United Nations Economic Commission for Europe
Statistical Division

Related Standards and Next Steps

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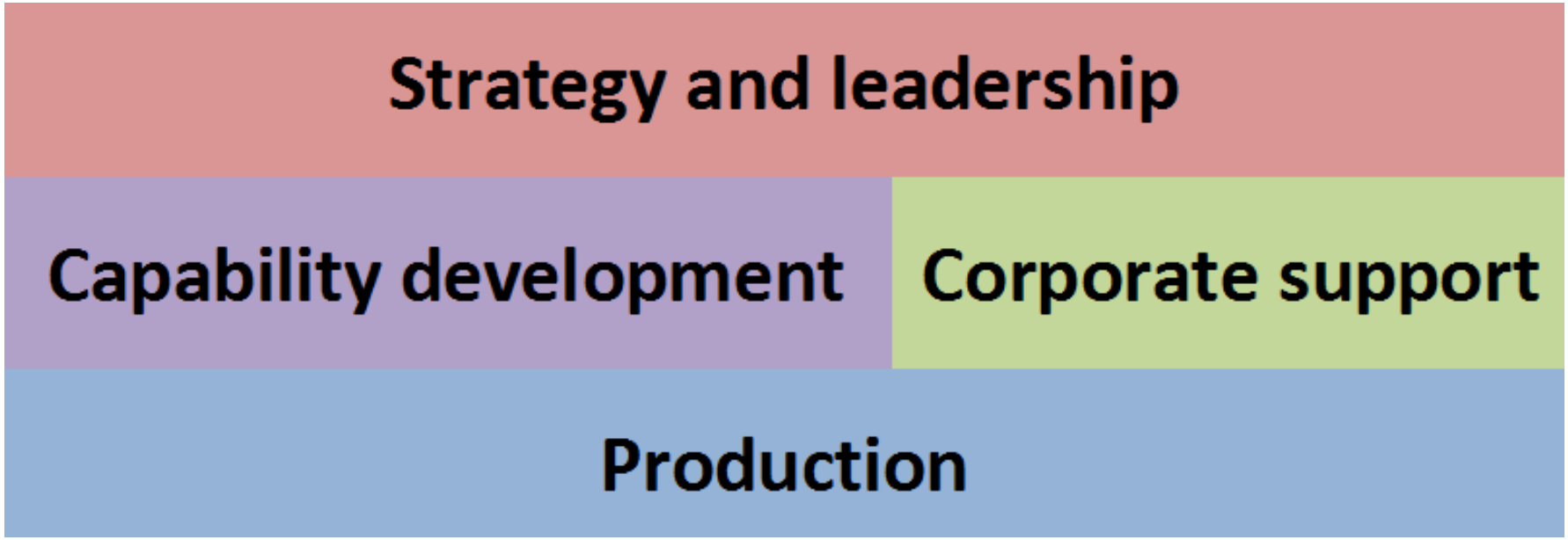
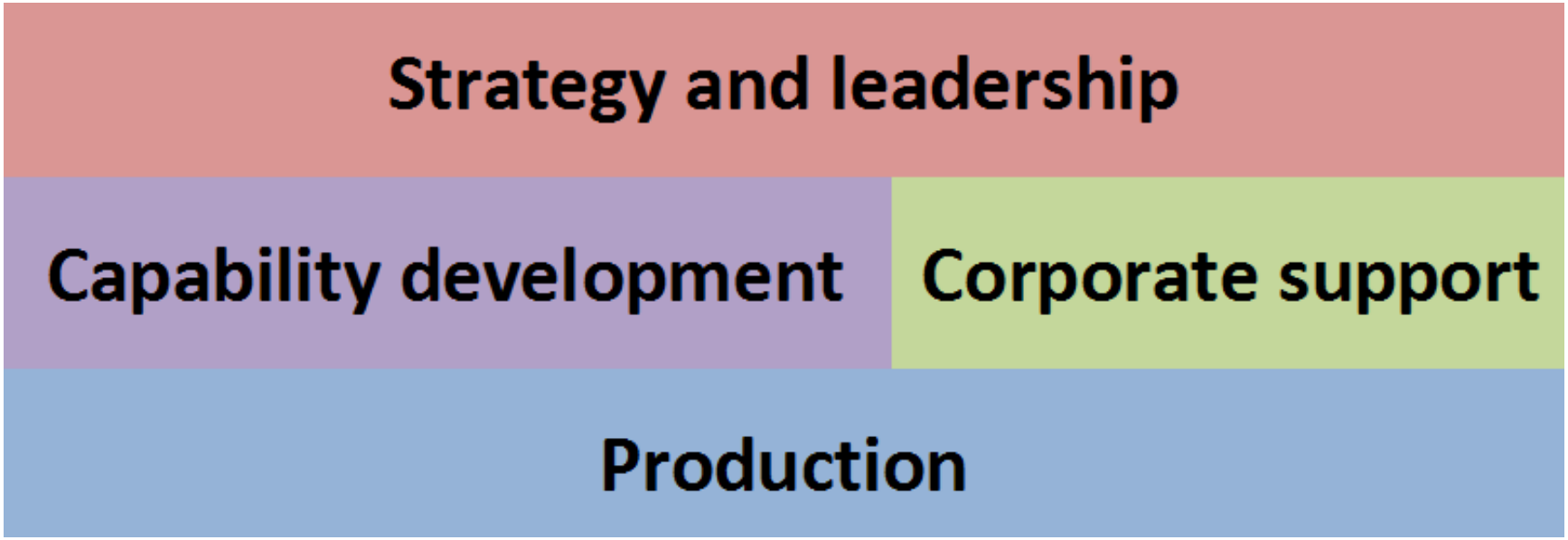
The GAMSO


Strategy and leadership
Capability development
Corporate support
Production

What is GAMSO?

