

Lessons learned from implementing GSBPM

Joint UNECE, Eurostat, OECD Meeting of the Group of
Experts on Business Registers

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Eurostat grant (scope)

- Statistics Estonia is participating in Eurostat grant “Improvement of national business registers (NBR) and testing of European profiling”
- Scope of Topic 2 of the grant: “Describing the NBR with Generic Statistical Business Process Model (GSBPM) and Generic Statistical Information Model (GSIM)”

Definitions

- GSBPM is a reference framework to define and describe statistical processes in a coherent way and to compare them within and between different organisations.
- GSIM is a reference framework used to describe the information objects of a statistical business process. It serves to have generic descriptions of all data and metadata that are part of a statistical production process, including their definition, management and use. With GSIM, information objects that constitute the input and output of the statistical process are described according to standards.

Use of standard models

- To facilitate the comparison of different processes in different organizations
- To help identify good practices
- To help identify areas where efficiency can be gained and costs saved
- To adopt common tools
- To share the costs of developing new tools or methods

Expected results

- Build up the capacity for using GSBPM and GSIM to document the NBR processes
- Describe the NBR process by using GSBPM and GSIM.
- ✓ GSBPM can be adopted at different levels and MS are free to decide.
- ✓ However it should be considered that grants shall be used to build capacity, create knowledge and allow for future re-use of the results

Background information

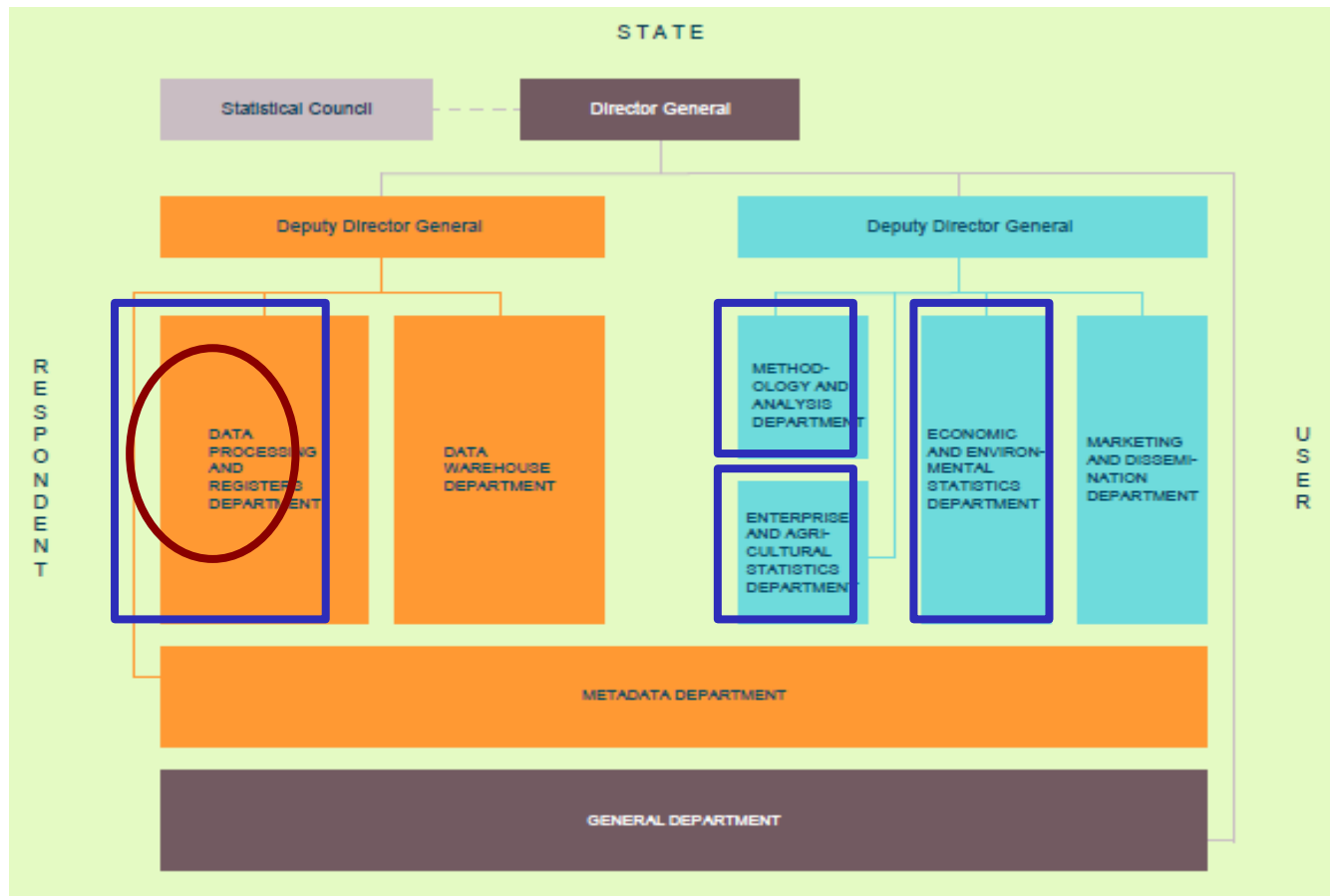
- 2008 — Statistics Estonia started the implementation of the system for tracking the working hours and activities.

