# IM Aware RPA, GovLab.ai, and Compliance

Thanks for tuning in.
The Live Event will begin shortly!

Ask questions using the Q&A function.

Your microphone is automatically muted.

Your camera will not be in use.

Turn your audio up to ensure you can hear the presenter.





Data and Content Management Branch

Classification: Public

# **Director Update**



IM Aware Sept 2023

Dan Arnold, Director IM Programs

Data and Content Management Branch

Albertan

# **Data and Content Management Updates**

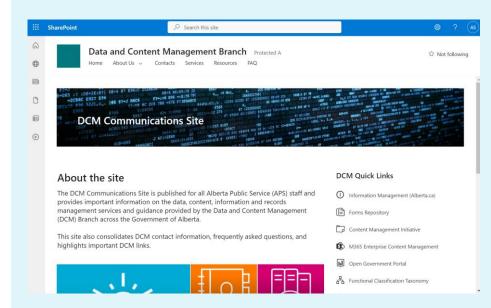
- Content Management Requirements and Risk Assessment/Risk Acceptance Guideline
  - Will allow us to consistently review applications that store and manage content, and identify risks associated with those systems.



# **Data and Content Management Updates**

# DCM Communication Site

- IM Hub for Internal GOA Clients
- Branch Org Structure
- Info about program areas
- Contacts
- Services Offered
- Quick links to projects and other important information
- FAQs





# **IM Programs Team**

New Staff

IM Advice and Consultation RITM is the best way to get in touch.



# **IM Programs Team**

- APS Week
- Tuesday is "We aim for excellence"





# **Thanks**

Albertan



# RPA Awareness

Robotic Process Automation Program



# Agenda

- Vision and guiding principles
- RPA overview
- Demo
- Case study
- > Process attributes for automation
- RPA project delivery
- Next steps: submitting your opportunities

Albertan

/	ر	

Vision and Guiding Principles 🔆

# Vision and Guiding Principles

### **OUR VISION**

To make life better for Albertans, Service Alberta's Robotics Process Automation (RPA) Center of Excellence (COE) will enable digital transformation of the ministries to modernize and improve the quality and effectiveness of their services, by building a digital workforce to automate repetitive, manual, and mundane processes.

## **Our Guiding Principles**



## **Our Strategy**

#### Putting People First



We are your trusted automation advisors and commit to serving Albertans, building trust, and improving our processes.

- Build strong partnerships with the sectors & ministries to serve citizen better
- Building internal RPA capabilities & skillsets
- Enable ministries to upskill & empower employees

### **Transforming Work**



We challenge the status quo and transform the way we work so that we can work better and faster

- Create a community-driven ideation hub to identify meaningful opportunities
- Provoke the "Art of the Possible" mindset
- Enable our teams to leverage unlocked capacity

## **Ensuring Quality**



We tackle the right opportunities at the right time and deliver tangible results

- RPA repeatable framework & common standards
- Standard selection & prioritization criteria
- · Assess and share tangible results



# RPA Overview

Albertas

## What is

# RPA?

Robotics Process Automation (RPA) is a software that *mimics human behavior*. For RPA to be effective the candidate process should be *stable*, *rule-based*, and leverage *digital inputs*.



Humans and bots can work together to derive maximum efficiency

#### ROBOTS

deliver repetitive, deterministic, high-volume tasks efficiently, accurately, and consistently

#### PEOPLE

build relationships, provide subjective judgement, deliver low-frequency tasks, and manage change and improvement

## RPA is a software

RPA is a computer software that runs repetitive, rulebased processes. The software is trained based on functional specifications and can be adjusted at any time.



## **RPA** simulates an employee

The software robot has access to diverse applications with an ID or a password. The robot can gather information, perform calculations and update data. As a result, business and administrative processes can be fully automated.



# RPA is integrated in an existing IT infrastructure

As a renewal of the existing IT landscape is not required, a high level of automation can be reached without major IT infrastructure effort. RPA uses established control mechanisms and can communicate with all systems. Therefore, no interface is required.



