



Introduction to GSBPM

WORKSHOP ON THE MODERNISATION OF OFFICIAL STATISTICS

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Common purposes of UNECE standards

- ✓ Improve communication by introducing a common language
- ✓ Gain efficiency (rationalise processes, information, flow, assign responsibilities,...)
- ✓ Support industrialisation process (re-use of methodologies, tools, software, sharing of solutions,...)
- ✓ Build staff competencies around the standards (enhance capabilities)

Management of the standards

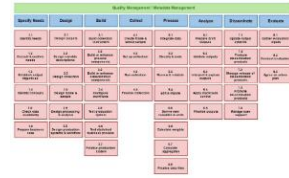
- ✓ Owner = High-Level Group
- ✓ Maintenance is delegated to the [Modernisation Committee on Standards](#)
- ✓ Discussion forums to gather feedback
- ✓ Importance of stability over time
- ✓ Reviews every 5 years: GSBPM 5.1 from 2019
- ✓ Revisions only if really needed

[illegible]

GSBPM can be used to document any kind of statistical process, from the more traditional surveys to the administrative data to the new data sources like Big Data.

modern stats
by HLG - MOS

The GSBPM



Why do we need the GSBPM?

- ✓ To define and describe statistical processes in a coherent way
- ✓ To compare and benchmark processes within and between organisations
- ✓ To make better decisions on production systems and organisation of resources

The GSBPM 5.1

Overarching Processes

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

The GSBPM

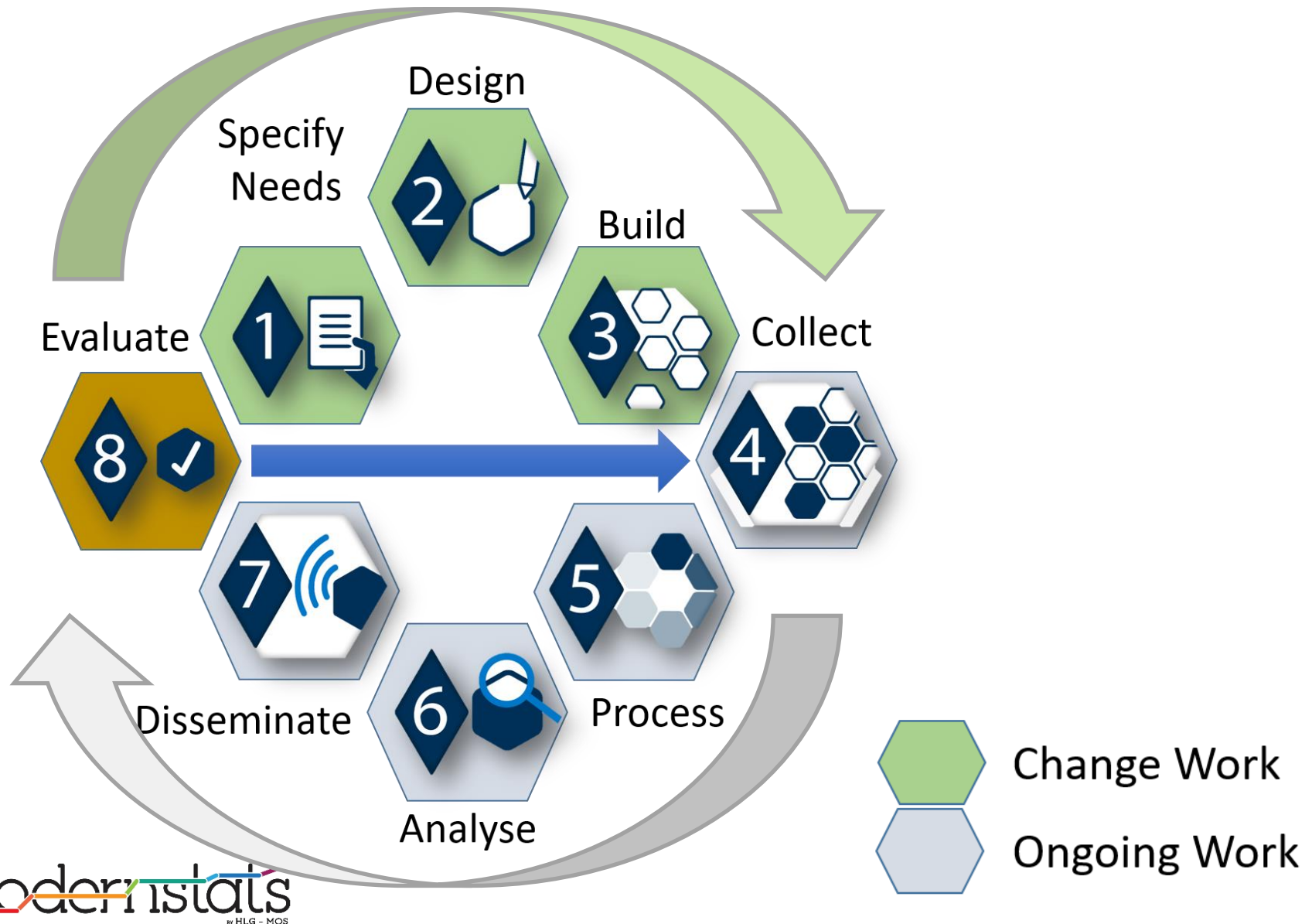
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Level 0: Process

