ISED has 4 Ministers…

The Honourable François-Philippe Champagne
Minister of Innovation, Science and Industry

The Honourable Mélanie Joly
Minister of Economic Development and Official Languages

The Honourable Maryam Monsef
Minister for Women and Gender Equality and Rural Economic Development

The Honourable Mary Ng
Minister of Small Business, Export Promotion and International Trade

… and our work is split across 13 sectors, multiple offices / geographic locations, and a variety of business lines that generate a wealth of data. ISED is also the federal institution that leads the Innovation, Science and Economic Development portfolio, which is comprised of 17 federal departments and agencies.

Our journey… creating a plan to achieve future data related objectives

Impetus
(Spring 2018)

- Launch of PCO/STC/TBS led work on development of *Data Strategy Roadmap for the Federal Public Service*

- Recognition that work on an internal ISED data strategy was needed

Current State Assessment
(Fall / Winter 2018)

- ISED wide consultations to understand *current data state*

- Key findings related to need for:
  - Departmental and sector data governance
  - Data access
  - Data related skill development
  - Technological support for data related work
  - Experimentation and pilot projects to harness the power of data

The art of the possible
(Spring / Summer 2019)

- Data strategy vision and framework created with key business drivers established

- ISED Data Maturity Assessment

- Implementation of initial key activities related to data governance, data access and talent

- ISED Data Strategy finalized and submitted to PCO (September 2019)

Innovation, Science and Economic Development Canada

Innovation, Sciences et Développement économique Canada
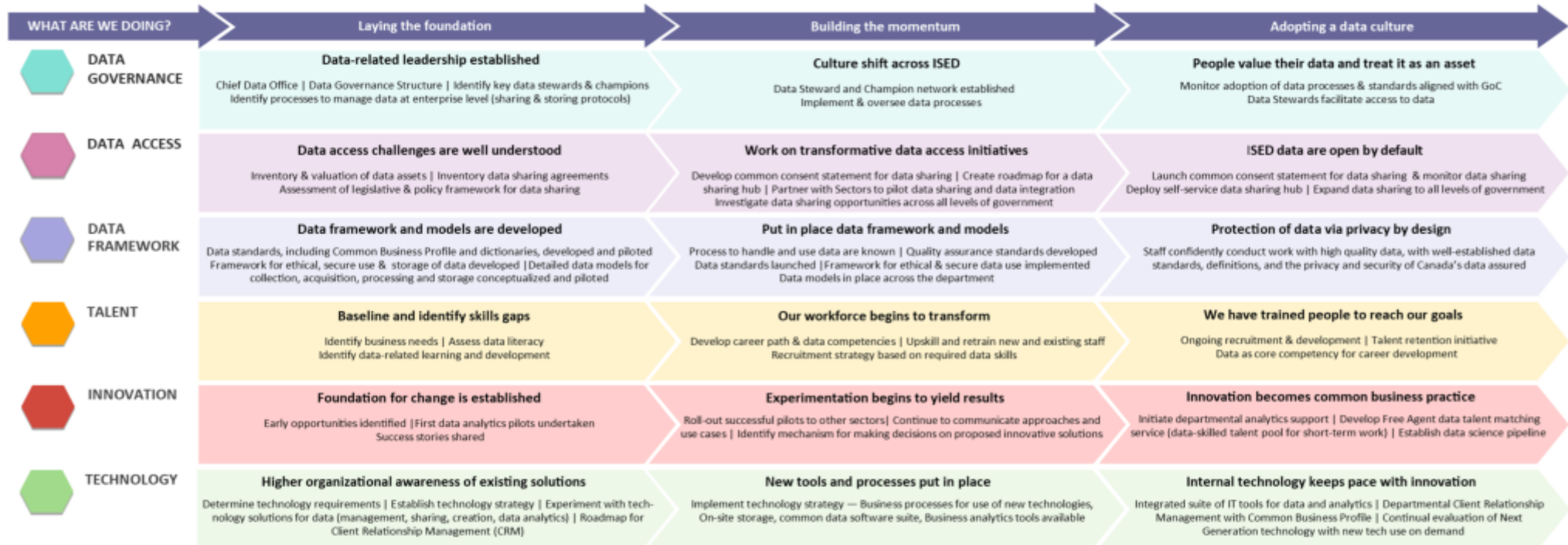
Canada

VISION: ISED leverages the power of data to foster a growing, competitive and knowledge-based economy.

