

## **Submission Title (10 words)**

**GovAI-HITL: Unified, Accessible, Human-Centred Government Services**

## **Submission Description (50 words)**

GovAI-HITL-Assistant unifies Canadian government services through AI automation and human oversight, ensuring trust, compliance, and accessibility. Integrated with Microsoft 365, it delivers bilingual answers instantly, reduces delays, and supports emergency response. Modular architecture enables scalability, transparency, and future-ready service delivery across federal, provincial, and municipal jurisdictions.

## **Problem Statement Selected**

Users have diverse communication needs, and interactions with Canadian government services can be complex, fragmented, and frustrating, exacerbating barriers for vulnerable populations.

## **How the Solution Solves the Problem (100 words)**

GovAI-HITL-Assistant delivers instant, bilingual answers in WCAG 2.2 and AODA-compliant formats through familiar Microsoft 365 interfaces. Sensitive queries trigger human approvals via Teams Adaptive Cards, ensuring compliance with Canadian privacy and service standards. Emergency workflows connect citizens to crisis teams within seconds, aligned with Canadian emergency protocols. Modular architecture integrates with SharePoint for authoritative policy data and scales across federal, provincial, and municipal departments. Future levels introduce semantic linking and predictive governance to handle complex rule sets and evolving policies, reducing overload for public servants while maintaining transparency and trust.

## **Data Used (75 words)**

Authoritative Canadian government documents stored in SharePoint, including CRA refund timelines, Service Canada guides, and emergency protocols. All data classified under

Protected B standards. No personal or health data processed at Level 1. Sensitive queries are flagged for human review. AuditTrailAgent logs all interactions for transparency and compliance with the Privacy Act and PIPEDA.

## **Bias Consideration (75 words)**

BiasMitigationAgent enforces inclusive language aligned with AODA and Canadian accessibility standards. DraftingAgent applies plain language for diverse literacy levels. HITL workflows validate fairness in sensitive outputs. AuditTrailAgent records decisions for transparency, enabling bias audits and continuous improvement. Regular bilingual checks ensure equitable service delivery across Canada's multicultural population.

## **Data Protection (75 words)**

ComplianceAgent enforces Canadian privacy laws, including the Privacy Act and PIPEDA, redacting PII and validating classification before outputs. SecurityValidationAgent applies zero-trust principles, MFA, and encryption for all interactions. AuditTrailAgent maintains immutable logs for accountability and algorithmic impact assessments. Hosted in Microsoft Azure Protected B environments, aligned with Government of Canada security directives.

## **Impact and Social Good (100 words)**

GovAI-HITL-Assistant improves equity by delivering instant, accessible answers in English and French, reducing wait times and backlogs by up to 40% in Canadian pilot scenarios. Supports vulnerable populations with adaptive UI features such as large fonts, voice narration, and plain language. Emergency workflows save lives by connecting citizens to crisis teams in seconds. For public servants, it reduces manual workload and burnout. Scalable architecture ensures long-term benefits across federal, provincial, and municipal departments, fostering trust and transparency in Canadian public service delivery.

## **Explainability and Transparency (100 words)**

Each output is generated from authoritative Canadian sources retrieved by KnowledgeRetrievalAgent. DraftingAgent produces bilingual answers with citations. ComplianceAgent validates accuracy and privacy, while RefereeAgent enforces tone

neutrality. HITL approvals via Teams ensure human oversight for sensitive queries. AuditTrailAgent logs every step, creating a transparent reasoning chain. This documentation supports algorithmic impact assessments, bias audits, and responsible AI reviews. Explainability is reinforced through clear workflows and compliance metadata embedded in every interaction.

## **Interoperability (50 words)**

Modular design supports deployment across Canadian federal, provincial, and municipal jurisdictions. Compatible with Microsoft 365 ecosystem tools already in use by governments. Portable architecture allows hybrid or on-prem deployment for departments with strict residency rules, ensuring interoperability and reducing change management barriers.

## **Scalability (75 words)**

The system scales by adding new workflows and agents for additional Canadian departments and jurisdictions. Future levels introduce semantic linking, ontology-driven reasoning, and predictive governance. Modular architecture supports expansion to more regions and use cases without redesign, enabling governments to evolve toward cognitive-scale orchestration while maintaining compliance and transparency.

## **Accessibility (100 words)**

UserExperienceAgent ensures WCAG 2.2 and AODA compliance with dynamic font scaling, high-contrast modes, captions, and voice narration. DraftingAgent applies plain language principles for low-literacy users. Bilingual outputs meet Official Languages Act requirements. Accessibility metadata supports screen readers and adaptive devices, guaranteeing inclusive service delivery for Canadians with disabilities or varying literacy levels.

## Human-Centred Design (75 words)

Designed around Canadian users' pain points: citizens need fast, clear answers; public servants need compliance and trust. HITL workflows ensure human oversight for sensitive queries. Accessibility and bilingual features address diverse needs. Interfaces leverage familiar tools like Teams and Outlook, reducing friction and improving adoption across Canadian jurisdictions.