# **Robotics Process Automation**

Technology that is apart of the larger Intelligent Automation landscape that aims to reduce costs while increasing employee engagement, speed and quality through intelligent automation

#### **RPA within Intelligent Automation** Optical Character RPA is a gateway technology, with increasing Recognition value to be generated when RPA is integrated with other intelligent automation capabilities Artificial such as OCR, chatbots, machine learning, AI, Intelligence **Robotics** etc. Thinks Process Automation Does the Business Machine work Intelligence Learning Visualizes and Translates Chat Bots Communicate

#### **KEY RPA BENEFITS**

- Scale up/down to match demand
- Improved accuracy & quality
- Enhanced employee engagement
- Decreased audit risks
- Deploy without altering existing IT systems or infrastructure
- Consistency & standardization
- Speed, i.e. do more faster
- ✓ Cost reduction

#### **RPA Centre of Excellence**

- Deployed and supporting automations across 6 government ministries
- Experienced team of RPA personnel including process analysts and developers
- Returned over 2,500 monthly hours to ministries, with annual savings exceeding \$1.2M

## KEY PROCESS CHARACTERISTICS TO DETERMINE AUTOMATION ELIGIBILITY

High volume and repetitive

High levels of manual data capture and/or entry

Interaction with multiple applications or systems

Definable business rules and expectations

#### RECOGNITION



- Awarded 2023 Minister's Award for Transportation Innovation for Driver Fitness & Monitoring automation of Ignition Interlock Program Eligibility Calculations
  - Nominated for Premier's award

Ministries with Automations Delivered by RPA Centre of Excellence

Transportation & Economic Corridors

Seniors, Community and Social Services

Trade, Immigration and Multiculturism

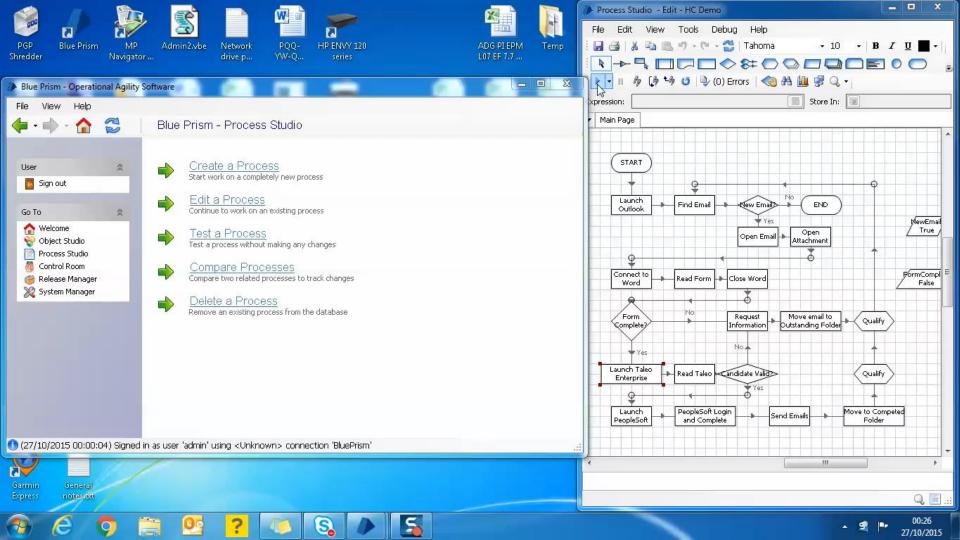
**Municipal Affairs** 

Public Safety and Emergency Services Environment and Protected Areas

# Demo 🕒



Albertan



# Case Study



# Case Study at Government of Alberta

### **RPA-47 IIP Eligibility Calculator**

Ministry: Transportation & Economic Corridors

**Branch**: Driver Fitness & Monitoring

**Process Overview**: Automation of process to determine if suspended driver is

eligible to participate in Ignition Interlock Program

**RPA Components:** Interaction with 3 applications – SharePoint, MOVES, CRM. Perform 50+ step eligibility calculation. Exception handling for 5 business rules.

Weekly summary report of RPA processed records.



## **RPA-62 MyAlberta Digital ID Email**

Ministry: Service Alberta & Red Tape Reduction

**Branch**: Service Delivery

**Process Overview**: Automation of response to citizen enquiries for MyAlberta

Digital ID services and programs

**RPA Components:** Interaction with ServiceNow, management of open and closed cases, optical character recognition (OCR), logic to determine response script

based on enquiry details, weekly summary reports.

### **RPA-02 OPGT Invoice Processing**

**Ministry**: Seniors, Community and Social Services **Branch**: Office of the Public Guardian and Trustee

Process Overview: Automated receipt and payment of essential expenses on

behalf of in-need citizens

**RPA Components**: Interaction with shared drive and Adobe. Data extraction and document understanding from scanned forms. Machine learning and AI for bot learning from new form formats. Action Centre for human review of unrecognizable formats. Generated workflow for payments.