Level 1: Phases, 8

Level 2: Sub-processes, 44

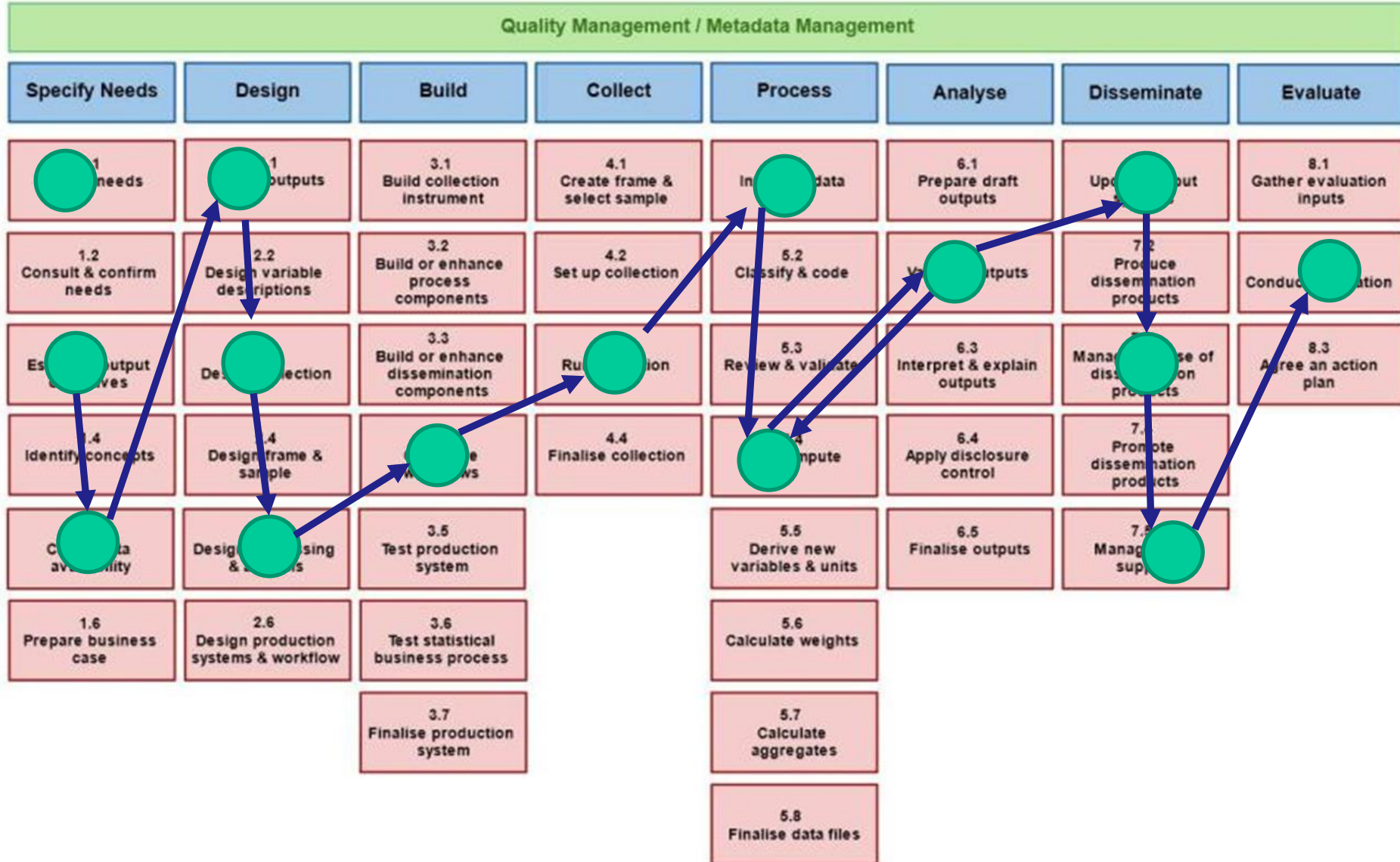
The GSBPM as a double cycle



The GSBPM Applicability

- ✓ All activities undertaken by producers of official statistics which result in data outputs (other activities → GAMSO)
- ✓ All statistical domains
- ✓ National and international statistical organisations
- ✓ All types of data source:
 - Surveys / censuses
 - Administrative sources / register-based statistics
 - Big Data and mixed sources

