NIST AI RMF vs. ISO/IEC 42001

A one-page comparison of the two leading AI governance frameworks, to help you choose the right starting point. They are complementary: many organizations use NIST AI RMF for thinking and ISO 42001 for demonstrating.

Dimension	NIST AI RMF	ISO/IEC 42001
What it is	Voluntary US framework: core risk-management guidance plus a Generative AI Profile and playbook.	International, certifiable management-system standard (AIMS) - ISO's management-system family, like ISO 27001.
Structure	Four functions: GOVERN, MAP, MEASURE, MANAGE, with categories and subcategories; profiles tailor it.	Clauses 4-10: context, leadership, planning, support, operation, performance evaluation, improvement; plus controls in Annex A.
Certifiable?	No - it is guidance, not a standard.	Yes - third-party certification against ISO/IEC 42001 is available.
Best for	Building the program: risk framing, measurement, trustworthy-AI characteristics, documentation habits.	Demonstrating governance to customers, regulators, and enterprise buyers; integrating with existing ISO management systems.
Effort to adopt	Low to start - adopt the vocabulary and MAP/MEASURE practices incrementally.	Meaningful: needs scope, leadership commitment, documented processes, internal audit, and certification cycles.
Strengths	Practical and granular; strong on measurement and generative-AI specifics; free; widely referenced in US procurement.	Recognized internationally; integrates with ISO 27001/9001; certificate gives external assurance.
Watch out for	No certification; adoption depth varies, so pair it with evidence of real practice.	Certification proves the system exists, not that outcomes are good - pair with substantive risk work.
Typical sequence	Start here to build substance.	Add later, once practices exist worth certifying.

Choosing your starting point

- Selling into the EU or to large enterprises asking for assurance? Start the ISO 42001 conversation now; it has the longest lead time.
- Building your first program with no existing ISO management system? Start with NIST AI RMF's GOVERN and MAP functions - they map cleanly onto ISO 42001 clauses later.
- Already ISO 27001 certified? ISO 42001 will feel familiar and can share much machinery - start with a gap analysis.
- Either way: maintain a system inventory, risk classification, and named ownership first. No framework substitutes for those.

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Framework summaries as of October 2026. See the companion insight post for a fuller discussion: https://regovern.io/insights/

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