Where to from here?

Next steps in Modernizing Statistical Production

*From agreed concepts to shared practices*

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Outline

• Reminder of high level framework for modernizing statistical production
• Where we’ve been -> Conceptual
• Where we’re going next -> Practical
• Bringing it all together
  – How to progress toward a Generalized Statistical Production System?
• What do we need next?
• Possible discussion points
Modernizing statistical production

Conceptual
- Statistical Concepts
- GSBPM
- Methods

Practical
- Information Concepts
- GSIM
- Technology
- Production HowTo
- Statistical HowTo
Focus to date: Concepts/Frameworks

Conceptual

Common generic statistics production

GSBPM

GSIM

Practical

Methods

Technology

Statistical HowTo

Production HowTo
Getting practical

Conceptual

- Statistical Concepts
- Information Concepts
- GSBPM
- GSIM

Practical

- Methods
- Technology
- Statistical HowTo
- Production HowTo

Common generic statistics production
Bringing it all together

Generalized Statistical Production System

GSBPM

Common Generic Statistics Production

GSIM

Methods

Technology

Conceptual

Practical
Expanding on the diagram

Service defined by methods and business need

enables business process

Standards Based e.g. DDI, SDMX

Conceptual

Methods

Technology

GSBPM

GSIM

GSIM

GSBPM

Service Inputs

Service

Service Outputs

Practical

Generalised Statistical Production System

Expanding on the diagram

GSIM

GSBPM

GSIM
CORE Information Model
(COmmom Reference Environment)

• Defines standard protocol for services to exchange information with their environment
• Is designed to work with
  – GSIM and GSBPM as reference frameworks
  – Standards such as SDMX
• Is based on SOA concepts
• Has been used to demonstrate in practice implementation of standardized and automated statistical processes
• Has been used to demonstrate reuse of tools developed on different technical platforms and by different NSIs
What do we need next?

1. Agreed outline of “plug & play” architecture
   – Need to answer questions such as
     • What is it?
     • How is it informed by
       – frameworks such as GSBPM and GSIM?
       – standards such as SDMX and DDI?
     • What do designers of processes and components need to do to put it into effect?
   – Express it in terms of SOA concepts and principles
     • This will support effective communication with business analysts, architects and solution designs across and beyond official statistics
   – Eurostat have recommended CORE as the starting point
What do we need next?

2. Agree how SDMX and DDI will be used for representing information in a standard manner
   – Will use these to “transport” information between services
   – GSIM now provides a common conceptual model
     • We need to recommended the way to represent each GSIM business object in SDMX and/or DDI.
       – There are often multiple, potentially inconsistent, ways to operationalize the same business information in SDMX or DDI
   – This activity is expected to result in more detailed “mappings” from GSIM to SDMX and DDI
   – The process may identify proposed updates and extensions to SDMX and DDI
     • We must progress this standardisation and enhancement in parallel with defining “plug and play” architecture so the standards will ready to be used in a consistent manner
What do we need next?

3. Improve definition of business architecture for common reference purposes
   – Agree a common framework and terminology (e.g. TOGAF) to use when discussing and defining the common reference architecture
   – GSIM, GSBPM and CORE will become important artefacts within a broader context
   – We need to agree next priorities for populating the reference framework
     • Different high priority components might be drafted via different processes
     • We should look for synergies with work being undertaken within the ESS, Statistical Network and other groups in regard to defining aspects of common business architecture
What do we need next?

4. Estimate, and plan for, the extent of change required

– Applying architectural design standards and practice guides in support of standardized generic production of statistics represents a very significant change in practice and culture.

  • What education will be required for managers, process designers, solution architects, developers and others?
  • What other resources will be required?
    – eg reference implementations, implementation guides, specialist support and coaching
  • Might changes to organizational roles and structures be warranted to facilitate the transformation?

– To what extent can agencies collaborate to plan, pilot, manage and support the change process?

– While the peak in change implementation is likely to occur several years hence, high level planning and design should start now.
What do we need next?

5. Communicate the broad roadmap for next steps
   – Important community knows what to expect, by when, for planning and engagement purposes

6. Provide practical guidance in the meantime
   – To the greatest extent practical, designers of new processes, methods, components and data repositories should already be aligning with HLG-BAS strategy and designing for sharing and reuse
     • We need to progressively update, extend and promote guidance such as that provided in [Shared Software - Criteria for Compliance with the HLG-BAS Vision](#)
Possible discussion points

• What phrase (instead of “Grand Unification”) should be used to describe
  – the process of establishing design standards, implementation standards, practice guides and other resources which enable the community to move forward on a consistent basis to achieve standardized generic production of statistics in practice

• Are you in favour of applying service oriented concepts and principles when describing and defining what is required?

• Were any broad “immediate next steps” missing from the list?

• Do you consider any of the proposed next steps are superfluous at this time?

• Would you characterise any of the steps in a fundamentally different manner?