

ISO/IEC 42001 AI management system: a practical guide for micro, small and medium-sized enterprises

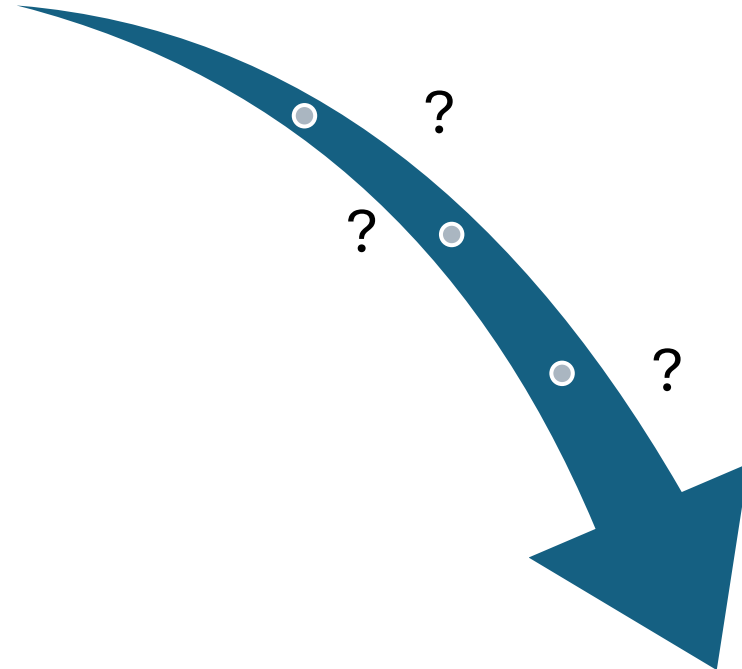
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Chair, ISO/IEC JTC 1/SC 42 Canadian Mirror Committee

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From AI Startup Founder to ISO/IEC SC 42 Expert

Ad hoc AI
systems



High-quality AI
system

What Is ISO?

ISO, the International Organization for Standardization is an independent, non-governmental international organization comprising.

ISO and its members bring together a network of experts to share knowledge and develop International Standards.

ISO believes that great things happen when the world agrees.



International Standards Relationship to Regulations and Standardization Strategies



AIDA
Companion
document

How the Artificial Intelligence and Data Act would work

The AIDA is intended to protect Canadians, ensure the development of responsible AI in Canada, and to prominently position Canadian firms and values in global AI development. The risk-based approach in AIDA, including key definitions and concepts, was designed to reflect and align with evolving international norms in the AI space – including the EU AI Act, the Organization of Economic Co-operation and Development (OECD) AI Principles, ²⁰ and the US National Institute of Standards and Technology (NIST) Risk Management Framework (RMF)



Commission
Implementing
Decision of
22.5.2023

- (8) International standardisation can help to consolidate a common vision of trustworthy AI across the globe and to facilitate trade and removing possible technical barriers in relation to products and services that are powered by artificial intelligence. Certain standards developed at international level by the International Organization for Standardisation (ISO) and the International Electrotechnical Commission (IEC) in relevant areas may be adopted as European standards by CEN and CENELEC on the basis of the Vienna⁶ agreement and the Frankfurt⁷ agreement. The standards and

ISO/IEC JTC 1/SC 42 – Artificial intelligence

Secretariat: ANSI

Creation date: 2017

- Standardization in the area of artificial intelligence
- Serve as the focus for JTC 1's standardization program on artificial intelligence
- Provide guidance to JTC 1, IEC, and ISO committees developing artificial intelligence applications
- 30 standards already published, including ISO/IEC 42001 on AI management systems

ISO/IEC 42001 for AI Management Systems

Specifies the requirements and provides guidance for establishing, implementing, maintaining and continually improving an AI management system within the context of an organization.