- **G**eneric **A**ctivity **M**odel for **S**tatistical **O**rganisations
- It covers all activities of statistical organisations
- It extends and complements the GSBPM by adding activities needed to support statistical production

Level 1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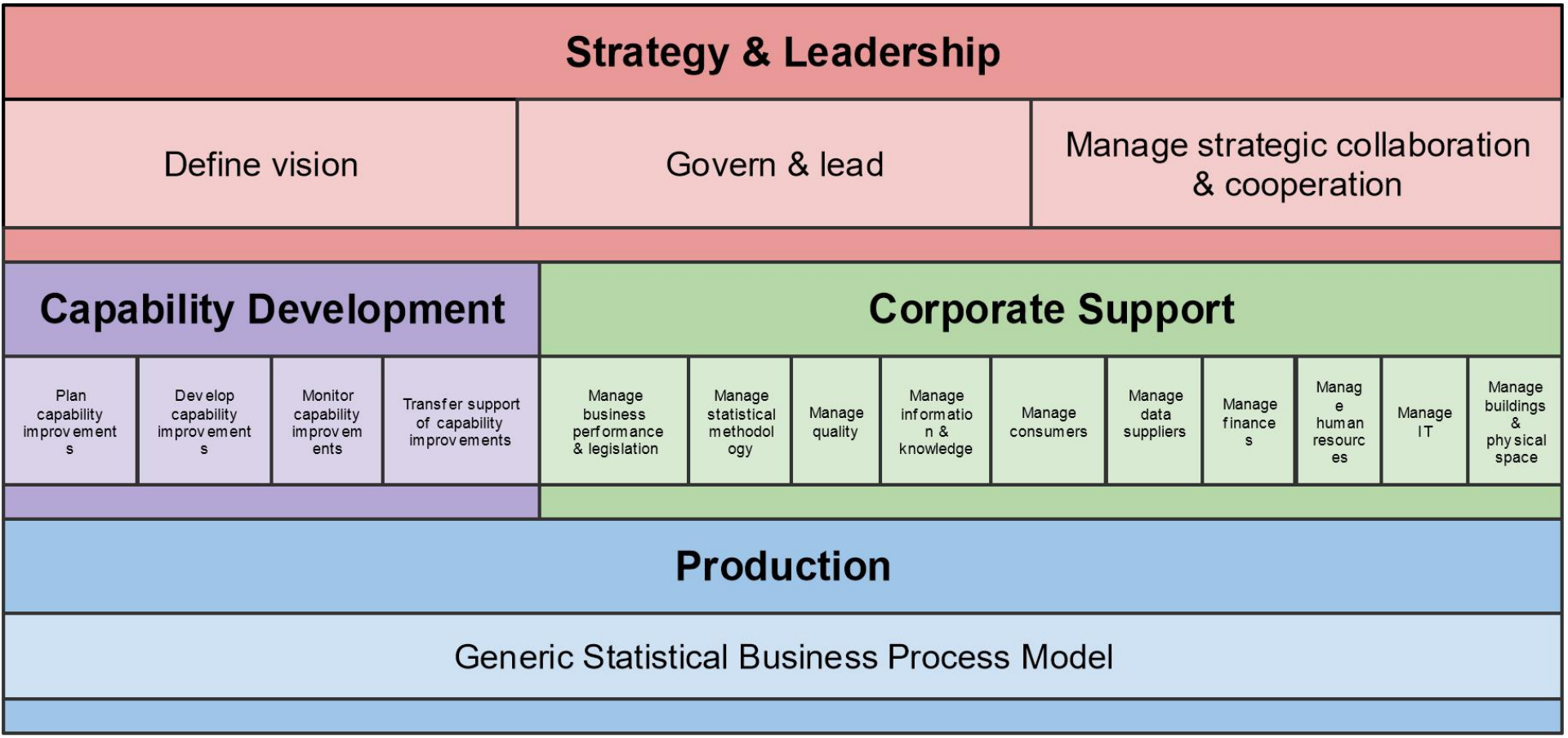
Level 2


Strategy & Leadership
Define vision
Govern & lead
Manage strategic collaboration & cooperation
Capability Development
Corporate Support
Plan capability improvements
Develop capability improvements
Monitor capability improvements
Transfer support of capability improvements
Manage business performance & legislation
Manage statistical methodology
Manage quality
Manage information & knowledge
Manage consumers
Manage data suppliers
Manage finances
Manage human resources
Manage IT
Manage buildings & physical space
Production
Generic Statistical Business Process Model

Uses of GAMSO

- Resource planning
- Measuring costs
- Assessing readiness to implement different aspects of statistical modernisation
- Supporting risk management systems
- Implementing enterprise architecture

