

**African Conference:
Transformative Agenda for Official Statistics**

**Libreville, Gabon
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**Session 2:
Innovation and modernisation through standard-based statistical
business architecture**

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Corporate Business Architecture (CBA)

Implementation at Statistics Canada

African Conference on a Transformative Agenda for Official Statistics

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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

Quality management / Metadata management							
1 Specify needs	2 Design	3 Build	4 Collect	5 Process	6 Analyse	7 Disseminate	8 Evaluate
1.1 Identify needs	2.1 Design outputs	3.1 Build collection instrument	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 Build or enhance process 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 Build or enhance 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 on action plans
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 system		5.5 Derive new variables and units	6.5 Finalise outputs	7.5 Manage user support	
1.6 Prepare 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			



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