

# Digital Governance

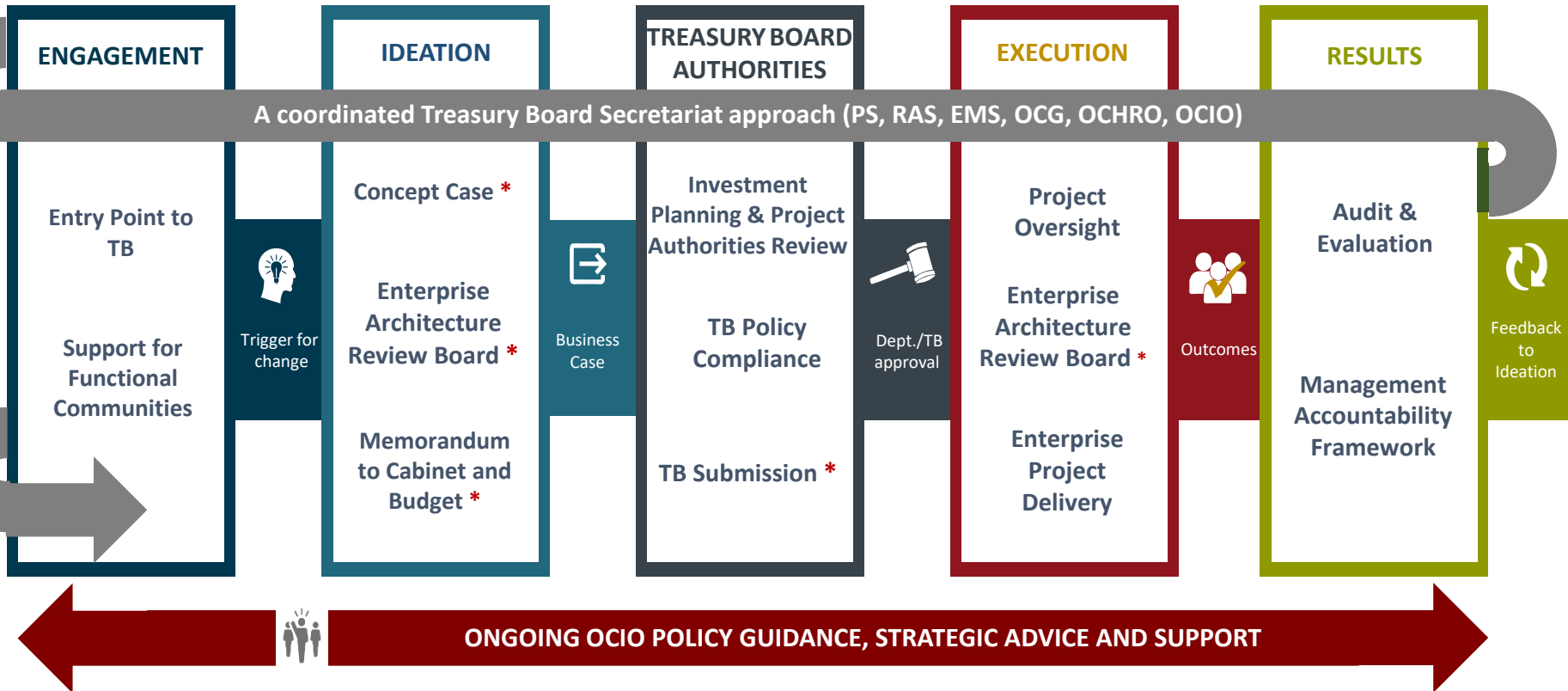
## The role of Enterprise Architecture

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Office of the Chief Information Officer  
Digital Transformation in Government Conference 12/13 June  
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# Governance process overview

# Governance



\* Recently changed / evolving



# *Government of Canada*

## *Digital Standards*

# GC Digital Standards



Design with users



Build in accessibility from the start



Iterate and improve frequently



Empower staff to deliver better services



Work in open by default



Be good data stewards



Use open standards and solutions



Design ethical services



Address security and privacy risks



Collaborate widely



# *Concept Case*

# Concept Case

**Purpose of a Concept Case:** Outline key information on a potential future digital project or investment including:

- ✓ the business problem (or opportunity),
- ✓ the drivers and risks,
- ✓ the desired future state,
- ✓ the intended business outcome(s), and
- ✓ the value of the business outcome(s).

**Method:** Before a project approach is set and funds are committed, the GC CIO will review\* the concept case through the lens of an investment consideration. This will include all digital investments valued at:

- \$2.5M or more for small departments and agencies
- \$5M or more for medium and large departments
- \$15M or more for the Department of National Defence

**Opportunity:** Positions subsequent digital project for success by ensuring problem and desired business outcomes are well understood prior to making investment.

\* As per the Treasury Board Policy on Investment Planning – Assets and Acquired Services, Mandatory Procedures for Concept Cases for IT-enabled Projects



***GCEARB***  
***Government of Canada***  
***Enterprise Architecture***  
***Review Board***



# GCEARB

**Purpose of a the GC Enterprise Architecture Review Board (GCEARB):** A technical review body responsible to define current and target architecture standards for the GC, and review departmental plans to ensure alignment. GCEARB is chaired by the CTO's of the OCIO and SSC.

