



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)

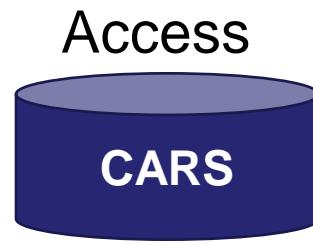
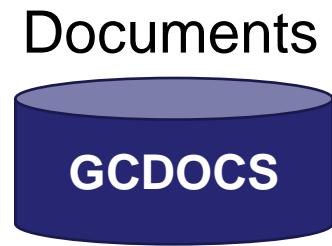
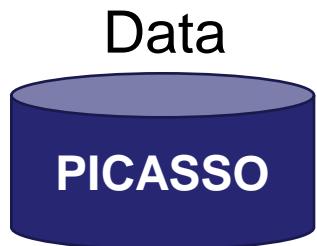
Statistics Canada's Three IM Pillars

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

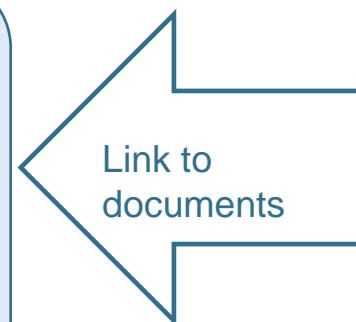
Third: Using modern tools



Corporate information management systems

GCDOCS

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

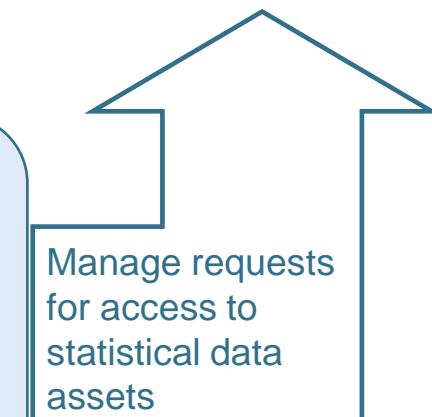


Picasso

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



- Manage access requests for electronic information





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