The GSBPM: not a linear model



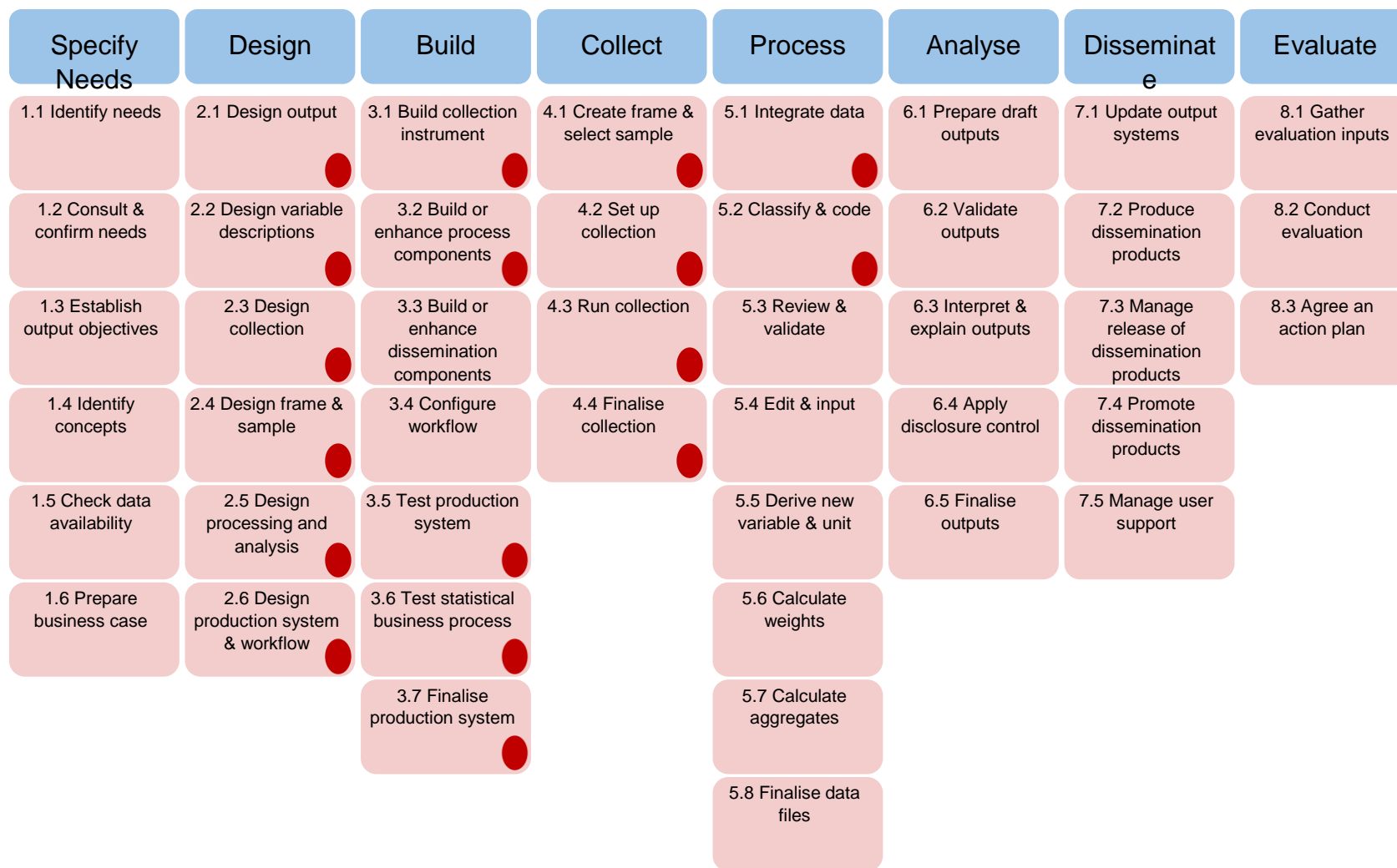
GSBPM possible uses

- Standard **Terminology** to describe the production of statistics
- Structure for **documentation** of statistical processes
- **Sharing** of statistical methods and software
- Framework for process **quality** assessment
- Underlying model for methodological **standards** frameworks
- Model to design a **training** framework and a standard terminology to describe skills
- Measuring operational **costs** and system performance
- ... others ...

Example: Istat application of the GSBPM

- ✓ Istat Modernisation process in 2016
 - ✓ Creation of the Data Collection Directorate
 - ✓ Big organisational and cultural changes
- ✓ The GSBPM provided guidance for rationalising activities and supporting the transition

Mapping for the Data Collection Directorate



What has been done

For each sub-process identified

