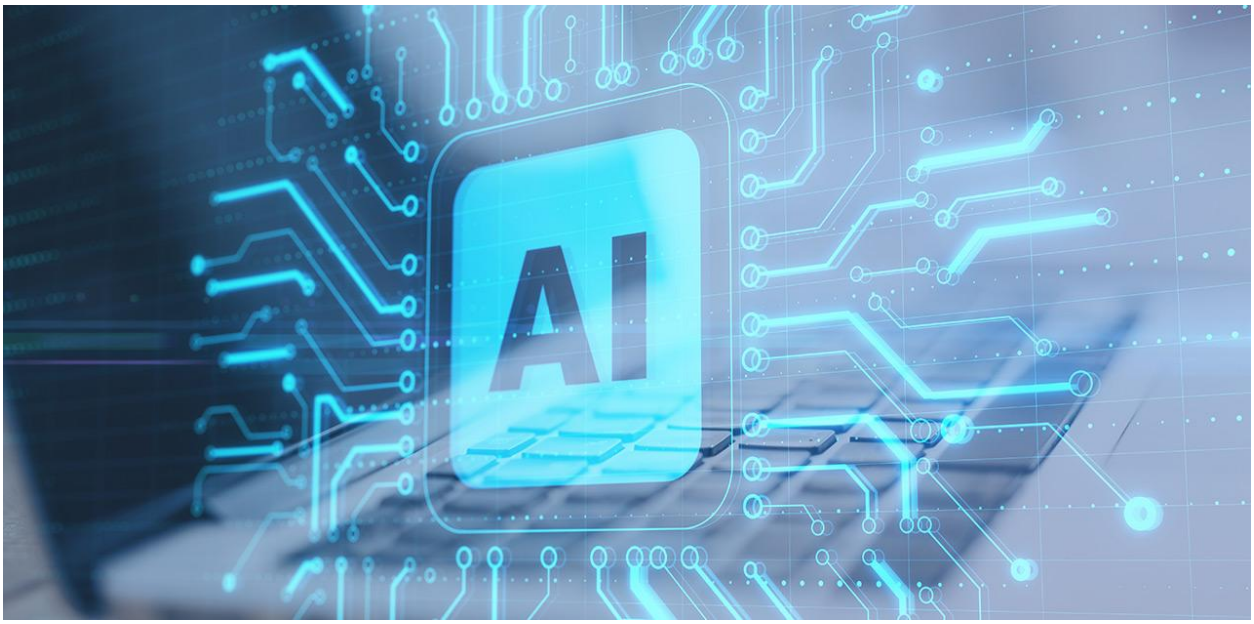

ISO 42001 Made Practical: A Handbook for Understanding AI Management

This ISO 42001 handbook explains how the standard's clauses connect to everyday business decisions. It uses illustrative examples to show how organisations define AI responsibilities, assess risks and impacts, operate controls and review results.

The handbook supports understanding and awareness across organisations developing, providing or using AI. Each example shows a possible approach that a business can adapt to its own activities.

Standard covered: ISO/IEC 42001:2023
Subject: Artificial Intelligence Management Systems
Handbook version: 1.0
Intended readers: Business leaders, AI system owners, operational teams, technology professionals, procurement personnel and employees.

Contact Veritas Assurance

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A clause-by-clause guide to the handbook

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Welcome from Veritas Assurance

An employee uses an AI assistant to summarise a customer meeting. A finance team introduces document classification. A software company adds an AI feature to its product.

These activities differ, but each raises practical questions. Who approved the application? What information can it use? Who checks the results? What happens when the system changes?

AI management brings these questions into the organisation's normal decision-making processes.

Veritas Assurance has prepared this handbook to explain those connections in accessible language. Its purpose is to help readers understand the management responsibilities behind AI activities and recognise how those responsibilities apply at work.

About This Handbook

Read the introductory sections first to understand the terminology and structure. Then use the clause explanations as a reference for discussions with colleagues and process owners.

