GSBPM

Generic Statistical Business Process Model

Twinning Armenia – 10-12 May 2017

Component 1: Statistical Information Dissemination System

Activity 1.11: Quality Assurance II

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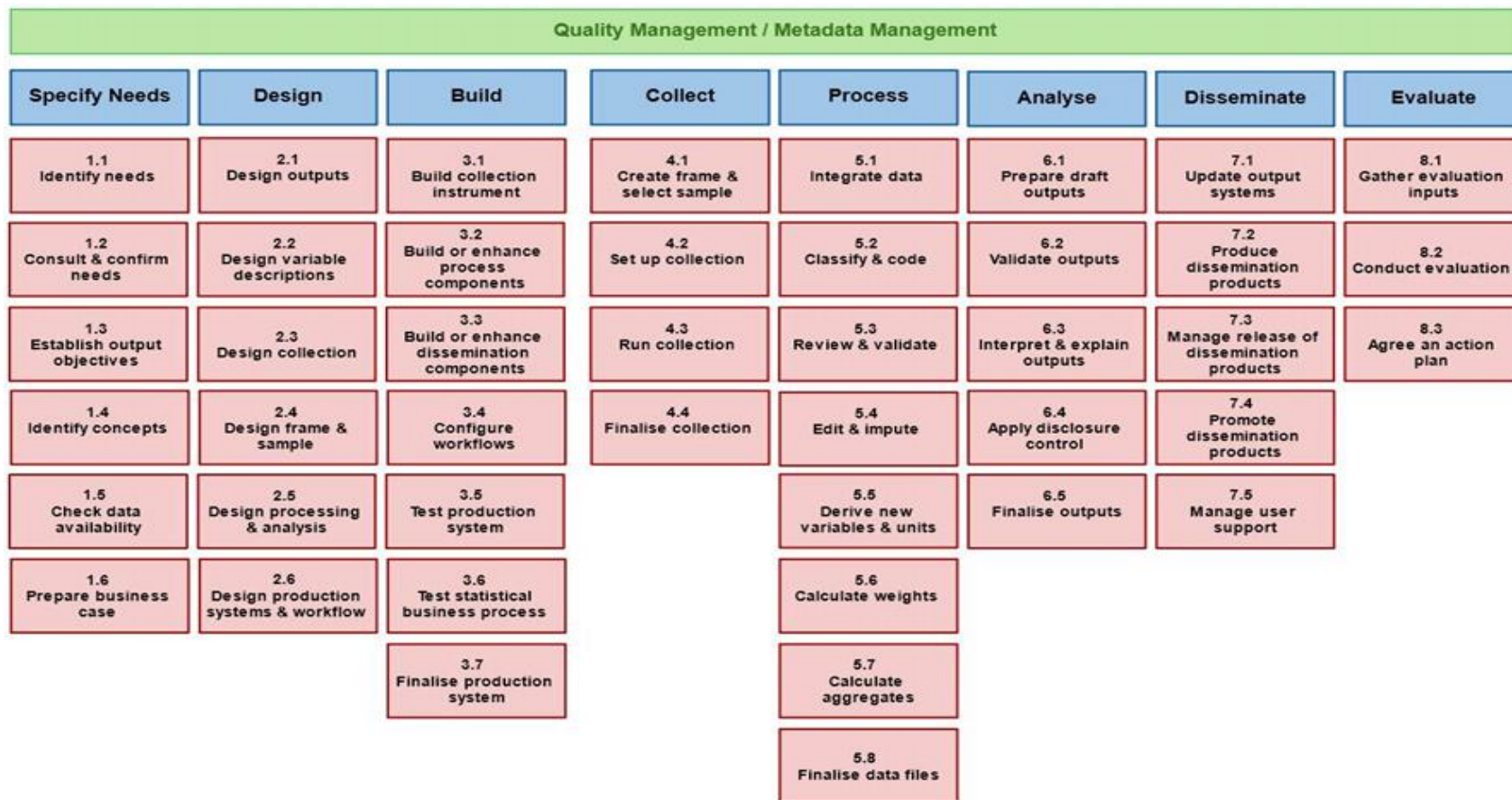
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Mapping processes

