

Where to from here?

Next steps in Modernizing Statistical Production From agreed concepts to shared practices

Brian Pink

Australian Statistician 7 November 2012

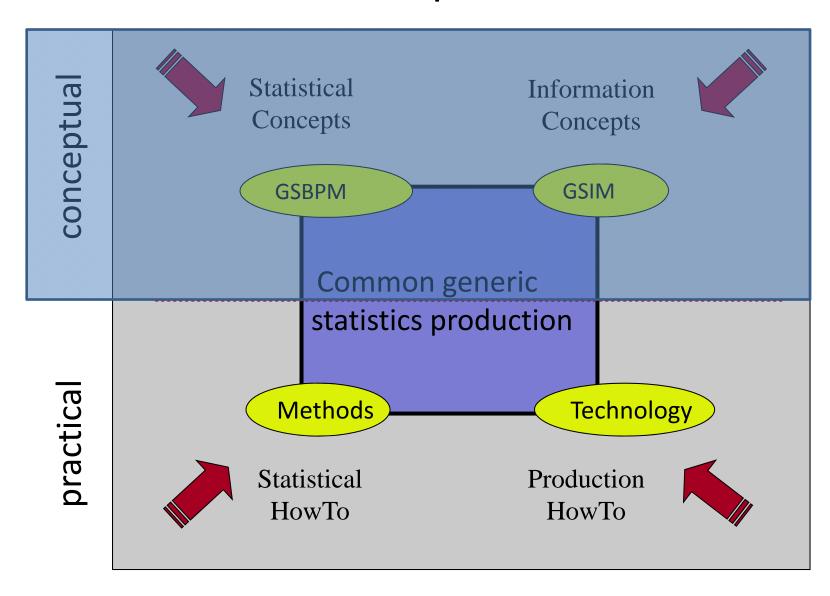
Outline

- 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

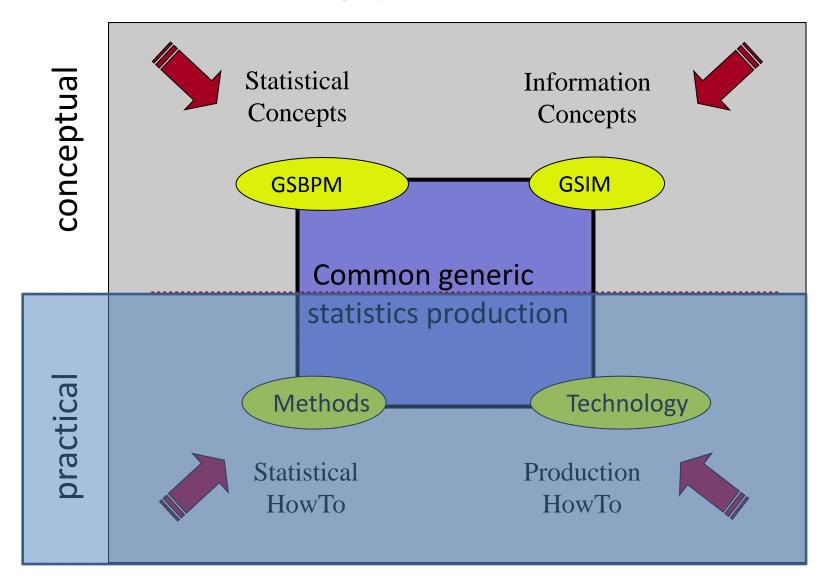
Modernizing statistical production

Statistical Information conceptual Concepts Concepts **GSIM GSBPM** Common generic statistics production practical Methods **Technology** Statistical Production HowTo HowTo