Each clause section includes a business situation, practical applications and examples of supporting information. The examples are hypothetical and do not describe Veritas Assurance clients or projects.

The tables contain possible evidence, rather than a universal document checklist. An organisation's records will depend on its role, activities, systems and applicable requirements.

This handbook covers ISO/IEC 42001:2023. The authoritative publication and current edition information are available from the official ISO/IEC 42001 standard page.

Understanding ISO/IEC 42001 and Its Business Purpose

ISO/IEC 42001 is an internationally recognized standard for Artificial Intelligence Management Systems (AIMS), designed to help organizations responsibly develop, implement, manage, and use artificial intelligence (AI) technologies. ISO/IEC 42001:2023 provides a structured framework for addressing AI-related risks, ensuring responsible AI governance, promoting transparency, and managing the ethical and operational challenges associated with AI systems. The standard helps organizations establish policies, processes, and controls for managing AI throughout its lifecycle, including development, deployment, monitoring, and continual improvement.

Implementing ISO/IEC 42001 helps organizations manage AI-related risks, promote responsible AI practices, improve transparency and accountability, and ensure that AI systems are developed and used in a reliable and controlled manner. It encourages effective AI governance, risk assessment, data management, human oversight, and compliance with applicable legal and regulatory requirements. By adopting ISO/IEC 42001:2023, organizations can build trust in AI technologies, enhance operational efficiency, support innovation, strengthen stakeholder confidence, and demonstrate their commitment to responsible and sustainable AI management.

Implementation and certification are separate activities. The organisation establishes and operates its management system. A certification body independently assesses that system within a defined scope. Certification does not approve every AI-generated output or guarantee that an AI product is error-free.

Essential Concepts for Understanding AI Management

Before considering individual clauses, it helps to distinguish the system, its intended use and the business decisions surrounding it.

Concept	Meaning in practice	Illustrative example
Organisational role	Understand what the business develops, supplies, integrates or uses.	A retailer buys a forecasting service and remains responsible for its purchasing decisions.
Intended use	Identify the purpose and operating conditions for an application.	A document assistant locates approved procedures but cannot authorise exceptions.
Accountability	Assign responsibility for decisions and their follow-up.	A business owner approves deployment after reviewing evaluation results.
Human oversight	Enable suitable people to supervise, challenge and intervene.	A reviewer can reject a recommendation and escalate an unusual result.
Data suitability	Consider whether information is appropriate for the application.	A forecasting team checks whether historical data includes prolonged store closures.
Transparency	Provide relevant information about use, capabilities and limitations.	Users know where to check the sources supporting an answer.
Continuing evaluation	Reconsider suitability when systems or circumstances change.	A team reviews performance after a supplier updates its model.

“Human review” needs a workable arrangement. The reviewer should know what to check, have access to the necessary information and understand when to escalate.

