African Conference:
Transformative Agenda for Official Statistics

Libreville, Gabon
November 2015

Session 2:
Innovation and modernisation through standard-based statistical business architecture

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Corporate Business Architecture (CBA)

Implementation at Statistics Canada

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What is Statistics Canada’s CBA initiative?

- CBA is a comprehensive review of our business architecture:
  - business processes and rules
  - enabling computer systems and hardware
  - planning systems
  - training and organizational structure
CBA Objectives

- Efficiency
  - Generate efficiency on ongoing operating costs
  - Reinvestment of efficiencies to support modernization priorities

- Robustness
  - A reduced, unduplicated set of robust systems and processes that are properly governed, maintained and documented

- Responsiveness
  - Improved responsiveness in delivery of new statistical programs
CBA Governing Principles

- Make corporately optimal decisions rather than local level decisions
- Separate development from ongoing operations
- Centralization of informatics, collection, data processing, survey support operations, etc.
- Minimize the number of technologies that support business processes
- Support widespread training on corporate business applications and tools
CBA Governing Principles (cont’d)

- Expand the use of electronic questionnaires and administrative data
- Create metadata at the beginning of every process and use it throughout the project life cycle
- Manage statistical information through an Information Management framework
- Reorganize if necessary to promote efficient operations
- Implement international standards as much as possible
CBA – How it is being implemented?

- CBA is carried out through a number of internal projects
- All new projects must be in compliance with corporate priorities and CBA principles
- To receive funding, managers must identify in advance the multi-year funding requirements and the efficiencies
- The cumulative efficiencies represent 5% in ongoing operating efficiencies, and are being re-invested back into the organization
- The CBA projects are financed as the first investment priority in the Agency’s long term planning process
CBA – How it is being governed?

- CBA Management Committee Mandate
  - Recommend a corporate business architecture that promotes robustness, responsiveness and operational efficiency
  - Guide the development of all new transformational projects and programs
  - Prioritize resource allocation
  - Recommend when the use of generic corporate services should be mandatory and approve exceptions
  - Co-Chaired by Assistant Chief Statisticians
  - Membership: all Directors General (18)
CBA – How it is being supported

- CBA Secretariat
  - Reviews requests for new development projects and systems
  - Support in planning and project monitoring
  - Communicates CBA progress and best practices to managers and staff
  - Also responsible for Departmental Project Management Office
The Road to Modernization

Keys to Success
The journey starts with a corporate vision

- Need to clearly describe where we are, where we want to go and why (vision paper)
- Objectives were stated from the beginning of the CBA initiative
- Guiding principles referred to constantly
- Enterprise Architecture roadmap aligned to vision
- Widespread and repeated communication
Leadership

- Unwavering senior management support is essential
- CBA is Statistics Canada’s number one priority
- Focus of Annual Address by the Chief Statistician
- Establishment of senior management committee and champion(s)
- CBA is top priority in our annual and long-term Corporate Business Plan
Governance

- Need strong governance structure:
  - Review/approve all new business proposals
  - Ensure compliance with CBA objectives
- Include senior representation from all parts of the organization
- Clearly define roles and responsibilities
- Perform challenge function role
Governance (cont’d)

- Encourage diversity of views (constructive tension)
- Build governance structure to resolve roadblocks and support your change/innovation roadmap (not a trap)
- CBA recommends proposals for funding
- Centralize IT services – would do sooner

*Non-compliance with CBA principles is not an option*
Impact on Human Resources

- Significant culture shift - should not be underestimated
  - Corporate rather than local thinking
  - People need to be flexible and mobile
  - Adaptation to new tools and training
  - Opportunities to generate/influence ideas and innovate
  - Culture needs to learn to embrace change
  - Must deal with “blockers”
  - Do we have the right people with the right skills?
  - Reassure staff – fear of being replaced/ let go
Communications

