

Artificial Intelligence Management Systems (AIMS)

How will upcoming certification requirements affect conformity assessment bodies, AI developers, and users?

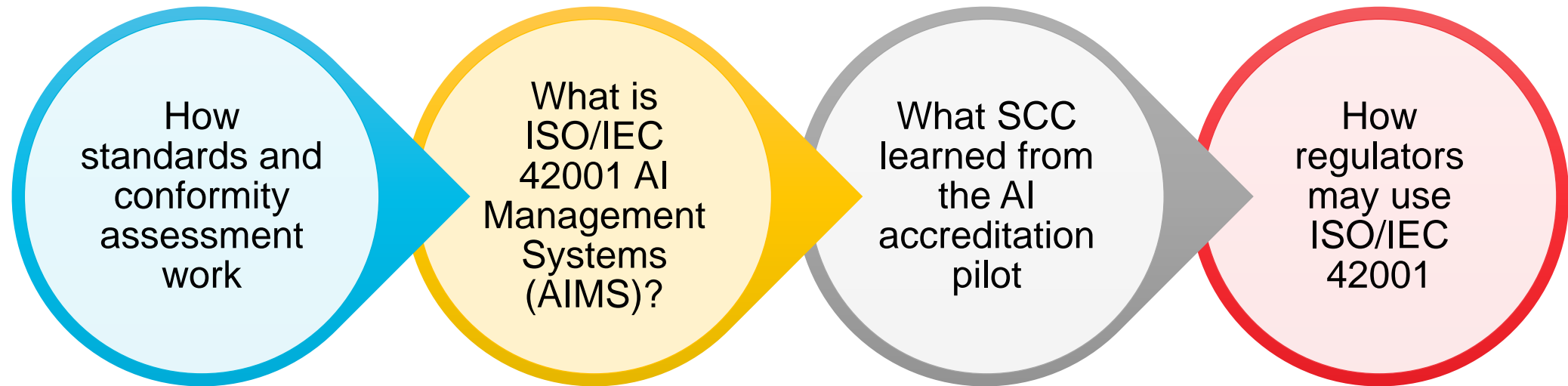
Standards
Council
of Canada

Open a world of possibilities.

Conseil
canadien
des normes

Un monde de possibilités à votre portée.

Welcome!