**Method:** Ensuring alignment to government-wide architectural expectations through the following framework:

- **B**usiness architecture (stakeholders; channels; capabilities)
- **I**nformation architecture (keeping data organized and enabling interoperability)
- **A**pplication architecture (using open by default and maximizing reuse)
- **T**echnology architecture (using cloud-first and designing for performance & scalability)
- **S**ecurity architecture & Privacy (designing for security and privacy by design)

The GCEARB is supported by the Enterprise Architecture community on GCcollab, with members across the GC.

**Opportunity:** Verify that digital projects are integrating the Architecture Standards\* in their system and service design.

For more information [https://wiki.gccollab.ca/GC\\_EARB](https://wiki.gccollab.ca/GC_EARB)

# GC Architectural Standards

## Business Architecture

- Align to the GC Business Capability model
- Design for Users First and Deliver with Multidisciplinary Teams
- Design Systems to be Measurable and Accountable



## Information Architecture

- Data Collection
- Data Management
- Data Storage
- Data Sharing



## Application Architecture

- Use open standards and Solutions by Default
- Maximize Reuse
- Enable Interoperability



## Technology Architecture

- Use Cloud first
- Design for Performance, Availability, and Scalability



## Security & Privacy

- Design for Security and Privacy



# EA assessment example

## JUSTICE – Justice Cloud – Departmental Legal Services Units (DLSU) Connectivity II

Overall: ▲

### Enterprise Architecture Fitness Assessment Summary

Endorsement  
 Information

**Costs** One time: **\$4.9m**  
On going: **\$600k/year**

<b>Project Intent</b>	<input type="checkbox"/> Proof of Concept	<input type="checkbox"/> Experiment	<input type="checkbox"/> Pilot	<input type="checkbox"/> Implementation	GATE: 0
<b>EARB Review Category</b>	<input type="checkbox"/> Public Facing	<input type="checkbox"/> Enterprise	<input type="checkbox"/> Enterprise Cluster	<input checked="" type="checkbox"/> Transformational	<input type="checkbox"/> Other
<b>Type of Cloud</b>	<input checked="" type="checkbox"/> SaaS	<input type="checkbox"/> PaaS	<input type="checkbox"/> IaaS	<input type="checkbox"/> Not Applicable	
<b>Data Classification</b>	<input type="checkbox"/> Unclassified	<input type="checkbox"/> Protected A	<input checked="" type="checkbox"/> Protected B (MM)	<input type="checkbox"/> Other	
<b>Procurement Vehicle</b>	<input type="checkbox"/> SSC	<input type="checkbox"/> PSPC	<input checked="" type="checkbox"/> Departmental	<input type="checkbox"/> Unknown	
<b>Financial Authority</b>	<input checked="" type="checkbox"/> Within Departmental Authority		<input type="checkbox"/> Outside Departmental Authority		

#### Describe the Investment Proposal

- Approximately 1400 Justice employees work in Departmental Legal Service Units (DLSUs) and rely on their host department for network access, applications and IT support. The Pivot to the Cloud Project will deploy a PBMM Cloud Solution to all of Justice to remove connectivity barriers and technical challenges related to working across a variety of and siloed host department networks and solutions. Justice will be focusing on moving some of its applications to the GC Protected B Cloud environment prioritizing SaaS, then PaaS then IaaS.
- To minimize the risk of vendor lock-in, when building or migration cloud applications, the focus will be to design for flexibility and loose coupling. For example, investigating the decoupling of the Cloud Access Service Broker from SaaS office application.
- Completed concept case and Justice DARB

#### GC EARB Recommendation

GC EARB endorsement to move forward with planned activities and procurement of PBMM Cloud Services for the Pivot to the Cloud Project

#### GC EARB Endorsement Conditions

Continue to work with TBS EA, TBS Cyber, SSC, and DXCoP

#### Comments on Alignment to Enterprise Architecture Standards

- Business:**
  - Designing with users to address concerns around connectivity, performance, and availability ▲
- Information:**
  - Project will ensure solution aligns with JUS Data Strategy (currently in development) ▲
- Application:**
  - Office D356 / E3 or E5 ▲
  - Interoperability
    - Will leverage Digital Exchange and API platforms of cloud apps to support interoperability requirements ▲
    - Use and reuse common API's, proven government solutions, approaches, and platforms ▲
    - Justice is fully engaged with the GC Digital Exchange Community of Practice (DXCoP) and plans to leverage the API Store, Messaging, and the GC Service Bus where feasible in future iterations of solutions deployed to the Pivot to Cloud solution ▲
- Technology:**
  - GC Protected B Cloud environment prioritizing SaaS, then PaaS then IaaS (Azure) ▲
- Security and Privacy:**
  - Planning deployment of CASB. Working with TBS Cyber on ICAM implementation. Will meet ITSG 33 ▲
  - PIA planned for fiscal 2019-20. Results will be incorporated into solution design during release cycles ▲

