



WIPO
ICT Leadership
Dialogue
(WILD)

Data Strategy and Governance at the Canadian Intellectual Property Office

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WIPO

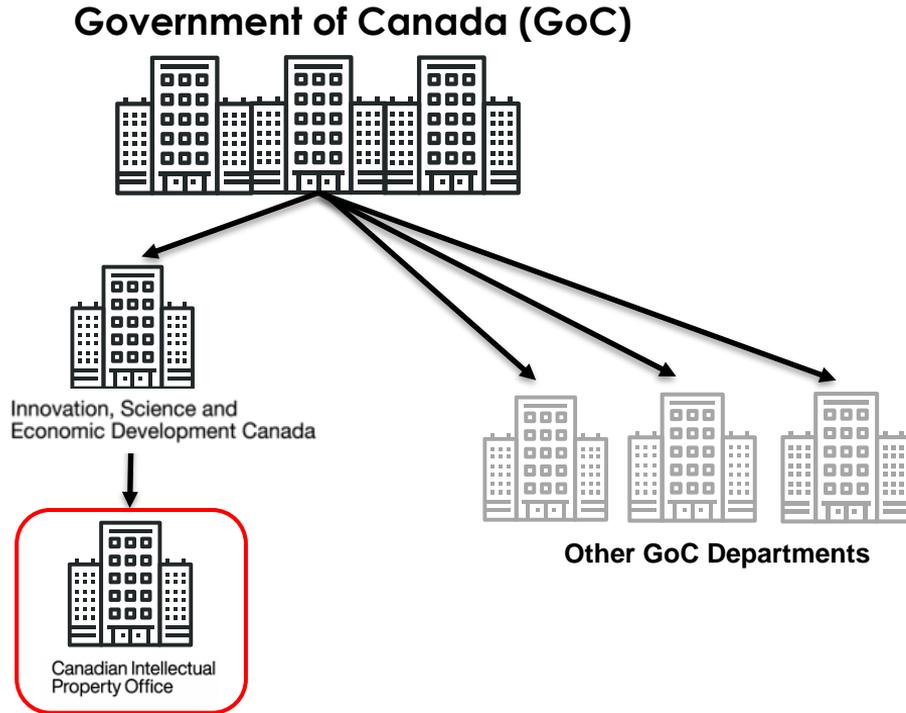
Purpose

- Provide an overview of the data strategy and governance at the Canadian Intellectual Property Office

Canadian Intellectual Property Office

- ❑ A special Operating Agency of Innovation, Science and Economic Development Canada
 - ❑ Headed by CEO who is also Commissioner of Patents and Registrar of Trademarks
 - ❑ More than 1,000 employees
 - ❑ Fully funded by user fees
- ❑ Mandate includes
 - ❑ Administration of the Intellectual Property (IP) regime and granting IP rights
 - ❑ Raise awareness for the effective use of IP

Our Ecosystem



As a special operating agency under Innovation, Science and Economic Development Canada (ISED), CIPO align itself with the Data Strategy and Policy of the Government of Canada and of ISED

Key CIPO IP Data Repositories

Canadian Patents Database

- ❑ Access to over 155 years of patent data
- ❑ More than 2,560,000 patent documents



Cloud

Canadian Industrial Design Database

- ❑ Access to over 160 years of industrial designs data
- ❑ More than 210,918 industrial designs documents



On-prem

Canadian Trademarks Database

- ❑ Access to over 140 years of trademark data
- ❑ More than 1.4 M trademark documents
- ❑ 14,500 searches/day, 1.3 M visits/year



Cloud

IP Horizons

- ❑ Databank of patent, trademarks and ID applications
- ❑ Provides research datasets for research & analysis
- ❑ 1,600 clients/year

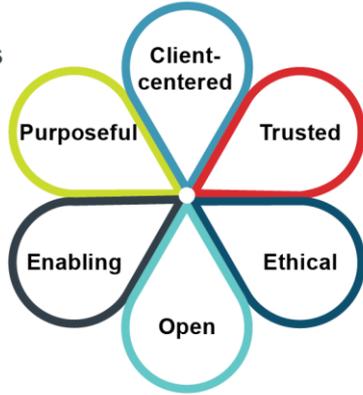


Hybrid

2023-2026 GoC Data Strategy Framework

Data Strategy Framework for the Federal Public Service

Guiding Principles



Desired outcomes

- **Effective, equitable, ethical and inclusive services, programs and policy**
- **Trusted and accountable government**
- **Greater public value from data**
- **Enhanced evidence-informed decision-making**
- **Support for Indigenous data sovereignty**

