

# Navigating Responsible AI: Insights from Statistics Canada's Journey

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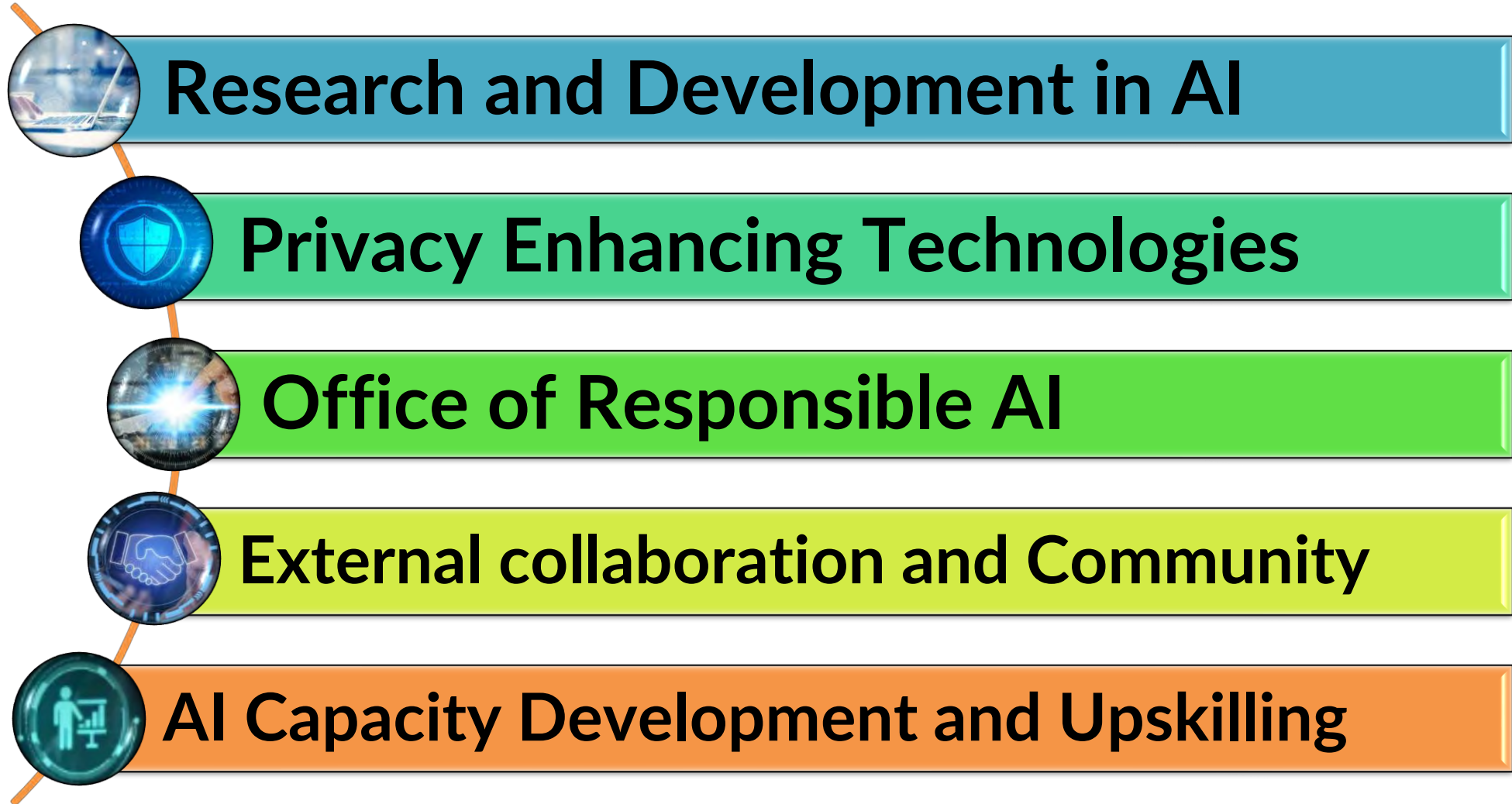
Statistics  
Canada

Statistique  
Canada

Canada



# Who we are



# Responsible AI Adoption



\* From unstructured and alternative data sources with alternative quality indicators.

# Overview of StatCan's AI Strategy



**Production  
Adoption of  
AI  
Delivering  
Business  
Value**



**Establish  
Risk-  
Managed AI  
Governance  
Framework**



**Advance  
Workforce  
Capacity in  
AI**



**Drive  
Responsible  
Experiment  
ation and  
Scale  
Innovation**

# Beyond Research: Fully Integrating AI



Vision

Full responsible and secure integration of AI, including LLMs, in Statistics Canada's processes to deliver relevant programs, efficient operations and enhanced services to Canadians.



