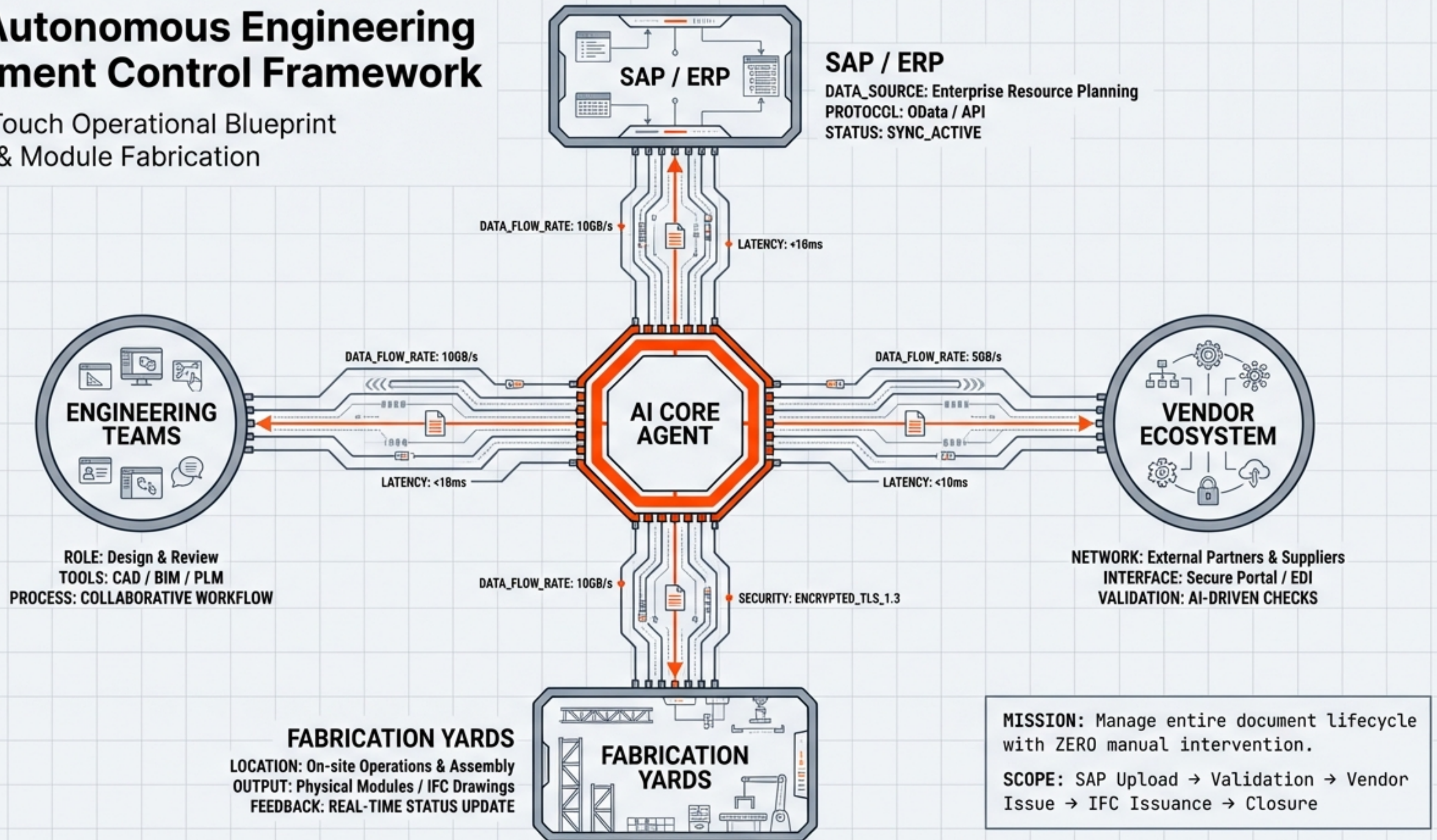


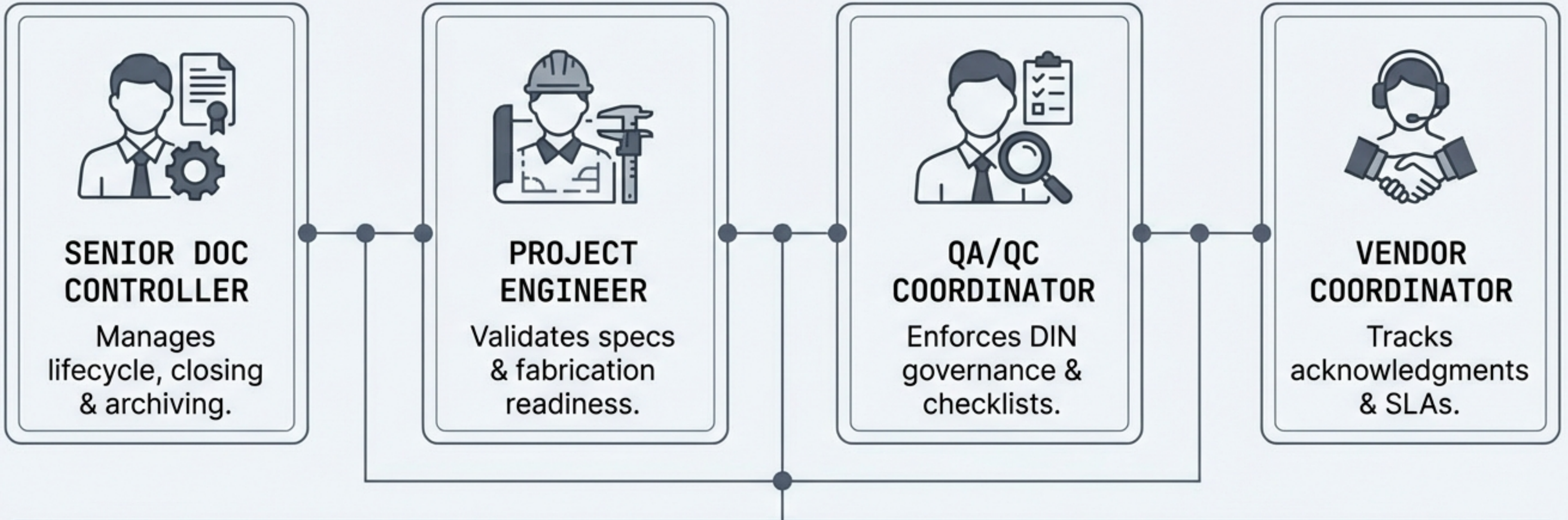
# The Autonomous Engineering Document Control Framework