- Working with the "swim lanes"
- Swimming pool = one process
- Swimming lane = one actor in the process
- Possible actors:
  - The subject matter responsible
  - Other persons in the division or unit
  - Data collection team
  - Dissemination team
- Input
- Activities
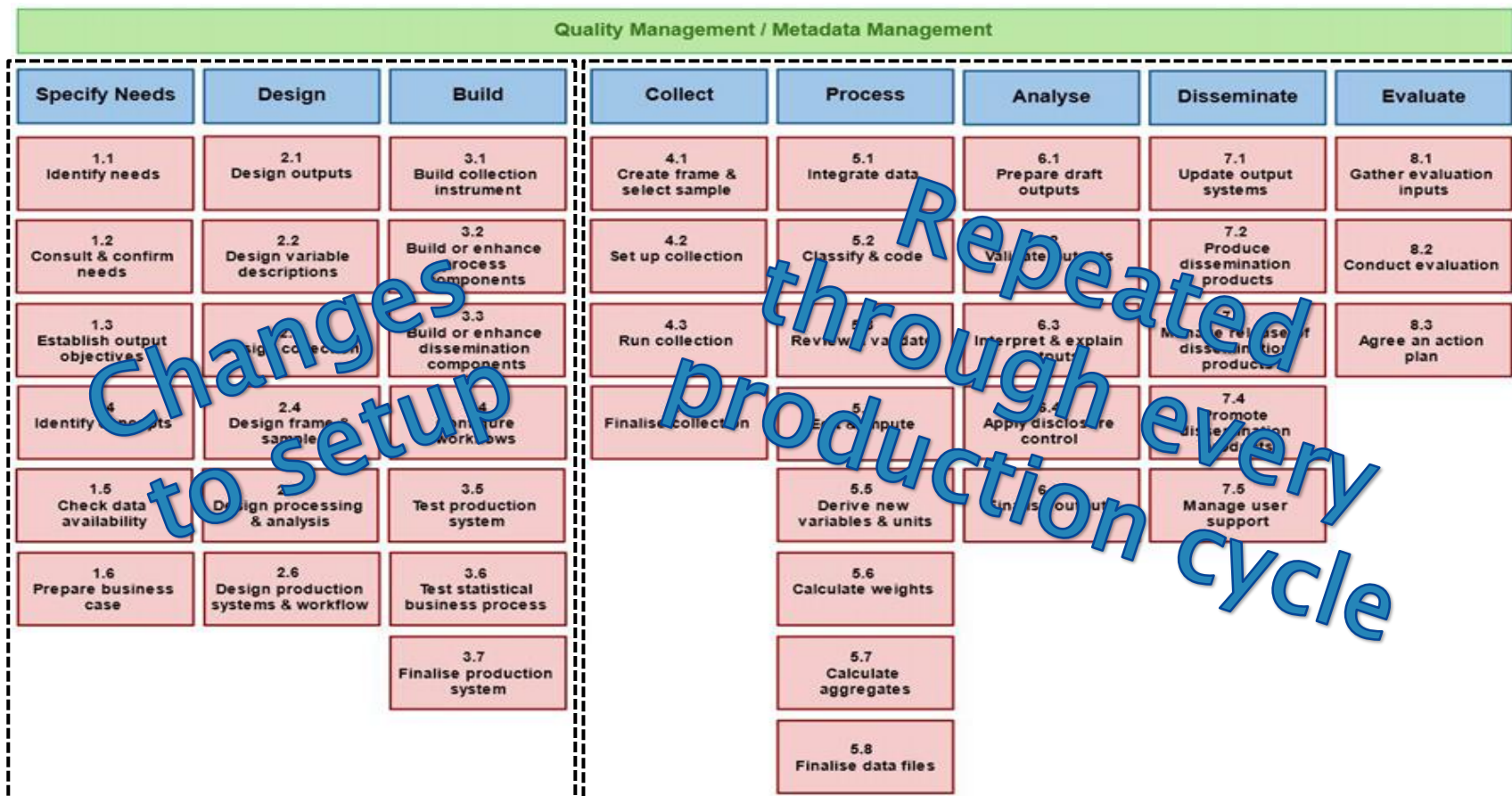- Output

How to do the mapping

- Starting point: What are the user needs?
- What are we going to make statistics about?
- How do you start the production cycle?
- What do you do next?

The Generic Statistical Business Process Model (GSBPM)