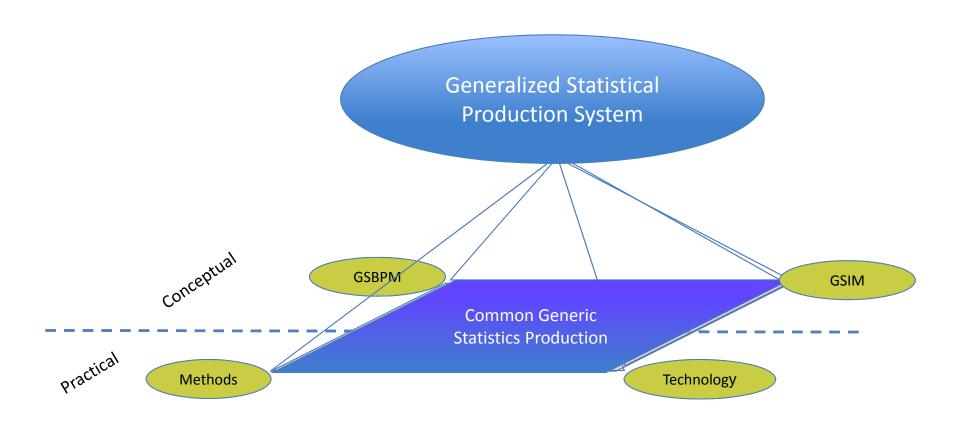
Focus to date: Concepts/Frameworks



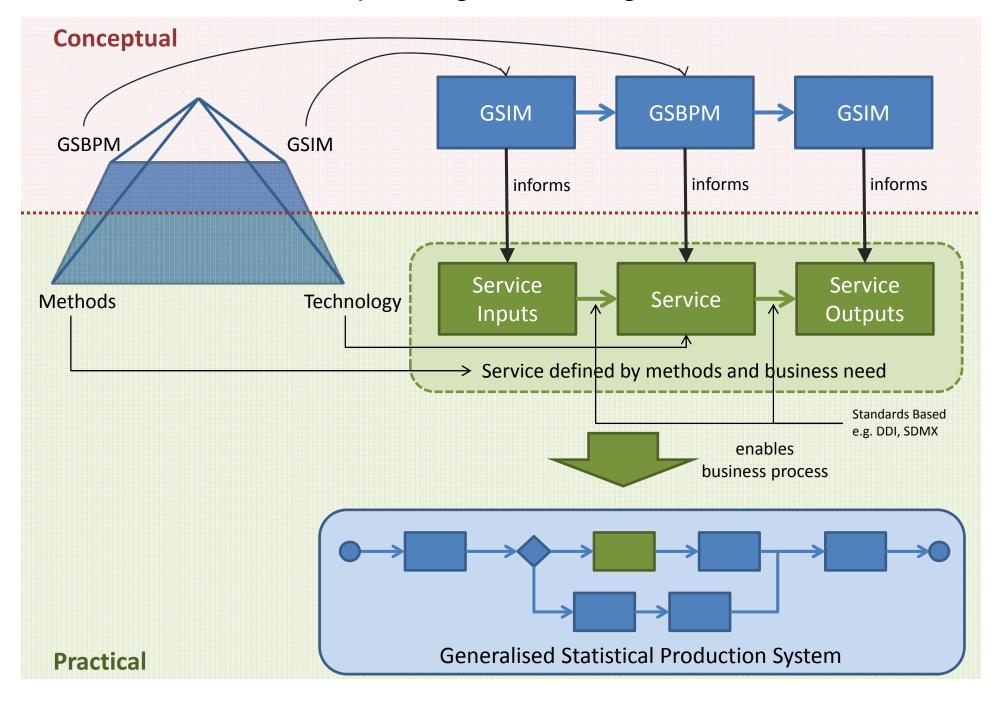
Getting practical



Bringing it all together



Expanding on the diagram



CORE Information Model (COmmon 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

- 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

- 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

- 3. Improve definition of business architecture for common reference purposes
 - Agree a common framework and terminology (eg 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

- 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.

- 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 <u>Shared Software -</u> <u>Criteria for Compliance with the HLG-BAS Vision</u>

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?