A Zero-Touch Operational Blueprint for EPC & Module Fabrication



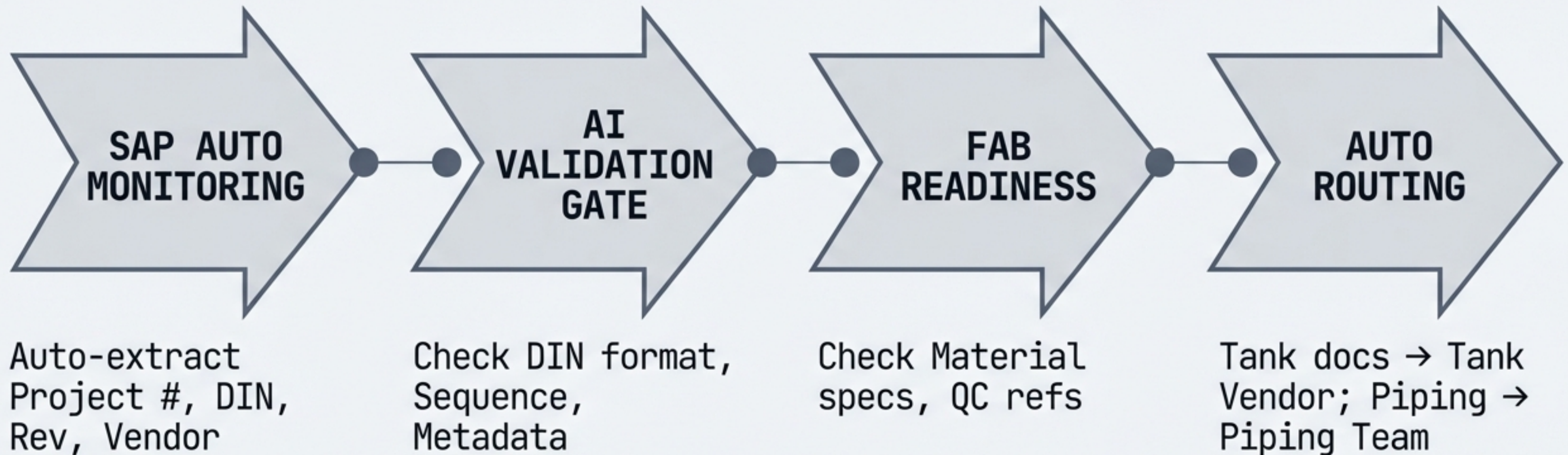


# Meet Your New Digital Operations Manager



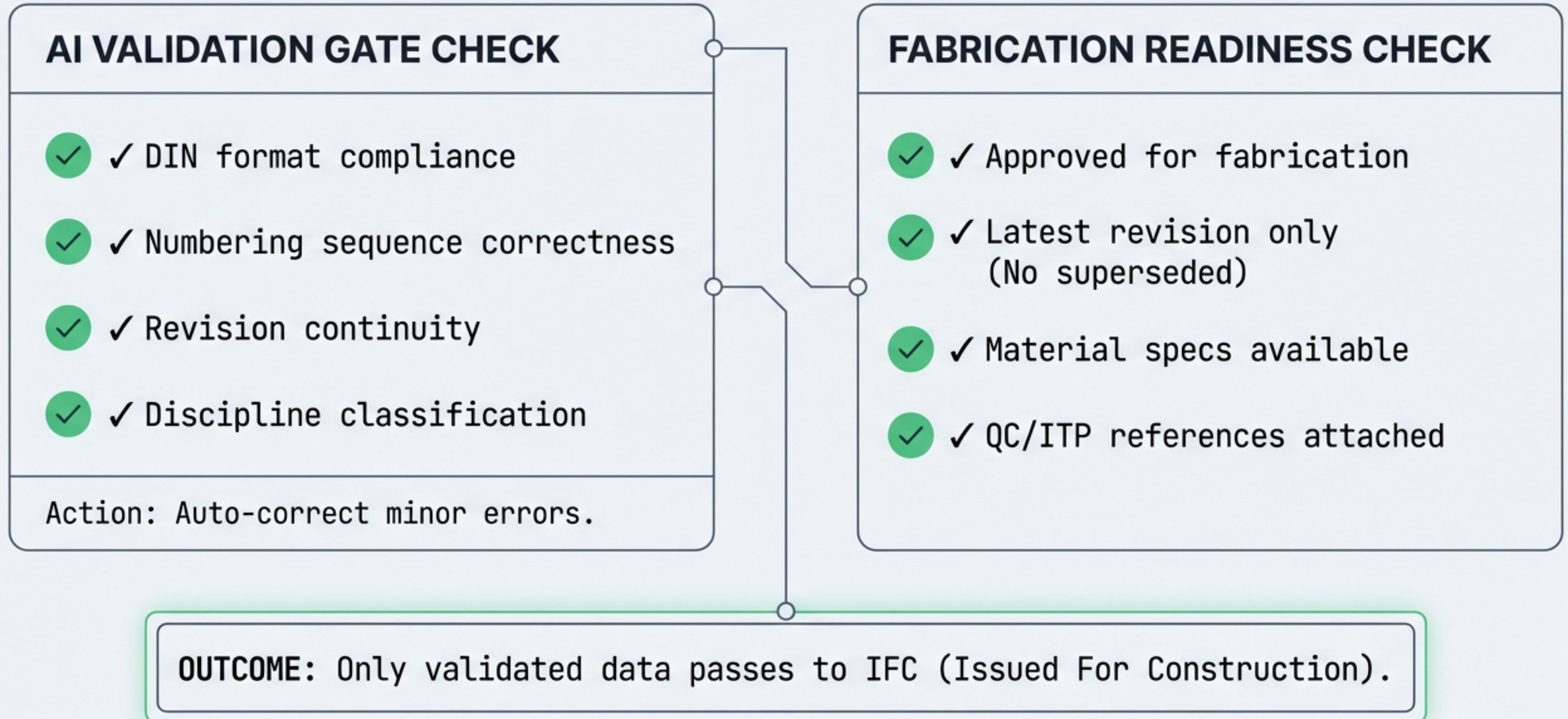
**CORE RULE:** If rules are satisfied → Move to next stage automatically. Escalate only for critical compliance risks. **⚠ International Safety Orange.**