- Regular updates to all staff: communicate often
- Communications **strategy** is tied to corporate strategy
- Need to engage staff at all levels and need to listen/address concerns
- Key **messages** are consistent and repeated
- **Tools** include intranet site, email, reports, notices, internal newsletter, presentations, training sessions, management meetings
Strong Project Management Practices

- Need common PM framework/tools
- Underestimated resistance to standardized PM
- Certified project managers teamed up with business process managers (subject matter experts)
- Be cautious about launching too many large projects at once
- There are “good failures”
- Need for stronger risk/interdependency (R/I) management, monitoring and control
The High-level Group for the Modernisation of Statistical Production and Services

- Led by UNECE
- Encourages international collaboration
- Maximize information sharing and coordination
- Sharing of best practices, lessons learned
- Advise on the direction of strategic developments
- Implementation of international standards and frameworks
  - Example: Generalized Statistical Business Process Model (GSBPM)
### Generalized Statistical Business Process Model

<table>
<thead>
<tr>
<th>1 Specify needs</th>
<th>2 Design</th>
<th>3 Build</th>
<th>4 Collect</th>
<th>5 Process</th>
<th>6 Analyse</th>
<th>7 Disseminate</th>
<th>8 Evaluate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Identify needs</td>
<td>2.1 Design outputs</td>
<td>3.1 Build collection instrument</td>
<td>4.1 Create frame and select sample</td>
<td>5.1 Integrate data</td>
<td>6.1 Prepare draft outputs</td>
<td>7.1 Update output systems</td>
<td>8.1 Gather evaluation inputs</td>
</tr>
<tr>
<td>1.2 Consult and confirm needs</td>
<td>2.2 Design variable descriptions</td>
<td>3.2 Build or enhance process components</td>
<td>4.2 Set up collection</td>
<td>5.2 Classify and code</td>
<td>6.2 Validate outputs</td>
<td>7.2 Produce dissemination products</td>
<td>8.2 Conduct evaluation</td>
</tr>
<tr>
<td>1.3 Establish output objectives</td>
<td>2.3 Design collection</td>
<td>3.3 Build or enhance dissemination components</td>
<td>4.3 Run collection</td>
<td>5.3 Review and validate</td>
<td>6.3 Interpret and explain outputs</td>
<td>7.3 Manage release of dissemination products</td>
<td>8.3 Agree on action plans</td>
</tr>
<tr>
<td>1.4 Identify concepts</td>
<td>2.4 Design frame and sample</td>
<td>3.4 Configure workflows</td>
<td>4.4 Finalise collection</td>
<td>5.4 Edit and impute</td>
<td>6.4 Apply disclosure control</td>
<td>7.4 Promote dissemination products</td>
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In Conclusion

- We are managing in a changing environment
- Unwavering senior management support is essential
- Efficiencies are being realized/cost avoidance
- Recording successes, but also learning from failures/difficulties
- Sharing lessons learned, increasing partnerships
- Repeated communication is key
Annex
Examples of CBA Projects

- **Integrated Business Statistics Program (IBSP)**
  - Optimize processes in the production of business statistical output through standardization and use of corporate services and generalized systems

- **Redevelopment of Generalized Sampling System**
  - Develop the functionality needed to draw a sample—that is, to stratify the population, allocate sample units to the strata, and draw the sample while controlling overlap with other surveys (used by IBSP)

- **Administrative Processes Review and Automation**
  - Streamline and automate the delivery model for key administrative and financial business processes in alignment with Enterprise Architecture, CBA and Information Management principles
What happens when project objectives are threatened?

- Monthly Dashboards start showing yellow and red status
- Issues are flagged at the CBA Management Executive Board
- Project management reporting on situation and presenting redressing plans
- Documentation of issues, risks, decisions, changes and new deliverables (expert help could be provided)
- Closer monitoring, with feedback and support to project manager to rectify situation
When could a CBA project be altogether cancelled?

- In the third stage of planning, a project could be assessed as high risk
- For example, project having too many interdependencies or scheduling issues
- No longer a priority
- When further defined, deemed too costly for the amount of efficiencies it would provide