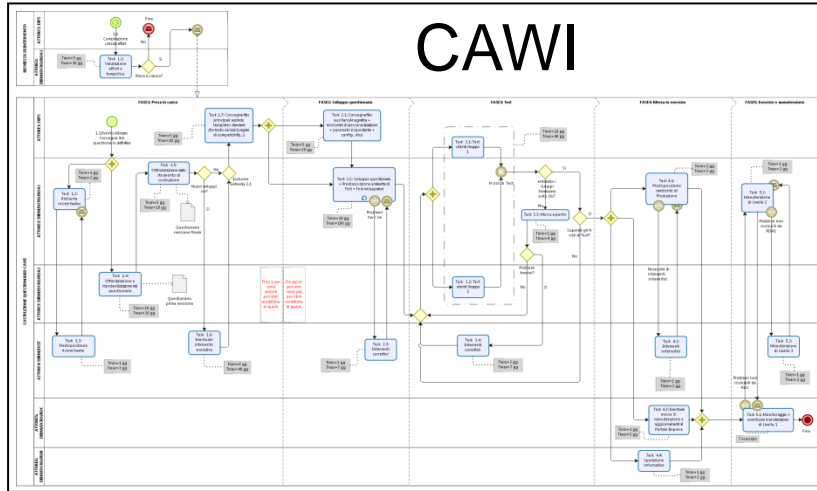
- ✓ Definition of tasks
- ✓ Exploitation of the activities (within the task) for Data Collection Directorate - “who does what”
- ✓ Assigning responsibilities for each task among different directorates
- ✓ Developing operational procedures

Example: 2.3 Design collection

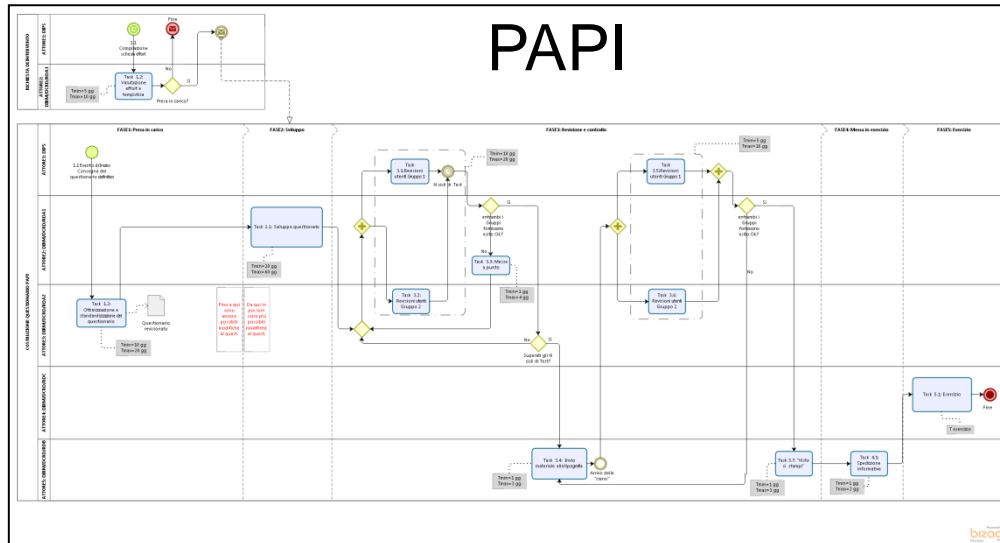
Tasks	Responsibility	Who does what in data collection directorate	Notes
Definition of data collection method	<div>R- DCRD</div> <div>C- DIPS</div>	RDA Choice of Data collection technique) RDD Administrative data source acquisition systems (ARCAM)	See also 1.5
Questionnaire design	<div>R- DIPS</div>	<i>Questionnaire design</i>	See also 3.1
	<div>C- DCRD</div>	RDA Compliance to standards Optimisation of questionnaire design	
Estimation of costs and definition of time schedule	<div>R- DCRD</div> <div>C- DIPS</div>	RDB Estimation of costs and definition of time schedule	See also 4.2

