II. The Model

Understanding the GSBPM

6. A statistical business process is a collection of related and structured activities and tasks to convert input data into statistical information. In the context of the GSBPM, organisations or groups of organisations perform statistical business processes to create official statistics to satisfy the needs of the users. The output of the process may be a mixed set of physical or digital products presenting data and metadata in different ways, such as publications, maps, electronic services, among others.

7. The GSBPM should be applied and interpreted flexibly. It is not a rigid framework in which all steps must be followed in a strict order, instead it identifies the possible steps in the statistical business process and the inter-dependencies between them.

8. Although the presentation of the GSBPM follows the logical sequence of steps in most statistical business processes, the elements of the model may occur in different orders in different circumstances. Also, some sub-processes will be revisited, forming iterative loops, particularly within the Process and Analyse phases.

9. The GSBPM can be viewed as a checklist to make sure that all necessary steps have been considered or as a “cookbook” to identify all the “ingredients” of a statistical business process.

10. In many statistical organisations, the first few phases are only considered when a new output is created or when the process is revised as a result of an evaluation process. Once the output becomes part of “normal” ongoing activity, these phases are not undertaken (for example, it is not necessary to build new collection tools every time labour force survey data are collected). Figure 1 depicts this.

11. The GSBPM should therefore be seen more as a matrix, through which there are many possible paths. In this way, the GSBPM aims to be sufficiently generic to be widely applicable and to encourage a standard view of the statistical business process, without becoming either too restrictive or too abstract and theoretical.

Structure

12. The 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.

13. A diagram showing the phases (level 1) and sub-processes (level 2) is included in Section IV (Figure 3). The sub-processes are described in detail in Section V.

14. The GSBPM recognises several overarching processes with a strong statistical component that apply throughout the eight phases. These overarching processes included the list below. Quality management, metadata management and data management are elaborated further in Section VI. Activities that are carried out at the level of the organisation to support the statistical production are included in the GAMSO (see Section III) 1.

• Quality management - This process includes quality assessment and control mechanisms. It recognises the importance of evaluation and feedback throughout the statistical business process;
• Metadata management - Metadata are created/reused and processed within each phase, there is, therefore, a strong requirement for a metadata management system to ensure the appropriate metadata retain their links with data throughout the GSBPM. This includes process-independent considerations such as metadata custodianship and ownership, quality, archiving rules, preservation, retention and disposal;
• Data management - This includes process-independent considerations such as general data security, custodianship and ownership, data quality, archiving rules, preservation, retention and disposal;
• Process data management - This includes activities of registering, systematising and using data about the implementation of the statistical business process. Process data can aid in detecting and understanding patterns in the data collected, as well as in evaluating the execution of the statistical business process as such;
• Knowledge management - This ensures that statistical business processes are repeatable, mainly through the maintenance of process documentation;
• Provider management - This includes cross-process burden management, as well as topics such as profiling and management of contact information (and thus has particularly close links with statistical business processes that maintain registers).

Applicability

15. The GSBPM is intended to apply to all activities undertaken by producers of official statistics, at both the national and international levels, which result in data outputs.

16. The model is designed to be applicable regardless of the data source, so it can be used for the description and quality assessment of processes based on surveys, censuses, administrative registers, and other non-statistical or mixed sources.

17. Whilst typical statistical business processes include collecting and processing data to produce statistical outputs, the GSBPM also applies when existing data are revised, or time-series are re-calculated, either as a result of improved source data or a change in methodology. In these cases, the input data can be original microdata and/or additional data, which are then processed and analysed to produce revised outputs. In such cases, it is likely that several sub-processes and possibly some phases (particularly the early ones) would be omitted. Similarly, the GSBPM can be applied to processes such as the compilation of national accounts and the typical processes in international statistical organisations that use secondary data from countries or other organisations.

18. As well as being applicable for processes which result in statistics, the GSBPM can also be applied to the development and maintenance of statistical registers, where the inputs are similar to those for statistical production (though typically with a greater focus on administrative data), and the outputs are typically frames or other data extractions, which are then used as inputs to other processes 2.

19. The GSBPM is sufficiently flexible to apply in all of the above scenarios.

Using the GSBPM

20. The GSBPM is a reference model. It is intended that the GSBPM may be used by organisations to different degrees. An organisation may choose to either implement the GSBPM directly or use it as the basis for developing customised version of the model. It may be used in some cases only as a model to which organisations refer when communicating internally or with other organisations to clarify discussion. The various scenarios for the use of the GSBPM are all valid.

21. When organisations have developed organisation-specific adaptations of the GSBPM, they may make some specialisations to the model to fit their organisational context. The evidence so far suggests that these specialisations are not sufficiently generic to be included in the GSBPM itself.

22. In some cases, it may be appropriate to group some of the elements of the model. For example, initial three phases could be considered to correspond to a single planning phase. In other cases, particularly for practical implementations, there may be a need to add one or more detailed levels to the structure to separately identify different components of the sub-processes.

23. There may also be a requirement for a formal sign-off between phases, where the output from one phase is certified as suitable as input for the next. This formal approval is implicit in the model (except in the sub-process 1.6) but may be explicitly implemented in different ways depending on organisational requirements.

1. Further refinement for aligning overarching processes in the GSBPM with the GAMSO is under progress. The work will become available on the UNECE Statistics Wikis – HLG-MOS Outputs (HLG-MOS Outputs; expected in the third quarter of 2019) &larrhk;