Integrates best practices from other SC 42 standards and Management System Standards (MSS)

Uses an interesting risk-based approach

Stresses an iterative process of continuous improvement for an organization

Facilitates certification process

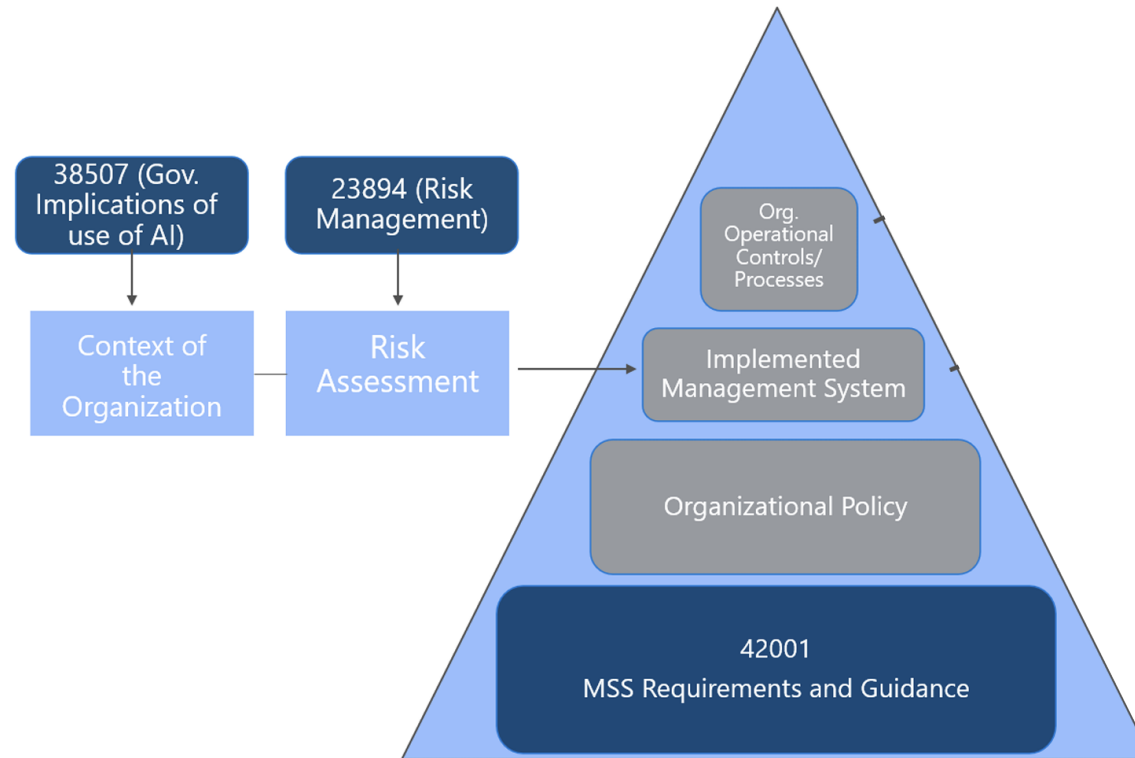
ISO/IEC 42001 structure

Management Clauses	Annex A Controls + Annex B Guidance
<ul style="list-style-type: none">• Context of the organization• Leadership• Planning• Support• Operation• Performance Evaluation• Improvement	<ul style="list-style-type: none">• Policies related to AI• AI management framework• Resources for AI• Assessing impacts of AI systems• AI system life cycle• Data for AI systems• Information for interested parties of AI systems• Use of AI systems• Third-party Relationships