Roadmap

Use cases:  
Demonstrate  
business value

- Ideation
- Prioritization
- Implementation
- Value realization

AI governance

- Steering committee
- Ethics
- Legal
- Technical

AI and LLM  
tools

- Infrastructure
- AI platform
- Environments
- COTS – Co-pilot etc.

AI playbooks

- Best Practices
- Guidelines
- Checklists
- Ways of working

Support  
employees

- Communication
- Change Management
- Training



# Types of AI Solutions – By Use

## ALGORITHMIC APPLICATIONS



Service delivery & support



Information management



Workflow automation



Coding & Data manipulation



Production of statistical estimates



Interpretation and dissemination

## INFERENCE APPLICATIONS

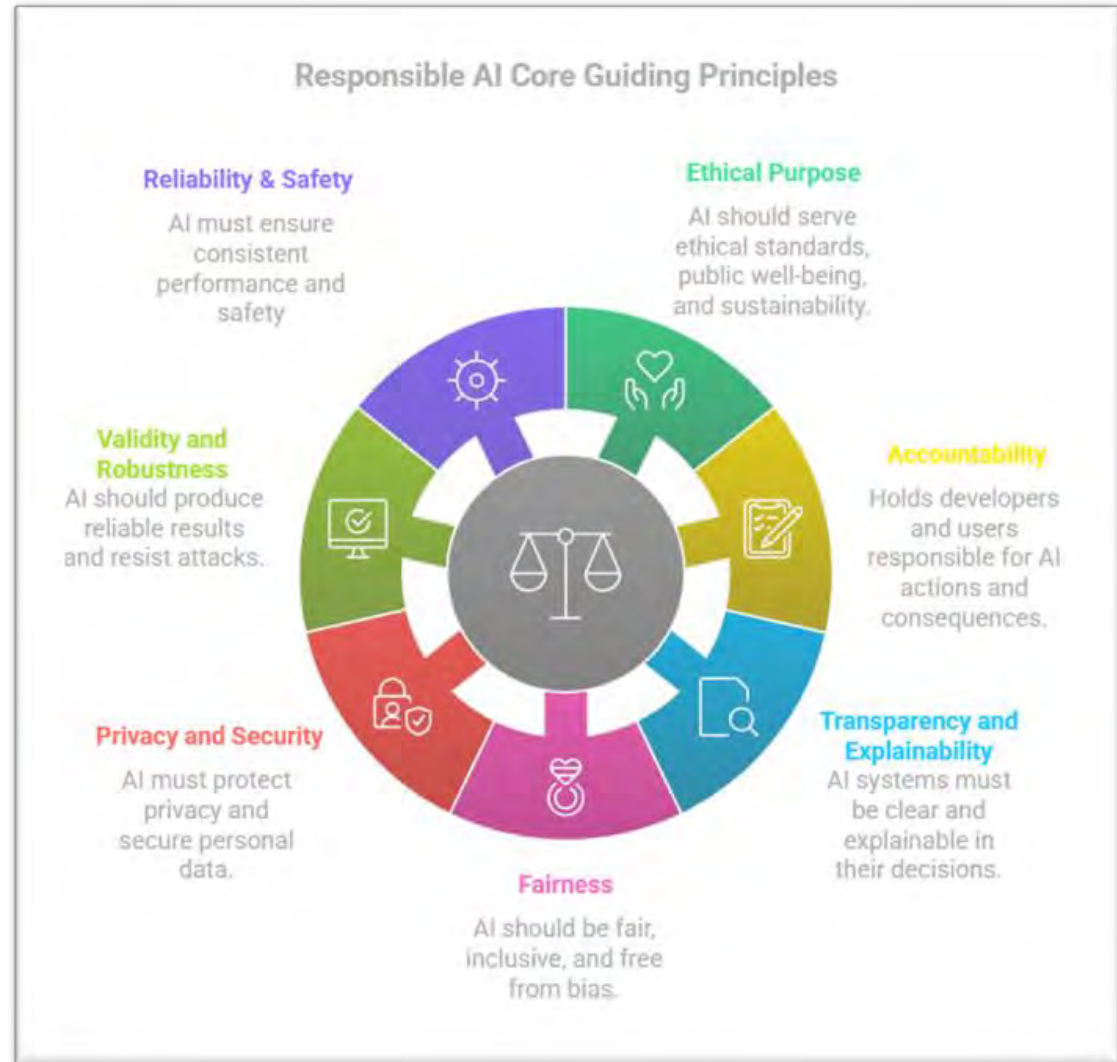


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# Responsible AI Core Guiding Principles



