, configured and tested, and the entire statistical business process is tested. For statistical activities that are regularly carried out, this phase usually does not appear for each iteration, but only for the first or one following changes in methodology or technologies. The components of the production system that are built or enhanced within this phase are constructed to be broadly reusable within the organisational architecture.

3.1 Build collection channels and instruments

This sub-process describes the activities to build (or update) the collection instruments to be used during the "Collect" phase. Collection instruments are built or generated based on the specifications created during the "Design" phase and include paper, electronic or web questionnaires, manuals and accompanying materials, information systems or other technical means of information input during the work with respondents or gathering data from existing statistical and administrative data datasets. During this sub-process, testing of the content, functionality and comprehensibility of the questionnaire and the accompanying material as well as the testing of tools and media for gathering data is performed.

3.2 Build and configure IT systems and tools

In this sub-process, IT support is established to the statistical business process, from data collection to dissemination. It includes actions to be taken to build and/or procure new and improve existing software components required for the business process. Components can include control tables and reports, databases, tools for data entry, transfer and transformation, tools for creating and disseminating statistical products, tools for managing and accessing data (including microdata) and metadata. The subprocess includes the preparation or updating of data processing and analysis components and technical testing of IT tools before their use in the data production process.

3.3 Test statistical business process

This sub-process refers to testing the entire statistical business process, i. e. testing all configured services and associated work processes. The sub-process usually involves conducting a pilot statistical survey on a small number of units, with the aim of testing collection instruments, sample design, and methods and tools for processing and analyzing the collected data to ensure that the statistical business process is performed as expected. After analyzing the results of the pilot survey, there may be a need to return to the previous step and adjust the instruments, systems or components.

3.4 Finalise production systems

This sub-process includes configuring the flow of production processes, from data collection to archiving final statistical results, and activities of putting the assembled and configured processes, services and tools, including modified and newly-created services and tools, into production ready for use by business areas. The activities may include:

- producing documentation about the process components, including technical documentation and manuals for internal users;
- training the business (internal) users on how to operate the process;
- describing the workflow;
- moving the process components into the production environment, and ensuring they work as expected in that environment.

PHASE 4 - COLLECT

Collect			
4.1 Create frame and select sample	4.2 Set up collection	4.3 Run collection	4.4 Finalise collection

This phase collects or gathers all necessary information (data and metadata), using different collection modes (including extractions from statistical, administrative and other non-statistical registers and databases), and loads them into the appropriate environment for further processing. Whilst it can include validation of data set formats, it does not include any transformations of the data themselves, as these are all done in the "Process" phase. For statistical outputs produced regularly, this phase occurs in each iteration.

4.1 Create frame and select sample

For sample surveys, this sub-process establishes the frame and selects the sample, as specified in sub-process 2.4 (Design frame and sample). It includes the preparation of the necessary address books, the coordination of samples between instances of the same statistical business process (for example, to manage overlap or rotation) and between different processes using a common frame or register (for example, to overlap or to spread response burden). Quality assurance and approval of the frame and the selected sample are also undertaken in this sub-process.

4.2 Set up collection

This sub-process ensures that the people, processes and technology are ready to collect data and metadata. It takes place over a period of time, as it includes the strategy, planning and training activities in preparation for the specific instance of the statistical business process. Included are activities:

- preparing a data collection plan defining activities, responsible persons and/or organisational units and deadlines;
- selection of staff to collect data and perform data entry/gathering (interviewers, controllers, supervisors, operators, instructors, persons responsible for providing support to interviewers, contacting data providers, etc.);
- training collection and data entry staff;
- ensuring collection resources are available (e.g. laptops, computers, telephones);
- preparing collection instruments (e.g. printing and distribution of questionnaires and other materials, pre-filling questionnaires with existing data, loading questionnaires and data onto interviewers' computers etc.);
- configuring collection systems to request and receive the data;
- ensuring the security of data to be collected.

4.3 Run collection

This sub-process is where the collection is implemented, with the different instruments being used to collect or gather the information, which may include raw microdata or aggregates produced at the source, as well as any associated metadata. Data collection and communication with reporting units depends on the applied collection method, target population, type of the observed phenomenon and available data sources.

In order to collect primary data, the sub-process includes initial contact with respondents and all subsequent follow up activities or sending reminders (sending letters/notifications, keeping records of ways and time of contacting the respondents, keeping records of response/non-response, recording and responding to comments, inquiries and complaints of respondents, etc.). It includes monitoring whether the receipt of materials with data takes place according to the planned deadlines and providing support to the interviewers. In cases of collecting data via electronic questionnaires (manual data entry at the place of contact, web questionnaires, questionnaires received by e-mail), responsible statisticians can be enabled access to internal IT tools to review the collected raw data, perform some basic validations of the structure and integrity of the received information and in case of errors, to repeat the process of filling in and submitting the questionnaire. Coding performed by interviewers is also included in this subprocess.