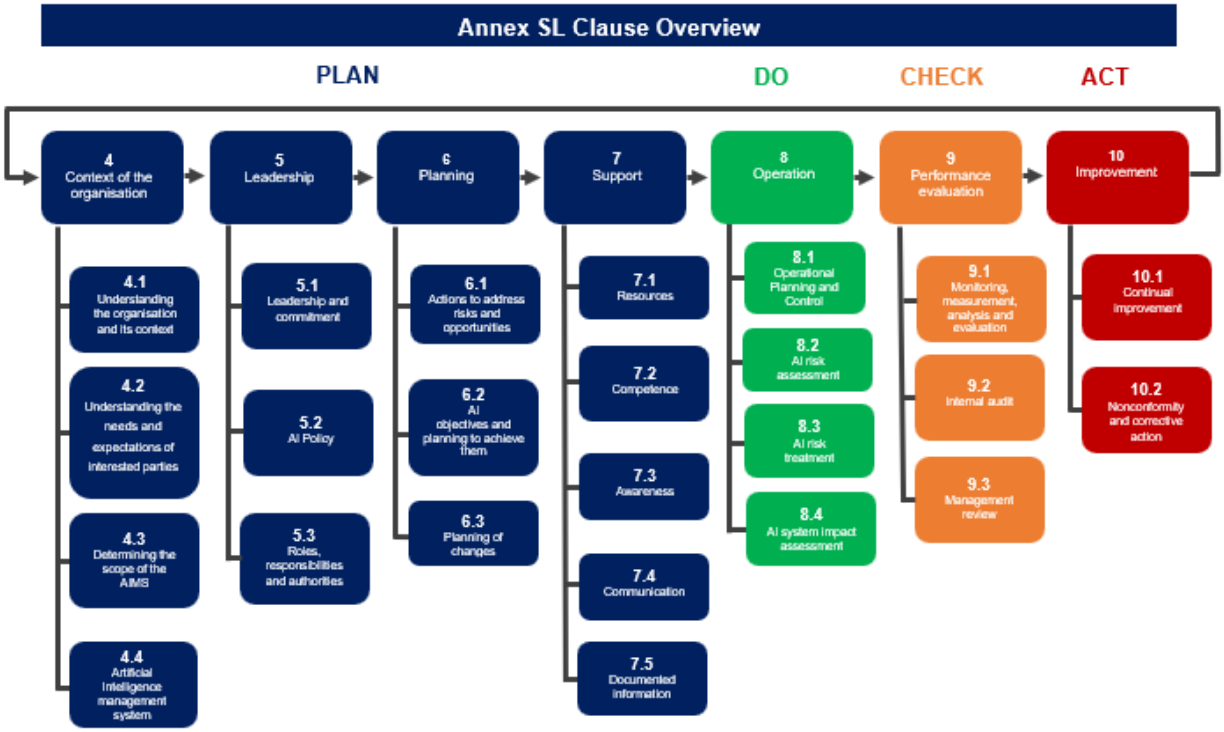
Understanding the Structure: HLS and HS

HLS means High-Level Structure. HS means Harmonized Structure, the shared framework used across ISO management-system standards.

This common framework helps organisations coordinate processes such as document control, competence management and management review. AI-specific assessment and operational work still need appropriate attention.

Clause	Subject	Question it helps answer
1	Scope	What does the standard address?
2	Normative references	Which referenced publication supports its application?
3	Terminology	How should key terms be understood?
4	Context	Which activities, circumstances and boundaries matter?
5	Leadership	Who directs and takes responsibility?
6	Planning	What risks, impacts, objectives and changes need consideration?
7	Support	What resources, competence and information are needed?
8	Operation	How are planned arrangements carried out?
9	Performance evaluation	How does the organisation evaluate its management system?
10	Improvement	How does it respond to problems and improve?

The clauses work together. A change in intended use may affect assessment, employee competence, operating instructions and monitoring.


Annex SL Clause Overview
PLAN
DO
CHECK
ACT
4 Context of the organisation
5 Leadership
6 Planning
7 Support
8 Operation
9 Performance evaluation
10 Improvement
4.1 Understanding the organisation and its context
4.2 Understanding the needs and expectations of interested parties
4.3 Determining the scope of the AIMS
4.4 Artificial Intelligence management system
5.1 Leadership and commitment
5.2 AI Policy
5.3 Roles, responsibilities and authorities
6.1 Actions to address risks and opportunities
6.2 AI objectives and planning to achieve them
6.3 Planning of changes
7.1 Resources
7.2 Competence
7.3 Awareness
7.4 Communication
7.5 Documented information
8.1 Operational Planning and Control
8.2 AI risk assessment
8.3 AI risk treatment
8.4 AI system impact assessment
9.1 Monitoring, measurement, analysis and evaluation
9.2 Internal audit
9.3 Management review
10.1 Continual improvement
10.2 Nonconformity and corrective action

The Process Approach and PDCA Cycle

AI management depends on connected processes.

Procurement influences the information available about a supplier. Data preparation affects evaluation results. Deployment decisions establish operating boundaries. Monitoring can reveal a need to reassess them.

Plan–Do–Check–Act, or PDCA, provides a useful way to follow these connections.

