

Halderstone

Training module

Operational Control of AI Systems

Define, implement and maintain operational controls for AI systems across deployment, change and monitoring



Do your AI controls work in practice?

Overview

Selecting controls for AI systems is only the starting point. The real challenge is embedding them into daily build, deployment, monitoring, and change practices so they remain effective as systems evolve.

This module provides a structured approach to translating ISO/IEC 42001 operational control expectations into lifecycle control points. Participants learn how to design proportionate control sets based on system impact and risk, define clear roles and escalation paths, and establish release and change routines that preserve control integrity. The focus is on demonstrable effectiveness: identifying the minimum evidence required and preventing “paper controls” that exist in documentation but not in practice.



Target audience

- People involved in designing, building, operating, or improving an AIMS aligned with ISO/IEC 42001
- Executives and department heads accountable for the effectiveness and performance of an AIMS
- Those responsible for processes, policies, applications, risks or risk controls related to AI
- Auditors of ISO/IEC 42001 who want to deepen their understanding of management-side best practices (not audit technique)

Is this module for you?

It is a good fit for you if you...

- want a clear mental model of operational control for AI systems.
- need to understand how AI governance decisions translate into daily practice.
- oversee AI deployment, change, or monitoring without owning the tooling.
- need to judge whether operational controls are credible and complete.
- want ISO/IEC 42001 requirements to make sense in real operations.

It may be less suitable for you if you...

- want tool-specific procedures or technical implementation guidance.
- expect hands-on MLOps or engineering training.
- are looking for risk or impact assessment methods.
- already operate mature, well-documented AI operational controls.

Learning outcomes



Key outcomes

- Translate ISO/IEC 42001 operational control expectations into lifecycle control points for AI systems
- Define control sets that are proportionate to the AI system's impact and risk and integrate them into build, deployment and use
- Establish change and release practices that ensure controls remain effective as systems evolve

Additional capabilities

- Specify roles, responsibilities and escalation paths for AI operational control
- Identify the minimum evidence needed to demonstrate that controls are working
- Recognise paper controls and design corrective actions to embed controls into daily routines



Agenda

Operational control in an ISO/IEC 42001 AI management system

How to understand operational control for AI systems in practical terms and how it interfaces with scope, inventory, and risk/impact decisions as inputs

Defining operational control requirements per AI system and use context

How to derive control objectives and constraints from approvals and risk acceptance and tailor a proportional minimum control set per AI system

Lifecycle control points: build, deploy, use, and monitor

How to define traceable control points across data, model, and deployment artefacts and establish operational routines for monitoring, issue handling, and usage conditions

Change and release discipline for AI systems

How to manage versioning, re-approval triggers, and controlled rollout while maintaining traceability of what changed, why, and who approved it

Operational roles, responsibilities, and competence in AI control

How to assign clear ownership for controls, exceptions, and escalations and ensure effective handovers across teams involved in AI operation

Documented information and evidence for operational control

How to define a minimum viable evidence set for operational control and avoid paper controls that fail under readiness or audit review

Case-based workshop

Applying the learned concepts, methods, and approaches in a realistic case setting

Included materials



Learning materials

- Slide deck
- Participant workbook

Templates & tools

- AI operational control pack template
- Lifecycle control points map
- AI change & release checklist template
- Re-approval trigger log template
- Operational monitoring review log template
- Exception & escalation record template
- Supporting AI prompt set

Confirmation

- Confirmation of participation

Preparation guidance

Assumed background

This module assumes participants can work within a management system and interpret operational roles and evidence requirements.

Helpful background includes:

- Basic understanding of management system roles, procedures, and documented information
- Familiarity with how risk decisions and approvals shape operational constraints
- Practical understanding of AI lifecycle artefacts and monitoring

Preparatory modules

Foundation (depending on background)

Useful if you are new to the underlying concepts

- Operational Control
- AI System Lifecycle & Inventory

Supporting (optional)

Helpful but not required to participate effectively

- AI Systems & Architectures
- AI Limitations & Failure Modes
- AI Risk, Impact & Harm Assessment

Logistics



Available languages

- English
- German

Standard delivery options

- Virtual live teaching
- Blended learning (e-learning + live)

Bespoke delivery options

- On-site delivery at your place
- Content adapted to your organization



Halderstone

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