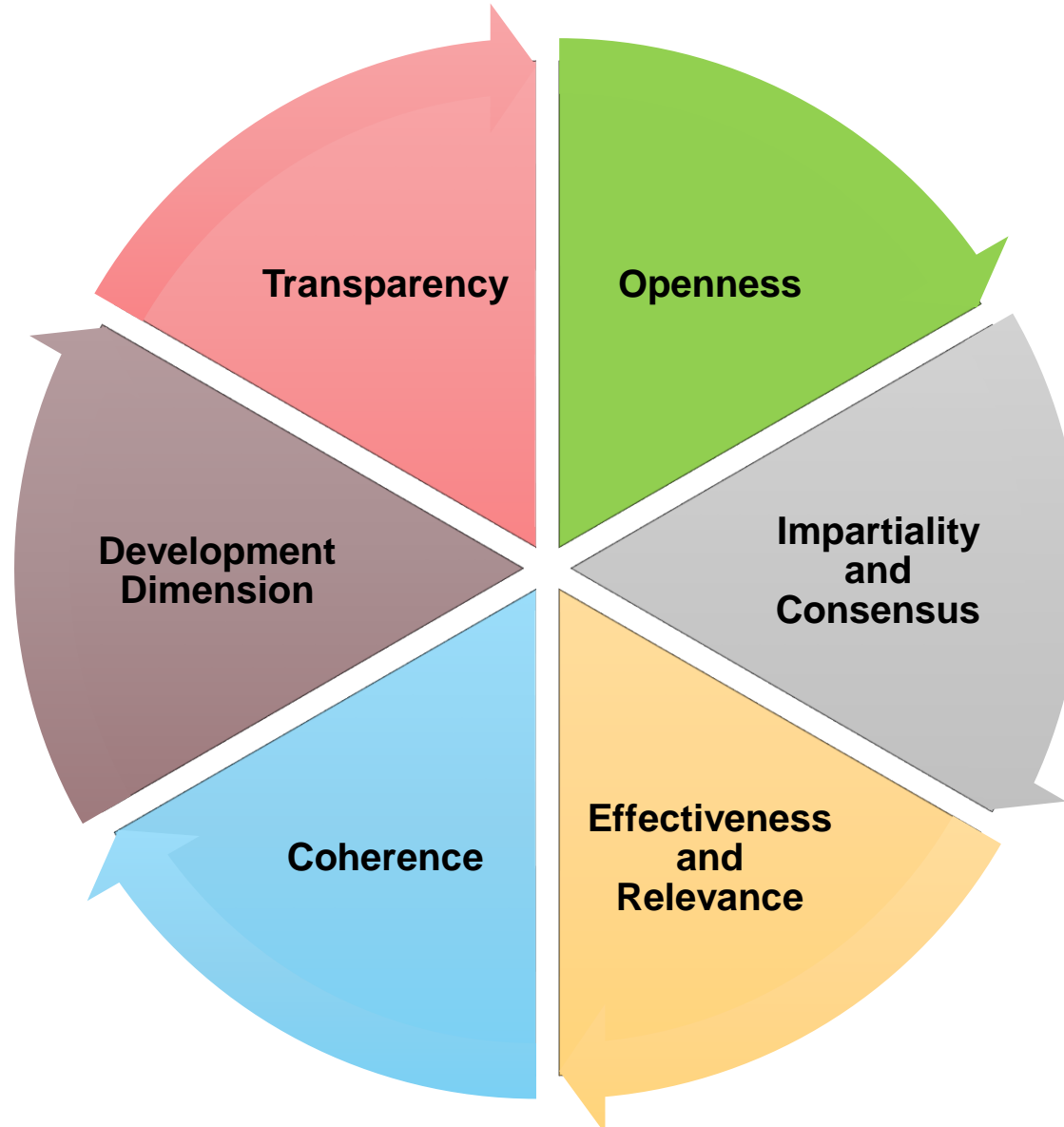


Get ready: Questions and discussion are woven throughout!



How standards and conformity assessment work

What are consensus standards?



What is conformity assessment?

Government recognition
ISO/IEC 17011 (Peer evaluated)



Accreditation

Certification, Testing & Calibration labs, Inspection and validation & verification bodies, or any independent evaluation



Conformity Assessment

People, management systems, equipment, organisations, products etc.