EARB Appearance:  
 Initial  
 Follow-up

Architectural Alignment:  
▲ Fully    ● Partially    ■ Not aligned

# Directive on Automated Decision Making

*“The objective of this Directive is to ensure that Automated Decision Systems are deployed in a manner that reduces risks to Canadians and federal institutions, and leads to more efficient, accurate, consistent, and interpretable decisions made pursuant to Canadian law.”*

## Transparency

- Promoting better understanding of system functionality
- Providing as much information to the public as possible
- Encouraging accountability (measuring of compliance and performance reporting)

## Procedural Fairness

- Ensuring meaningful explanations
- Enabling examinations into the data used in making the determination
- Ensuring the ability to challenge the decision

# Directive Scope and Application

## Scope

- Systems that provide external services as defined in the Policy on Service.
- Any system, tool, or statistical models used to recommend or make an administrative decision about a client.
- Any system in production, excluding systems operating in test environments.
- Does not apply to any national security system.

## Coming into Force

- Took effect on April 1, 2019, with compliance required by no later than April 1, 2020.
- Algorithmic Impact Assessment is a questionnaire designed to assess and mitigate the impacts associated with deploying an automated decision system
- Will have an automated review process planned every 6 months after the date it comes into effect.



# *OCIO Submission Review*

# OCIO Submission Review

## **TB Submission Review** to ensure digital investment:

- ✓ Complies with TB policies (IM/IT, Service, Privacy, Security).
- ✓ Aligns with GC Strategies, Architecture and Digital Standards.
- ✓ Aligns to digital project management and governance best practices.



# *Project Oversight*



# Project Oversight

**Ongoing Project Monitoring:** GC CIO conducts on-going oversight on select digital projects

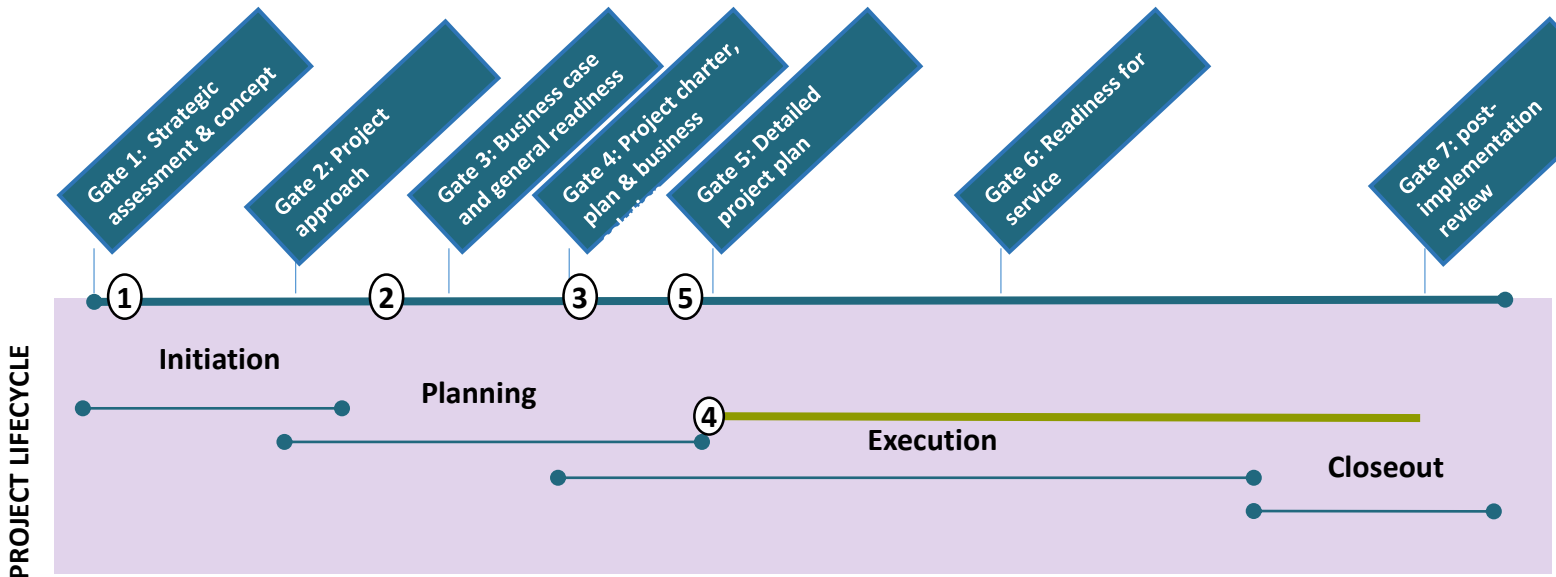
- ✓ Monitors project progress throughout the life of the project
- ✓ Provides recommendations on wide range of project management best practices, including governance, sponsorship, risk management, transition to operations and benefits realization

**Method:** Ongoing liaison with TBS Program Sectors and GC organizations directly throughout the lifecycle, TBS will be better positioned to help ensure projects are positioned for success.

**Opportunity:** If needed, GC CIO will request an independent review for greater insight into issues and barriers to a project's success, and inform Deputy Head of the findings and recommendations for course correction

# GC CIO Touch Points

**Project Lifecycle**



**GC CIO Oversight**