# Phase 1: The Zero-Touch Fabrication Workflow

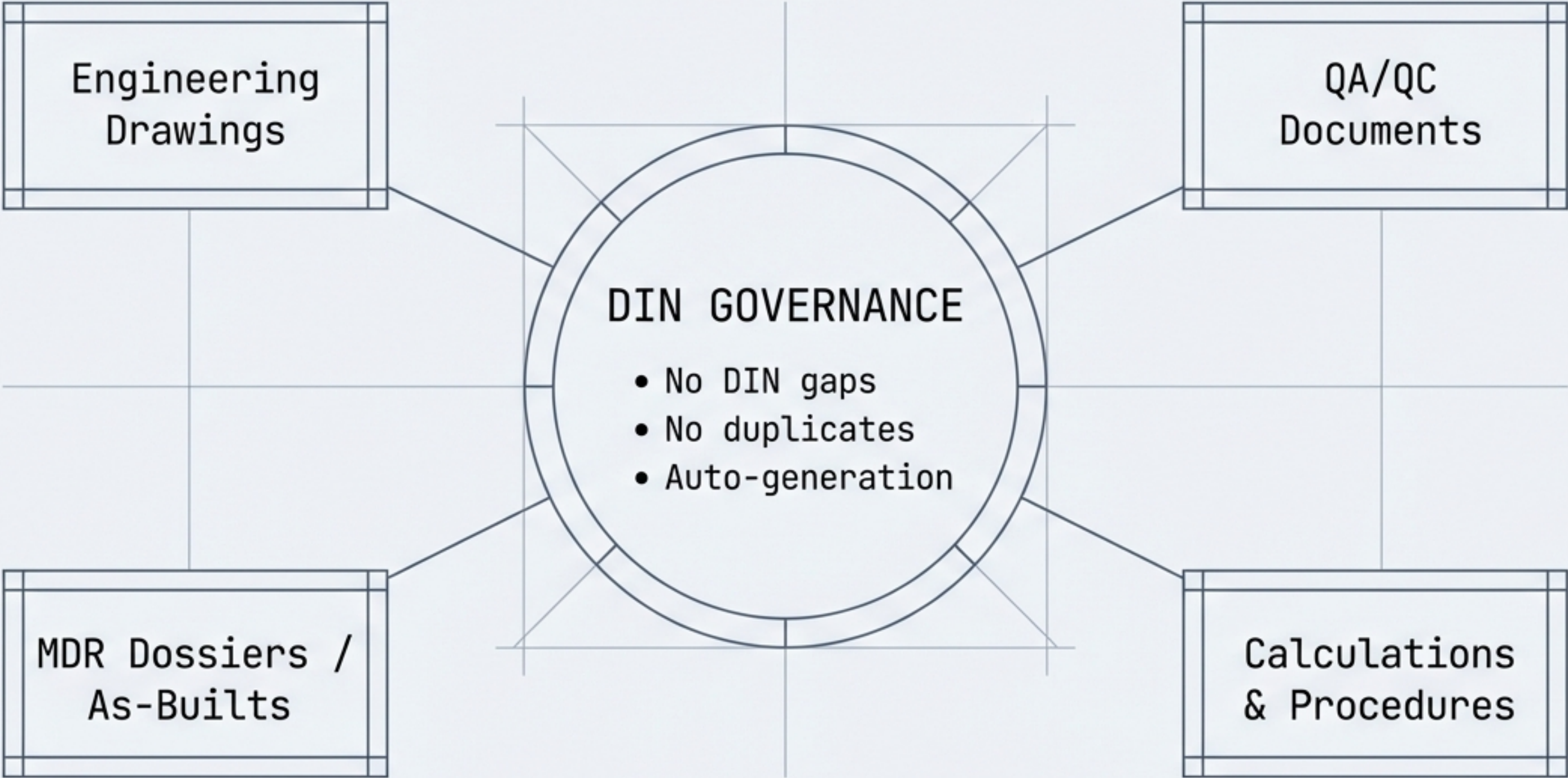


**SCOPE:** Tanks, Piping, Structural, Skids, Modules.

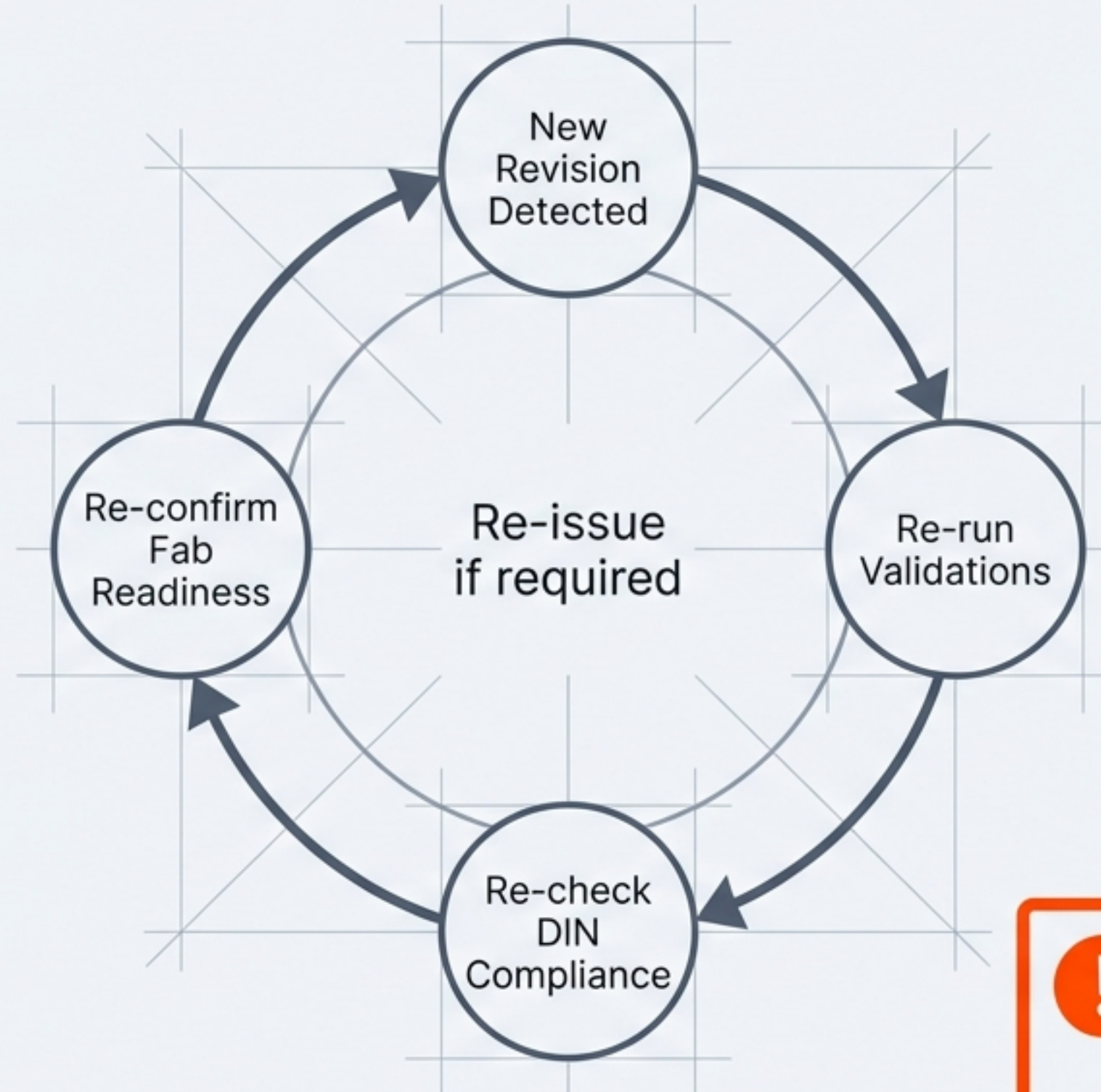
# The Gatekeeper: Automated Validation and Readiness