#### **RPA-51 Corporate Income Tax Corrections**

Ministry: Treasury Board and Finance

**Branch**: Revenue Operations – Corporate Income Tax

**Process Overview:** Automation of process to review corporate tax returns with

most common filing errors and adjust returns when possible

RPA Components: Interaction with 2 core tax software applications and MS Outlook. Execute complex 47-step process to determine source of filing error, mine payment transactions, execute payment adjustment, and email client. Exception handling for 13 business rules. Daily summary reports.





N	r	b	l

Process Attributes for Automation

rta	

# What Makes a Good Process for RPA?

## **Automation Suitability Criteria**

# Identify processes where teams are manually... Accessing, validating, manipulating and gathering data from multiple systems Moving data from one system to another – throwaway or less frequency high volume data movements Checking data consistency, and updating the same info in multiple systems Extract and process structured content from documents, applications for foundational daily activities Remediating data across several accounts Quick interfacing multiple systems through front end or through API's

#### Ideal Process Attributes

- > Well defined, rule-based processes
- > Mundane, time consuming, repetitive tasks that are critical to business operations
- High transactional volume
- Require transacting in multiple systems and/or multiple screens/fields in source system
- Stable systems and processes
- Processes where quality and accuracy are critical
- < 50 % of processes fully automated</p>
- Direct control of tools and processes
- Little human judgement or insight required
- > Data is available in digital format or can be converted
- Processes that are constantly battling backlogs and/or constrained people resources

## **Unsuitable Process**

- Systems/applications are unstable or change frequently
- Other solution is already in place
- High variability throughout process where full human judgement is required
- Process cannot be digitized for RPA processing



RPA Project Delivery

(berta)

# The RPA Model

Awareness Identification Assessment Prioritization Development, Deploy and Monitor

#### **Build Awareness**

Introduce sectors / ministries to RPA COE and challenge stakeholders to identify process candidates for RPA

### **Opportunity Rationalization**

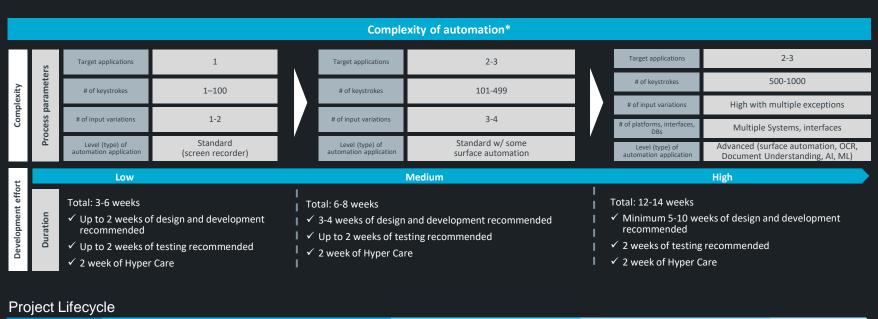
- Discuss identified opportunities
- Collect process data to evaluate potential benefit
- Perform deep-dive workshops with business stakeholders to identify the scope and depth of process
- Analyze prioritized process candidates based on collected data from process observations
- Validate prioritized candidate processes with development stakeholders for technical feasibility
- Obtain approval for prioritized list of process candidates

### **Delivery and Support**

- Solution development, testing, and deployment
- Production stabilization with increased monitoring and support
- Sustainment support and monitoring for life of solution



# Project Complexity and Timeline



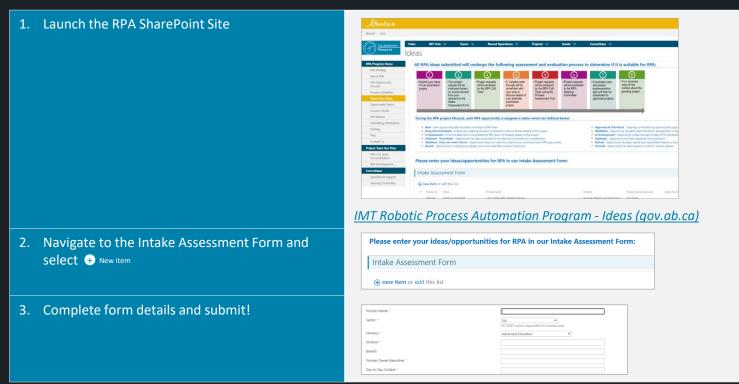
Solution Design	Development	Testing	Deployment/Stabilization	Support
1 week	3-14 weeks	1-2 weeks	1-2 weeks	On-going



Submitting your Opportunities

# Submit your RPA Opportunity

Submitting your next RPA opportunity is quick and simple through our intuitive Intake Assessment Form



Albertan

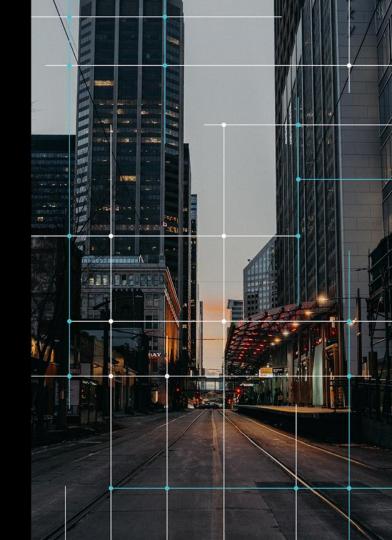
# Thank You!