Illustrative example: an internal knowledge assistant

A business introduces an assistant to help employees find information in approved procedures.

PDCA stage	Practical application
Plan	Define permitted questions, authorised sources, access restrictions, review criteria and responsibilities.
Do	Configure the assistant, evaluate representative questions, brief users and introduce it within approved boundaries.
Check	Examine incorrect answers, outdated references, access issues and employee concerns.
Act	Improve source management, adjust restrictions and evaluate affected functions before wider use.

A successful pilot provides useful evidence. Continuing review establishes whether the application remains suitable as its documents, users and technology change.

Clauses 1 to 3: Scope, References and Terminology

Clause 1 Scope

This clause explains the application of the standard to organisational AI management.

The standard's scope differs from the organisation's AIMS scope. The organisation defines which activities and boundaries its own management system covers.

Clause 2 Normative references

ISO/IEC 22989:2022 provides the referenced foundation for AI concepts and terminology. Refer to the authorised ISO/IEC 42001 publication to understand its formal application.

Clause 3 Terms and definitions

Shared terminology helps people discuss AI activities consistently.

Consider the difference between an AI tool recommending a category and an employee accepting that recommendation. Both actions belong in the business process, but their responsibilities differ.

A short internal glossary can help commercial, operational and technical teams use terms consistently.

Clause 4: Establishing the Context and Boundaries of AI Management

A business needs visibility of its AI activities before it can assign suitable controls.

Illustrative example:

A professional services company identifies three applications: meeting transcription, document search and presentation drafting.

Their information flows differ. The transcription tool may receive customer discussions, while the presentation tool may use only approved public material. Treating them as identical would overlook important differences.

Subclause	Practical application	Possible evidence
4.1 Organisational context	Examine circumstances affecting AI activities and management decisions.	Business review notes, AI inventory and dependency information.
4.2 Interested parties	Identify relevant expectations and requirements.	Customer commitments, employee concerns and obligation records.
4.3 AIMS scope	Define the organisational activities and boundaries covered.	Approved scope statement and included functions.
4.4 Management system	Connect approval, assessment, operation, evaluation and improvement processes.	Process map, responsibilities and linked procedures.

The scope should help people recognise which activities are included and where responsibility sits.

Clause 5: Assigning Leadership and Decision-Making Authority

AI decisions can involve competing priorities. A proposed application may save time while creating additional oversight or information-handling needs.

Leadership establishes how these decisions are made and supported.

Illustrative example:

An education provider proposes an assistant for routine course enquiries. Management appoints a business owner, approves its permitted topics and identifies who can authorise changes to its information sources.

Subclause	Practical application	Possible evidence
5.1 Leadership and commitment	Support AI management through decisions, resources and follow-up.	Management decisions, assigned resources and action records.
5.2 AI policy	Establish organisational direction appropriate to AI activities.	Approved policy and communication records.
5.3 Roles and authorities	Assign responsibility for approval, oversight, escalation and improvement.	Role descriptions and approval limits.

A committee can coordinate work. Named responsibilities make it clear who must act between meetings.

Clause 6: Planning AI Risks, Impacts and Objectives

Planning provides a consistent basis for assessing an application and deciding what needs to happen before and during use.

Illustrative example:

An insurer considers AI-assisted document routing. The application does not decide claims, but incorrect routing could delay a customer's case.

The team considers both the operational problem and its possible consequences for customers.

Subclause	Practical application	Possible evidence
6.1.1 Risks and opportunities	Identify matters affecting the AIMS and plan suitable responses.	Planning records with owners and review dates.
6.1.2 AI risk assessment	Establish a consistent approach to identifying, analysing and evaluating AI risks.	Assessment criteria and documented evaluations.
6.1.3 AI risk treatment	Determine necessary controls and document treatment decisions.	Treatment plan, Statement of Applicability and approvals.
6.1.4 AI system impact assessment	Establish how potential effects on individuals, groups and society will be examined.	Assessment process and relevant evaluation criteria.
6.2 AI objectives	Set objectives and plan responsibilities, resources and evaluation.	Objective records and progress reviews.
6.3 Planned changes	Consider changes to the AIMS before introducing them.	Change proposals and review decisions.