# Phase 2: Centralizing Intelligence Across the Lifecycle



# The Loop: Mandatory Revision Automation



**CRITICAL RULE:**  
**No Revision Bypass Allowed.**  
Every revision is treated as a new lifecycle cycle.

# Safety Protocols: Locking Down Superseded Data

## NEW REVISION



Approved for  
Fabrication

## OLD REVISION



- Marked SUPERSEDED
- Archived securely
- Vendor Access BLOCKED

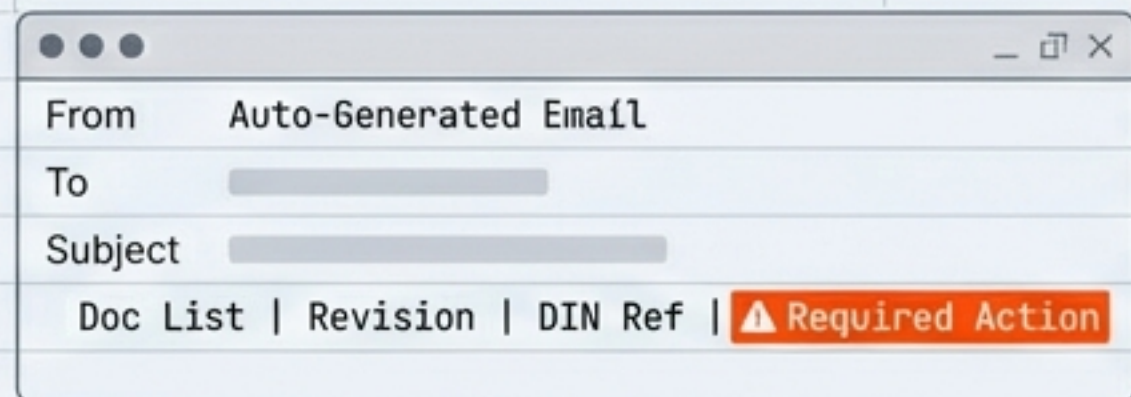
AI ensures no fabrication uses superseded drawings and no outdated documents remain in circulation.

