Halderstone

Training module

AI System Lifecycle & Inventory

Define AI system scope, set lifecycle boundaries, and maintain an AI system inventory aligned with ISO/IEC 42001

Are your AI system boundaries clearly defined and traceable?

Overview

When AI capabilities are embedded across products and services, boundaries blur and inventories become unreliable. Without clear definitions, governance weakens and assurance findings follow.

This module establishes a structured approach to defining AI system boundaries, distinguishing management system scope from individual system scope, and setting meaningful lifecycle checkpoints. Participants learn how to design and maintain a traceable AI system inventory with clear ownership, defined metadata, and embedded update routines. The focus is on creating defensible traceability from system definition to risk, controls, and monitoring activities.

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)

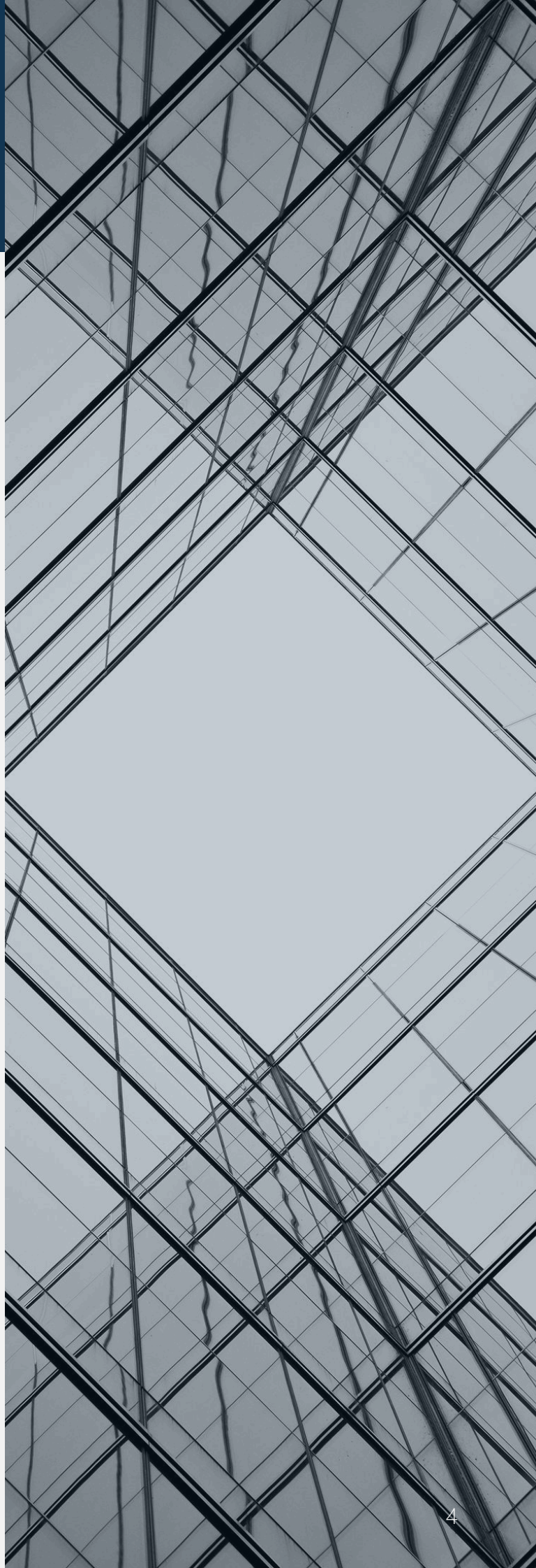
Is this module for you?

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

- need a defensible definition of what counts as an "AI system" in your organisation.
- struggle with fragmented AI use cases, pilots, embedded features, or vendor models.
- need clear lifecycle boundaries to support governance, assurance, and audit.
- want a maintained AI system inventory as a shared baseline for implementation and control.
- support or review ISO/IEC 42001 scope, readiness, or effectiveness.

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

- are looking for AI technical foundations or model behaviour concepts.
- expect risk assessment, control design, or operational control methods.
- want tooling, registers, or automation specifics rather than structure and logic.
- already operate a complete, consistent AI system inventory with clear lifecycle ownership.