Albertan

# GovLab — ai

# Al for Innovation and Growth





# What is GovLab.ai?

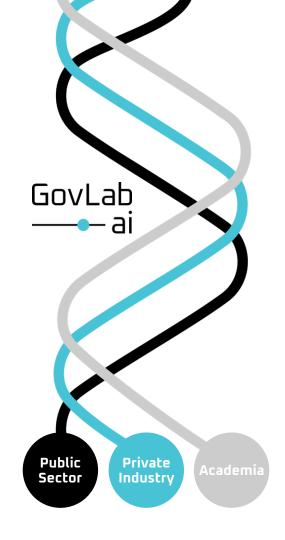


# The Triple Helix Model

First proposed by Henry Etzkowitz and Loet Leydesdorff in 1995, the Triple Helix model of innovation serves as a framework to bring the Public Sector, Academia, and Private Industry together in order to create meaningful transformation.

GovLab.ai is based on the triple helix model and connects the public sector with private sector innovation to **upskill talent** and create smart software solutions powered by **ethical Al**.

By unlocking the value of data, GovLab.ai can help solve public sector's most complex problems, optimize service delivery, and improve the lives of all citizens.



# Mission & Objectives

Mission: Build a sustainable innovation practice that will launch products powered by data and AI to benefit citizens and governments first while accelerating economic prosperity



# IMPROVED SERVICES TO CITIZENS

Efficiencies gained are transformed into additional transparency, better quality and faster turnaround for service delivery



## **INNOVATION ECOSYSTEM**

Strong partnerships in public and private sector allow the public sector to take a lead role in AI/ML adoption



## **ECONOMIC PROSPERITY**

Revenue from participating shares flow back into GovLab.ai, creating a self-sustaining Innovation Practice

а.

ification: Public



Upskill / reskill the public sector workforce in AI/ML and digital transformation



Attract students / recent graduates to consider public sector employment given the ability to make an impact in so many people's lives



Create solutions that can be operationalized and start saving costs, creating efficiencies, testing out new service offerings and/or increasing quality of service delivery to citizens

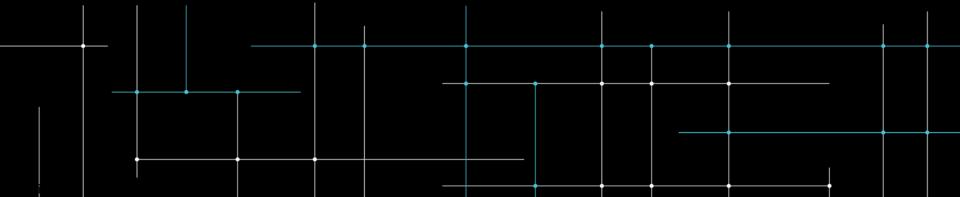


Create a network of peers in the public sector to increase the opportunities for knowledge and information sharing



Use emergent tech to create new intellectual property and strengthen the local economy

# How does GovLab.ai work?



# A Multi-Tenant Model

Leveraging economies of scale by sharing resources and investments across the public sector Within Alberta, the Government of Alberta has taken the opportunity as the anchor tenant to seize the power of its data to put Alberta ahead as a global leader. GovLab **Anchor Government of Alberta** Municipalities ( Gov't Agencies Example of possible **Health Authorities** tenants **Education Boards** 

Classification: Public

# A Proven Model

We are seeing incredible success in a similar model at the Applied Al Lab in Calgary with private industry partners.

# **AltaML**

**Program Lead** 

**Delivery Managers** 

**Data Science Leads** 

**ML Developers** 

**Business Consultants** 

# Tenant

**Project Lead\*** 

**Business SMEs\*** 

Data SMEs\*

Residents (employees to be trained in AI/ML)

# Academia

Tech Interns (students with AI/ML knowledge to experience public sector)

Business Interns (students with business knowledge to experience public sector)



# The Factory Delivery Model

## Stream 0 - Ongoing Backlog Updates

While a current cohort is executing Proof of Concept (PoC) projects, AltaML works with appropriate stakeholders to identify, define, prioritize and select new use cases that can be executed in upcoming cohorts. AltaML will also complete feasibility assessments for selected use cases to maximize the chance of success in future cohort-based experimentation.