# The Red Alert Mechanism Prevents Site Errors

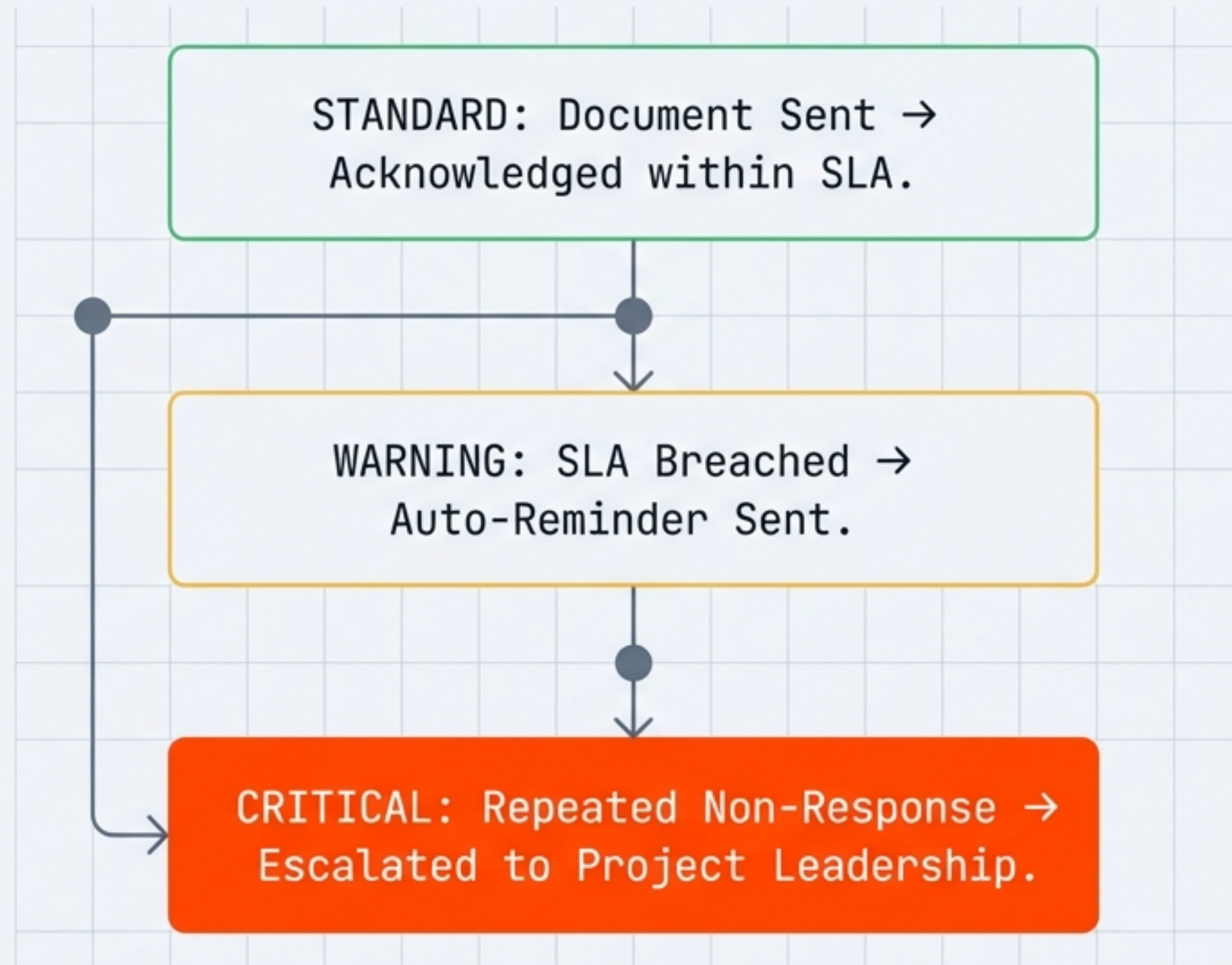


Triggered automatically when a document is superseded or scrapped to prevent rework.

# Automating the External Vendor Loop



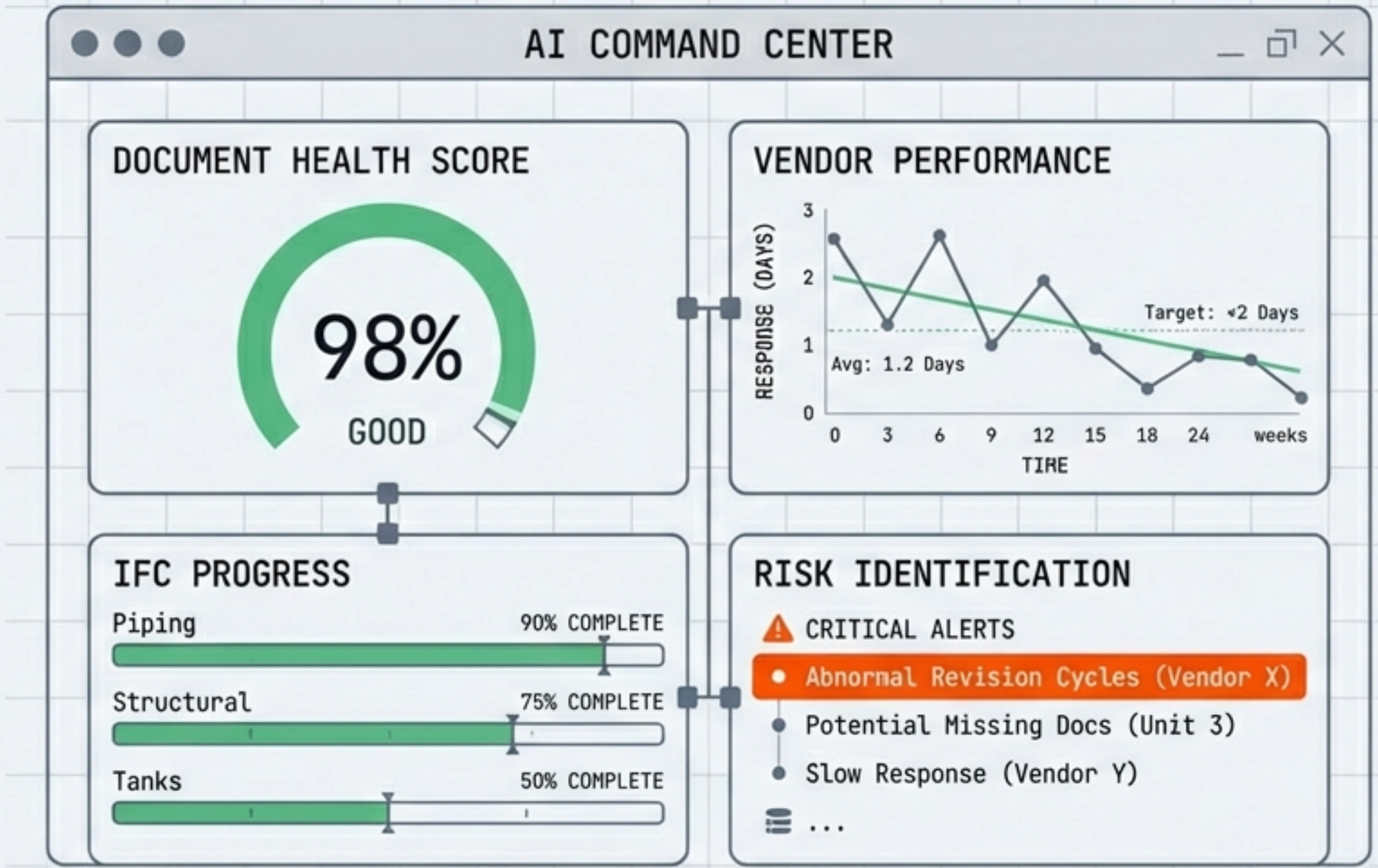
# Escalation Protocols for Non-Compliant Vendors