3.1 Build collection instrument: 3 operational procedures

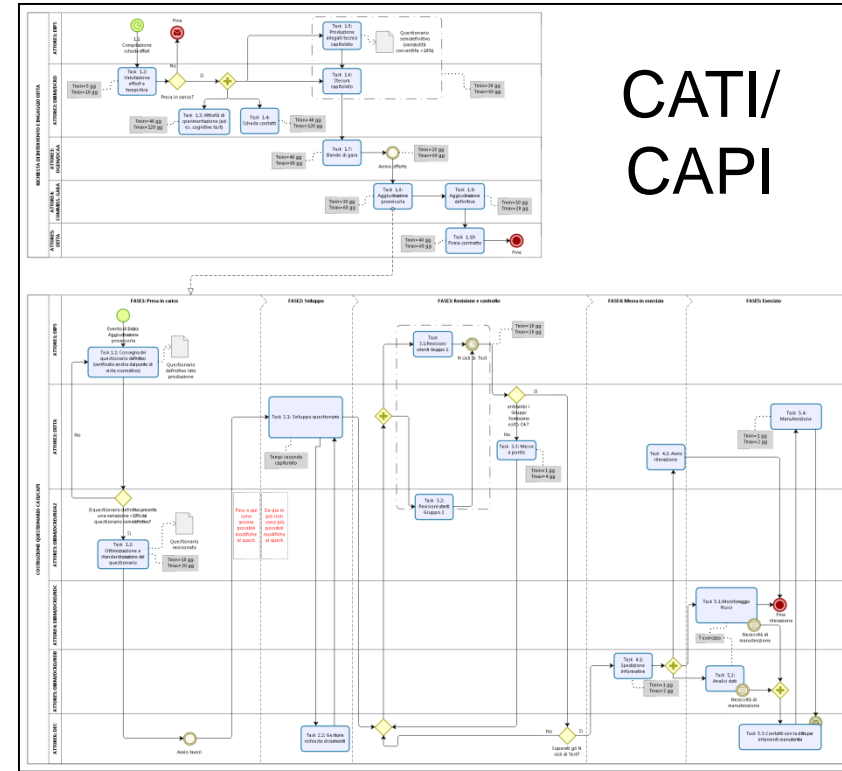
CAWI



PAPI



CATI/ CAPI



Lessons learnt

- ✓ Good exercise to clarify tasks and responsibilities within the Data Collection Directorate and between Directorates
- ✓ Way to identify potential gaps, lack of procedures,...
- ✓ Way to support the formalisation of procedures
- ✓ It has been extended to other areas
- ✓ Can be reviewed in future

Building around the GSBPM

- ✓ Developing Quality Indicators for GSBPM phases and sub-processes - **next slides**
- ✓ Application of GSBPM for Geospatial Information - **following presentations today (work in progress)**
- ✓ Linking the GSBPM and GSIM: describing input and output of GSBPM sub-processes in terms of GSIM objects - **presentations tomorrow (work in progress)**
- ✓ Aligning overarching processes in GSBPM and GAMSO activities - work completed **last year**

Quality Indicators for the GSBPM



**Quality Indicators for the Generic Statistical Business
Process Model (GSBPM) - For Statistics derived from
Surveys and Administrative Data Sources**