MISSION: By providing employees with the data, skills and tools they need, we will achieve excellence in serving Canadians and Canadian businesses.
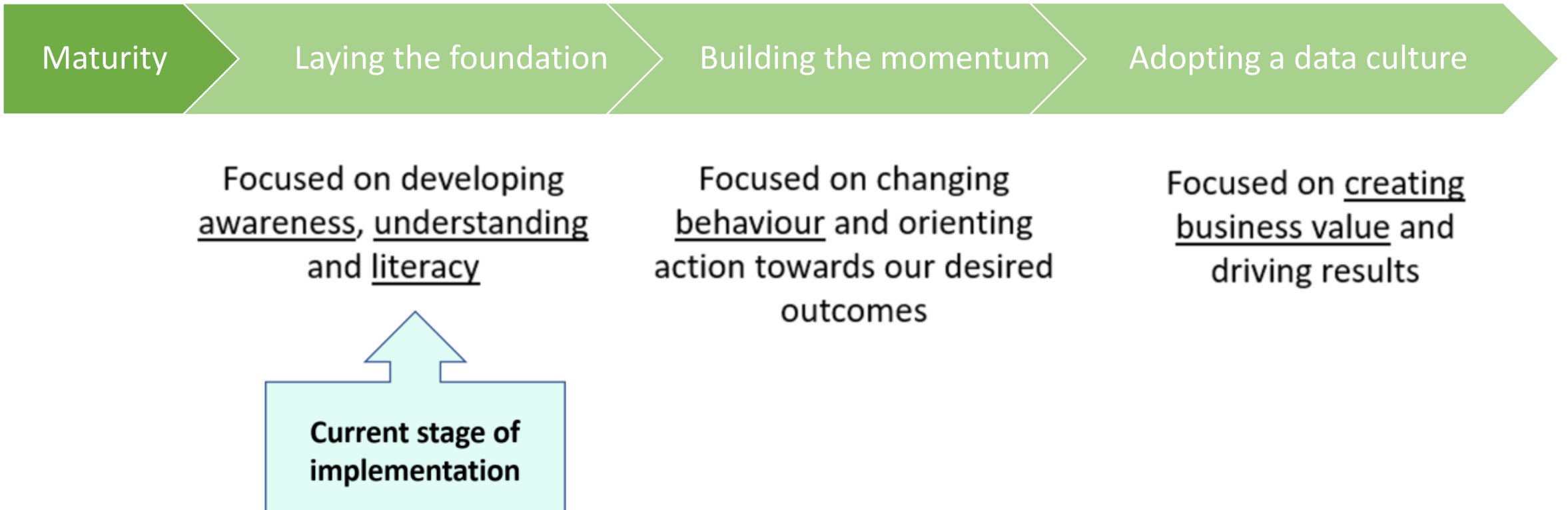
BUSINESS DRIVERS:	Enhanced service delivery	Evidence based policies, research & evaluation	Strengthened reporting capacity & story telling	Enriched internal services	Improved regulation & enforcement