- Communication

More information

GAMSO wiki

https://statswiki.unece.org/display/GAMSO

UNECE

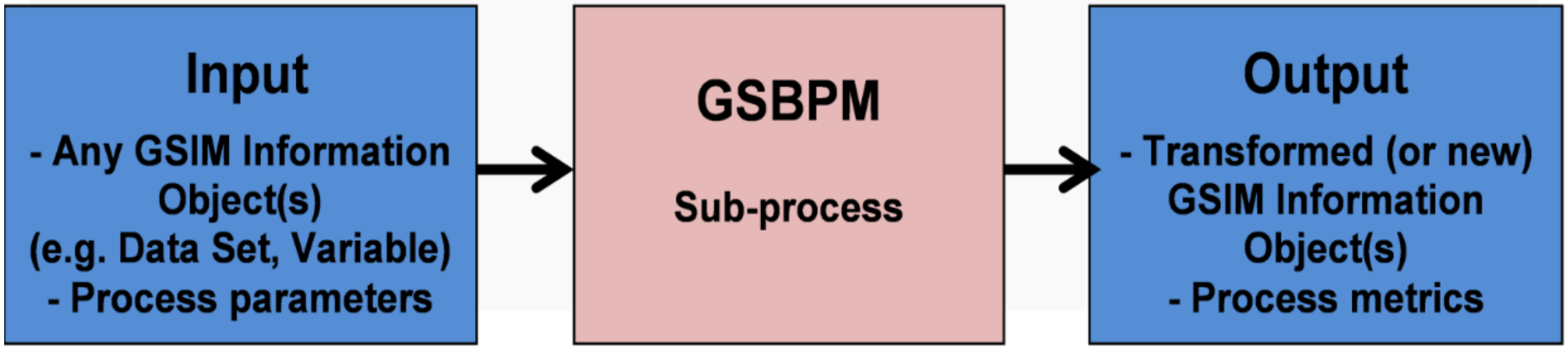
GSIM

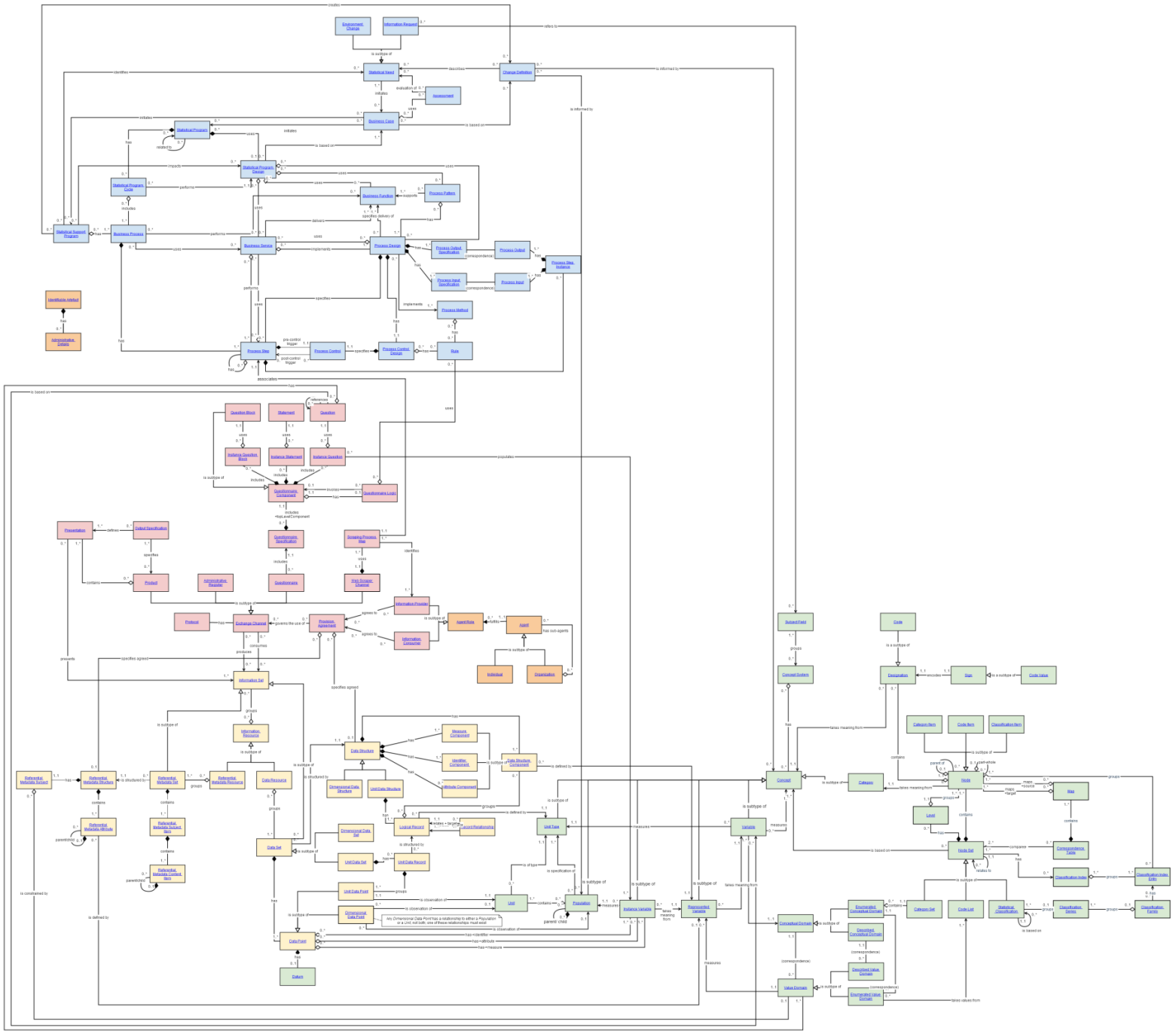
Generic Statistical Information Model

- Statistical organizations have similar activities
- These activities use and produce information (e.g. classifications, data sets)
- Although this information is similar, it is described differently in each organization (and often in different ways within each organization)

Generic Statistical Information Model

- GSIM is the first international reference framework for statistical information
- It describes the information objects and flows within the statistical business process.




Environment Change
Information Request
Statistical Need
Change Definition
Assessment
Business Case
Statistical Program
Statistical Program Change
Statistical Program Code
Statistical Support Program
Business Process
Business Function
Process Pattern
Business Service
Process Design
Process Output Specification
Process Output
Process Step Instance
Process Input Specification
Process Input
Identifying Artifact
Administrative Details
Process Method
Process Step
Process Control
Process Control Design
Rule
Question Block
Statement
Question
Instance Question Block
Instance Statement
Instance Question
Questionnaire Component
Questionnaire Logic
Questionnaire Specification
Scraping Process Map
Presentation
Output Specification
Product
Administration Register
Questionnaire
Web Scraper Crawler
Information Provider
Protocol
Exchange Channel
Provision Agreement
Agent Role
Agent
Information Consumer
Individual
Organization
Information Set
Information Resource
Data Structure
Measure Component
Identifier Component
Data Structure Component
Attribute Component
Dimensional Data Structure
Unit Data Structure
Logical Record
Record Relationship
Data Set
Unit Data Set
Unit Data Record
Unit Data Point
Dimensional Data Point
Data Point
Datum
Any Dimensional Data Point has a relationship to either a Population or a Unit, not both; one of these relationships must exist
Referential Metadata System
Referential Metadata Structure
Referential Metadata Set
Referential Metadata Resource
Data Resource
Referential Metadata Attribute
Referential Metadata Subset Item
Referential Metadata Context Item
Subject Field
Concept System
Concept
Category
Level
Node Set
Node
Variable
Unit Type
Unit
Population
Instance Variable
Represented Variable
Conceptual Domain
Value Domain
Enumerated Conceptual Domain
Described Conceptual Domain
Described Value Domain
Enumerated Value Domain
Code
Designation
Sign
Code Value
Category Item
Code Item
Classification Item
Map
Correspondence Table
Classification Index
Classification Index Entry
Category Set
Code List
Statistical Classification
Classification Series
Classification Family