Critical risks—such as failing to acknowledge a Red Alert—are flagged immediately.

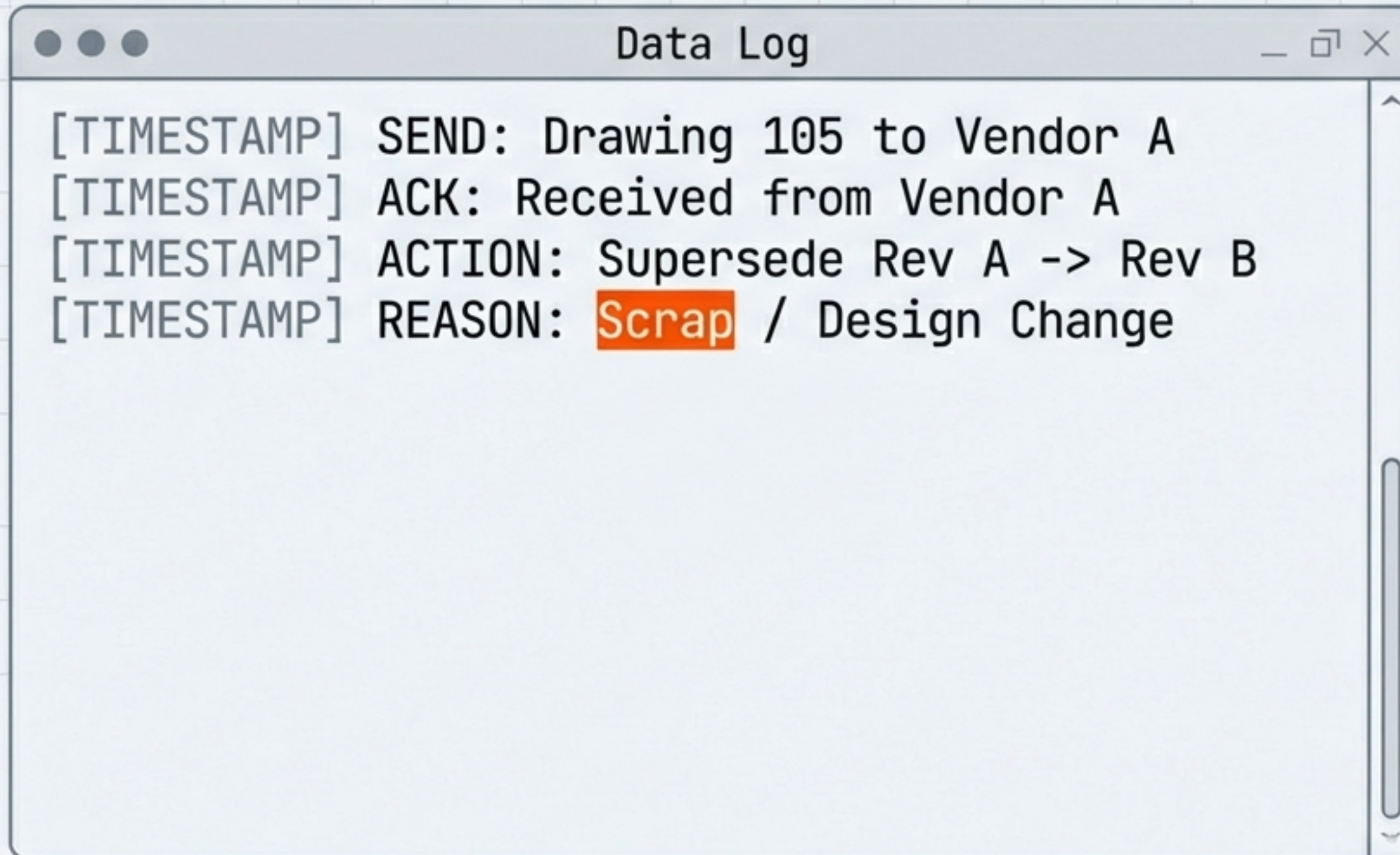
AI predicts 'slow vendors' to provide corrective actions before bottlenecks occur.