GoC DATA STRATEGY MISSIONS

DATA BY DESIGN

Data needs are proactively considered when designing initiatives

1. Data Leadership roles and responsibilities
2. Embedded planning for data activities
3. Clear expectations for data resource allocation

DATA FOR DECISION MAKING

Data is stewarded for effective integration into analysis to inform insights

1. Data Steward model for management of data and standards
2. Clear expectations and common practices
3. Data transformed into insights

ENABLING DATA DRIVEN SERVICES

Data flows securely where it is needed to improve user experience while maintaining trust

1. Improved service design and outcomes through data flows
2. Open and responsible data flows
3. Responsible, transparent and ethical stewardship
4. Indigenous data sovereignty

EMPOWERING THE PUBLIC SERVICE

Teams are equipped and supported to effectively integrate the talent and tools they need

1. Promoted and improved data careers
2. Data upskilling for public servants
3. Data tools to support the work of public servants

Culture, communication and change management

Data as an asset

Data is fully integrated into how outcomes are delivered to Canadians and valued like any other critical asset.

Foundation

Talent

The government has the talent and capacity it needs to leverage data to inform its decisions.

Governance

Governance is effective and ensures that data is managed horizontally and holistically as a strategic asset.

Processes and tools

Processes and digital infrastructure enable secure cross-governmental integration and the use of data for the benefit of Canadians.

2023-2026 ISED DATA STRATEGY

INVESTING IN FOUNDATIONS:

Investment into **foundations** is the key enabler of the strategy. The following **foundations** will support the implementation

TAKING ACTION:

ISED's data will be treated as a valued asset – used ethically and responsibly to benefit Canadians and Canadian businesses. ISED will **act** in the following areas to advance its data maturity:

MAKING AN IMPACT:

Advancing ISED's data maturity will transform the way we work. Using data to its full potential will have the following **impacts**:



TALENT

ISED has the talent and capacity it needs to leverage data to inform its decisions.



GOVERNANCE

Governance is effective and ensures that ISED's data are managed horizontally and holistically as a strategic asset.



PROCESSES & TOOLS

Processes and digital infrastructure that enables data integration and the use of ISED's data for the benefit of Canadians.

DATA BY DESIGN



Data needs are proactively considered when designing initiatives

OUTCOMES

- ISED considers data when designing systems, programs and services
- Roles and accountabilities are clear for ISED's data and information management

DATA FOR DECISION MAKING



Data are incorporated to support effective and transparent decisions on complex issues

OUTCOMES

- ISED uses and reuses data to inform analytics and decisions
- ISED has an environment of innovative, transparent and accountable data use

ENABLING DATA DRIVEN SERVICES



Data flows securely to where it is needed, improving user experience while maintaining trust

OUTCOMES

- ISED can create, identify and exchange interoperable datasets
- ISED's data have defined security and risk measures, enabling responsible access

EMPOWERING ISED STAFF



Teams are equipped and supported to effectively integrate the talent and tools they need

OUTCOMES

- ISED has the talent and skills necessary to leverage data assets
- ISED has the hardware, software and infrastructure necessary to

EVIDENCE-BASED DECISIONS

Data is the raw material of evidence-based decisions – allowing ISED to design responsive, inclusive transparent and trustworthy policies, programs and services

EFFECTIVE SERVICE DELIVERY

Well-governed, easily accessible and reusable data enables ISED to deliver services efficiently to Canadian businesses

MAXIMIZED DIGITAL SOLUTIONS

High-quality and well-managed data connects business needs to digital solutions, transforming ISED into a digitally-driven department

ISED DATA STRATEGY 2023-2026: Phased Delivery Approach



	Phase 1	Phase 2	Phase 3	
DATA BY DESIGN	ISED data governance and planning tools / processes are renewed	ISED embeds data and information governance / planning into program, service and systems design and operations	ISED appropriately governs and manages data and information as valued assets	
DATA FOR DECISION MAKING	ISED data standards and data management practices and tools are refreshed	ISED has high quality, trusted and integrated data, supporting advanced analytics	Effective, efficient and transparent decision making is supported by real-time insights from analytics and dashboards	
ENABLING DATA DRIVEN SERVICES	ISED data assets are identified and classified	ISED data assets are accessible for analysis and real-time reporting, informing service improvements to meet client evolving needs	Responsible data sharing enables GC Digital Standards, transforming client service delivery while respecting privacy and security	
EMPOWERING ISED STAFF	ISED employees have strong foundations in data	All ISED employees are maturing in their understanding and demonstration of managing data as a valued asset	Increased data literacy and access to tools is empowering ISED employees to use data to be more efficient, effective and innovative	