More information

- GSIM Wiki
- https://statswiki.unece.org/display/gsim

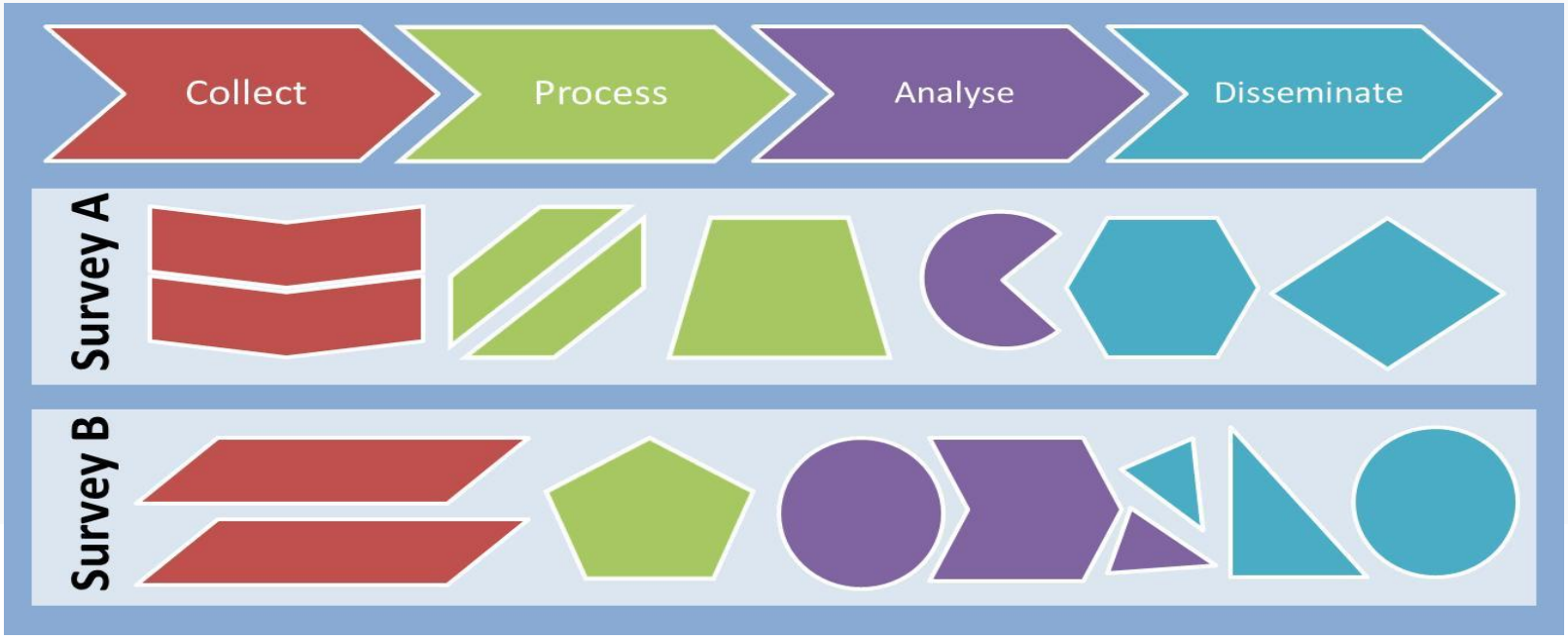
CSPA

the Future of Statistical Production

Common Statistical Production Architecture

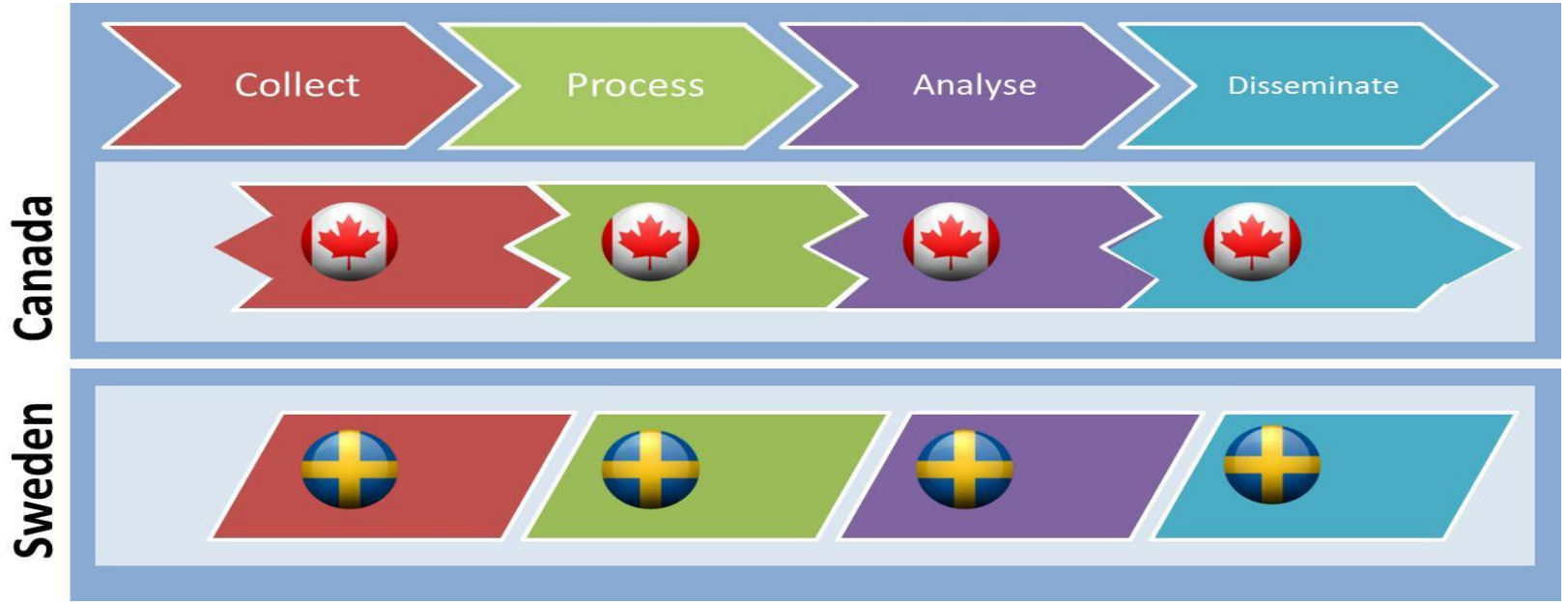
Problem statement:

Specialised business processes, methods and IT systems for each survey / output



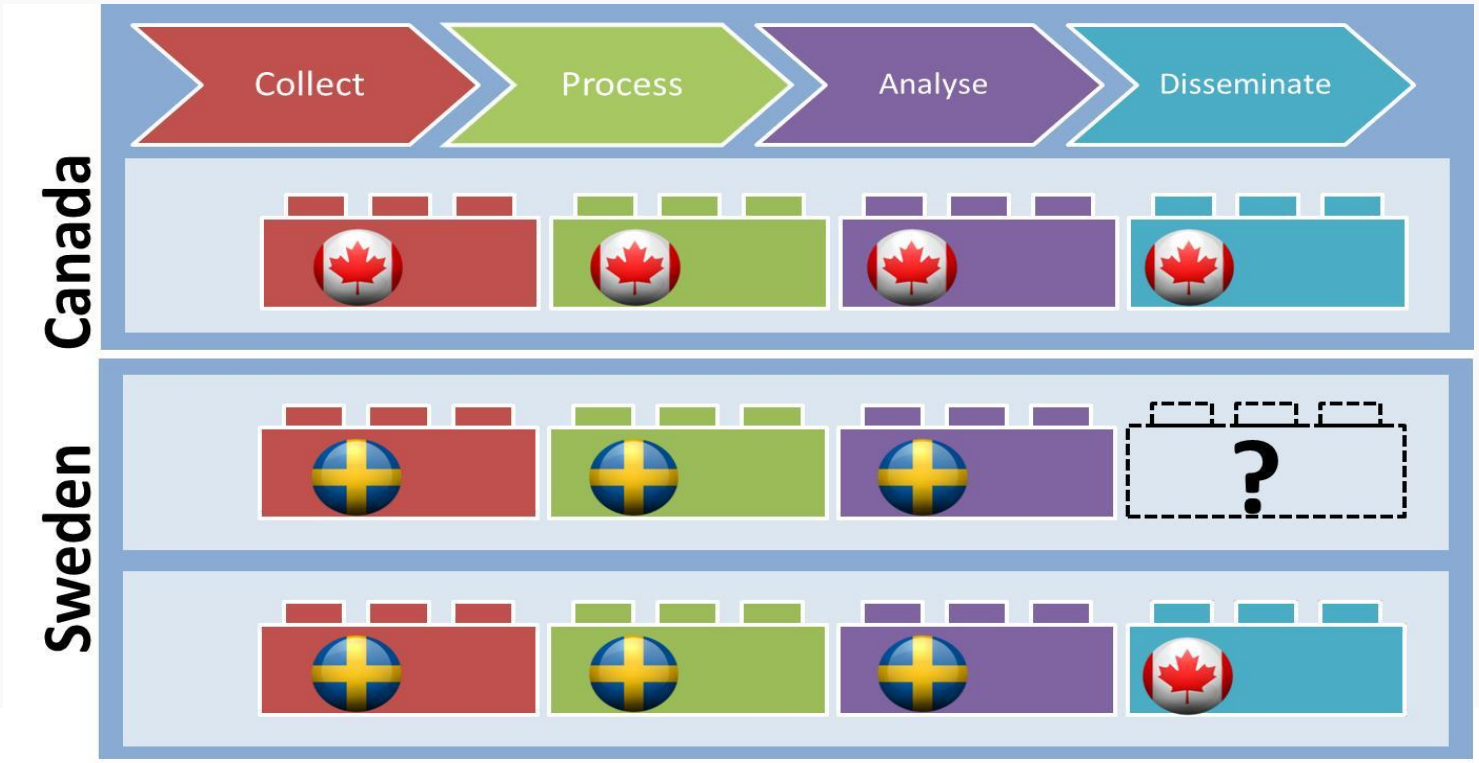
Common Statistical Production Architecture

We need to standardise, but if each statistical organisation works by themselves we get this ...



Common Statistical Production Architecture

… but if we work together to define a common statistical production architecture sharing is easier!



More information

CSPA Wiki

- https://statswiki.unece.org/display/CSPA

How ready is your organisation to adopt the GSBPM?

- What is your starting point?
- How far do you want to go?

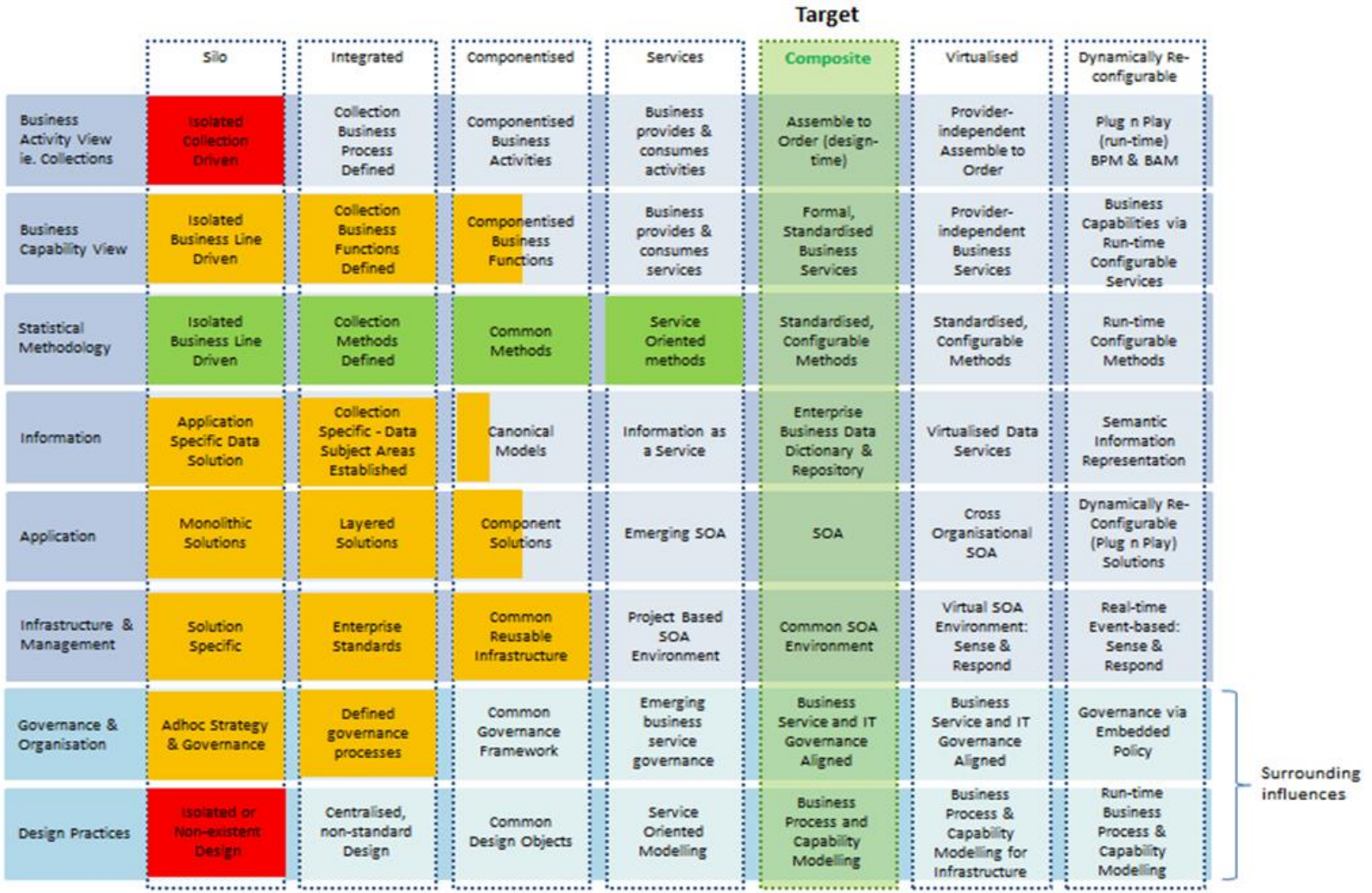
Modernisation Maturity Models

- There are different levels and dimensions of organisational maturity in the context of modernisation