## Stream 1 - Proofs of Concept

AltaML, Mitacs interns and residents complete a proof of concept (PoC) Al/ML project in a 4-month cohort. Use cases are predefined and framed in advance so the cohorts can execute on these projects within the cohort timeframe.

## Stream 2 - Pilots and Operationalization

After a successful, PoC from a previous cohort, AltaML works closely with the tenant to build, test, pilot and operationalize Al/ML powered software products.

Д

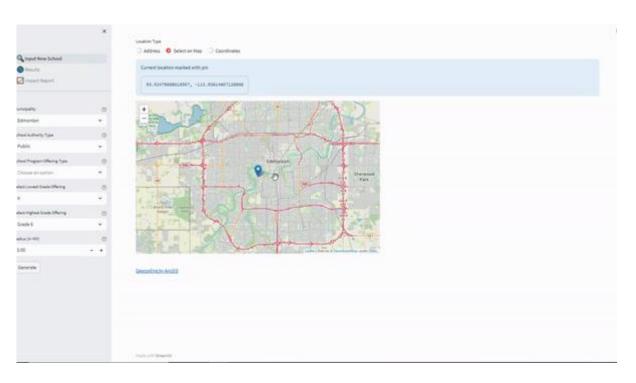
ification: Public

# A Closer Look at the Use Cases

# Solutions - Education Capital Planning

### Optimizing school utilization rates

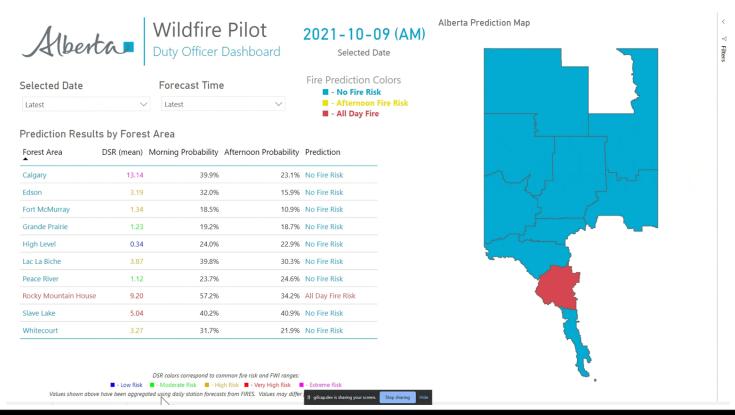
- Input school location type
- Select multiple program offerings
- Choose school type
- Choose grade levels
- Select the distance from the school to be considered



Results will display the predicted enrollment at the new and surrounding schools

# Solutions - Predicting Wildfire Occurrence

Optimizing presuppression resource planning



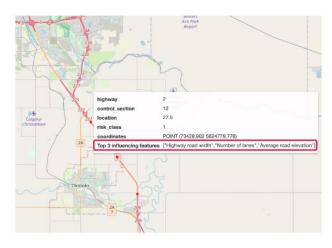
GovLab ———— ai

# Solutions - Alberta Wildlife Watch

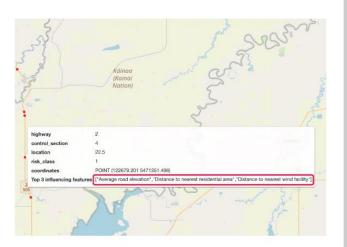
Reduce animal vehicle collisions (AVCs)

Case Study Overview | Southern Alberta - Highway 2 - South of Stoney Trail SE

Our model shows different core correlated features to highway segments with high risk.



Location near City of Calgary



Location near Kainai Nation

AI LAB FOR GOVERNMENT

# **Mountain Pine Beetle Detection**

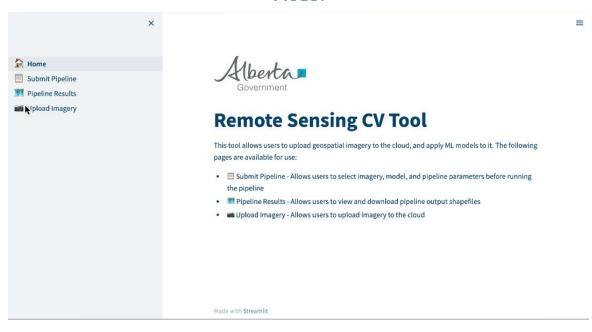
Identifying single infected trees - Improving safety and optimizing resource utilization