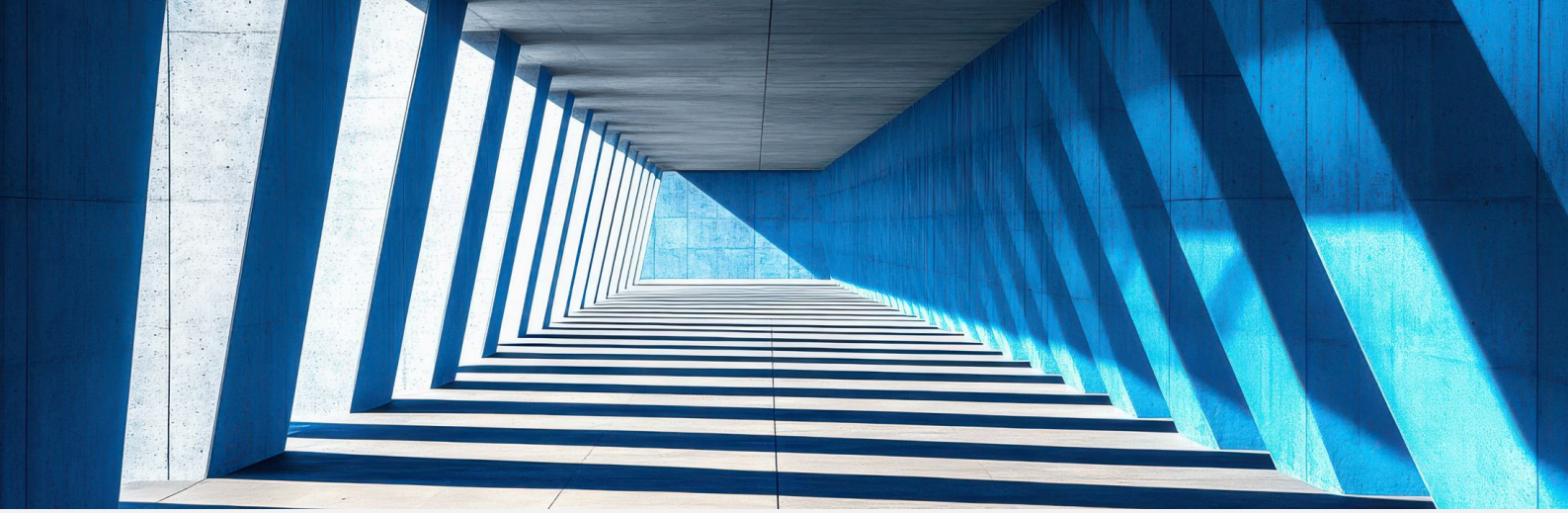
Learning outcomes

Key outcomes

- Apply criteria to identify AI systems and describe their purpose and operating context
- Define lifecycle boundaries for AI systems, including development, deployment, maintenance and retirement
- Build a maintained inventory of AI systems with minimum metadata and ownership assignments

Additional capabilities

- Distinguish between AIMS scope definition and AI system identification to avoid conflation
- Design ownership, change and maintenance routines for the AI system inventory
- Create traceability links from the inventory to risk assessments, impact/harm evaluations and operational control activities



Agenda

What ISO/IEC 42001 needs from “scope” at the AI system level

How to distinguish AIMS scope from individual AI system scope and avoid AI-specific scoping failure modes that undermine assurance

Defining “AI system” consistently for inventory purposes

How to identify AI systems across standalone models, embedded features, and composite services, including boundaries, interfaces, and shared responsibility contexts

Lifecycle boundaries that matter for governance and assurance

How to use lifecycle stages as governance checkpoints and recognise where accountability typically breaks during data changes, model updates, and vendor releases

Designing the AI system inventory

How to define a minimal, traceable inventory structure covering purpose, context, ownership, and dependencies without overengineering documentation

Inventory governance and maintenance routines

How to assign ownership, define update triggers, and embed inventory upkeep into management routines and change processes to preserve integrity over time