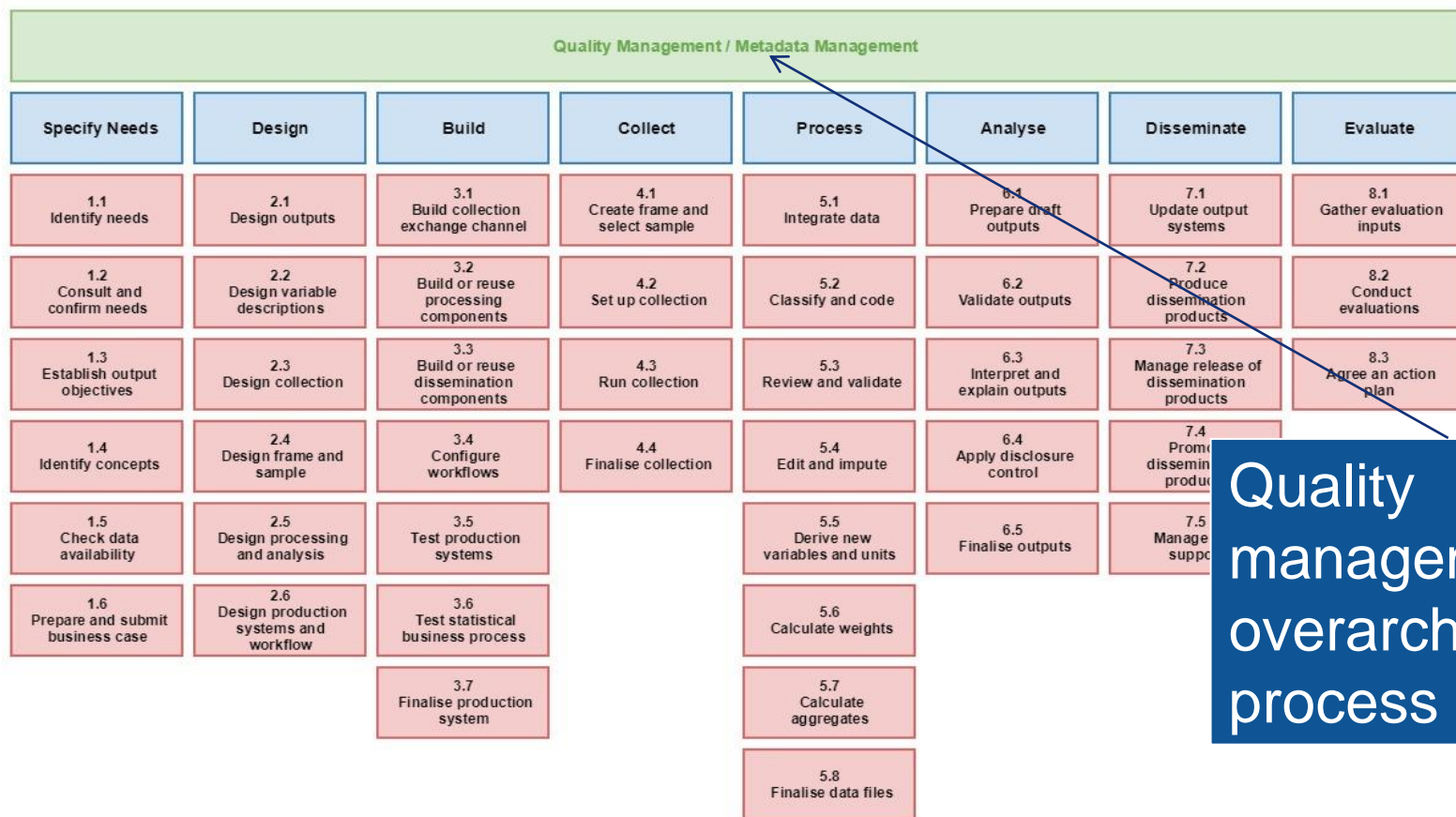
(Version 2.0, October 2017)

- Version 2.0 - October 2017 contains quality indicators for statistics derived from Surveys and Administrative Data Sources

<https://statswiki.unece.org/display/GSBPM/Quality+Indicators+Home>

https://statswiki.unece.org/download/attachments/185794796/Brochure_QI%20Version%202.pdf

Quality Indicators for the GSBPM



Quality management overarching process

Quality indicators were developed for each phase (1 to 8) and each sub-process

Quality Management / Metadata Management

Specify Needs	Design	Build	Collect	Process	Analyse	Disseminate	Evaluate
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Quality Dimension	Indicator	Notes
Relevance	<p>To what extent have stakeholders been identified and included in discussions about statistical needs?</p> <p>To what extent has relevant supporting documentation been gathered?</p>	
.....

How to use the QIs for GSBPM

- ✓ Provide a standard framework and a common terminology
- ✓ Support a process-oriented approach to Quality Management
- ✓ Can be tailored by NSIs according to their needs
- ✓ Help to rationalise quality work within an organisation

Thank you for your attention!