Product & Service Providers

Legend



Standards



Standards, Regulatory Requirements,
Scheme Criteria

Purchasers

Confidence

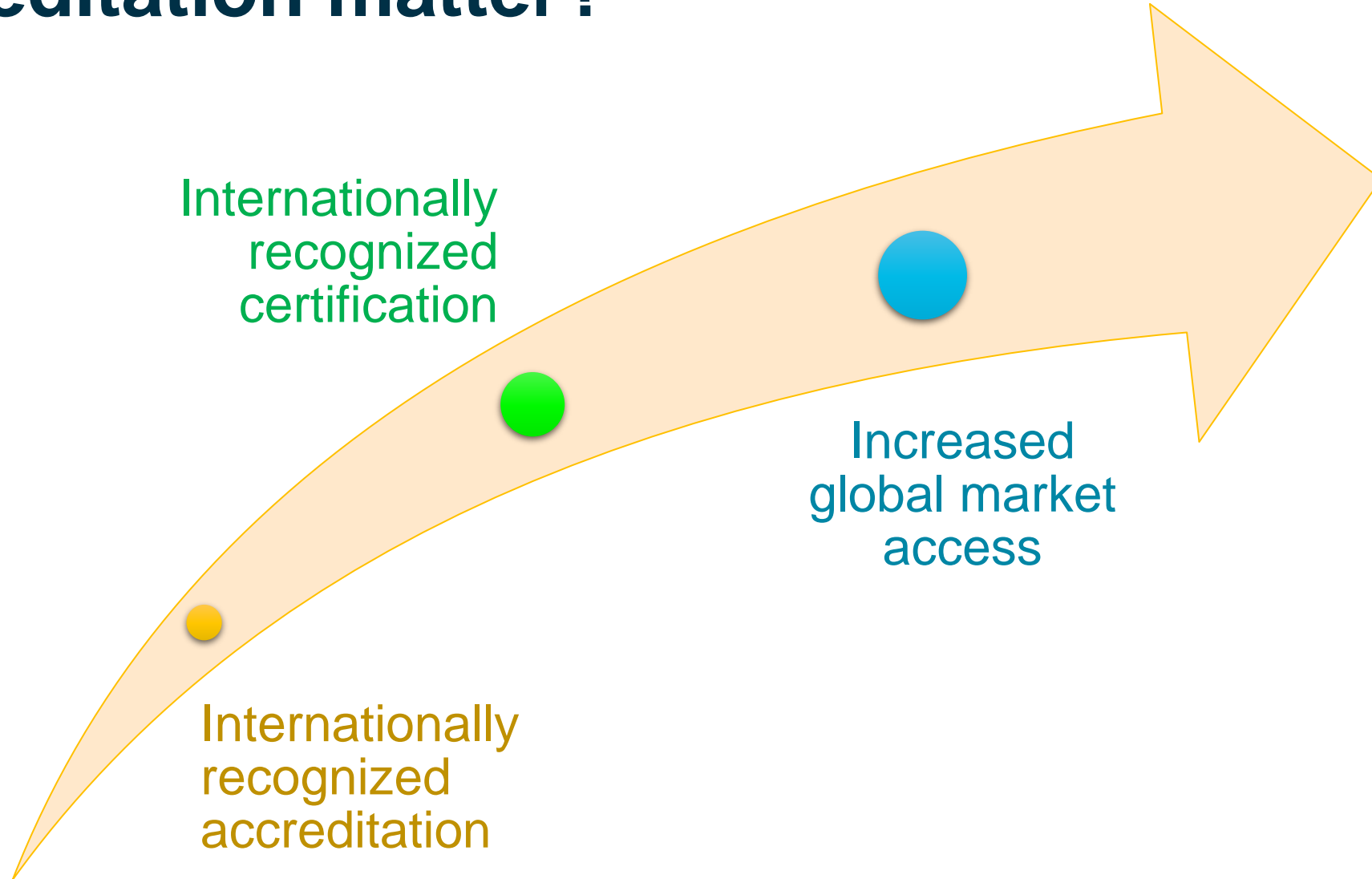
Consumers

Trust

Assurance

Government

Why does internationally recognized accreditation matter?



What's your relationship to standards?

1	2	3	4	5
I'm unfamiliar with standards	I'm somewhat familiar with them	I know about standards and apply them often	I apply standards often and know how they are written and used	I am active in standards development or compliance, or the use of standards in regulation



Where does your organization fit in this?

What hurdles might be experienced?



What is ISO/IEC 42001 Artificial Intelligence Management Systems?



How did AIMS come about?

- Letter Salad
 - ISO/IEC JTC 1/SC 42 Artificial intelligence
- Work began in 2019/2020
- Published December 27, 2023
- 40 countries provided text
 - 100s of experts



Management System Standards

Set requirements or guidance to help organizations manage their policies and processes to achieve specific objectives.

Common examples:

- ISO 9001 Quality management systems
- ISO 27001 Information security, cybersecurity and privacy protection | Information security management systems
- ISO 13485 Medical devices | Quality management systems



A flavour of AIMS

Content Headings

Context of the organization

Leadership

Planning

Support

Operation

Performance Evaluation

Improvement


Annexes to Help

Annex A: Reference control objectives and controls

Annex B: Implementation guidance for AI controls

Annex C AI-related risk sources

Annex D Use of AI management system across domains and sectors



What would it mean for your organization to apply a standard like this?

What would be the challenges and opportunities?

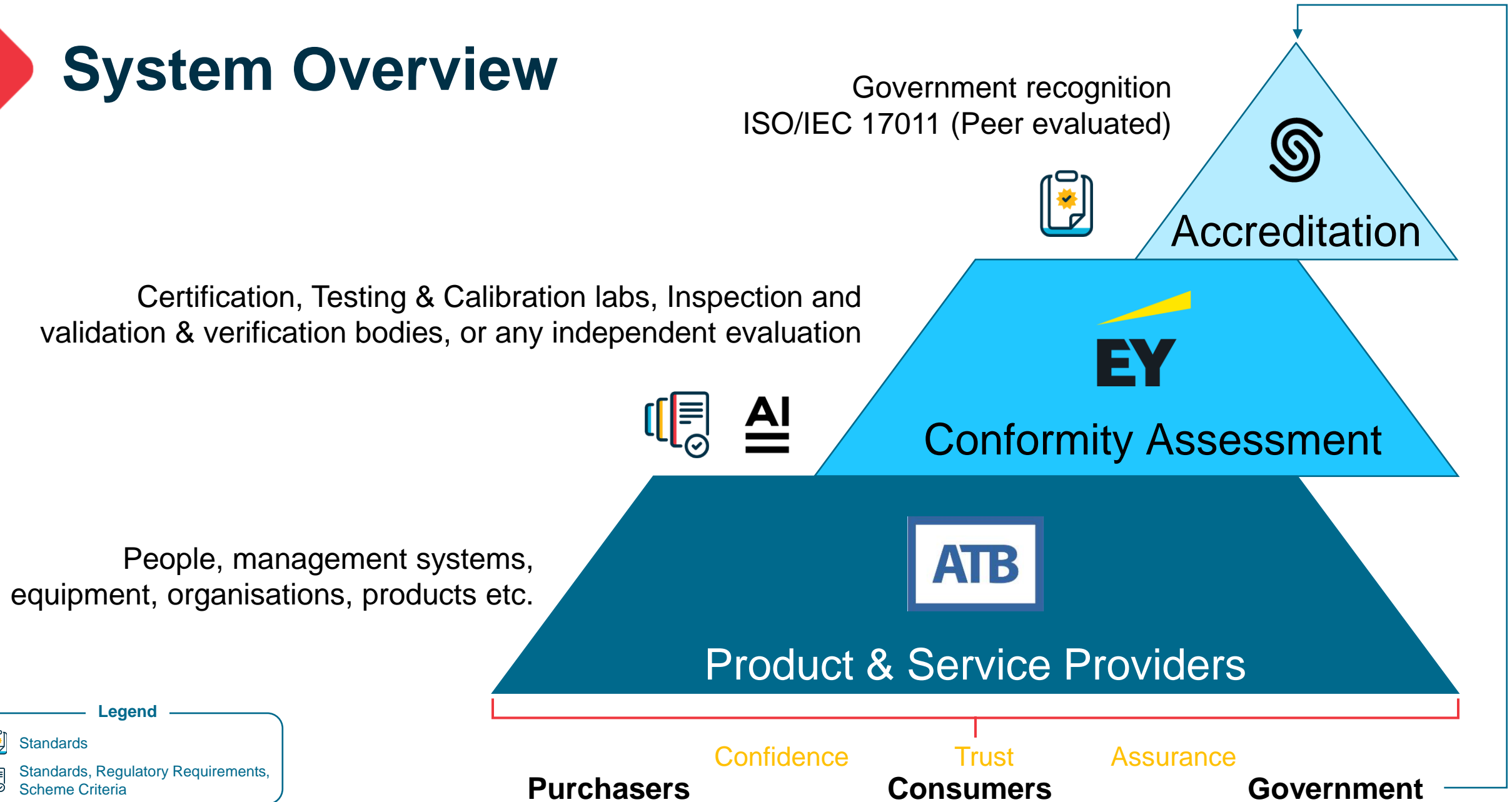
What is your experience in management system certification today?

What kind of impact does management system certification have from your view?