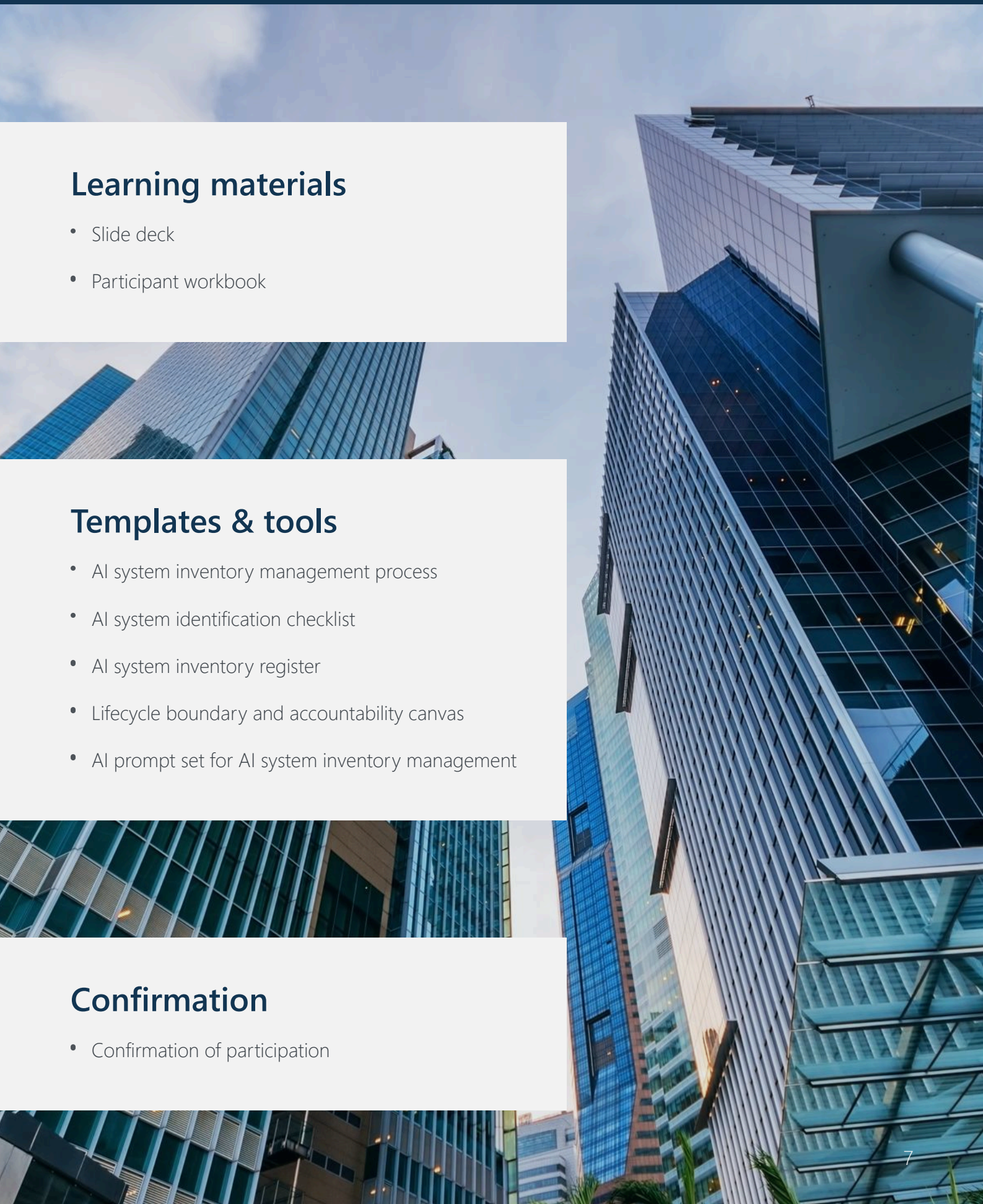
Using the inventory as a backbone for audit-ready implementation

How to establish clear traceability from inventory to scope, assessments, controls, and monitoring records and prevent audit findings driven by scope ambiguity