All working hours had to be allocated to the processes and sub-processes described in GSBPM.

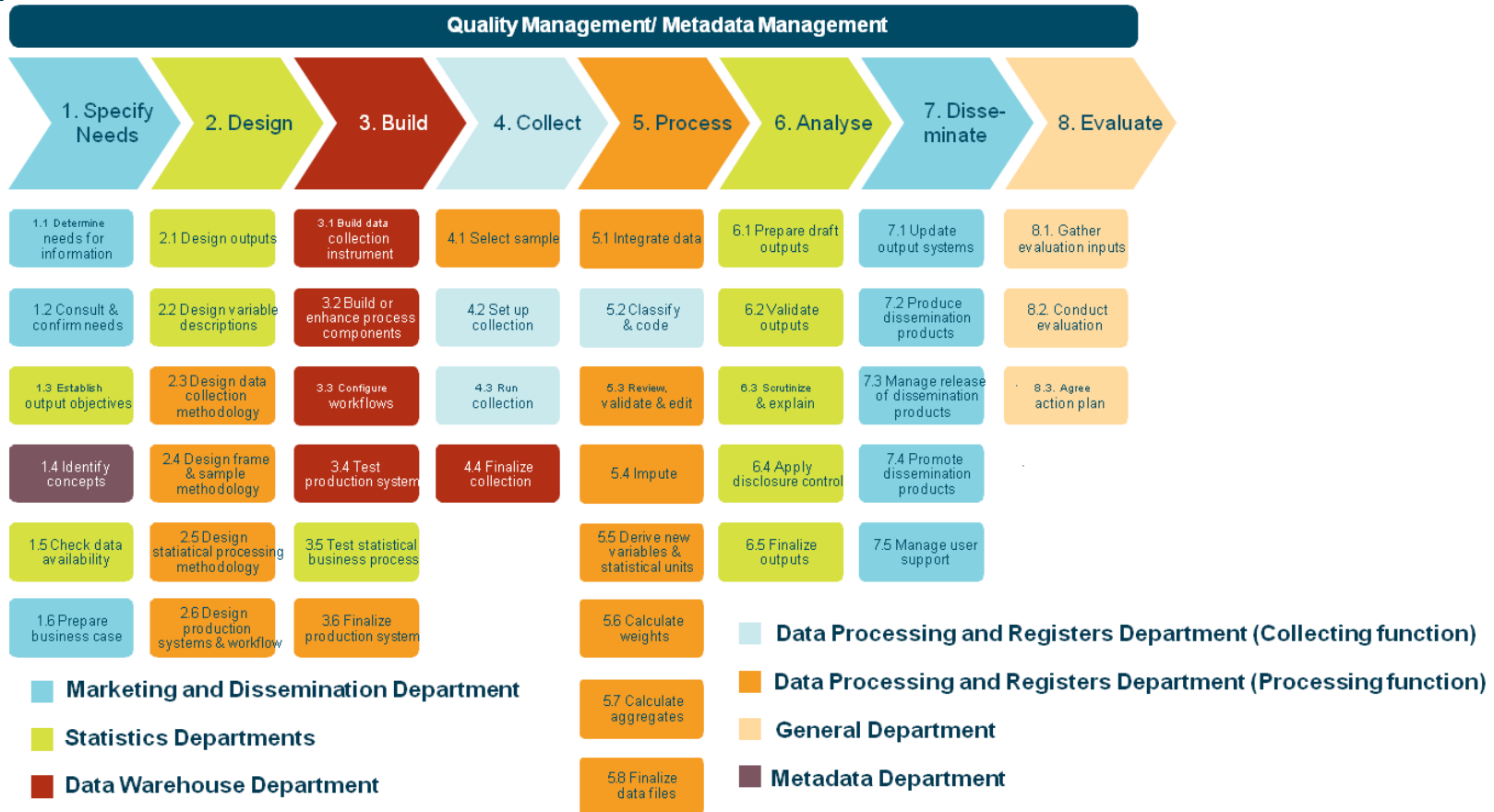
- October 2013 — Statistics Estonia implemented the new organisational structure which is based on GSBPM.