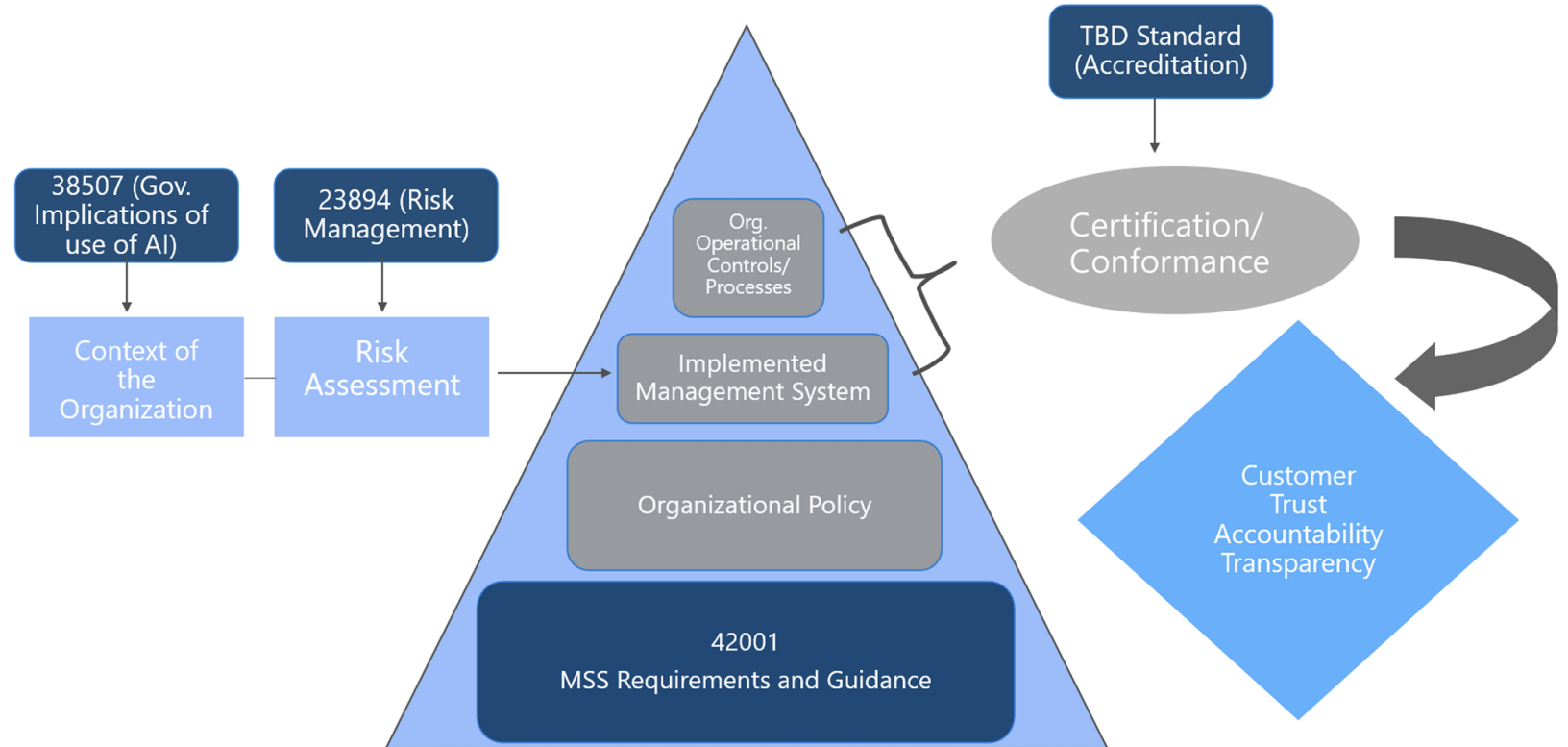
Hypothetical Use of ISO/IEC 42001 in an Organization



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What is an AI system?

Do I need to certify my AI management system?