Levels / Dimensions	Initial implementation	Pre-implementation	Early implementation	Corporate implementation	Mature implementation
Business					
Methods					
Information					
Applications					
Technology					

- Self-assessment criteria have been developed for each combination of ***dimension*** x ***level***, for each model

Using the MMMs



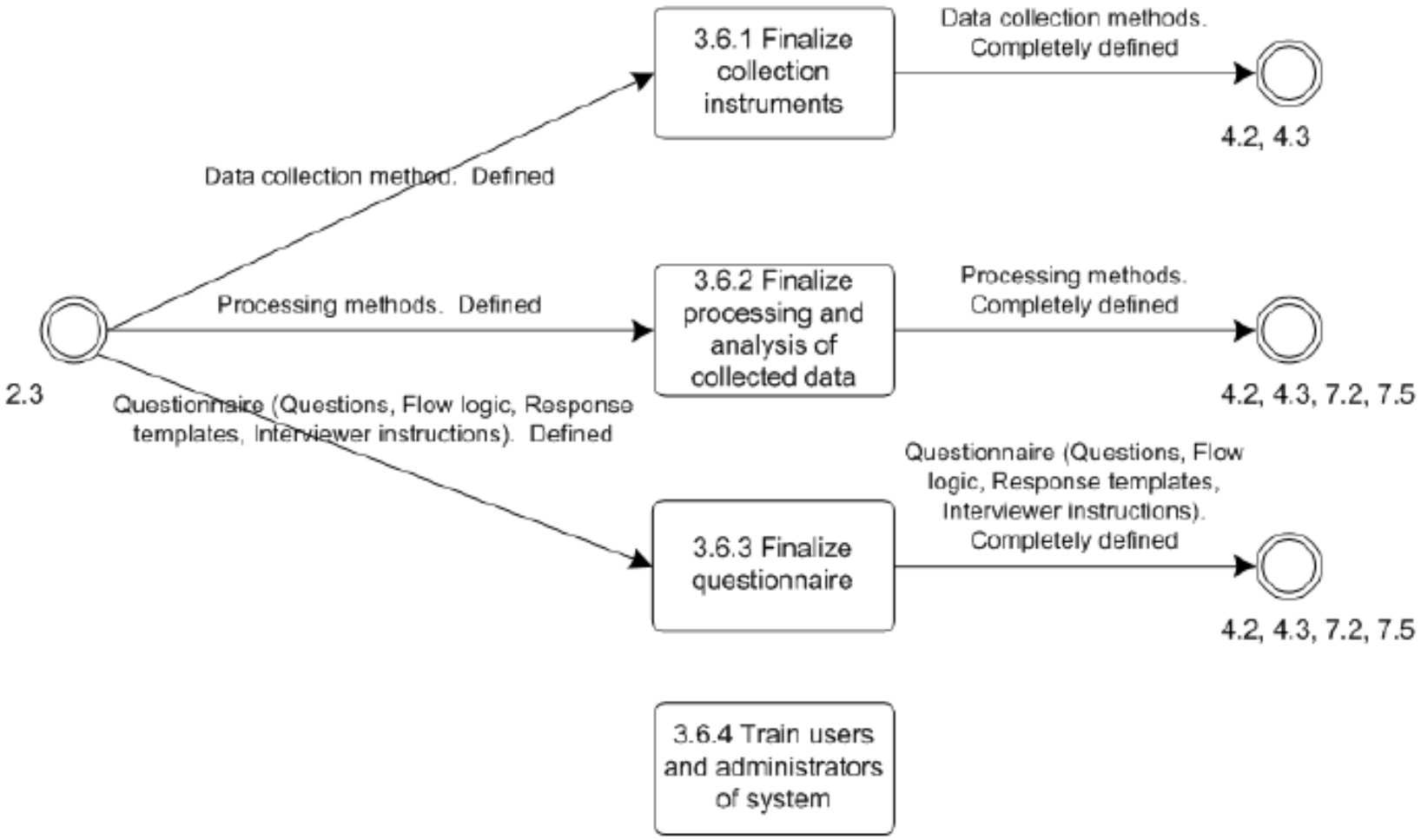
Maintaining GSBPM

- Owner = HLG-MOS
- Maintenance is delegated to the Supporting Standards Group
- Discussion forum to gather feedback
- Importance of stability over time
  - Reviews every 5 years
  - Revisions only if really needed

Evolution

- The GSBPM will have to change over time to reflect new realities
  - But not too often!
- Collect ideas and feedback to inform future revisions
- More detail?
- Broader scope?

Detail vs Generic



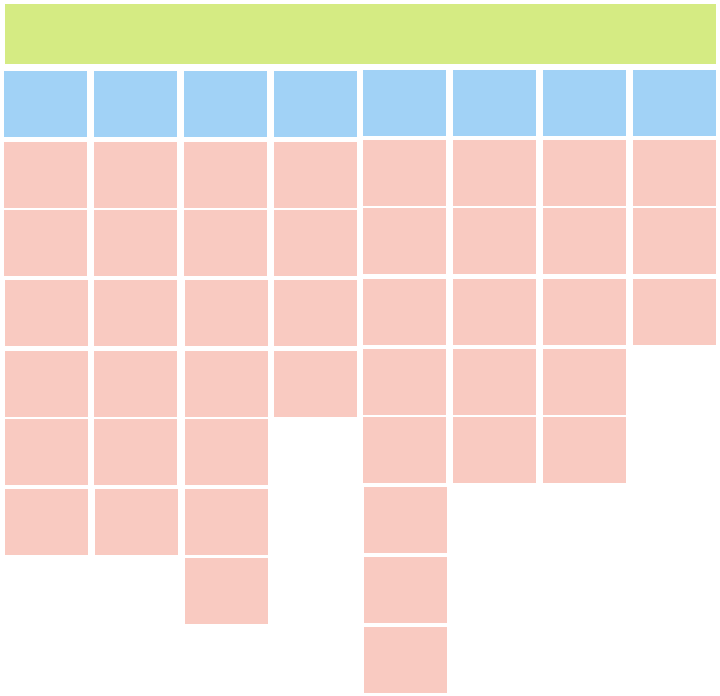
Updating the GSBPM

- By 2018 many organisations had adopted GSBPM – and given feedback
- Several related models and standards had been developed
- GSBPM needed refreshing to maintain relevance and improve consistency
- GSBPM v5.1 endorsed by Conference of European Statisticians, June 2019