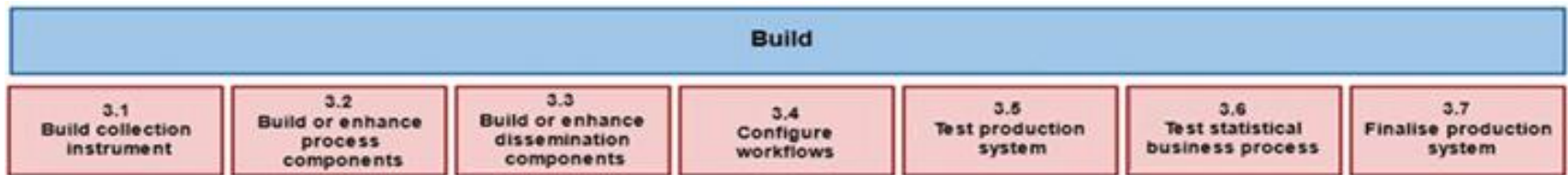|	Quality Management / Metadata Management						
Specify Needs	**Design**	**Build**	**Collect**	**Process**	**Analyse**	**Disseminate**	**Evaluate**
1.1 Identify needs	2.1 Design outputs	3.1 Build collection instrument	4.1 Create frame & select sample	5.1 Integrate data	6.1 Prepare draft outputs	7.1 Update output systems	8.1 Gather evaluation inputs
1.2 Consult & confirm needs	2.2 Design variable descriptions	3.2 Build or enhance process components	4.2 Set up collection	5.2 Classify & code	6.2 Validate outputs	7.2 Produce dissemination products	8.2 Conduct evaluation
1.3 Establish output objectives	2.3 Design collection	3.3 Build or enhance dissemination components	4.3 Run collection	5.3 Review & validate	6.3 Interpret & explain outputs	7.3 Manage release of dissemination products	8.3 Agree an action plan
1.4 Identify concepts	2.4 Design frame & sample	3.4 Configure workflows	4.4 Finalise collection	5.4 Edit & impute	6.4 Apply disclosure control	7.4 Promote dissemination products	
1.5 Check data availability	2.5 Design processing & analysis	3.5 Test production system		5.5 Derive new variables & units	6.5 Finalise outputs	7.5 Manage user support	
1.6 Prepare business case	2.6 Design production systems & workflow	3.6 Test statistical business process		5.6 Calculate weights			
		3.7 Finalise production system		5.7 Calculate aggregates			
				5.8 Finalise data files			

Understanding the model

Quality Management / Metadata Management							

Specify Needs	Design	Build		Collect	Process	Analyse	Disseminate	Evaluate
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					5.8 Finalise data files			

Changes to setup

Repeated through every production cycle

Specify Needs					
1.1 Identify needs	1.2 Consult & confirm needs	1.3 Establish output objectives	1.4 Identify concepts	1.5 Check data availability	1.6 Prepare business case

- This phase is triggered when
  - a need for new statistics is identified
  - feedback about current statistics initiates a review
- It includes all activities associated with engaging customers to identify their detailed statistical needs, proposing high level solution options and preparing business cases to meet these needs

Design					
2.1 Design outputs	2.2 Design variable descriptions	2.3 Design collection	2.4 Design frame & sample	2.5 Design processing & analysis	2.6 Design production systems & workflow

- This phase describes the development and design activities, and any associated practical research work needed to define the statistical outputs, concepts, methodologies, collection instruments and operational processes

- It includes all the design elements needed statistical products or services identified in the

- This phase also specifies all relevant metada ready for use later in the statistical business as well as quality assurance procedures

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Build						
3.1 Build collection instrument	3.2 Build or enhance process components	3.3 Build or enhance dissemination components	3.4 Configure workflows	3.5 Test production system	3.6 Test statistical business process	3.7 Finalise production system

- This phase builds and tests the production solution to the point where it is ready for use in the "live" environment

- The outputs of the "Design" phase direct the selection of reusable processes, instruments, information, and services that are assembled and configured in this phase to create the complete operational environment to run the process

- New services are built by exception, created in response to gaps in the existing catalogue of services sourced from within the organisation and externally. These new services are constructed to be broadly reusable within the statistical production architecture

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Collect			
4.1 Create frame & 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

Process							
5.1 Integrate data	5.2 Classify & code	5.3 Review & validate	5.4 Edit & impute	5.5 Derive new variables & units	5.6 Calculate weights	5.7 Calculate aggregates	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)

Analyse				
6.1 Prepare draft outputs	6.2 Validate outputs	6.3 Interpret & explain outputs	6.4 Apply disclosure control	6.5 Finalise outputs
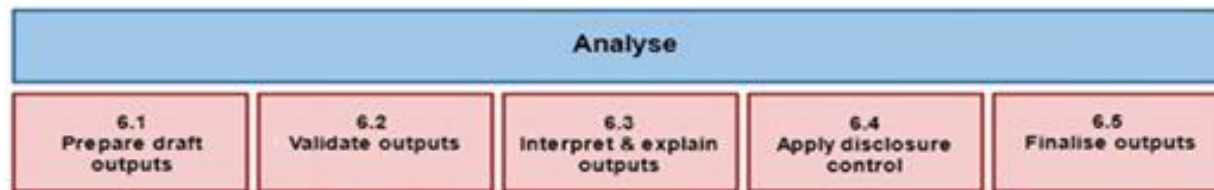
- In this phase, statistical outputs are produced, examined in detail and made ready for dissemination.

