FOR SOLUTIONS ARCHITECTS DESIGNING AI ON AWS

ISO/IEC 23053 vs ISO/IEC 42001

Two standards, two different jobs. One describes the **AI system** you are building. The other governs the **organisation** that runs it.

DESCRIBES THE SYSTEM

ISO/IEC 23053

Framework for AI Systems Using Machine Learning

Published: June 2022

Level: System. A shared reference model and vocabulary for ML-based AI.

Covers: tasks, model, data, tools, ML approaches and the ML pipeline: data acquisition → preparation → modelling → verification & validation → deployment → operation

Certifiable? No. It is descriptive guidance.

ANNEX

Annex A: Example data flow and data-use statements for a supervised learning process

↗ iso.org/standard/74438.html

GOVERNS THE ORGANISATION

ISO/IEC 42001

AI Management System (AIMS)

Published: December 2023. The first AI management system standard.

Level: Organisation. Policies, roles, risk, impact and continual improvement (Clauses 4–10).

Certifiable? Yes, by accredited third-party audit.

ANNEXES

A: Reference control objectives and controls (38 controls, 9 areas)
B: Implementation guidance for the Annex A controls
C: Potential AI objectives and risk sources
D: Using the AIMS across domains and sectors

↗ iso.org/standard/42001

What this means at the whiteboard

- **Use 23053's vocabulary** on your diagrams: data, model, tools, pipeline stage. Clients and auditors can then read them.
- **Map every pipeline stage** to a service and an owner, including monitoring once the model is in operation.
- **Design for 42001 evidence:** data provenance, lifecycle records, impact assessments and logs, built in from day one.
- **Treat suppliers as in scope.** Third-party and customer relationships form their own control area in Annex A.

Aligned ≠ certified "Aligned" is self-assessed. "Certified" means an accredited auditor checked it. And there is no such thing as "ISO 23053 certified". If a vendor claims it, ask more questions.

The annexes are ISO copyright. Use "Read sample" on each ISO catalogue page to see the contents, and buy the standard for the full annex text.

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