### Data



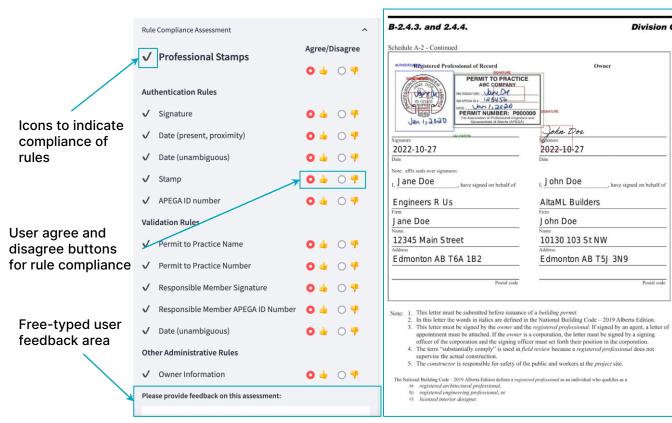
The team experimented with various remote sensing data sources and recommended SPOT (1.5m) data for the model due to our strong model results and the GoA's existing licensing agreement.

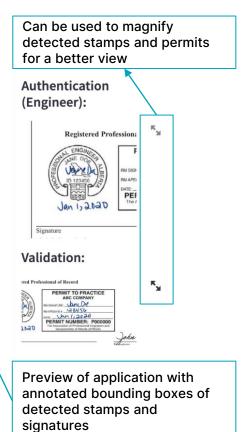
### Model



# Solutions - Automating Permits

Pre-screening of building permit applications using object detection



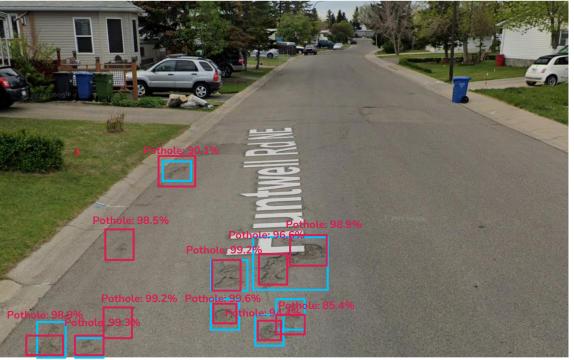


Division C

# **Solutions - Road Condition Detection**

Analyzing road conditions from vehicle mounted

cameras



Ground truth labels



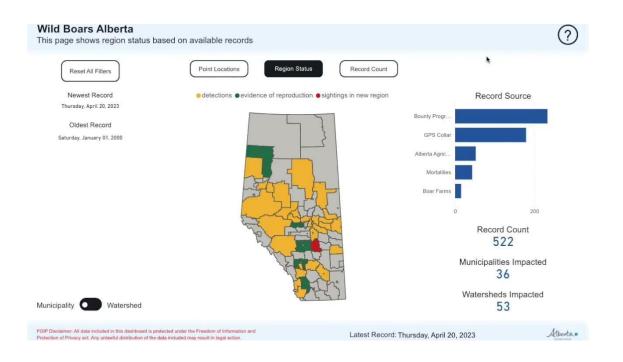
Pothole



Prediction

# **Solutions - Wild Boar Detection**

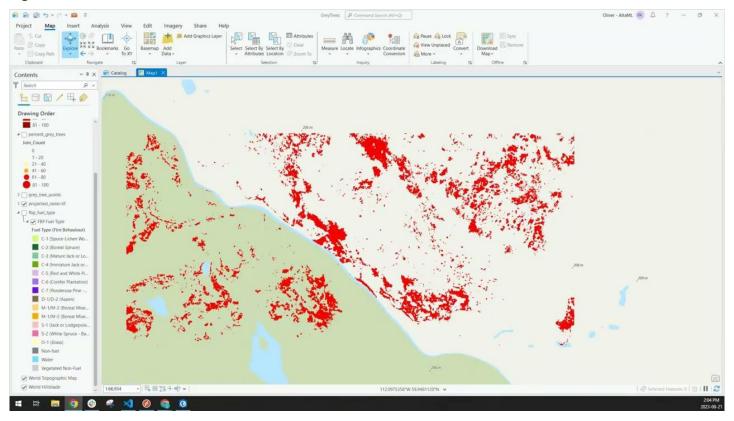
Visualizing Wild Boar Reports throughout the Province of Alberta