For administrative and other non-statistical sources, this process is brief: the provider is either contacted to send the information, or sends it as scheduled. The entire sub-process is carried out in accordance with previously concluded agreements, according to which data providers provide information in a particular format and structure and according to the established timetable. Physical transfer of administrative data takes place through various media (optical media, network protocols, register replications, etc.) and with the application of appropriate validation procedures for the format and structure of data.

4.4 Finalise collection

This sub-process includes loading the collected data and metadata into a suitable electronic environment for further processing. It includes manual data entry from paper questionnaires, data take-on using the optical character recognition tools, electronic questionnaires (e.g. CATI, CAPI, web questionnaires), or converting files received from other organisations into the appropriate format. Verification of the format of the variables and file structure is performed and their final preparation for further processing. The sub-process may also include analysis of the process metadata (paradata) associated with collection to ensure the collection activities have met requirements. In cases where there is a physical collection instrument, such as a paper questionnaire, which is not needed for further processing, this sub-process manages the archiving of that material.

PHASE 5 - PROCESS

Process							
5.1 Integrate data	5.2 Classify and code	5.3 Review and validate	5.4 Edit and impute	5.5 Derive new variables and units	5.6 Calculate weights	5.7 Calculate aggregates, estimates and errors	5.8 Finalise data files

This phase describes the cleaning of data and their preparation for analysis. It is made up of sub-processes that check, clean, and transform input data, so that they can be analysed and disseminated as statistical outputs. It may be repeated several times if necessary. For statistical outputs produced regularly, this phase occurs in each iteration. The sub-processes in this phase can apply to data from both statistical and non-statistical sources, with the possible exception of sub-process 5.6 (Calculate weights), which is usually specific to survey data.

The "Process" and "Analyse" phases can be iterative and parallel. Analysis can reveal a broader understanding of the data, which might make it apparent that additional processing is needed. Activities within the "Process" and "Analyse" phases may commence before the "Collect" phase is completed. This enables the compilation of provisional results where timeliness is an important concern for users, and increases the time available for analysis.

5.1 Integrate data

This sub-process integrates data from one or more sources. It is where the results of sub-processes in the "Collect" phase are combined. The input data can be from a mixture of external or internal data sources, and a variety of collection modes, including extracts of administrative data. The result is a set of linked data.

Data integration can include:

- combining data from multiple sources, as part of the creation of integrated statistics such as national accounts;
- matching/record linkage routines, with the aim of linking micro or macro data from different sources;
- prioritising, when two or more sources contain data for the same variable, with potentially different values .

Data integration may take place at any point in the "Process" phase. Following integration, depending on data protection requirements, data may be anonymised, that is stripped of identifiers such as name and address, to help to protect confidentiality.

5.2 Classify and code

In this sub-process, coding of collected data is carried out, in accordance with different classifications, nomenclatures, code lists, as designed in sub-process 2.5. Coding can be done automatically or manually, with the help of IT tools and systems. Part of coding responses from the questionnaire can be performed by interviewers or external experts during the collection phase.

5.3 Review and validate

This sub-process examines data to try to identify potential problems, errors and discrepancies such as outliers, item non-response, inconsistent values and miscoding. Reviewing and validating can apply to data from any type of source, before and after integration. It may be run iteratively, based on predefined rules and computational and logical controls, usually in a set order. Data may be flagged for automatic or manual inspection or editing. Whilst validation is treated as part of the “Process” phase, in practice, some elements of validation may occur alongside collection activities, particularly for modes such as web collection. Whilst this sub-process is concerned with detection of actual or potential errors, any correction activities that actually change the data are done in sub-process 5.4. (Edit and impute).

5.4 Edit and impute

Where data are considered incorrect, missing or unreliable, new values, usually obtained based on information collected from data providers, interviewers or on the basis of expert estimates, may be inserted in this sub-process. The terms editing and imputation cover a variety of methods to do this, often using a rule-based approach. Specific steps typically include:

- the determination of whether to impute or edit data;
- the selection of the method to be used;
- impute/edit data;
- writing the new data values back to the data set, and flagging them as changed;
- the production of metadata on the editing and imputation process.