CIPO Data Governance



CIPO Data Working Group

❑ Objectives

- ❑ Continue CIPO's transition to being a data driven organization and to adopting a data culture;
- ❑ Enhance service delivery by embedding ISED Data Strategy goals into CIPO's data related initiatives and activities;
- ❑ Strengthen CIPO's data capabilities so that we can better inform and equip clients with the right data at the right time to make the right decision; and
- ❑ Provide information or make recommendations to CIPO Senior Management on data-related activities and/or initiatives

CIPO Data Working Group Outreach



Key CIPO Data Achievements

MISSION	CIPO ACHIEVEMENTS
Data By Design	<ul style="list-style-type: none">✓ Contribute to ISED Data Strategy✓ Embed data management in IT modernization✓ Establish CIPO data governance and CIPO Data Working Group
Data For Decision Making	<ul style="list-style-type: none">✓ Implement departmental data standards and consider interoperability for investments✓ Use Power BI for advanced analytics, dashboarding and reporting✓ Leverage data insights to inform delivery of client-centric services✓ Modernize Canadian Trademarks Database
Enabling Data Driven Services	<ul style="list-style-type: none">✓ Update and validate Data Catalogue✓ Provide guidance, tools and processes for data identification and classification✓ Leverage data insights to inform program and service offerings
Empowering ISED Staff	<ul style="list-style-type: none">✓ Promote data learning and training opportunities✓ Contribute to Data Science development program✓ Champion and co-chair ISED Data Science Community of Practice

CIPO Data Action Plan

	Short-Term	Longer-Term
Data By Design	<ul style="list-style-type: none"> ❑ Data Management considerations for Next Generation Trademarks (NGT) ❑ Data & IM objectives included in relevant employee work objective 	<ul style="list-style-type: none"> ❑ Data Management plan for NGT ❑ Data Management & data reporting best practices shared across product lines
Data for Decision Making	<ul style="list-style-type: none"> ❑ Modern Extract-Transfer-Load solution for patent data ❑ Support WIPO IP data cleaning & exchange initiatives ❑ Implement scalable IT infrastructure, analytics, & AI pilots 	<ul style="list-style-type: none"> ❑ Authority File compliant with WIPO ST.37 ❑ Act on opportunities for innovation with AI
Enabling Data Driven Services	<ul style="list-style-type: none"> ❑ Embed data driven approach to CIPO Service Excellence Strategy ❑ Continue to leverage data insights to inform services to business 	<ul style="list-style-type: none"> ❑ Establish best practices for designing data science workflows ❑ Simplify bulk data sharing practices in line with other IPOs
Empowering ISED Staff	<ul style="list-style-type: none"> ❑ Encourage and prioritize data skills training ❑ Leverage departmental and WIPO data software and tools 	<ul style="list-style-type: none"> ❑ Continue to assess data skills needs and grow data talent inventory ❑ Data science as a service creates insights and supports opportunities

Data Strategy and Management Challenges

- ❑ Focus is on delivering investments with direct correlation to value for money
 - ❑ Limited human and financial resources
 - ❑ Strategic approach between modern investments and legacy maintenance
- ❑ Data fragmentation across multiple product lines
 - ❑ IP data is siloed with each product line having its own systems, processes, and tools for managing and reporting IP data
 - ❑ Different product lines use different standards for categorizing and storing IP data
 - ❑ Lack of interoperability makes it difficult to aggregate data for analysis, reporting or decision-making
- ❑ Data Security and Privacy
 - ❑ Different levels of sensitivity and confidentiality requirements (non-laid open vs laid-open)
 - ❑ Legacy systems prone to security breaches
 - ❑ Modernization is costly and expensive

Conclusion & Next steps

- ❑ CIPO will continue to advance its data maturity through its IT modernization initiative
- ❑ CIPO will implement its short-term and longer-term data initiatives to enhance alignment across product lines and reduce data fragmentation
- ❑ CIPO will continue to leverage engagements with WIPO and other IPOs to explore feasibility of strategic data sharing agreements or partnerships

QUESTIONS?



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