An assessment becomes useful when its conclusions lead to decisions, assigned work and follow-up.

Distinguishing AI Risk Assessment from AI System Impact Assessment.

These assessments inform each other while examining different questions.

Perspective	Question	Illustrative finding
AI risk assessment	What uncertainty could affect the intended objectives?	A routing model performs poorly on unfamiliar document layouts.
AI system impact assessment	How could the application affect people or groups?	Customers submitting less common formats may experience longer delays.
Combined response	What action addresses the issue and its consequences?	Route uncertain cases to staff and examine patterns in processing delays.

A strong average performance result can conceal difficulties affecting particular circumstances. Assessment should consider how the application will actually be used and who may experience its effects.

Clause 7: Providing Competence, Resources and Reliable Information

People need to understand how to use an application within its approved boundaries.

Illustrative example:

An architecture business introduces an AI-assisted concept tool. Designers receive practical instruction on permitted inputs, client confidentiality and checking generated material.

A short exercise asks them to identify information that should not be submitted and explain how they would handle a questionable result.

Subclause	Practical application	Possible evidence
7.1 Resources	Provide appropriate people, infrastructure and time.	Resource plans and assigned responsibilities.
7.2 Competence	Establish capability needs and evaluate whether they are met.	Competence criteria and practical evaluation records.
7.3 Awareness	Explain relevant policies, responsibilities and consequences of departures.	Briefings and understanding checks.
7.4 Communication	Decide what information is communicated, to whom and by whom.	Communication and escalation arrangements.
7.5.1 Documented information	Determine information needed to support the AIMS.	Document register and record requirements.
7.5.2 Creation and updating	Identify, review and approve information appropriately.	Version details and approval history.
7.5.3 Information control	Manage availability, access, protection and retention.	Permissions and retention arrangements.

Training records show participation. Practical exercises can provide evidence of whether people understand their responsibilities.

Clause 8: Operating AI Management Arrangements

Operational control turns planning decisions into everyday practice.

Illustrative example:

A company introduces a customer-support assistant. It defines permitted topics, conditions requiring escalation and the person responsible for investigating unsuitable responses.

Before release, the team evaluates realistic questions, including ambiguous requests and matters outside the assistant's permitted role.

Subclause	Practical application	Possible evidence
8.1 Operational planning and control	Carry out planned processes using defined responsibilities and criteria.	Operating instructions, release approvals and change records.
8.2 AI risk assessment	Perform assessments at planned intervals and when relevant changes arise.	Updated assessments linked to operational circumstances.
8.3 AI risk treatment	Implement treatment decisions and retain evidence of results.	Control records and implementation reviews.
8.4 AI system impact assessment	Conduct and document assessments using established arrangements.	Completed assessments and resulting decisions.

The assistant's behaviour may change after a supplier update even when its interface looks the same. Review arrangements should account for changes that originate outside the organisation.

Annex A: Connecting AI Controls with Business Needs

Annex A provides reference control objectives and controls. Annex B contains associated implementation guidance.

The following table illustrates their practical subject areas. It does not reproduce the control requirements or prescribe the same arrangements for every organisation.

Control area	Illustrative application
A.2 AI policies	Establish conditions for approved and prohibited uses.
A.3 Internal organisation	Assign responsibilities and provide routes for raising concerns.
A.4 Resources	Understand the data, tools, infrastructure and expertise supporting an application.
A.5 System impacts	Examine potential effects on individuals and affected groups.
A.6 Lifecycle activities	Connect requirements, evaluation, deployment and ongoing operation.
A.7 Data	Review information origins, preparation and suitability.
A.8 Information for relevant parties	Explain capabilities, limitations and reporting arrangements as appropriate.
A.9 Use of AI	Keep applications within agreed purposes and operating conditions.
A.10 Third-party relationships	Clarify responsibilities shared with suppliers, partners and customers.

