



Statistics
Canada

Statistique
Canada

Statistics Canada's Modern and Comprehensive Information Management (IM) Strategy

www.statcan.gc.ca



Telling Canada's
story in numbers

**Workshop on Transparency and
Reproducibility in Federal Statistics**

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Canada

National and Corporate Priorities

- Information management is a priority for our Chief Statistician, the Government of Canada and Library and Archives Canada
- Managing information is a legal obligation, a policy obligation and a business imperative



Statistics Canada's IM Vision

*Statistics Canada brings value to Canadians
using information assets that are
digitally and easily available, optimally collected and
processed, and professionally safeguarded.*



What do we want to achieve?



IM Benefits

- Practicing good IM helps to:
 - Preserve corporate memory
 - Identify, document and preserve corporate information assets
 - Facilitate information access and retrieval, and increase work efficiencies
 - Improve sharing, knowledge transfer and preservation of information
 - Reduce the amount of information retained, keeping only what is of business value
 - Reduce the risk of information loss



Policy and Legal Instruments

- Government of Canada IM Policy
- Management Accountability Framework
- Statistics Act
- Statistics Canada's IM Policy/Strategy
- Policy on informing users of data Quality and Methodology.
- Audits

Some Drivers

- Changing society
- Increased demands
- Need to be at par with industry standards
- Open Government Plan
- Innovation and new technologies
- International standardization (GSBPM, SDMX)

Statistics Canada's IM Strengths and Needs

Strengths:

- Rich heritage of data Management
- Secured processing environment
- Strong culture of confidentiality
- Highly skilled and professional employees
- Exemplary track record of “Information contract” with Canadians

Needs:

- Increased standardization (common approaches and tools)
- More comprehensive approach (beyond data)
- More open culture and means

Statistics Canada's Three IM Pillars

First: Centered on Statistics Canada's most important assets

- People
- Information

Sound Information management

- Is key to fully enable people to accomplish their work and fulfill their mandates (Support program and service delivery; Achieve strategic priorities; Meet accountability obligations)
- Is aligned with HR strategies (Towards a modern flexible workplace)
- Is integrated with and supported by IT strategies (Mobility, Clouds, Collaborative tools)

Statistics Canada's Three IM Pillars

Second: Comprehensive

- For Data (microdata, aggregate data, metadata)
- For Documents (articles, presentation, email, spreadsheets)
- For other information (Collaborative space, corporate services information)

Statistics Canada's Three IM Pillars

Third: Using modern tools





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Corporate information management systems

GCDOCS

- Discover, capture, store, share, and use documents (unstructured information)

Picasso

- Discover, capture, store, share, and use statistical metadata and data assets

Link to
documents

CARS



SDAO

- Manage access requests for electronic information

Manage requests
for access to
documents

Manage requests
for access to
statistical data
assets

Other Systems

- MEDOC (Methodology Documents)
- Web content
- Program codes
- Coordinating with other program-specific tools such as in Finance, HR and Dissemination to seek potential alignment/integration.

Formats and Types of Information Resources

Formats

- Unstructured information: Information that is often created in free-form text using common desktop applications such as email, word-processing or presentation applications.
- Structured information: information residing in fixed fields within a repository.

Types

- Information resources of business value (IRBV)
 - Information resources of enduring value (IREV)
- Transitory records

Information Resources of Business Value (IRBV) vs Transitory

- Information resources of business value (IRBV)
Published and unpublished materials, regardless of medium or form, created or acquired to enable and document decision-making in support of programs, services and ongoing operations, and support departmental reporting, performance and accountability requirements.
- Transitory information
Records that are required only for a limited time to ensure the completion of a routine action or the preparation of a subsequent record.

Information Life-cycle

- Definition: the succession of stages an information resource goes through from its initial creation to its destruction.
(Source: Treasury Board of Canada Secretariat. Directive on Recordkeeping)
- IRBV are managed throughout the information life-cycle
- The information life-cycle encompasses 7 stages:
 - 1) Plan
 - 2) Collect, create, capture & receive
 - 3) Organize
 - 4) Use and share
 - 5) Maintain, protect and preserve
 - 6) Dispose
 - 7) Evaluate

Security Practices at Statistics Canada

■ IT

- Passwords, encryption and firewalls
- Internal network
- Access and permissions to statistical data applied on a “need to know” basis
- Sensitive statistical information (SSI) cannot be transmitted by email

■ Management

- Sweeps
- Audits

Security Practices at Statistics Canada

- Physical
 - Security passes for access to buildings, some floors and some rooms
 - Restricted after hours access to building
 - Secure storage unit or cabinet, with approved locks used to store paper and other portable information resources
 - Marking of sensitive information
 - Use of secured document-destruction box to place sensitive or confidential information in paper format that are ready for destruction

Creating a Security Conscious Culture at Statistics Canada

- Statistics Canada Oath (or Affirmation) of Secrecy
- Mandatory training
- Policies and directives
- Threat Risk Assessments
- Confidentiality awareness website
- Articles in @StatCan
- Communications from senior management
- Security awareness week, with Oath awareness day



Pillars to Achieve IM Goals

- Governance
 - Governance and accountability structure
 - Policies and directives
- Knowledge and skills
 - People and capacity
- IM tools
 - Procedures, guidelines, templates and support
 - Systems, repositories and information architecture
- Communication
 - IM awareness and training
 - Change management

Costs

- Dedicated IM team (a Division at Statistics Canada)
- Systems
 - Development
 - Maintenance
 - Acquisition / License
- Program Effort
- “Bureaucratic creep”

Progress to Date

- Many new policy instruments developed
- Modernized Library
- Solid micro-data and aggregated data management practices in place
- Metadata-driven statistical programs (Integrated Business Statistical Program)
- Promoted IM culture
- Statistical and metadata management system (Picasso) developed
- Information access system (CARS) in place for certain permissions / divisions
- Document management tool (GCDOCS) prepared

Path Ahead

- A complete shift to a modern IM culture
 - Further exemplify benefits to employees (ease of storage; ease of retrieval; no need to maintain own classification; easy information sharing)
- Fully deployed systems:
 - Statistical and metadata management system (Picasso V2.0)
 - Information access system (CARS)
 - Document management tool (GCDOCS)
- Strengthened IM communications aligned with mobile workplace

Lessons Learned

- The strategy should be comprehensive
- Value of strong IM must be clear to all employees
- Building a sound architecture is key
- Software deployment should not simply be a switching of tool but rather an evolution in IM practices
- Matrix approaches must be sought
- Need dedicated team with service/enabling aim
- Communication and human factor is central

Challenges

- Smooth alignment with mobility
- Strength of architecture vs quick system deployment
- Complete solution for legacy information (paper holdings, E-vault, employees stocks of files)
- Unique aspects of Regional Offices and RDCs
- Decommissioning of older systems
- Balancing protection and use in cloud environments