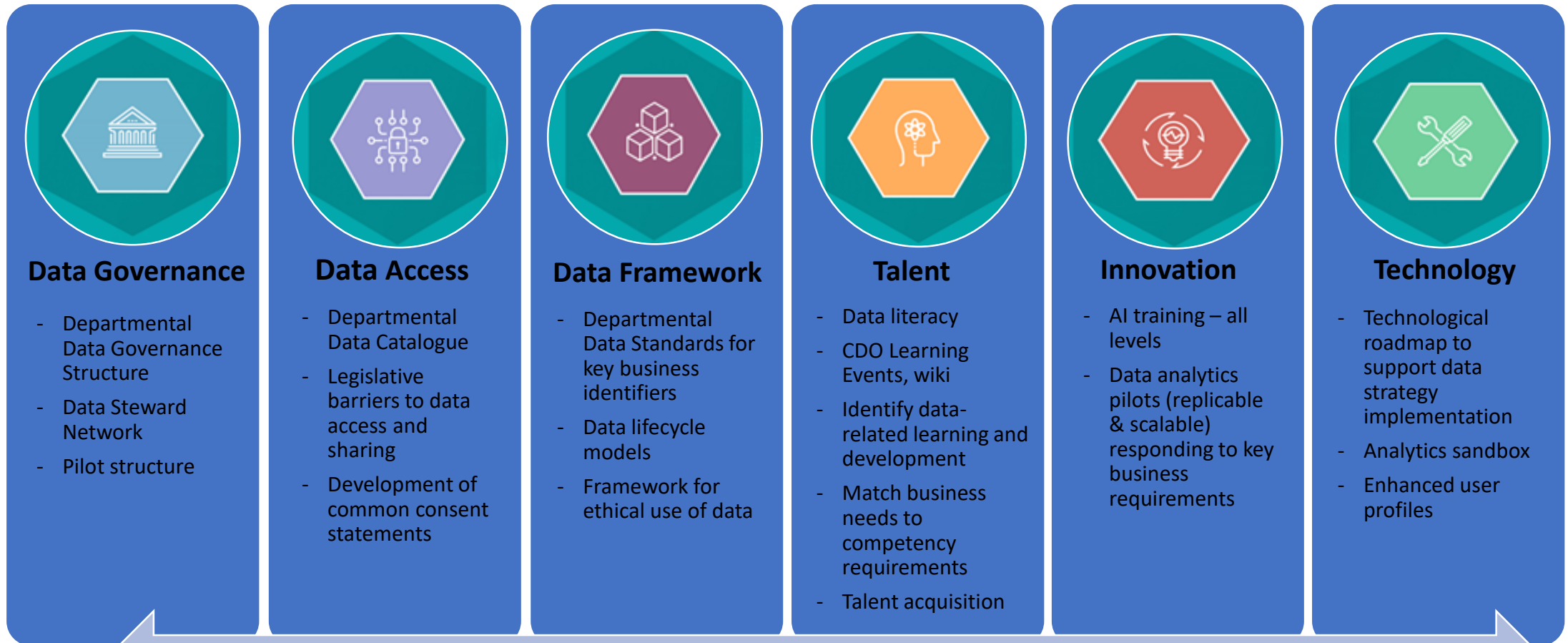| GOALS:	Canadians and Canadian businesses are better informed and served	ISED adopts a data culture where data are discoverable, accessible, secure and of high quality	ISED's talent base is enhanced with new skills and experimentation is promoted	Public trust is honoured by ensuring that data are handled ethically and securely