# From Reactive Tracking to Predictive Governance



Goal: Predict delays and missing documents before they stop work.

# The Black Box: Unalterable Audit Trails

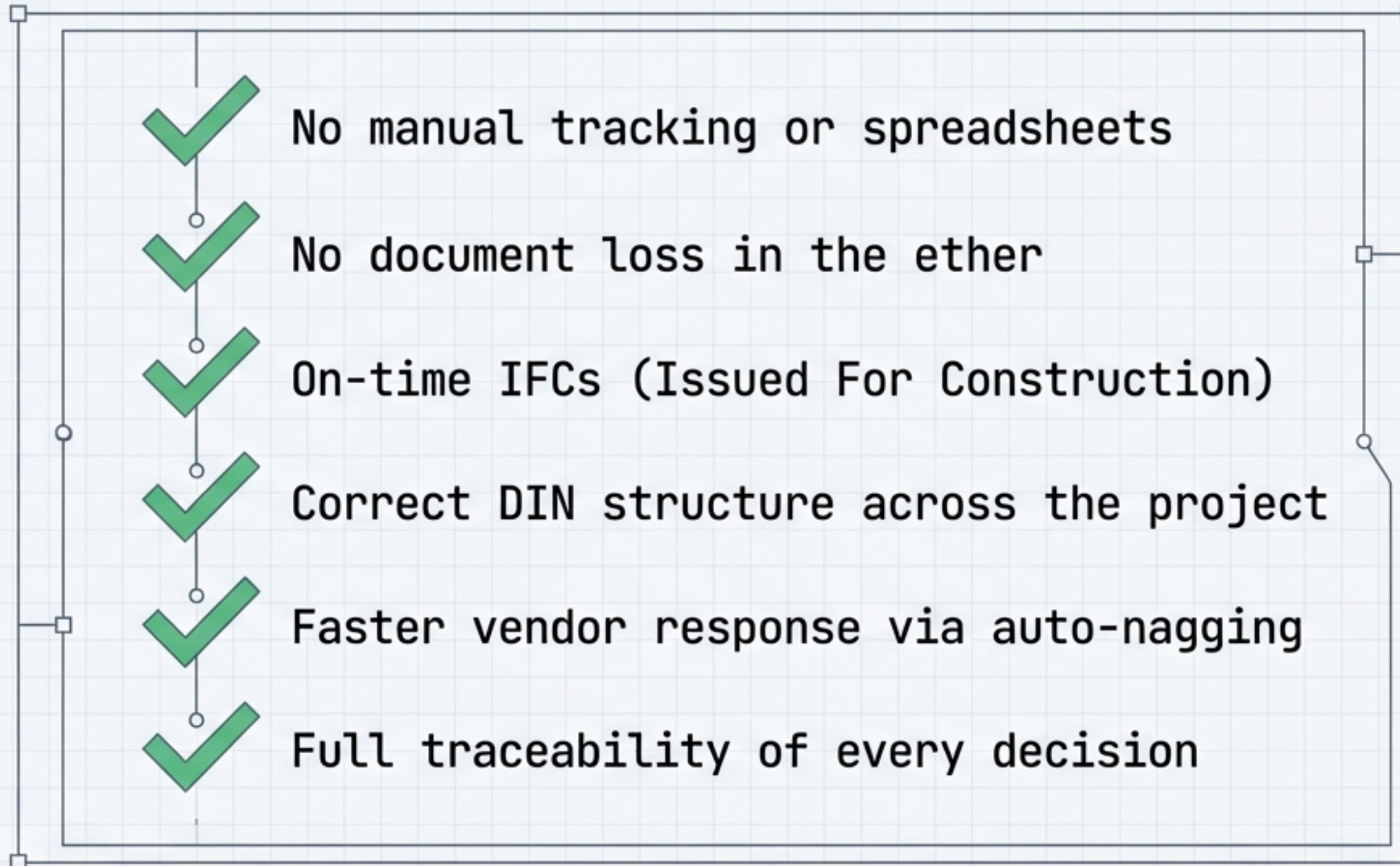


```
[TIMESTAMP] SEND: Drawing 105 to Vendor A
[TIMESTAMP] ACK: Received from Vendor A
[TIMESTAMP] ACTION: Supersede Rev A -> Rev B
[TIMESTAMP] REASON: Scrap / Design Change
```

**CORE RULE:**  
Never delete  
records  
without  
authorization.

A permanent record  
of truth.

# Defining Success Through Operational Metrics



# Adopting the Autonomous Mindset



To succeed, we operate not just as controllers, but as:

- **AI Operations Managers**
- **EPC Compliance Leaders**
- **Process Optimization Experts**

**BE PROACTIVE. BE PRECISE. BE RISK-AWARE.**