Case-based workshop

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

Included materials



Learning materials

- Slide deck
- Participant workbook

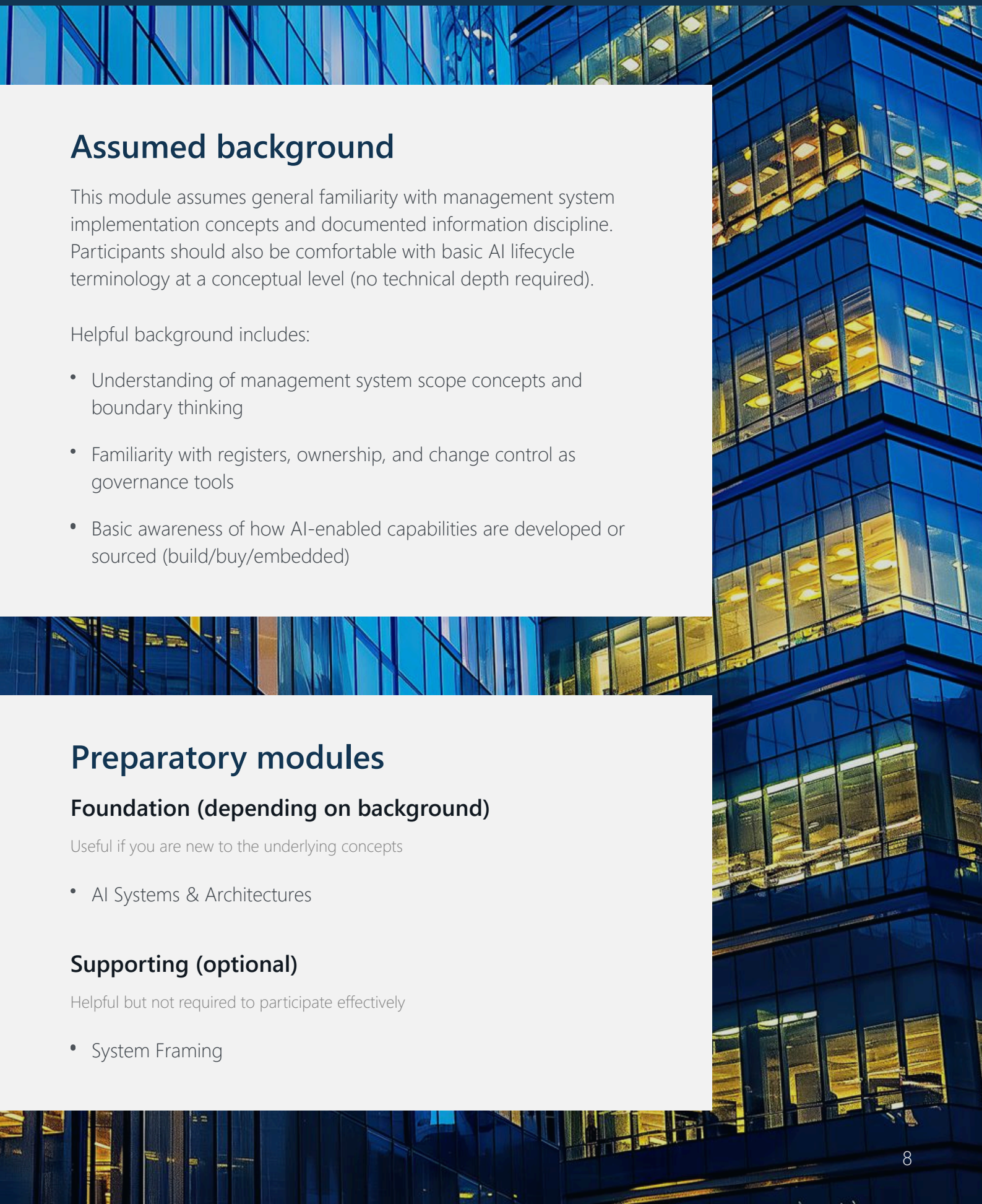
Templates & tools

- AI system inventory management process
- AI system identification checklist
- AI system inventory register
- Lifecycle boundary and accountability canvas
- AI prompt set for AI system inventory management

Confirmation

- Confirmation of participation

Preparation guidance



Assumed background

This module assumes general familiarity with management system implementation concepts and documented information discipline. Participants should also be comfortable with basic AI lifecycle terminology at a conceptual level (no technical depth required).

