# Assessing Your Modernisation Maturity

Under the High-level Group project on Implementing ModernStats Standards, a Modernisation Maturity Model (MMM) has been developed. The maturity self-assessment would ideally be performed by a cross-cutting group involving members of the Business, Information, Methods, Applications and Technology functions within the statistical organisation.

There are multiple aspects of Maturity in the context of Modernisation, and as such the model that has been developed has a number of distinct ***dimensions***. Within each dimension, different organisations may have different ***levels*** of maturity.

These ***dimensions*** and ***levels*** are described in the tables below in general terms. However, to be more specific, we have formulated a set of self-assessment criteria that is specific to each ***dimension*** x ***level*** combination, as well as being specific to each of the following *HLG-MOS standards*:

* [GAMSO](http://www1.unece.org/stat/platform/display/GAMSO/Generic+Activity+Model+for+Statistical+Organizations)
* [GSBPM](http://www1.unece.org/stat/platform/display/GSBPM/Generic+Statistical+Business+Process+Model)
* [GSIM](http://www1.unece.org/stat/platform/display/gsim/Generic+Statistical+Information+Model)
* [CSPA](http://www1.unece.org/stat/platform/display/CSPA/Common+Statistical+Production+Architecture)

Those undertaking a self-assessment are encouraged to assess their maturity in this way at the ***current time***, as well as the ***target level*** of maturity that they are seeking to achieve in 5 years’ time. Additionally, they are invited to list the first major 1-3 steps they expect their organisation would take to move its maturity level toward the target for each dimension. (These could be steps the organisation would undertake on its own or these might be steps based on enablers from HLG.)

Organisation: **Statistics Canada**

For each **Tester** please fill out

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Main area(s) of expertise (Business, Methods, Information, Applications and/or Technology):

Business, methods, applications

HLG-MOS standard(s) **tested** (GAMSO, **GSBPM**, GSIM and/or CSPA)

## Description of Maturity Levels

| **Number** | **Level Name** | **Level Description** |
| --- | --- | --- |
| 1 | Initial implementation | A few individuals are becoming interested in the potential value of the standard.  The organisation as a whole is unaware of the standard. |
| 2 | Pre-implementation | Use of the standard is basic and limited to a few individuals.  Parts of the organisation are becoming interested in the potential value of the standard. |
| 3 | Early implementation | Use of the standard is spreading, but it is used in an inconsistent manner by individuals and single business units.  A corporate-wide programme/strategy for use of the standard is in being prepared. |
| 4 | Corporate implementation | A corporate-wide programme/strategy for use of the standard exists.  There is a widespread awareness of the standard and it is used in a consistent way across the organisation. |
| 5 | Mature implementation | The standard is perceived as an important part of business operations/management, delivering value across the organisation.  The standard is well understood, integrated into business processes & practices and used in a consistent manner across the organisation. |

**Questions for Testers on the Level names and descriptions:**

**Are the descriptions easy to understand?**

Yes

**Are the Levels sufficiently distinct?**

Yes

## Description of Dimensions

**Dimensions** (Architecture is implicit)

|  |  |  |
| --- | --- | --- |
| **Number** | **Name** | **Description** |
| 1 | Business | This dimension focuses on the business activity domain i.e. the organisation's core business practices and policies. |
| 2 | Methods | This dimension focuses on the management of methods i.e. how methods are designed, structured, implemented and executed.  It includes statistical methodology, quality management, IT methods, process methods e.g. data collection methods and any other methods needed to support the business. |
| 3 | Information | This dimension focuses on how information is structured and integrated, how information is modelled, the method of access to data, abstraction of the data access from the functional aspects, data characteristics, data transformation capabilities, service and process definitions, handling of identifiers and the information model. |
| 4 | Applications | This dimension focuses on the structure and interaction of applications[[1]](#footnote-1) to provide business functionality using the information/data assets needed to deliver this functionality. |
| 5 | Technology | This dimension focuses on the logical software and hardware capabilities that are required to support the deployment of business, information, and application services. This includes IT infrastructure, middleware, networks, etc. |