# The Landscape of AI Governance

## Global Initiatives and the Canadian Experience



# AI Governance – Government and Statistics Canada

## Government of Canada Initiatives

- The Directive on Automated Decision-Making (DADM), and
- The Algorithmic Impact Assessment (AIA) tool

### Generative AI Governance:

- 2023 - Guide on the use of Generative AI - Canada.ca (FASTER principles).
- 2023 - Voluntary Code of Conduct on the Responsible Development and Management of Advanced Generative AI Systems
- 2023 - Principles for responsible, trustworthy and privacy-protective generative AI

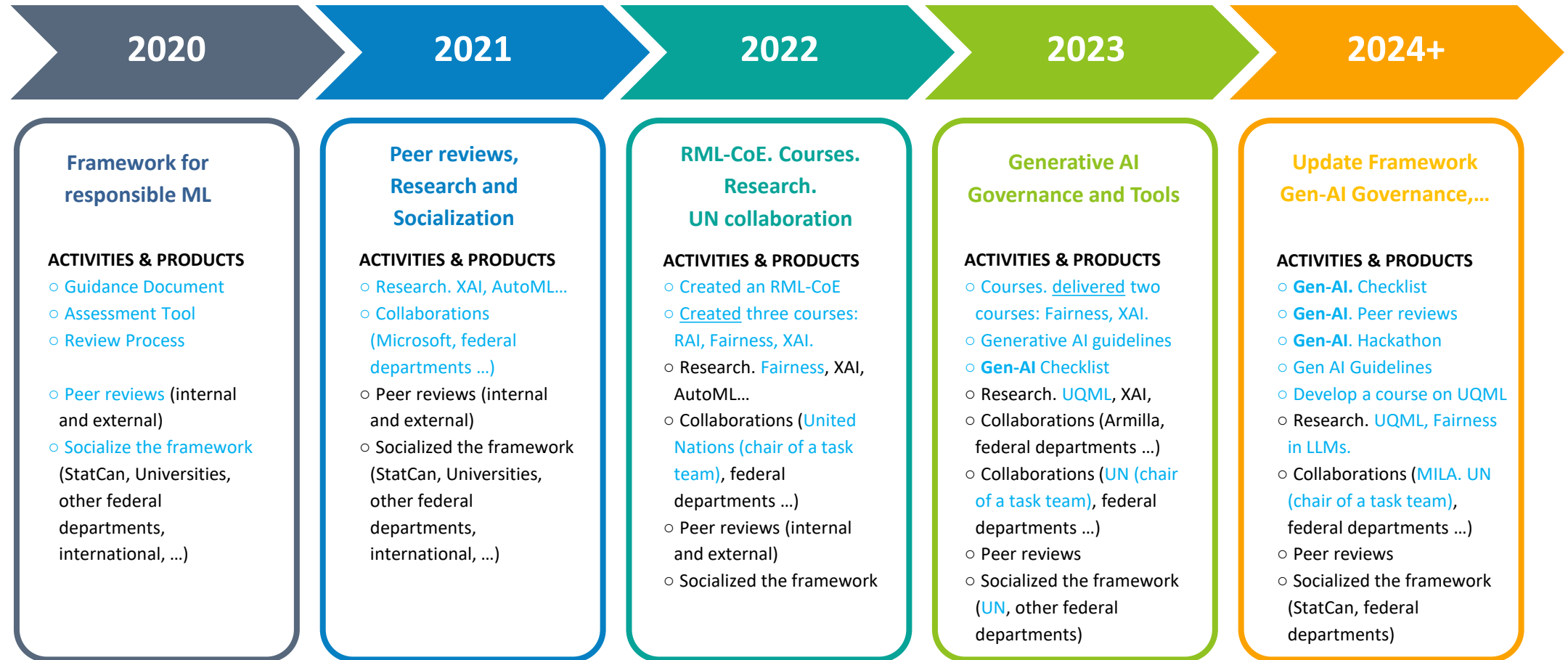
## Statistics Canada

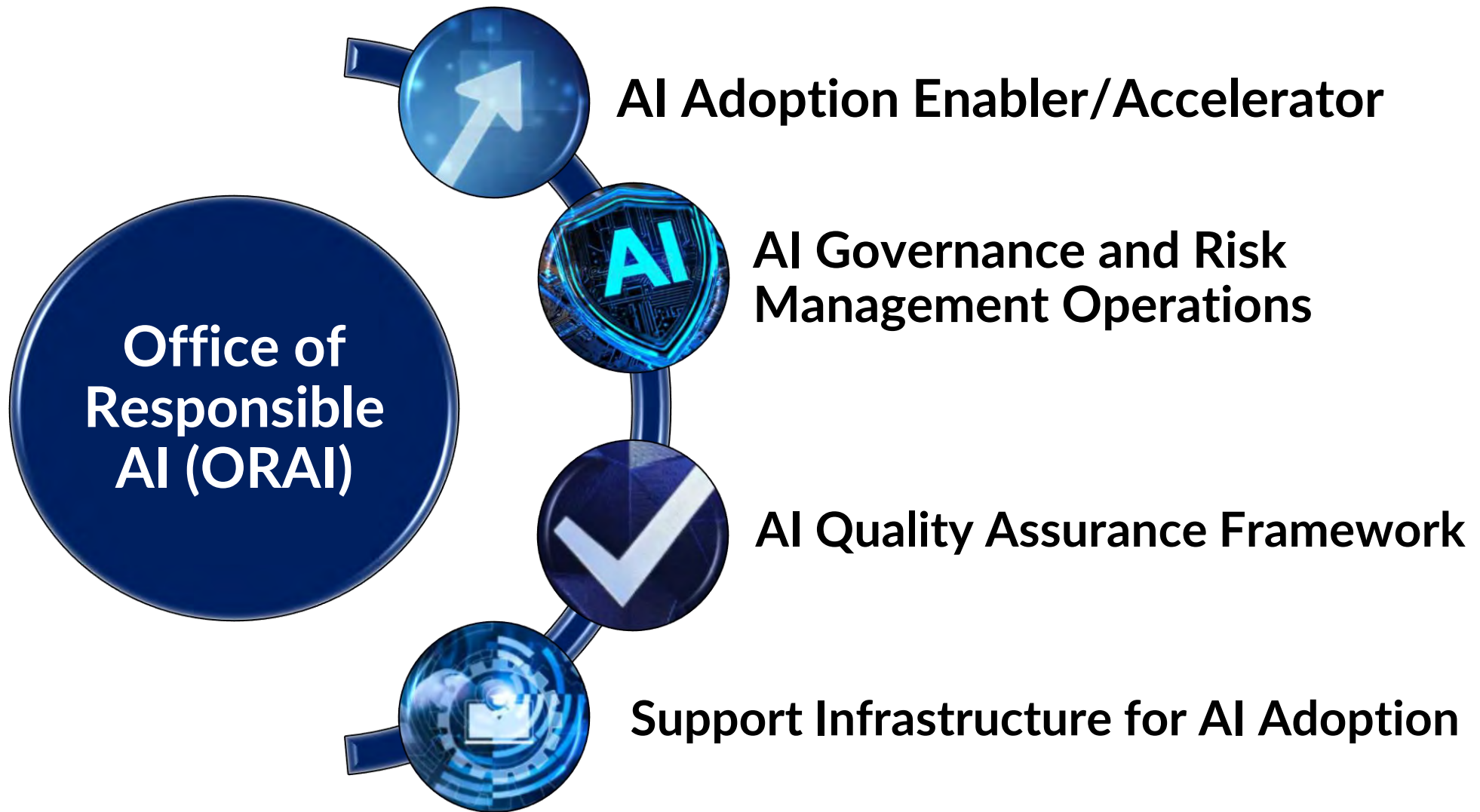
- **2020 - Framework for Responsible ML Processes at Statistics Canada**
  - Guidance document (Core guiding principles of responsible AI/ML and guidelines)
  - Assessment Tool (Checklist), Peer-Review Process
- **2021 - Data Science Strategy** (based on six pillars)
- **2022 - Responsible Machine Learning Centre of Expertise (RML – CoE)**
- **2024 - Office of Responsible AI**
- **2025 - (Upcoming) StatCan AI Strategy**