# **Solutions - Grey Tree Detection**

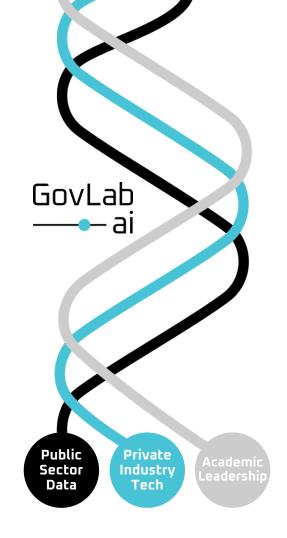
Identifying where dead tree are located



# Unlocking Innovation Through Technology and Data

"GovLab.ai has opened my eyes to the many possibilities of using Wildfire data and AI to help solve long standing complex problems."

- Ed Trenchard, Wildfire Management Specialist, Alberta Wildfire Management Branch



а

ification: Public

# Questions & Discussion

# Contact:

### **Chantal Ritcey**

chantal.ritcey@altaml.com GovLab.ai

# Compliance: The Oversight of Content Management, Access and Privacy

Compliance

Privacy, Policy and Governance Branch Data, Privacy and Innovation Division Technology and Innovation

IM Aware on September 12, 2023



Government of Alberta policy sets out requirements for managing content, access and privacy.

By monitoring adherence to these requirements, government transparency and accountability and compliance with legislation can improve and potential risks can be identified and addressed.



# What is Compliance?



A METHOD FOR ASSESSING RISK



OVERSIGHT OF STAFF UNDERSTANDING OF LEGISLATION AND POLICY



MEASUREMENT OF MATURITY IN COMPLYING WITH LEGISLATION AND POLICY



FOCUS ON MONITORING AND AWARENESS



EACH STAFF MEMBER RESPONSIBLE FOR COMPLIANCE

# **Context for the Compliance Program**

- GoA digital transformation and integration
- Government accountability
- Strengthened federal and international privacy legislation
- Increased data sharing and Artificial Intelligence use of data
- Changing public expectations from government
- Recommendations of the Office of the Information and Privacy Commissioner (OIPC) (2016, 2019)
- Other jurisdictions use maturity assessment models and continuous improvement cycles

# **Authorities Used by Compliance**

Content Management	Privacy	Access to Information
<ul> <li>Freedom of Information and Protection of Privacy (FOIP) Act</li> </ul>	FOIP Act	FOIP Act
<ul> <li>Records Management         Regulation</li> <li>ISO Standards/ Canadian         General Standards Board         72.34 Electronic Records as         Documentary Evidence</li> </ul>		

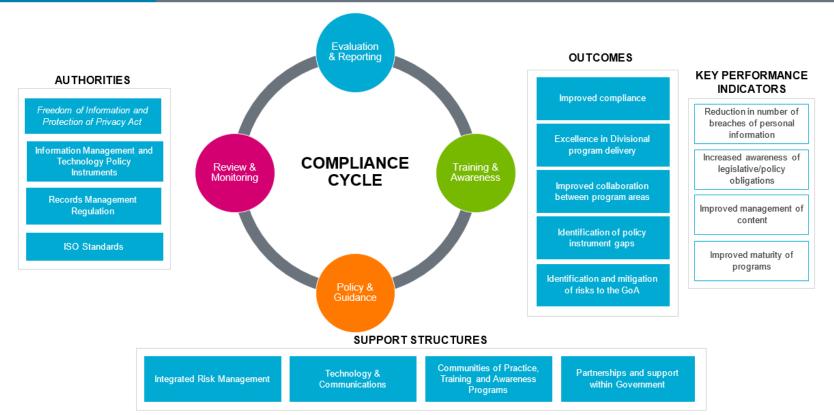


### DATA, INFORMATION MANAGEMENT, ACCESS TO INFORMATION AND PRIVACY COMPLIANCE PROGRAM

**VISION** 



Responsible management of all records, data and information, in the custody and control of Government of Alberta departments, through the identification and mitigation of risks that could interfere with enterprise content management requirements and policy instruments.



# **Compliance Unit**

- Consists of a Manager and two Senior Compliance Analysts
- Developed tools for assessing compliance in the management of content (data and information), privacy and access to information

# **The Pilot Survey**

# **Pilot Survey**

- Questions were developed to test staff understanding of related policies and practices.
- The responses to the questions were tabulated and set against other data sets to develop a maturity level assessment for each group of questions.
- An anonymizing online survey tool was used.

