Data Stewardship
Towards a whole of government approach

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Delivering insight through data, for a better Canada
DATA STRATEGY FRAMEWORK FOR THE FEDERAL PUBLIC SERVICE

A whole-of-government approach to creating, protecting, using, managing and sharing data as a strategic asset, enabling informed decisions that lead to better outcomes and services for Canadians.

GUIDING PRINCIPLES

- Client-centered
- Purposeful
- Trusted
- Enabling
- Open
- Agile

DESIRED OUTCOMES FOR CITIZENS, BUSINESSES AND GOVERNMENTS

- Improved services
- Greater public value from data
- Greater usability and availability of data
- Protection of individuals’ information and privacy by design
- Trusted and sound governance of data, which are treated as a valuable and strategic asset
- Increased evidence-informed decision-making
- Better reporting on results
- Increased intra and inter-governmental collaboration

PROPOSED PILLARS

- People and culture
  - The government has the talent and capacity it needs to manage, interpret, use and understand data. Includes, for example:
    - Culture
    - Skills
    - Recruitment and retention
    - Development and training

- Environment and digital infrastructure
  - Processes and infrastructure are aligned to turn good data and analysis into action. Includes, for example:
    - Enabling infrastructure and tools
    - Security, confidentiality and integrity
    - Privacy
    - Legislation and supporting policies

- Data as an asset
  - The government has the data it needs, which are fit for use, discoverable, and available. Includes, for example:
    - Planning and stewardship
    - Use
    - Quality
    - Storage
    - Sharing and access

Goverance

Governance exists at the right levels to ensure that data are managed holistically as a strategic asset. Includes accountability, roles and responsibilities.

Communication

Transparency to Canadians on the government’s management and use of data, as well as effective intra and inter-governmental communication.
Where are we going?

Current State
- Canadians do not always have access to the data they need
- Departments/agencies do not always know the data holdings of others that may be relevant to their work
- Departments/agencies do not consistently collaborate or share data
- There is no strategic oversight to the use of data
- Data are not being effectively leveraged for evidence-informed decision-making
- Programs and services for Canadians are not consistently improved through the use of timely data and analytics
- Employees do not have the skills they need to use data effectively

FROM

THROUGH
- Robust data governance, leadership, and stewardship
- Increased availability and interoperability of data
- Increased data analytics capacity and broader data literacy
- Integration of data and analysis into decision-making processes
- A culture of innovation and experimentation
- Robust IT infrastructure
- Capacity building in data literacy and use

New State
- Improved services
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TO

What will success look like?

Delivering insight through data, for a better Canada
Transformation Roadmap

Laying the foundation and building momentum

Build confidence, create momentum and demonstrate the value of changing the way the government uses and manages data

Strengthen leadership to drive progress, set up systems and capability to support horizontal collaboration and greater use of data

Expanding and scaling across the government

Expand successful practices across the government, adapt to build capability and support progress

Implement systemic changes necessary for holistic adoption and transformation

Short-term (up to September 2019)

Medium-term and transition advice (October 2019+)
Recommendations

**Governance**
- Modify DM CEPP
- Enterprise data leadership; chief data steward
- Data ethics and security frameworks
- Departmental data strategies; accountabilities, roles, and responsibilities
- Data in decision-making process
- Collaborate with other levels of government and Indigenous Peoples
- Indigenous data strategies

**People and Culture**
- Assess skills and competencies required
- Pilot and launch a digital academy
- Competitive hiring practices
- Renew HR strategies

**Environment & Digital Infrastructure**
- Legislative and policy frameworks
- Support/build digital ID ecosystem
- Establish a common set of data tools
- Assess digital/data infrastructure needs

**Data as an Asset**
- Foster innovation
- Facilitate access to government data
- Central view of government data and a quality framework
- Strengthen performance measurement, program and policy development
- Drive competitiveness with increased access to public/private sector data
Laying the foundation and building momentum:

Driving early action

Why is this important?

- Provide horizontal direction on strategic and technical data issues
- Model and support cultural change
- Manage coherence and flexibility
- Maximize public value from data through standardization and prioritization
- Foster data-driven culture that is open and shares by default
- All public servants are data agents
- Increase data literacy of employees
- Hire, retain, cultivate, and empower the right talent and capacity

Whole-of-government

- Modify DM CEPP
- Develop data strategies
- Ensure accountabilities for data roles and responsibilities

People and culture

- Assess state of data literacy
- Launch digital academy
- Identify talent supply sources
- Data scientist recruitment pilot
- Pilot demand map for hiring targets

Environment and digital infrastructure

- Accelerate work to assess legislative and policy frameworks
- Develop federal roadmap for digital IDs
- Assess required infrastructure needs

Data as an asset

- Review and analysis of data pilots
- Develop prototype of virtual data lab
- Update policy requirements towards a new digital policy

Communications

- Open and transparent communication with Canadians
- Encourage data sharing, access and collaboration

Governance

- Develop data strategies
- Ensure accountabilities for data roles and responsibilities

- Protect data and privacy of information
- Appropriate tools, infrastructure and processes are available
- Fully harness technological opportunities

- IT architecture supports and facilitates data management and analytics
- Encourage horizontality and coherence

- Value driven by combining Government-held data with data from other sources
- Data are well managed, secure, and fit for use
- Data use is appropriate, citizen- and business-centric, and ethical
- Data leads to better decision-making and policy development

- Government has the data it needs
- Greater use and availability of data

- Commitment to transparency and protection of individual data
- Engage key influencers, expert users, academics and data providers

- Raise awareness
- Ensure data literacy
- Appropriate tools, infrastructure and processes are available

- Adapt frameworks
- Adapt technologies
- Adapt processes

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Next steps

Early key implementation:

• Increase access to data
• Greater collaboration on data issues
• Organizational data strategies
• Organizational roles and responsibilities for data functions