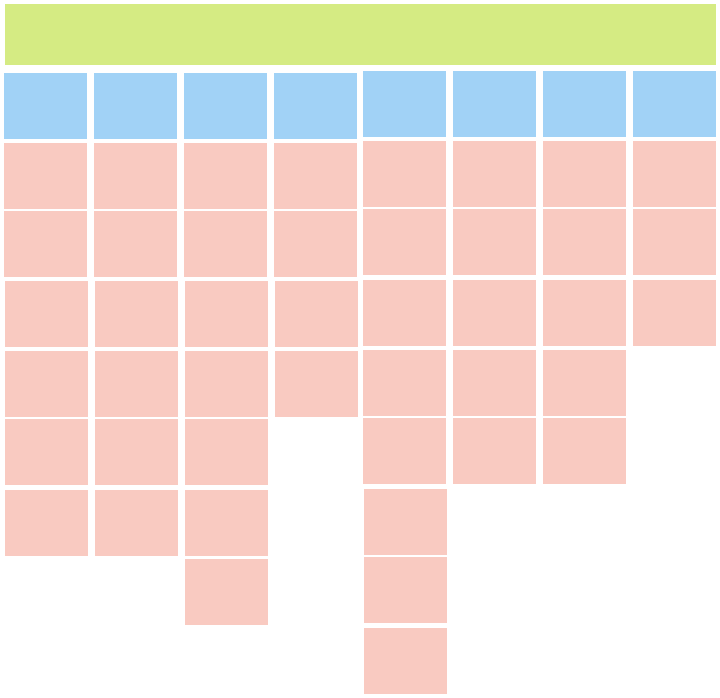
Main Changes in v5.1

- No structural change

GSBPM v5.0



GSBPM v5.1



Main Changes in v5.1

Some sub-processes were re-named:

GSBPM v5.0	GSBPM v5.1
1.6 Prepare business case	1.6 Prepare and submit business case
3.1 Build collection instruments	3.1 Reuse or build collection instruments

...also 3.2 and 3.3

Main Changes in v5.1

- Descriptions updated and expanded to be more applicable for different data sources, including geospatial information
- Consistency with other models/standards improved
- Relationship with GAMSO (partly) resolved
  - Overarching processes mostly removed, except those directly related to statistical production, e.g. quality and metadata management

Quality management

Corporate level

Process level

GAMSO

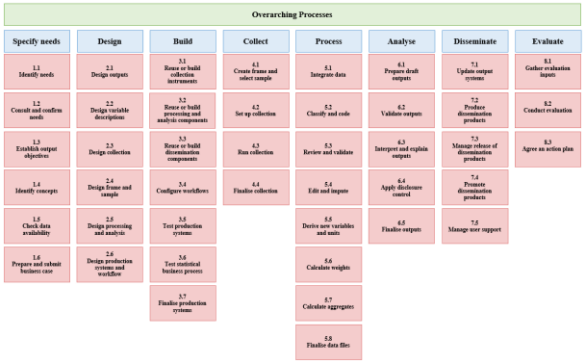
- Establishing institutional quality framework
- Developing guidelines for the quality framework

GSBPM

- Monitoring quality throughout process cycle
- Documenting lessons learned

New Resources

- Geospatial view of GSBPM
  - Released 1 June 2021
  - https://statswiki.unece.org/display/GSBPM/GeoGSBPM

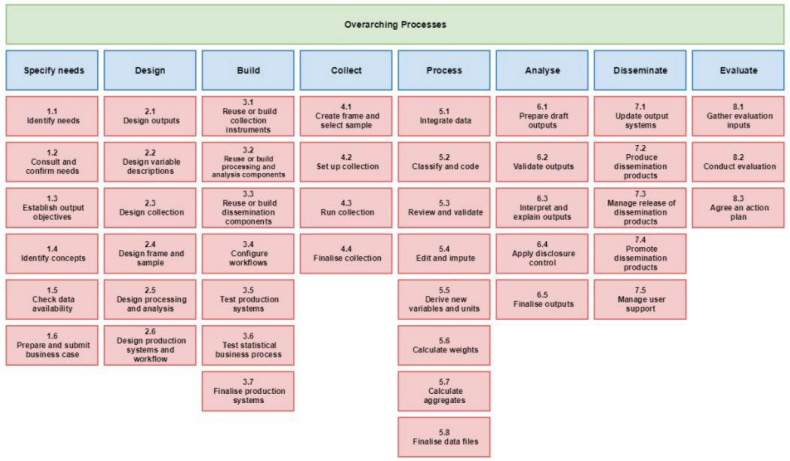


GSBPM and the Global Statistical Geospatial Framework (GSGF)

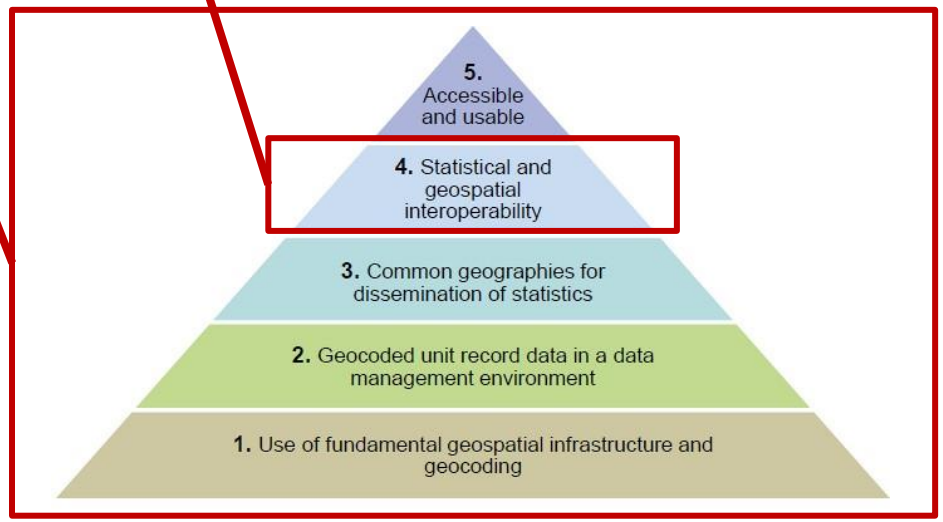
GSBPM as tool to ensure GSGF principles to be followed