**Questions for Testers on the Dimension names and descriptions:**

**Are the descriptions easy to understand?**

**Yes**

**Are the Dimensions sufficiently distinct?**

**Yes**

## GSBPM Self-Assessment Criteria

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Levels**  **Dimensions** | **Initial**  **implementation** | **Pre-**  **implementation** | **Early**  **implementation** | **Corporate implementation** | **Mature**  **implementation** |
| Business | No standard business process descriptions/ definitions are in use across the organisation’s statistical domains.  Different business processes are followed by different individuals undertaking the same tasks.  Projects/statistical programs exist in isolation, There is little or no business process coordination.  A few individuals are becoming interested in the potential business value of the GSBPM, but the organisation as a whole is unaware of the GSBPM. | Use of the GSBPM is basic and limited to a few individuals.  Some business units are becoming interested in the potential business value of GSBPM and investigate how adopting the GSBPM as a reference standard could assist standardisation activities.  Dissemination/ communication activities are carried out in some statistical domains to demonstrate the benefits of using the model | Use of GSBPM is spreading, but practice varies between  individuals and between business units  Some business units are documenting/ defining existing statistical production processes using the GSBPM phases/sub-processes.  GSBPM phases/ sub-processes are being used for generic project/ statistical program scoping and planning. | A corporate-wide programme/strategy for use of GSBPM for managing statistical production processes is in place.  Management uses GSBPM as a framework for all planning of statistical production  Organisation standardises and describes procedures for all GSBPM phases and sub-processes in a consistent manner | Management uses GSBPM systematically and regularly for managing and improving business capabilities and services.  Organisation has widespread expertise and familiarity with the use and application of the GSBPM. It is the reference framework for all statistical production.  GSBPM based responsibilities are shared between job positions and are described in job descriptions. |
| Methods | No common approaches regarding the development and use of methods  Methods are identified and defined with no reference to GSBPM  A few individuals are becoming interested in the potential value of mapping/documenting methods per GSPBM phase | A few individuals are  mapping/ documenting existing methods per GSPBM phase/sub-process  Some business units are becoming interested in the potential value of mapping/ documenting existing methods per GSPBM phase in order to improve coherence and consistency of the statistical production processes.  New methods are developed with reference to GSBPM phases. | Individuals and business units are  mapping/ documenting new and existing methods per GSPBM phase/sub-process, but the practise varies,  A corporate wide strategy to use GSBPM to map/document methods per phase/sub-process is not in place | There is a widespread awareness of the use of GSBPM to map/ document new and existing methods per phase/sub-process and a consistent approach is adopted across the organisation to carry this out. | Methods are standardised and optimised within the GSBPM and extensively re-used  This standardization facilitates inter-institutional collaboration efforts.  The use of GSBPM to map/document methods per phase/process is an important part of methods management and delivers value by identifying duplication and potential for reuse  Mapping/documenting methods to GSBPM phases/sub-processes is well understood and applied in a consistent manner |
| **Levels Dimensions** | **Initial**  **implementation** | **Pre-**  **implementation** | **Early**  **implementation** | **Corporate**  **implementation** | **Mature**  **implementation** |
| Information | No standardised way of defining information objects (data and metadata) with reference to their use in GSBPM.  No integration of information | Identification and classification of  information objects by GSBPM phase carried out for one or two statistical domains in order to improve consistency in information objects being used/referred to in the different sub-processes | New projects adopt standard methods of classifying information object use and terminology by GSBPM phase and sub-process  Existing applications have a varied practise regarding mapping of information objects by GSBPM phase and sub-process | Information objects used within the organisation are mapped to the GSBPM sub-processes, and the changes to information objects through the sub-processes are well defined | Information object usage and nomenclature is harmonised/standardised  across the organisation, with GSIM in routine use as the basis for describing and defining information objects.  The reuse of information objects is maximised wherever possible |
| Applications | Applications are developed without reference to GSBPM  Applications are developed stand-alone, at silo level, without reference to common statistical processes across the organisation.  Every statistical program has its own production system, with little coordination between the programs  Common problems are solved in different ways. | Examination of existing applications where they  map to GSBPM phases, in order to facilitate a higher degree of standardisation  Applications are mapped within one or more GSBPM phases | Specifications for new application scope start to be defined by GSBPM phases or processes  Adoption of plan for the implementation of GSBPM, setting the priorities for the improvement and development of activities  Applications are mapped to GSBPM phases and sub-processes. | Using GSBPM to define statistical function and system development mapping for all existing applications, and as a basis for all new application development.  Monitoring and coordination of the implementation plan of GSBPM  Use of a Service Catalogue to manage service components | All the applications are mapped at component level to GSBPM sub-processes, or lower;  Service Catalogue is used across the piece to monitor/maintain all the components of the organisation's statistical production systems. |

## GSBPM Maturity Assessment

The current version of GSBPM is version 5.0.