A business using a finished AI service has different activities from a model developer. It still needs to understand the controls and responsibilities relevant to its own role.

Annex C provides additional information about potential AI-related objectives and risk sources. Annex D discusses the use of the AIMS across domains or sectors.

The Statement of Applicability in Practice

The Statement of Applicability, or SoA, explains necessary controls and the justification for their inclusion or exclusion.

Control decisions should connect to the organisation's assessment and treatment work, including consideration of the Annex A reference controls.

Illustrative example:

A company identifies a risk that employees may enter confidential customer information into an unapproved assistant.

Element	Example
Identified concern	Confidential information could be submitted outside approved arrangements.
Treatment decision	Restrict use to approved tools and define permitted inputs.
Responsibility	Information security and the relevant business owner.
Implementation evidence	Approved-tool list, access settings and employee instructions.
Evaluation evidence	Review of exceptions and changes in tool capabilities.

The SoA records the control decisions. Supporting records demonstrate how the controls operate.

Outsourcing part of an activity does not automatically remove the organisation's responsibility to consider it.

Clause 9: Evaluating Performance and Management-System Effectiveness

Evaluation examines whether management arrangements work and whether they remain suitable.

Illustrative example:

A document-processing company reports stable overall classification accuracy. However, exceptions involving one document category are increasing.

The business examines the cause, processing delays and the effectiveness of its exception-handling arrangements.

Subclause	Practical application	Possible evidence
9.1 Monitoring and evaluation	Decide what to evaluate, how to evaluate it and when to act.	Trend reports, control checks and review decisions.
9.2.1 Internal audit	Evaluate conformity and effective implementation of the AIMS.	Evidence-supported findings.
9.2.2 Audit programme	Plan coverage, responsibilities and reporting.	Programme and follow-up records.
9.3.1 Management review	Have management periodically evaluate the AIMS.	Review agenda and participation records.
9.3.2 Review inputs	Bring together relevant performance information, changes and concerns.	Consolidated review information.
9.3.3 Review results	Record decisions about improvement, changes and resources.	Decisions, assigned actions and follow-up.

Measures should support decisions. A report that consistently shows acceptable averages may need additional detail to reveal significant exceptions.

Clause 10: Responding to Failures and Improving AI Management

A problem can require immediate correction and a review of the arrangements that allowed it to occur.

Illustrative example:

A supplier update changes an AI feature's behaviour. The business discovers that its required change review was missed.

It controls the affected use, examines the consequences and investigates why the notification and review process failed. It then checks whether the revised arrangement captures subsequent updates.

Subclause	Practical application	Possible evidence
10.1 Continual improvement	Use evaluation and experience to improve the AIMS.	Improvement decisions and demonstrated results.
10.2 Nonconformity and corrective action	Respond to unmet requirements, evaluate causes and check action effectiveness.	Issue records, investigation and effectiveness reviews.

An unexpected output does not automatically establish a management-system nonconformity. The organisation needs evidence of the requirement and what happened.

For the broader distinction between correction, investigation and corrective action, read Managing Nonconformities in ISO Management Systems.

Your Role in the AI Management System

Responsibilities should reflect the decisions people make and the activities they perform.

Role	Practical contribution
Top management	Establish direction, accountability and resources.
Business owner	Define intended use and review continuing suitability.
Technical personnel	Evaluate capabilities, configurations, limitations and changes.
Data owner	Clarify permitted use and relevant information-quality needs.
Procurement personnel	Obtain supplier information and clarify responsibilities.
Employees	Use approved tools within agreed boundaries and report concerns.
Oversight personnel	Challenge outputs and intervene within their authority.

The same person may perform several roles in a smaller business. The decisions and responsibilities still need to be understood.

Putting the System Together: An AI-Assisted Invoice Classification Example

A business proposes a tool that routes invoices to the appropriate finance team. Finance personnel continue to approve invoices and authorise payments.