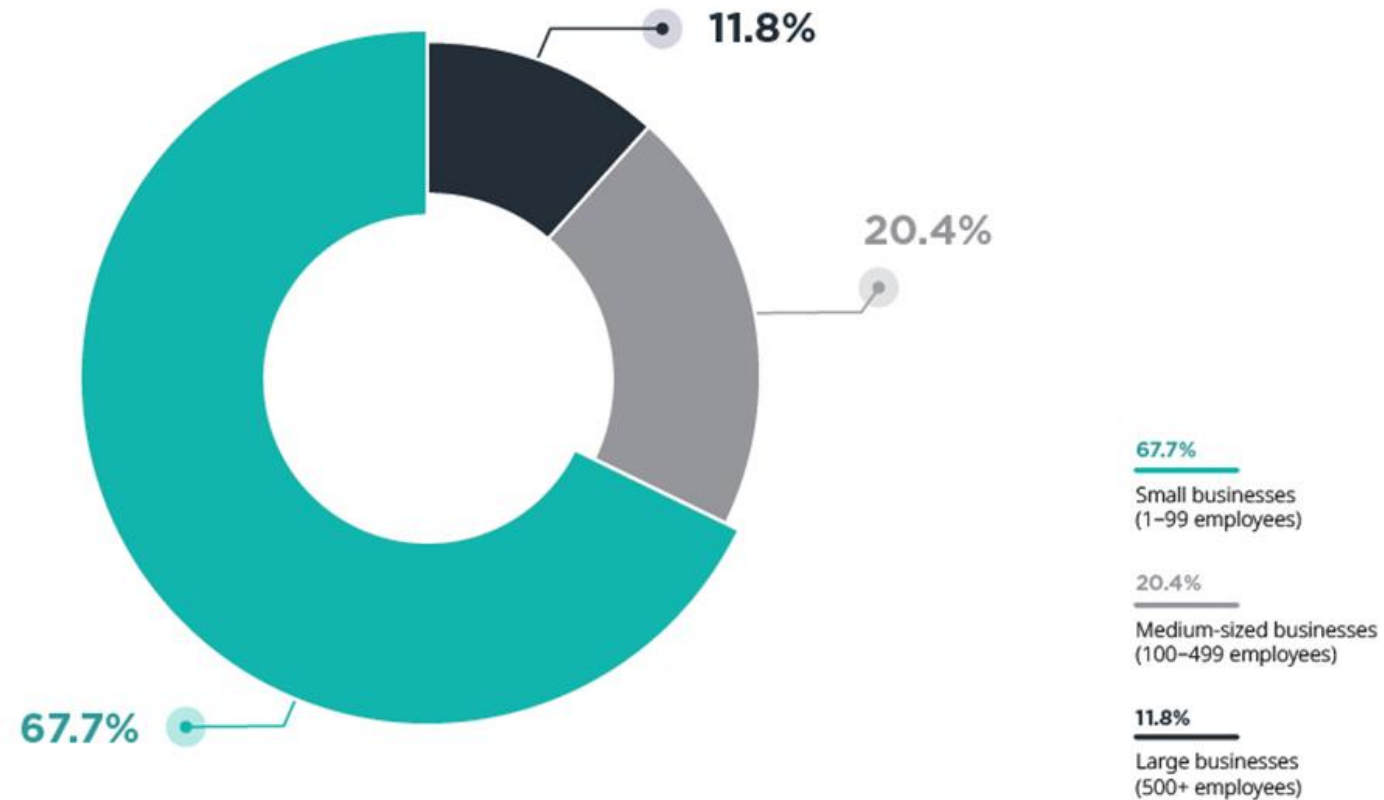
What is ISO/IEC?

How can I implement ISO/IEC 42001 best practices efficiently

How do I identify the scope of my AI management system?

What skills do I need to use ISO/IEC 42001?

Distribution of Canadian Companies by Size



Source: Statistics Canada, 2023

ISO/IEC 42001 Practical Guide for SMEs

Provides an overview of the ISO/ IEC 42001 requirements

Offers guidance for SMEs on how to implement them effectively.

Facilitates the responsible development, deployment, usage and management of AI within an SME

Examples of topics to be covered

- Implementation guidance of ISO/IEC 42001
- Guidance on managing risks
- Responsible AI best practices
- How to manage an AI management system
- Guidance on deployment of controls
- How to balance governance and innovation

Thank you

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