What SCC learned from the AI accreditation pilot

System Overview





AI Pilot Accreditation Overview

System Overview Continued

Organization Level – MSAP (ISO/IEC 17021-1)



AI Management Systems (ISO/IEC 42001)

Product / Process / Service Level – CBAP (ISO/IEC 17065)



RAI Conformity Assessment Scheme

Regulations

Policies

Other Standards

Best Practices



AI Pilot Accreditation Overview Objectives

Regulators

Inform regulatory and policy decisions by leveraging AI quality risks as measured by the Algorithmic Impact Assessment (AIA) risk assessment tool.

EY Conformity Assessment Body

Determine whether CABs find the document sufficiently clear for **repeatability**. Gaps to be addressed in Requirements and Guidance (R&G).

AI Scheme Owner

In this new space, observe high-level lessons and fine tune the scheme, based on feedback from the pilot participants and CAS review.

ATB AI Developer / Organization using AI

Determine how well the AI accreditation requirements **prepare and support** AI developers to meet new AI quality control standard requirements.

Use cases:
ISO/IEC 42001 AI Management Systems (AIMS) & RAII Conformity Assessment Scheme (CAS)
Artificial Intelligence in Credit Scoring Models



Key Findings

Regulators

AIMS helps lower AI risk as measured by the AIA tool
The interoperability with other countries / jurisdictions is important.

Conformity Assessment Body

AIMS requirements are a valuable guide for organizational compliance.
There can be challenges determining completeness of the AI models known and managed under the AI Management System.

Scheme Owner

Sector specific criteria help flexibility and applicability for assessing AI tool performance and trustworthiness.

AI Developer / Organization using AI

AIMS helped enterprise-wide awareness and compliance efforts for managing AI models. Alignment with organizational policies and third-party risks can be challenging to assess.
AI System conformity assessment scheme is great for AI tool adequacy testing and responsibility scoping.



How regulators may use AIMS



AIMS is being evaluated and considered



European Union

CEN-CENELEC reviewing it

Canada

SCC pilot generated interest for Canadian government

USA

ANAB launched early AIMS accreditation program

Knowing what you know now, how may AIMS
impact your organization?

Takeaways



How do the standards and conformity assessment systems work?

- They are grounded in internationally recognized accreditation.
- Set requirements to align compliance and establish trust.
- Make sure your certification body is accredited by a recognized accreditation body.

How can AIMS help support your organization?

- AIMS is a key international consensus document.
- It sets out the first international requirements for managing AI.
- It is influencing AI governance discussions globally and is ready for implementation by industry and regulators.



Thank you

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Parking Lot of slides

AIDG Standardization Program

Support Canadian AI and data ecosystem through 65 new standardization strategies, education, awareness building and engagement. New strategies will

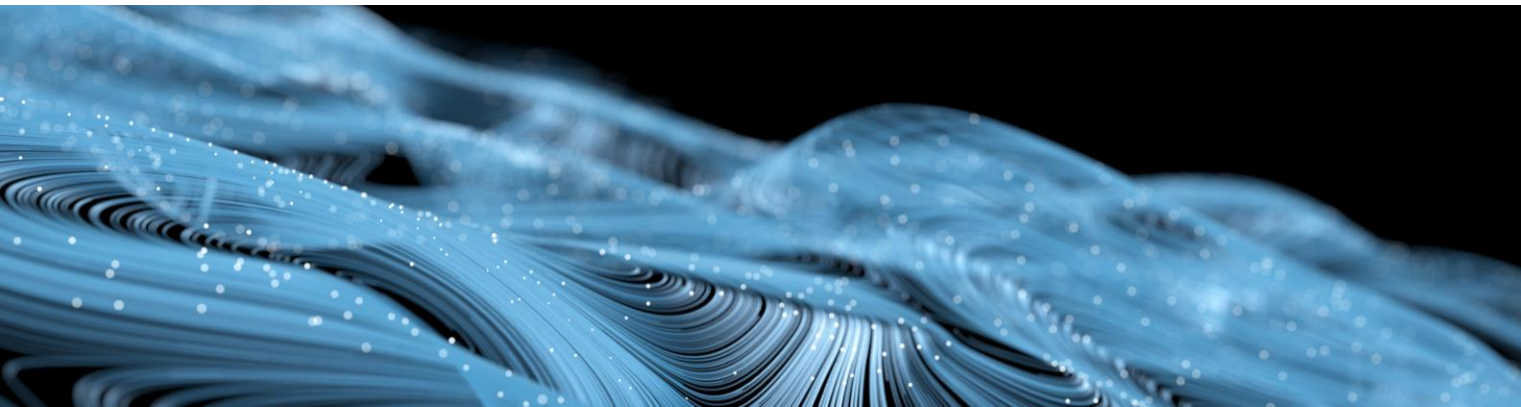
- Boost innovation and investments in AI and Data for Canadian economic growth.
- Develop global AI and Data standards reflecting Canadian values.
- Shape and implement key AI and Data standards globally.
- Establish transparent guidelines for AI and Data, including Indigenous data sovereignty.
- Ensure diversity, privacy protection, and openness in AI and Data policies.
- Foster trust, privacy control, and respect for Indigenous data sovereignty in AI and Data use.