- It includes preparing statistical content (including commentary, technical notes, etc.), and ensuring outputs are "fit for purpose" prior to dissemination to customers

- This phase also includes the sub-processes and activities that enable statistical analysts to understand the statistics produced

- The "Analyse" phase and sub-processes are generic for all statistical outputs, regardless of how the data were sourced.

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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 customers

- It includes all activities associated with assembling and releasing a range of static and dynamic products via a range of channels

- These activities support customers to access and use the outputs released by the statistical organisation

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- This phase manages the evaluation of a specific instance of a single process, as opposed to the more general over-arching process of statistical quality management
- It logically takes place at the end of the instance of the process, but relies on inputs gathered throughout the different phases
- It includes evaluating the success of a specific instance of the process, drawing on a range of quantitative and qualitative inputs, and identifying improvements
- For statistical outputs produced regularly, evaluation should, at least in theory occur for each iteration, determining whether future iterations should take place, and if so, whether any improvements should be implemented

Not a linear process

- GSBPM is not a rigid framework in which all steps must be followed in a strict order
- Some sub processes will be revisited a number of times forming iterative loops, particularly within the Process and 'Analyse' phases
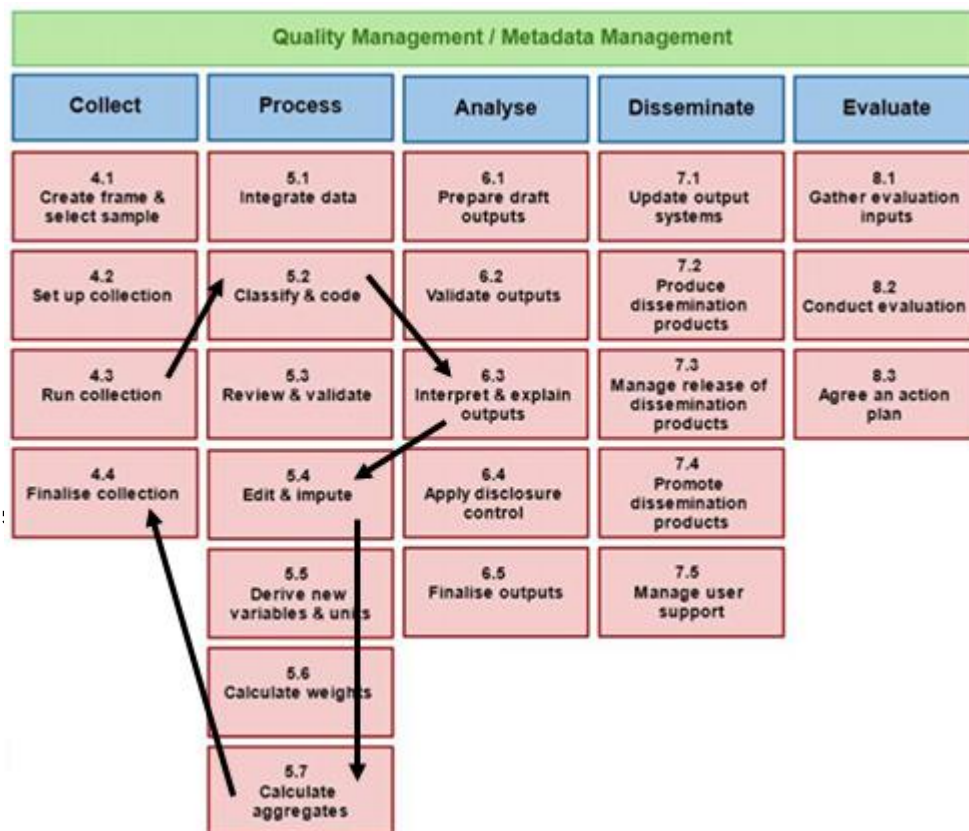
How GSBPM?

- The first thing we've done is ask our statisticians to organize their working documents and files etc. in a folder structure similar to the process model

- This way we create a common foothold for where what is allocated. Also, it makes it much more intuitive for employees to find data and other relevant material

- 1. Specify needs
- 2. Design
- 3. Build
- 4. Collect
  - 4.1 Create frame and select sample
  - 4.2 Set up collection
  - 4.3 Run collection
  - 4.4 Finalise collection
- 5. Process
- 6. Analyze
- 7. Disseminate
- 8. Evaluate

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How GSBPM?

- Dynamic documentation as HTML work as a local point-and-click website for the individual statistic