Immediate connection

GSBPM



GSGF



SOURCE: Australian Bureau of Statistics (ABS) / UN-GGIM, illustration by Statistics Sweden

Figure 2: The Global Statistical Geospatial Framework (GSGF)

Geospatial view of GSBPM (GeoGSBPM)

- Developed by Geospatial task team of HLG-MOS Supporting Standards Group
- GeoGSBPM describes geospatial-related activities and considerations using the framework of the GSBPM

Geospatial view of GSBPM (GeoGSBPM)

Example of GSBPM sub-process 2.2 Design variable description

2.2 Design variable description

28. This sub-process defines the variables to be collected via the collection instrument, as well as any other variables that will be derived from them in sub-process 5.5 (Derive new variables and units), and any statistical or geospatial-classifications that will be used. It is expected that existing national and international standards will be followed wherever possible.

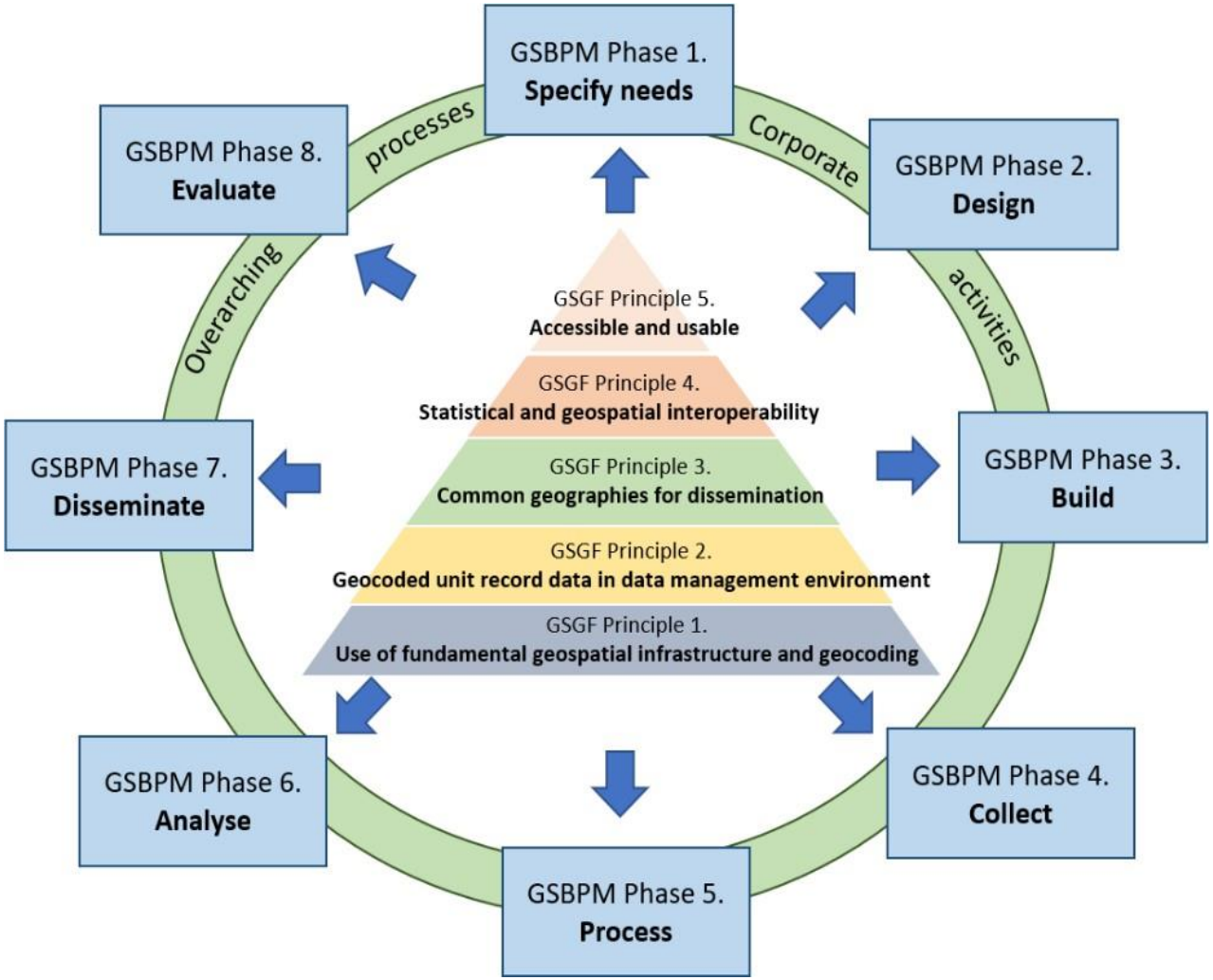
29. Geospatial variables (geographies) that are used while collecting data at a statistical unit level are not usually the same as those that are used for dissemination. Hence, they should be designed at the statistical unit level using point-based location[8] as the base geospatial variable, as it will provide a considerable adaptability to changes over time and flexibility to aggregate up to various dissemination-level geographies. For gridded geographies, it is important to use a grid system that is comparable with the existing regional or global grid system (e.g. Discrete Global Grid System (DGGS)[9]) as it will greatly increase usability of the output. Different types of grid (e.g. hexagon, rectangular) and their advantages and disadvantages can be assessed when designing gridded geographies.

30. This sub-process may need to run in parallel with sub-process 2.3 (Design collection), as the definition of the variables to be collected, and the choice of collection instruments may be inter-dependent to some degree. Preparation of metadata descriptions of collected and derived variables, statistical and geospatial classification is a necessary precondition for subsequent phases.

GSBPM original text

New geospatial text

Geospatial view of GSBPM (GeoGSBPM)



More information

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