Beneficiaries

- ✓ **Canadians** have improved safety, privacy, and confidence in AI and data, enhancing trust in digital offerings.
- ✓ **Industry** benefits from clear standards and interoperability, driving innovation and global competitiveness.
- ✓ **Government** leverages standardization to enhance policy implementation, aligning with national initiatives and strengthening Canada's global leadership in AI and data governance.

Ultimate Objective

Canada's position as a key player in the global AI and data ecosystem is secured, promoting safe, reliable, and effective use of technologies



SCC International Leadership 2024/2025 FY



Governance Activities



- **General Assembly**
- **Board**
- **SMB**
- **BAC**
- **CAB**

Regional Engagement

- **FINCA**
- **APCF**
- **COPANT**
- **PASC**



- **General Assembly**
- **TMB**
- **COPOLCO**
- **CASCO**
- **DEVCO**

International Secretariats



- **ISO 207**
- **ISO 207/SC7**
- **ISO TC 207/SC10/WG3**
- **IEC TC4**



SCC Accredited SDOs: Approval of NSCs



Accessibility Standards
Canada

Normes d'accessibilité
Canada



we make life better™



ASTM INTERNATIONAL



Question

- How ready is your organization for AIMS?
- What's your company's experience with 3rd party assessment?
- What are your clients asking you for regarding AI and compliance/trustworthiness?



AIMS Impacts



AI Pilot Accreditation Overview Experiment

EY

Conformity Assessment Body Role

Develop processes and policies to certify for AIMS




Assess AI User / Developer using AI




Determine gaps in AIMS accreditation process

ATB


AI User / Developer Role

Assess initial risk rating of AI systems 



Develop processes and policies (AIMS) 



Reassess risk rating of AI systems 



AI Pilot Accreditation Overview Experiment



AI System Scheme Owner Role

Develop requirements for AI systems in CAS



Assess AI User / Developer using AI



Update CAS to address any gaps discovered



ATB

AI User / Developer Role

Identify AI system to be assessed by CAS



Align with requirements outlined by CAS










Update internal measures to comply with CAS



AI Pilot Accreditation Overview

Timeline

Stage	Pre-Experiment Fiscal Year (FY) 23	Pilot FY24	Program FY25+
Participants	 	<p>≥ 1 Conformity Assessment Body (CAB) ≥ 1 AI developer/user</p>	<p>Open to all applicants</p>
Engagement	<ul style="list-style-type: none"> • Observation group • Link to AIMS mirror committees 	<ul style="list-style-type: none"> • Expanded observation/consulting group 	<ul style="list-style-type: none"> • Regulators • Accreditation Bodies • CABs • Industry
Criteria	  	 	
Link	<p>Treasury Board AIA</p>	<p>IAF Conformity assessment scheme criteria</p>	

Next Steps

- Share lessons learnt from pilot
- Launch ISO/IEC 42001 (AIMS) program
 - Training
 - Onboarding
 - Leverage ISO/IEC 42006



AI Pilot Accreditation Overview Objectives

Regulators

Various

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