5.5 Derive new variables and units

This sub-process derives variables and statistical units that are not explicitly provided in the collection, but are needed to deliver the required outputs. It derives new variables by applying arithmetic formulae to one or more of the variables that are already present in the dataset, or applying different model assumptions. This activity may need to be iterative, as some derived variables may themselves be based on other derived variables. It is therefore important to ensure that variables are derived in the correct order. New units may be derived by aggregating or splitting data for collection units (e.g. deriving households where the collection units are persons) or by various other estimation methods.

5.6 Calculate weights

The calculation of weights for statistical units is carried out according to the methodology developed in Subprocess 2.5 (Design processing and analysis). In the case of sample surveys, weights can be used to “gross-up” results to make them representative of the target population or to adjust for non-response in total enumerations. In other situations, variables may need weighting for normalisation purposes.

5.7 Calculate aggregates, estimates and errors

This sub-process creates aggregate data and population totals from micro-data or lower-level aggregates. It includes summing data for records sharing certain characteristics (e.g. territorial or time), determining measures of average and dispersion. In the case of sample surveys, the final weights of sub-process 5.6 (Calculate weights) are used to estimate data for the total population, sample errors may be calculated and associated to the relevant aggregates.

5.8 Finalise data files

This sub-process brings together the results of the other sub-processes in this phase and results in data files which are used as the input to the "Analyse" phase or for updating statistical registers. Sometimes this may be an intermediate rather than a final file, particularly for business processes where there are strong time pressures, and a requirement to produce both preliminary and final estimates.

PHASE 6 – ANALYSE

Analyse				
6.1 Prepare draft outputs	6.2 Validate outputs	6.3 Detailed analysis and interpretation of outputs	6.4 Apply disclosure control	6.5 Finalise outputs

In this phase, statistical outputs are produced, examined in detail and made ready for dissemination. It includes preparing statistical content (including commentary, technical notes, etc.), and ensuring outputs are “fit for purpose” prior to dissemination to users. This phase also includes the sub-processes and activities that enable statistical analysts to understand the statistics produced. For statistical outputs produced regularly, this phase occurs in every iteration. The "Analyse" phase and sub-processes are generic for all statistical outputs, regardless of how the data were sourced.

6.1 Prepare draft outputs

This sub-process is where the data are transformed into statistical outputs. It includes the production of additional measurements such as indices, trends or seasonally adjusted series, as well as the recording of quality characteristics.

6.2 Validate outputs

This sub-process is where statisticians validate the quality of the outputs produced, in accordance with a general quality framework and with expectations. During this sub-process, information is collected to build up a body of knowledge of the statistical domain within which the outputs are produced. Validation of outputs can include:

- checking that the population coverage and response rates are as expected;
- comparing the statistics with previous cycles (if applicable);
- checking that the associated metadata are present and in line with expectations;
- comparing the statistics with other relevant data, both internal and external (related or associated results of other statistical processes within the organisation or data from other organisations);
- investigating inconsistencies in the statistics;
- performing macro editing;
- validating the statistics against known or expected relations among results or against domain intelligence.

6.3 Detailed analysis and interpretation of outputs

This is a subprocess in which a in-depth statistical analysis is carried out by observing statistics from all perspectives and evaluation to what extent the outputs reflect the initial expectations, using various tools and media. Statistics produced in a certain survey cycle are interpreted and explained, and the interpretation of the outputs should be tailored to the target population (users), objective, accurate and comprehensive. It is ensured that statistics and related information are fit for purpose and achieve the required level of quality, which may include:

- final consistency checks;
- determining the level of the results to be published;
- interpretation, comments, technical notes, notifications, description of all shortcomings, discrepancies and limitations in data, and all other necessary metadata.

6.4 Apply disclosure control

This sub-process ensures that the data (and metadata) to be disseminated do not breach the appropriate rules on confidentiality. This may include checks for primary and secondary disclosure, as well as the application of data suppression or perturbation techniques (perturbation is a data modification method that involves a slight change in data in order to reduce the disclosure risk while retaining as much as possible content and structure). The degree and method of disclosure control may vary for different types of outputs, for example the approach used for microdata sets for research purposes will be different to that for published tables (macrodata).

6.5 Finalise outputs

In this sub-process, all produced statistical outputs, associated information and documentation are systematised and finalised and the statistical content is approved for further use in the preparation of the dissemination product. That includes:

- marking confidential data;
- systematisation of all supporting information, including output interpretations, comments, technical notes, briefings, measures of uncertainty and metadata;
- production of associated internal documents;
- discussing the results before publishing with appropriate internal experts for the given domain;
- approval of statistical content for publishing.

PHASE 7 – DISSEMINATE

Disseminate				
7.1 Update output systems	7.2 Produce dissemination products	7.3 Manage release of dissemination products	7.4 Promote dissemination products	7.5 Manage user support

This phase manages the release of the statistical products to users. It includes all activities associated with assembling and releasing a range of static and dynamic products via a range of channels, as well as activities related to providing support to users to access and use the outputs released. For statistical outputs produced regularly, this phase occurs in each iteration.