Stage	Business action	Illustrative record
Define the application	Specify documents covered and decisions retained by finance personnel.	Intended-use statement.
Assign responsibility	Name the owner and clarify the supplier's role.	Responsibility map.
Assess concerns	Examine misrouting, information handling and processing delays.	Risk and impact assessments.
Prepare controls	Establish access restrictions, checking and exception handling.	Treatment and operating records.
Evaluate suitability	Include representative formats and unfamiliar layouts in testing.	Evaluation results and acceptance decision.
Introduce the tool	Brief staff and establish escalation routes.	Release and competence records.
Review operation	Examine errors, delays and recurring exceptions.	Performance reviews.
Manage changes	Review supplier updates and additional document categories.	Change assessments.
Improve arrangements	Respond to evidence of weaknesses and evaluate the results.	Improvement records.

Suppose a new supplier submits invoices in an unfamiliar format. The tool repeatedly sends them to the wrong queue.

The business uses its exception process to address the immediate delay. It then considers whether evaluation coverage, monitoring or operating instructions need adjustment.

This connects an everyday problem with the wider AIMS.

For assessment preparation beyond this handbook's awareness purpose, see the ISO Certification Audit Preparation Checklist.

Explore ISO Certification Information by Country

For country-specific ISO certification information and enquiries, select your location below.

Region	Country information
Gulf countries	United Arab Emirates · Saudi Arabia · Qatar · Bahrain · Kuwait · Oman
Other Middle Eastern countries	Iraq · Jordan · Lebanon
North Africa	Egypt · Morocco · Tunisia
Asia	India · Malaysia · Singapore · Philippines
Europe	United Kingdom
North America	United States · Canada

When enquiring, identify your operating locations, business activities and relevant management-system standards so that the proposed certification scope and assessment arrangements can be reviewed.

For a direct enquiry, contact Veritas Assurance.

Quick Reference: AI Management Terms

Term	Plain-language explanation
AIMS	Connected policies, responsibilities and processes for managing AI activities.
Intended use	The purpose and operating conditions for which an application is expected to be used.
AI risk assessment	Structured evaluation of AI-related uncertainty and its significance.
AI system impact assessment	Examination of potential effects on individuals, groups and society.
Risk treatment	Decisions and actions addressing assessed risks.
Statement of Applicability	A record of necessary controls and their inclusion or exclusion justifications.
Human oversight	Arrangements enabling appropriate people to supervise and intervene.
Data provenance	Information about the origins and handling of data.
Drift	Changes in data or system behaviour that may affect performance or suitability.
Residual risk	Risk remaining after treatment.

Building Practical AI Management Awareness

Employees should be able to recognise the approved purpose of an AI application, understand their responsibilities and know where to raise concerns.

Managers need visibility of how those arrangements work. Technical and operational teams need a shared basis for discussing capabilities, limitations and change.

A useful awareness discussion can begin with one application already in use:

- What is it permitted to do?
- What information does it receive?
- Who checks or acts on its outputs?
- What happens when it produces an unsuitable result?
- Who reviews changes?

Use the answers to connect the handbook's clauses with the organisation's own processes.

For an enquiry about your proposed AIMS scope and certification requirements, contact Veritas Assurance. Include your AI-related activities, organisational role, operating locations and proposed boundaries.

Disclaimer

This handbook is an independent educational resource prepared by Veritas Assurance. It provides original explanations and hypothetical examples to support understanding and awareness. It does not reproduce, replace or amend the authorised ISO/IEC 42001 standard.

The explanations are concise summaries. Examples and suggested records are illustrative rather than a complete statement of requirements. Appropriate arrangements depend on the organisation's activities, AI systems, responsibilities, risks, contractual commitments and applicable obligations.

This handbook is not legal advice, product approval or a guarantee of certification. Management-system certification does not guarantee that every AI system or output is accurate, safe, unbiased or compliant with every applicable law. ISO and IEC do not endorse this handbook.

Use an authorised copy of ISO/IEC 42001 and relevant referenced publications when establishing or assessing conformity.