# **Calculating Maturity Levels**

Data & Information Management	Privacy	Access to Information
<ul> <li>Survey Answers</li> <li>Content Inventories</li> <li>Training Statistics</li> <li>Updated Records Schedules</li> </ul>	<ul> <li>Survey Answers</li> <li>Privacy Services     Statistics</li> <li>FOIP Annual Report     Statistics</li> <li>Training Statistics</li> </ul>	<ul> <li>Survey Answers</li> <li>Current PIBs</li> <li>FOIP Heat Map</li> <li>FOIP Annual Report Statistics</li> <li>OIPC Reports</li> <li>Training Statistics</li> </ul>

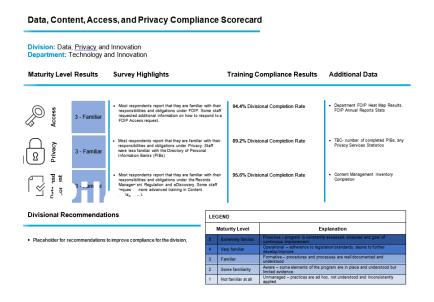
# **Maturity Levels**

Level	Explanation	Maturity Level
5	Extremely familiar	Level 5: Proactive. Program is constantly assessed, analyzed and goal of continuous improvement.
4	Very familiar	Level 4: Operational. Adherence to legislation/standards, desire to further develop/improve the program.
3	Familiar	Level 3: Formative. Procedures and processes are well documented.
2	Some familiarity	Level 2: Aware. Some elements of the program are in place, but limited evidence.
1	Not familiar at all	Level 1: Unmanaged. Practices are ad hoc and inconsistently applied



# Reporting

- Survey Results Summary
- Scorecard
- Key insights & Recommendations for improvement





# **Key Insights**

- A high degree of understanding of the requirements for FOIP access, privacy, and the management of content
- Requests for more training
- Better policies and procedures would be appreciated



# **Next Steps**

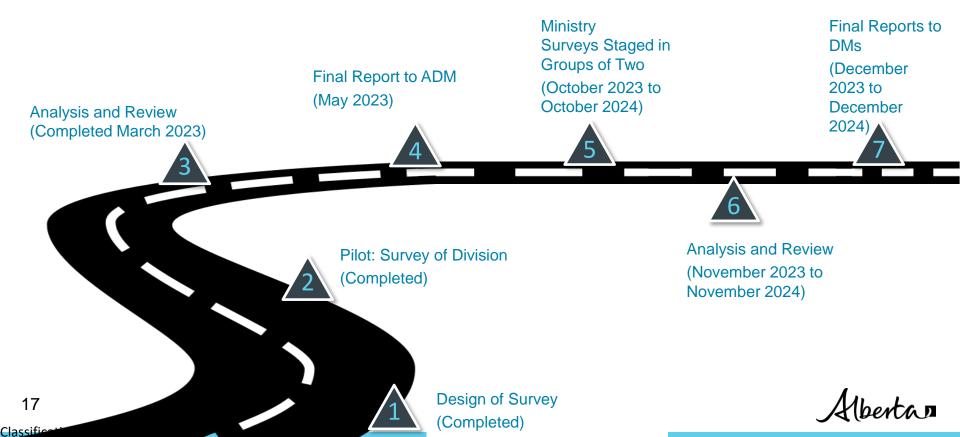
# **Next Steps**

- Conduct a General Survey of employees in each ministry
  - Report on findings to the ARMC, ADM IMT Committee and DM Council
- Conduct a compliance program review
- Work with other compliance teams in the GoA

# **General Survey Considerations**

- Any survey of employee knowledge of policy requirements must be unobtrusive and clearly written.
- The survey should take no more than 20 minutes to complete.
- The survey responders must be confident of anonymity.
- The survey should provide a baseline measurements that can be refined by later compliance monitoring.
- The survey results aid in assessing the level of maturity of compliance of each department with policy requirements.
- Stakeholders are identified (DM Council, PSC, CPE, etc.)

# 2023-2024 Compliance Survey Roadmap



# **Future Program Reviews**

- Over the next three years (2023 to 2025) Compliance will conduct reviews of corporate content management, privacy and access programs
- Each review will assess
  - Current policy in light of interviews and best practices
  - Training materials
- Make recommendations to mitigate risks



# **Contacts**

- Compliance <u>goa.compliance@gov.ab.ca</u>
- Privacy <u>privacy@gov.ab.ca</u>
- Cybersecurity <u>goa.cybersecurity@gov.ab.ca</u>
- IM Programs <u>Advice and Consultation Service Request Form</u>



# Questions?



# IM Aware RPA, GovLab.ai, and Compliance

Thanks for tuning in.

To join our mailing list email:

sa.informationmanagement@gov.ab.ca