Formerly separate domain-based departments were re-organised into four departments, based on processes of the production of statistics — data collection and processing and three domain-based analysing departments.

Statistics Estonia structure



GSBPM as a basis for standardising processes



Training course on GSBPM and GSIM

- Trainer — Mr. Steven Vale (UNECE, Statistical Management and Modernisation Unit)
- Time — December 2014
- Place — Statistics Estonia
- Participants — specialist from NBR, metadata and warehouse departments and enterprise statistics department
- Scope — theory and practical use of GSBPM and GSIM in description of the NBR processes

Questions that had to be answered

- Which register processes should be described?
- Which level of detail should be chosen?
- Which timeframes/periods should be covered?

Base information

Scope of the grant:

- Processes of the production of the frame(s)
- Interaction of the NBR with the EuroGroups Register.

NBR statistical activities

- Statistical Economic Units Database (maintenance of NBR and production and maintenance of the frame, register's survey)
- Economic units statistics
- Business Demography
- Enterprise groups

Main challenges

How to describe and visualize activities which have different character and timetable?

- continuous activities
- cyclical activities
- activities with strict timetable having start and end dates
- activities performed only in case of need
- activities that are carried out with respect to the live-register maintenance
- activities that are carried out with respect to the frame production and maintenance etc.

Steps performed for selection of the processes (1)

1. List of all register processes and sub-processes and mapping of these with GSBPM processes and sub-processes

The handwritten notes are organized into several sections:

- ANDMETE UENDAMINE** (AKO, AEO)
 - admin. allikad (AR, PRO AR, EMTA)
 - Vaatlused (stat. nõitajad)
 - automaatuendus
 - Kõrri ülevaatamine
- Töötusreeplite ülevaatamine** 2.5 B, P
- Andmestiku analüüs (enne laadimist)** 6.7
- SP KLOOMINE** (KLOOMINE)
 - ESIALGSE SP (KLOOMINE)
 - LOPPLIKU (6.5)
 - KOOPIDA aktiveerimine (6.5)
- SP MOODUSTAMINE**
 - SP MOODUSTAMINE KORD
 - SP KOOSOLEK (TREMUR EESTAMINE)
 - SP kvaliteedi kontrollimine
 - SP ZARON (SISSEVIIVIMINE)
- CODEERIMINE**
 - ISEKOOD B (auton)
 - EMTAK (rik, tühid) B (auton)
 - OMLIK P (auton)
 - INST. TUNNUS P
- TUNNUSTE MÄÄRAMINE**
 - SEISUND (2, 5, 9)
 - SP Koodid (2, 5, 9)
- SP rühkade loomine (FRAME MAINTENANCE)** B
 - Saafadees SP4 muuta (allhõn - vaates, (pro))
 - analüüs (SP)
 - SP koodelek (valdkondade muudatus/koostamine)
 - SP muutmine
- Kulu panna FRAME MAINTENANCE?**
 - Kulu panna FRAME MAINTENANCE?
 - Kulu panna FRAME MAINTENANCE?
- AValdamine**
 - Päringud riigiväls
 - ARG. SP 2
 - AAS (6.5)
 - EP, EUROSTAT, TAI (6.1/6.5/7.2)
- UCI RIIGI MÄÄRAM. PROF.**
- KONTROLLID**
 - EMTAK - PT
 - OMLIK B, 2, 5, 9
 - SEISUND 2, 5, 9, B, 6.2
 - Kõvaltegevus P, B, 7.2
- SP:**
 - TUNNUS/EMTAK/OMLIK
 - TÄRVI/TÄRVP kontroll + võrdlus
- Valdkondadele võlvastete teostamine**
- Valdkondade poolt kontrollitud teostamine**
- Peale E-SP teostatavate eriste ülevaatamine** (ISE, ISURE MAA Kõrdega) 5.2 P

Steps performed for selection of the processes (2)

2. Compiling of the table according to the GSBPM logic
3. Supplement with additional information like periods, actors, manner of execution (manual/automatic), population (live register, frozen frame)

5.2	Kodeerimine						Probleem - raske teha vahet 5.2 ja 5.3 vahel
	Institutsionaalse sektori kood		B		Autom	SPI	
	EMTAK	April-Oktoober	B	Käsit	Autom	ARO, ALO	RIK, tühjad
	FIE EMTAK	September-Oktoober (T); Veebruar-Märts (T-2)		Käsit	Autom	ARO, ALO	E-vormi põhjal
	OMLIIK	Oktoober		Käsit	Autom	ARO, ALO	
	Institutsionaalne tunnus	Oktoober		Käsit		ARO, ALO	
	Seisund	September, Oktoober	B	Käsit	Autom	ARO, ALO	
	FIE seisund	September, Oktoober			Autom	ARO, ALO	
	KL andmete kodeerimine (EMTAK)	Veebruar-Märts, April-Mai, August-September	B	Käsit		AKO	AKO
	SP paranduste tarbeks andmete kodeerimine (EMTAK, SEISUND)	Terve aasta, välja arvates Juuli	B			ARO	

Steps performed for selection of the processes (3)

4. Analyses of the table and finalise the list of processes which should be described:

- 1) Production of the frame
- 2) Maintenance of the frame
- 3) Register survey
- 2) Interaction of the NBR with the EuroGroups Register