## Framework for Responsible Machine Learning Processes at Statistics Canada

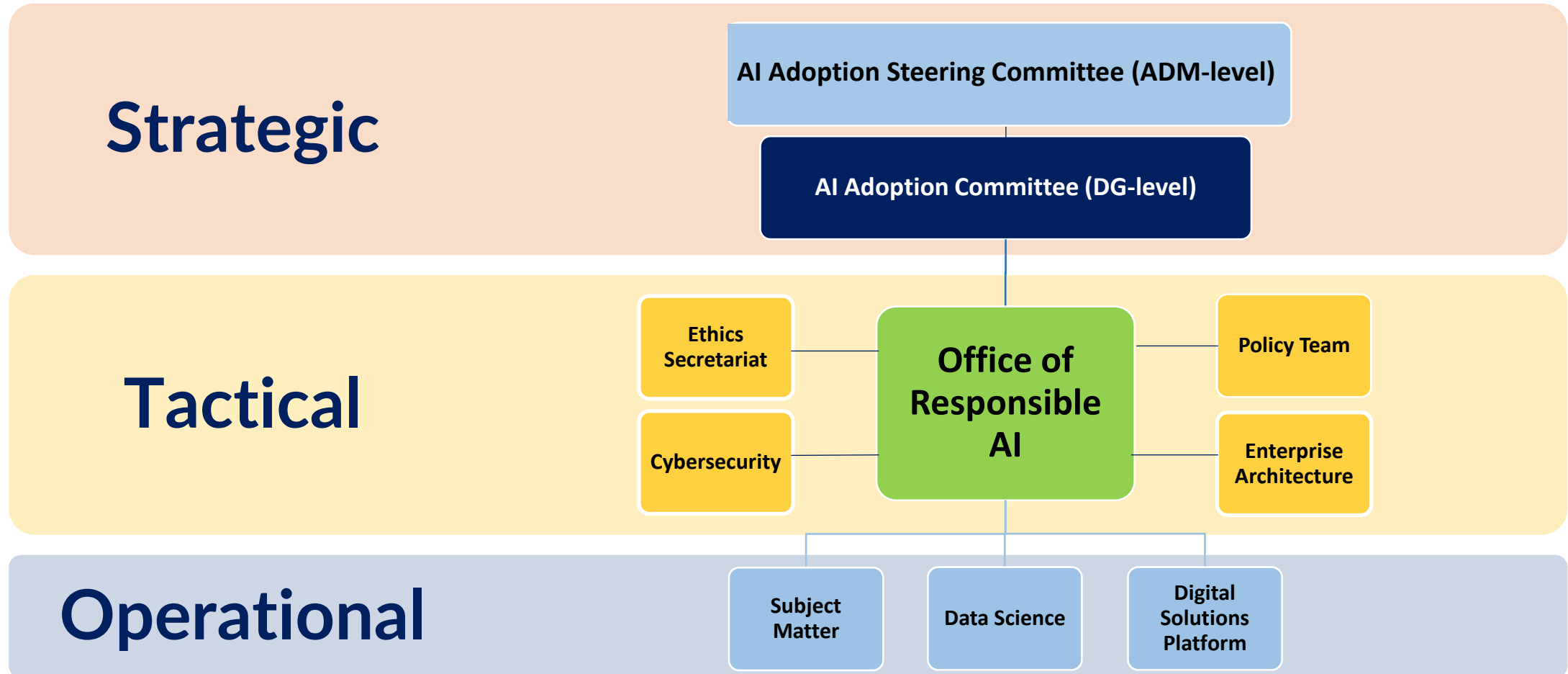


# Our Journey (activity highlights)





# AI Governance at StatCan



# ORAI - Key Responsibilities



**Conducts and Evaluates AI Reviews**



**Updates Playbooks and Guidelines**



**Coordinates with Legal, Privacy, Ethics, Cyber, Subject Matters, etc.**



**Tracking and Lessons Learned**



**Support the AI Adoption Committees (Strategic Layer)**



**Training and collaboration (international and academia)**

# AI Governance Products



**COMPREHENSIVE  
GUIDELINES**



**ASSESSMENT  
TOOLS**



**RED-TEAMING  
&  
HACKATHONS**



**AI COURSES  
AND TRAINING**



**AI REGISTRY  
SYSTEM**

# Governance Service: Review Process of AI Systems



## Prepare for peer review

AIA and impact level.

Seek support - confirm scope and plan.

Identify (independent) reviewer(s).

Consider conflict of interest.



## Technical and ethical reviews

Purpose - design, development and deployment.

Evaluation process.

Checklist (project lifecycle).

Final Report with recommendation.



## AI Adoption Committee

Presents the project before the committee.

Committee considerations.

Approval and recommendations.



## Publish the Review

Agency publishes the report alongside the AIA.

Summary of the findings as alternative option.

Version management and updates.

# Thank you/Merci!

For any enquiry, please contact/Pour toute demande de renseignements, veuillez contacter:

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Delivering insight through data for a better Canada