WHAT ARE WE DOING?	Laying the foundation	Building the momentum	Adopting a data culture
DATA GOVERNANCE	**Data-related leadership established** — Chief Data Office | Data Governance Structure | Identify key data stewards & champions Identify processes to manage data at enterprise level (sharing & storing protocols)	**Culture shift across ISED** — Data Steward and Champion network established Implement & oversee data processes	**People value their data and treat it as an asset** — Monitor adoption of data processes & standards aligned with GoC Data Stewards facilitate access to data
DATA ACCESS	**Data access challenges are well understood** — Inventory & valuation of data assets | Inventory data sharing agreements Assessment of legislative & policy framework for data sharing	**Work on transformative data access initiatives** — Develop common consent statement for data sharing | Create roadmap for a data sharing hub | Partner with Sectors to pilot data sharing and data integration Investigate data sharing opportunities across all levels of government	**ISED data are open by default** — Launch common consent statement for data sharing & monitor data sharing Deploy self-service data sharing hub | Expand data sharing to all levels of government
DATA FRAMEWORK	**Data framework and models are developed** — Data standards, including Common Business Profile and dictionaries, developed and piloted Framework for ethical, secure use & storage of data developed | Detailed data models for collection, acquisition, processing and storage conceptualized and piloted	**Put in place data framework and models** — Process to handle and use data are known | Quality assurance standards developed Data standards launched | Framework for ethical & secure data use implemented Data models in place across the department	**Protection of data via privacy by design** — Staff confidently conduct work with high quality data, with well-established data standards, definitions, and the privacy and security of Canada's data assured
TALENT	**Baseline and identify skills gaps** — Identify business needs | Assess data literacy Identify data-related learning and development	**Our workforce begins to transform** — Develop career path & data competencies | Upskill and retrain new and existing staff Recruitment strategy based on required data skills	**We have trained people to reach our goals** — Ongoing recruitment & development | Talent retention initiative Data as core competency for career development
INNOVATION	**Foundation for change is established** — Early opportunities identified | First data analytics pilots undertaken Success stories shared	**Experimentation begins to yield results** — Roll-out successful pilots to other sectors | Continue to communicate approaches and use cases | Identify mechanism for making decisions on proposed innovative solutions	**Innovation becomes common business practice** — Initiate departmental analytics support | Develop Free Agent data talent matching service (data-skilled talent pool for short-term work) | Establish data science pipeline
TECHNOLOGY	**Higher organizational awareness of existing solutions** — Determine technology requirements | Establish technology strategy | Experiment with technology solutions for data (management, sharing, creation, data analytics) | Roadmap for Client Relationship Management (CRM)	**New tools and processes put in place** — Implement technology strategy — Business processes for use of new technologies, On-site storage, common data software suite, Business analytics tools available	**Internal technology keeps pace with innovation** — Integrated suite of IT tools for data and analytics | Departmental Client Relationship Management with Common Business Profile | Continual evaluation of Next Generation technology with new tech use on demand

Action across six strategic pillars is staged by maturity

Maturity	Laying the foundation	Building the momentum	Adopting a data culture

Focused on developing awareness, understanding and literacy

Focused on changing behaviour and orienting action towards our desired outcomes

Focused on creating business value and driving results

Current stage of implementation

Implementation to Date

Data Governance

- Departmental Data Governance Structure
- Data Steward Network
- Pilot structure

Data Access

- Departmental Data Catalogue
- Legislative barriers to data access and sharing
- Development of common consent statements

Data Framework

- Departmental Data Standards for key business identifiers
- Data lifecycle models
- Framework for ethical use of data

Talent

- Data literacy
- CDO Learning Events, wiki
- Identify data-related learning and development
- Match business needs to competency requirements
- Talent acquisition

Innovation

- AI training – all levels
- Data analytics pilots (replicable & scalable) responding to key business requirements

Technology

- Technological roadmap to support data strategy implementation
- Analytics sandbox
- Enhanced user profiles

CURRENT EFFORTS ARE ON LAYING THE FOUNDATIONS WITHIN EACH OF THE 6 PILLARS OF THE STRATEGY

What we have learned along the way...

- Communicate and engage

- Have champions … and leverage them

- Have a vision but realize that you can't do it all at once

- Demonstrate value early

- You don't need piles of money … really!

Change takes time … and it's hard

Canada

Don't be shy – ask others for help and advice

When #GCdata people unite! But seriously, we spoke abt breaking down silos at #GCData2020 today, & that is what these fine peeps do all the time. We pick up the phone, do coffee, share knowledge, ideas & docs++. Shout out to awesome collaboration & pple across ISED, ECCC + HC!

+Bank of Canada +Transport +IRCC +PCO +STC +TBS + so many more

Tweet your reply