Version Assessed: **5.0**

|  |  |  |  |
| --- | --- | --- | --- |
| **Dimension** | **Current Maturity** | **Target Maturity** | **Key Steps/**  **Requirements** |
| Business | Early implementation | Mature implementation | Currently *some* business units are documenting/ defining existing statistical production processes using the GSBPM phases/sub-processes.  Policy/directive from senior management could help.  More communication on strategy for use of GSBPM for managing statistical production processes.  GSBPM referenced in project management framework documents at all stages, as well as Enterprise Architecture reviews.  Training/information sessions on the use and application of the GSBPM.  Investigate how generic job descriptions can be altered to reference GSBPM.  Corporate services outside of GSBPM, macroeconomic accounts /data integrators – need to have more examples and mapping. |
| Methods | Early implementation | Mature implementation | Currently the use of GSBPM to map/document methods per phase/process is part of methods management. Identification of duplication and potential for reuse is underway at a corporate level.  Mapping/documenting methods to GSBPM phases/sub-processes is well understood but not applied in a *consistent* manner.  Policy/directive from senior management could help.  Plan, document and widely communicate strategy for all business units to *consistently* map new and existing methods per GSPBM phase/sub-process. |
| Information | Early implementation | Mature implementation | Information objects used within the organisation are currently mapped to the GSBPM sub-processes. More work is needed to *define changes to information objects through the sub-processes*.  Information object usage and nomenclature is harmonised/standardised  across the organisation. Having harmonized concepts implemented and enforced across the Agency (from a subject matter perspective) is the most difficult aspect .  GSIM is in use as the basis for describing and defining information objects, but increased communication/information sessions on strategy for use of GSIM for managing statistical production processes could help.  GSIM referenced in project management framework documents at all stages, as well as Enterprise Architecture reviews.  Training/information sessions on the use and application of the GSIM.  Multiyear project underway to ensure the reuse of information objects and metadata is maximised wherever possible. |
| Applications | Corporate implementation | Mature implementation | Currently all applications are mapped to GSBPM phases and sub-processes. Planning activity underway to review and set priorities for the decommissioning of aging applications, on the basis of GSBPM coverage, as well as as a basis for all new application development.  GSBPM will begin to be referenced in project management framework documents at all stages, as well as Enterprise Architecture reviews.This will allow for specifications for new application scope start to be defined by GSBPM phases or processes.  Some services currently included in a service catalogue, but not consistent across all services. Use of a Service Catalogue to manage service components would increase level of maturity. |

**For Testers**

**Were there any self-assessment criteria that were particularly difficult to understand?**

**If yes, please provide the Dimension and Level for those self-assessment criteria:**

No

**Were the Levels sufficiently distinct per Dimension?**

**If not, please provide the Dimension(s) and Level(s) where you experienced difficulties**

The Corporate implementation for both the methods and information dimensions did not seem as detailed as other categories. Perhaps more information could be added.

Mature implementation: GSBPM based responsibilities are shared between job positions and are described in job descriptions – seems a bit out of place being introduced at this level.

**Do you think we should have had a Technology Dimension for GSBPM?**

Not sure what this would imply, or if it could be applicable for GSBPM.

**FINALLY (across all standards)**

**Do you have any general feedback/suggestions to help us make the filling out of this maturity assessment easier?**

- once we have them, providing examples from countries on how they walked through the assessment might be helpful

## Definitions

**Capability:**

An ability that an organisation, person, or system possesses. Capabilities are typically expressed in general and high-level terms and typically require a combination of organisation, people, processes, and technology to achieve. Source The Open Group Architecture Framework (TOGAF)  
**Capability element:**

Capabilities provide the agency with the ability to undertake a specific activity. A capability is only achieved through the integration of all relevant capability elements (e.g. methods, processes, standards and frameworks, IT systems and people skills).

**Corporate capability element:**

A corporate capability element is a capability element that is managed at the corporate level for use across the entire organisation.

## Abbreviations

* IT – Information Technology
* CSPA – Common Statistical Production Architecture
* GAMSO – Generic Activity Model for Statistical Organisations
* GSBPM – Generic Statistical Business Process Model
* GSIM – Generic Statistical Information Model
* HLG-MOS – High-level Group for the Modernisation of Official Statistics

1. Applications are software components or programs which provide specific functionality for end users. Web browsers, email programs, and word processors are examples of generic desktop applications, but the term 'applications' also encompasses enterprise-level components providing functionality specific to the business. [↑](#footnote-ref-1)