Helpful background includes:

- Understanding of management system scope concepts and boundary thinking
- Familiarity with registers, ownership, and change control as governance tools
- Basic awareness of how AI-enabled capabilities are developed or sourced (build/buy/embedded)

Preparatory modules

Foundation (depending on background)

Useful if you are new to the underlying concepts

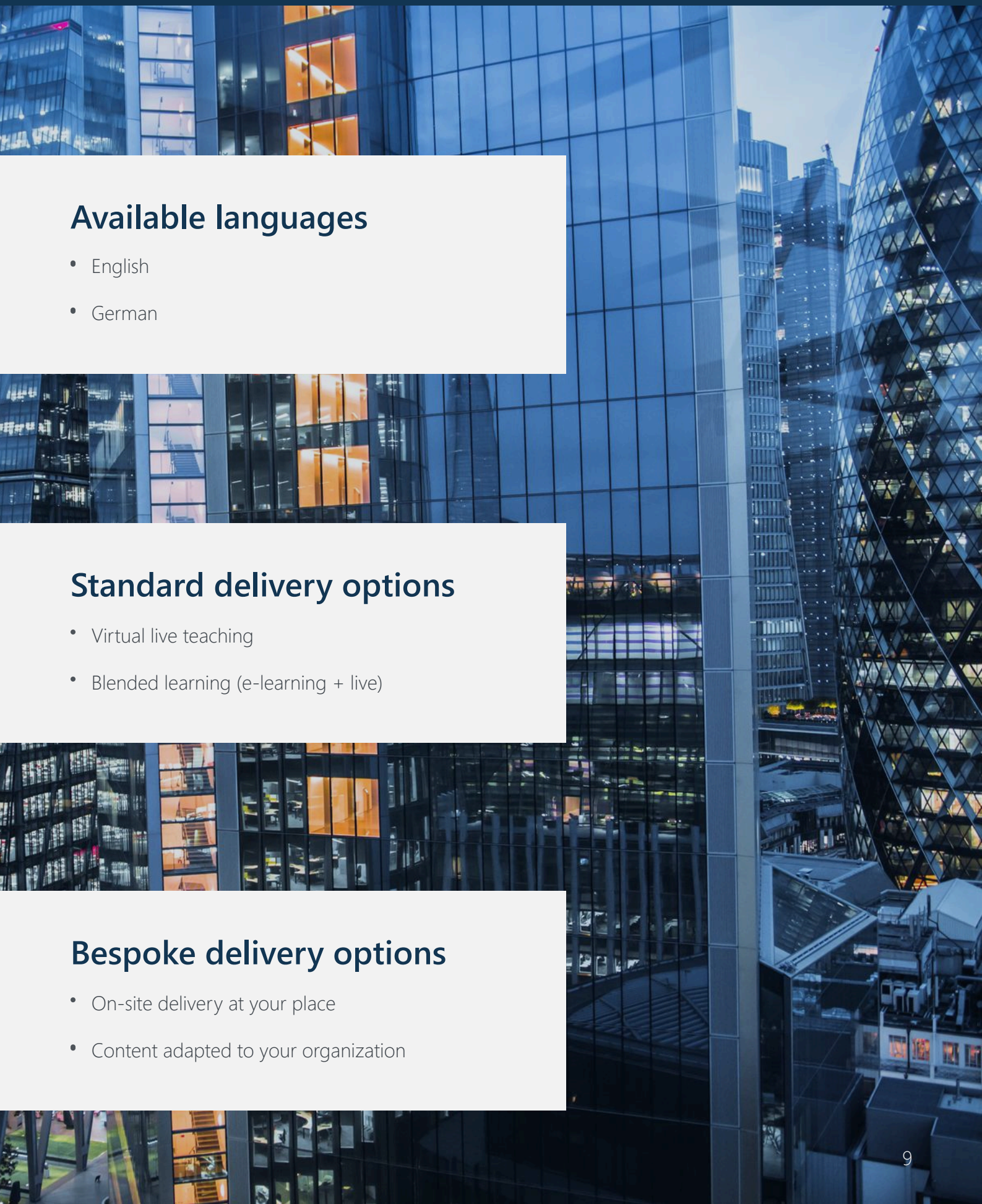
- AI Systems & Architectures

Supporting (optional)

Helpful but not required to participate effectively

- System Framing

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

Halderstone by Langer & Co
Zürcherstrasse 2
CH-8852 Altendorf
Switzerland
info@halderstone.com
www.halderstone.com