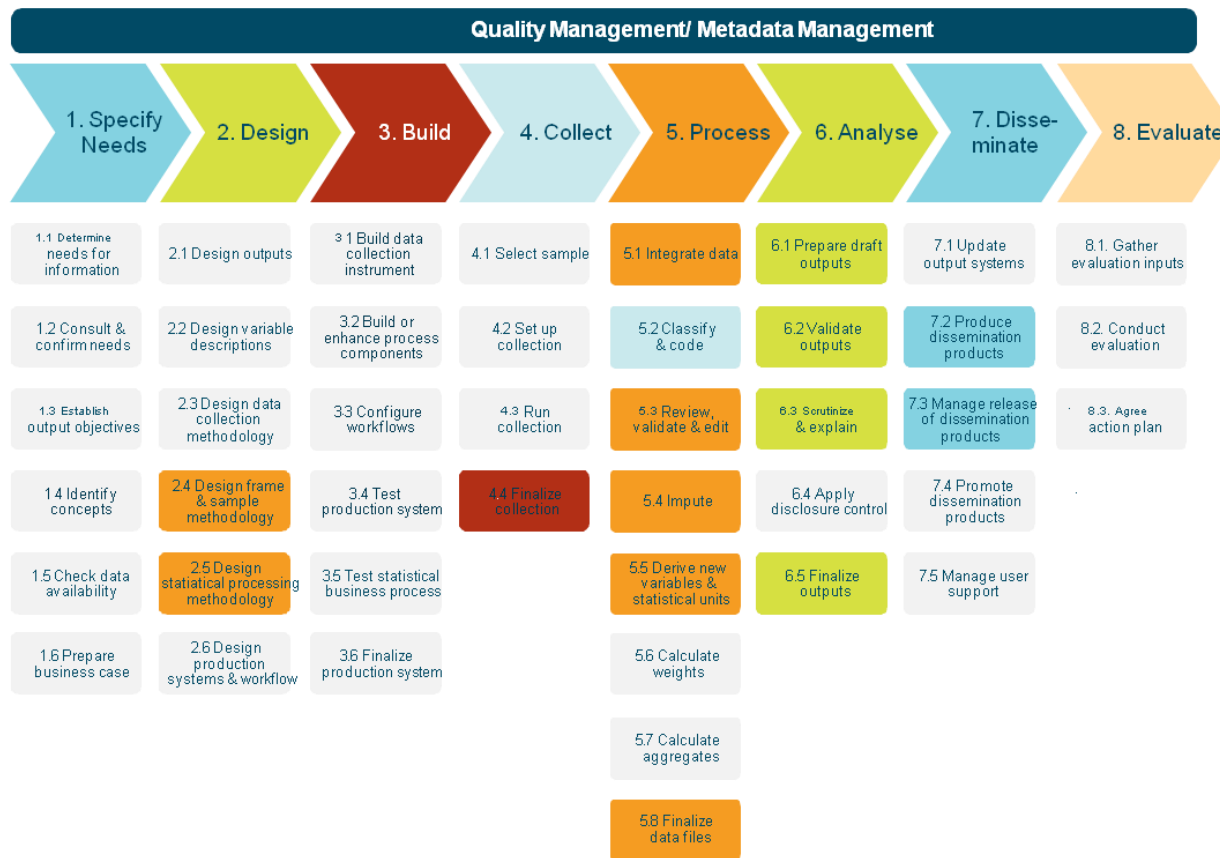
Outputs produced during project for every selected process

- Table with list of activities mapped with GSBPM relevant processes and sub-processes
- GSBPM diagram where all relevant processes and sub-processes are displayed
- Description of the processes using standard notation (BPMN)