7.1 Update output systems

This sub-process manages the update of systems where data and metadata are stored ready for dissemination purposes, including:

- formatting data and metadata ready to be put into output databases;
- loading data and metadata into output databases;
- linking data to the relevant metadata.

Formatting, loading and linking of metadata should preferably mostly take place in earlier phases, and in this sub-process a final check should be made that all the necessary metadata are in place ready for dissemination.

7.2 Produce dissemination products

This sub-process produces the products, as previously designed in sub-process 2.1, to meet user needs. The products can take forms of electronic and printed publications, web pages, tables in the on-line database, microdata sets, downloadable files etc. When producing a dissemination product, it is necessary to take care of the understandable and clear presentation of the data. The sub-process includes:

- preparing the product components (explanatory text, tables, charts, files, methodological explanations, etc.);
- assembling the components into products;
- editing the products;
- checking that products meet publication standards;
- confirmation of the product content.

7.3 Manage release of dissemination products

This sub-process ensures that all elements for the release are in place including managing the timing of the release. It includes briefings for specific groups such as the media or ministries, as well as the arrangements for any pre-release embargoes. It also includes the provision of products to subscribers, and managing access to confidential data by authorised user groups, such as researchers. The sub-process also includes handling of revised or corrected data

7.4 Promote dissemination products

Whilst marketing in general can be considered to be an over-arching process, this sub-process concerns the active promotion of the statistical products produced in a specific statistical business process. In order to have products reach the widest possible audience, user relationship management tools and various tools for dissemination and promotion of products are used, such as web sites, media conferences, social networks, product presentation at professional meetings, book fairs and similar.

7.5 Manage user support

The sub-process of user support management includes recording user requests for data and services, recording user proposals and comments, responding to inquiries and requests for data within the agreed deadlines, providing information to users on the availability and access to data, and advising users on the correct use and interpretation of data. A regular overview of user queries and requests is required to provide an input to the over-arching quality management process, as they can indicate new or changing user needs.

PHASE 8 - EVALUATE

Evaluate		
8.1 Gather evaluation inputs	8.2 Conduct evaluation	8.3 Agree an action plan

This phase manages the evaluation of a specific instance of a statistical business process. As statistical surveys are generally conducted periodically, this phase enables the evaluation of the quality of a certain instance of the statistical business process, as well as identifying and prioritising possible improvements for conducting the process in the future. It usually takes place at the end of the instance of the process, considering as the input quantitative and qualitative information gathered throughout the different phases. For regular and well established statistical business processes, this phase can be seen as providing the decision as to whether the next iteration should start from the „Specify needs“ phase, or from some later phase (often the „Collect“ phase).

8.1 Gather evaluation inputs

Having in place a detailed documentation on the statistical business process is an important indicator of the quality of process as well as a tool for the exchange of information and knowledge between different statistical business processes and communication between producers and users of statistics. The material for the evaluation of a business process can come from any phase or sub-process, in various forms, including user feedback, staff suggestions, methodological notes and survey tools, process metadata, quality reports or progress reports against the action plan agreed during the previous the iteration, and similar. This sub-process gathers all documentation and available information on the statistical business process, and makes them available for the person or team performing the evaluation.

8.2 Conduct evaluation

This subprocess analyses the available evaluation inputs and compares them with the expected goals or results (if set). Based on the conducted evaluation, a report (a quality report, a self-assessment report, an internal or external assessment report) is produced which should contain all issues concerning the quality of a certain iteration of the statistical business process and recommendations for changes if appropriate. These recommendations may refer to changes to any phase or sub-process for future iterations of the process, or can suggest that the process is not repeated.

8.3 Agree an action plan

This sub-process brings together the necessary decision-making power to form and agree an action plan based on the evaluation report. It should also include consideration of a mechanism for monitoring the implementation and impact of the improvement actions.

II OVER-ARCHING PROCESSES

Quality management

An over-arching quality management process establishes an operational framework for ensuring the quality of organisation, quality of statistical products and processes. Quality management is based on the logic of PDCA cycle (Plan-Do-Check-Act), which is implemented in practice through planning activities and expected results, measuring and documenting quality indicators, reporting on the realisation of plans and proposing improvement measures.

Metadata management

The goal of an over-arching metadata management process is to ensure relevant metadata in order to provide information on all aspects of the realisation of the process of statistical data production. In the context of this model, the emphasis in the overall process of metadata management is on generating, using, keeping and disseminating statistical metadata.