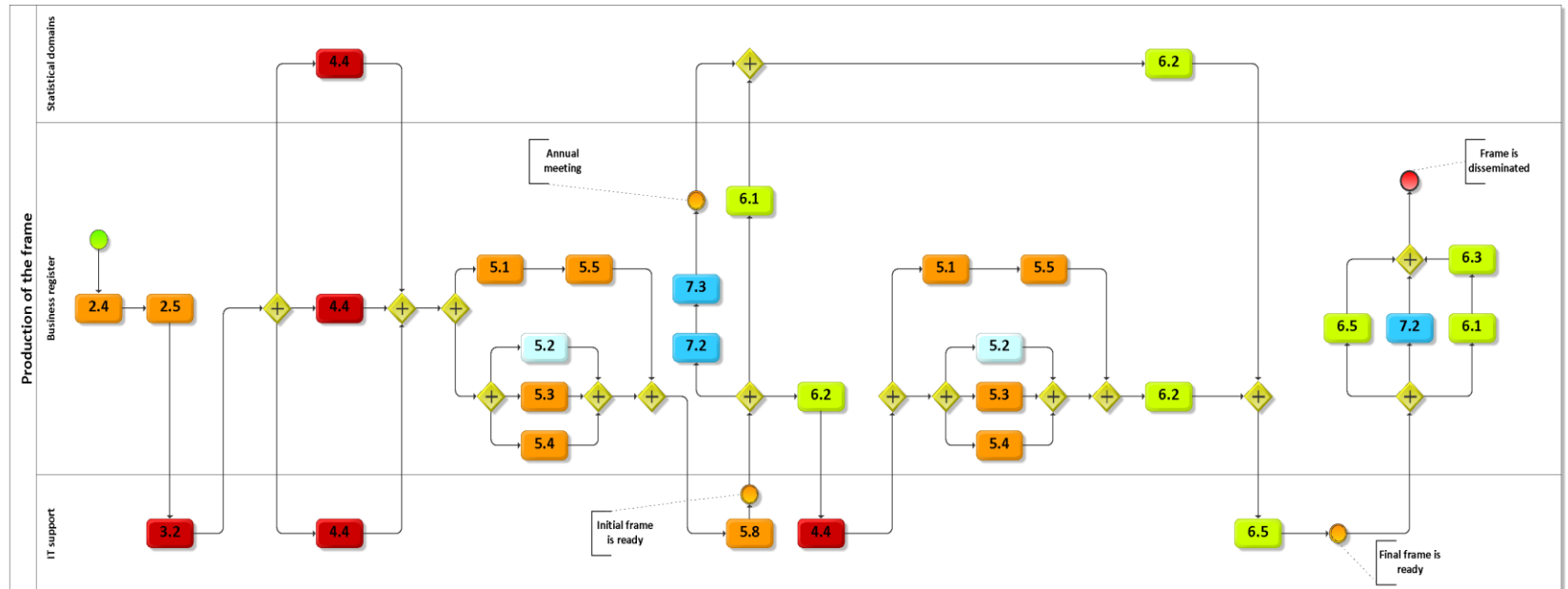
Example 1: GSBPM table for NBR survey for new enterprises

GSBPM subprocess	Processes and subprocesses	Time, Periodicity	Frame/Base	Way of processing	Roles/actors	New survey	Existing survey	Comment
1.1	Identify needs							
	Creating new survey for updating the register		B		AKO, ARO	Always	—	New statistical unit, new data source, new variables...
1.2	Consult and confirm needs							
	Creating new questionnaire for updating the register		B		ARO, AKO, SOD	Always	—	
1.3	Establish output objectives							
	Assessment/revision of the data composition of the questionnaire	August-October	B		ARO	Always	As needed	
2.1	Design outputs							
	Design template of the questionnaire in cooperation with ALO	December	B		ARO, ALO	Always	As needed	
2.2	Design variable descriptions							
	Describing questionnaire variables in iMETA	December	B		ARO, ALO, MO	Always	As needed	
2.4	Design frame and sample							
	Design and approve methodology for frame and sample of the questionnaire		B		ARO, AKO, SOD	Always	—	
2.5	Design processing and analysis							
	Developing and approving of the processing rules, revising the existing rules for questionnaire in VAIS	December	B		ARO, ALO	Always	As needed	
3.2	Build or enhance process components							
	Implementation of the processing rules (new and changes) of the questionnaire in VAIS	December	B		ALO	Always	As needed	

Example 2: Production of the frame on GSBPM diagram



Example 3: Production of the frame on BPMN graph



Lessons learned so far

- It is possible to use GSBPM for description of the register processes but in order to achieve the comparability between the MS the level of the detail of description needs to be agreed upon
- There are some NBR processes which are described under more than one GSBPM sub-process
- How and what to present as a timeline as some activities are periodical, others are performed all year around



Thank you for your attention