



Design & Construction Department, Technical Services
Athens International Airport

Beyond BIM

Building the Digital Information Backbone of a Developing Operating Airport

Preparing Through Information Management



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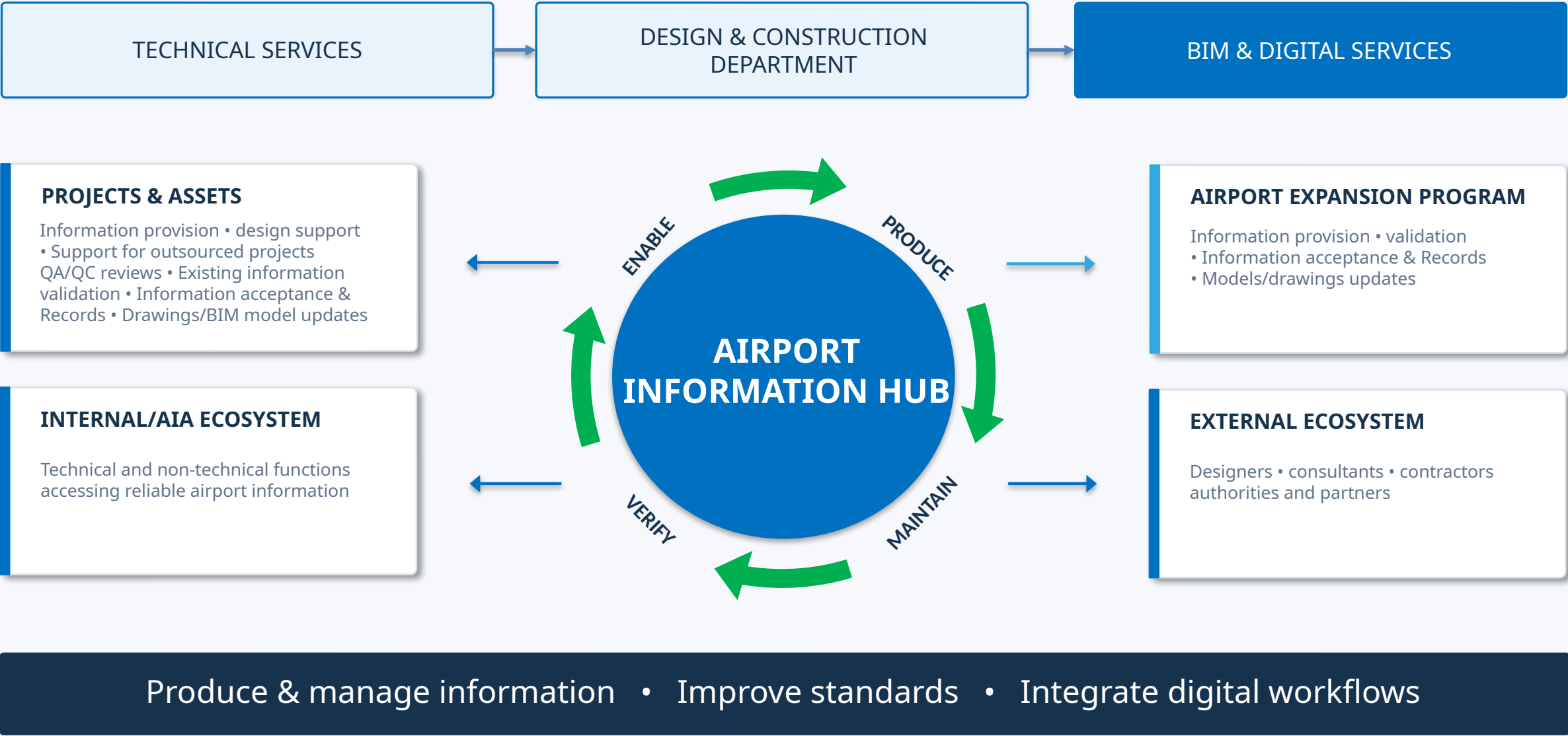
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GATEWAY TO AIRPORT INFORMATION



Developing airport infrastructure in a live operational environment

Upgrade projects must coexist with uninterrupted airport operations.

LIVE OPERATIONAL ENVIRONMENT

- Active passenger and airline operations
- Critical systems and services
- Ongoing maintenance

COMPLEX DELIVERY CONTEXT

- Existing buildings and infrastructure
- Multiple simultaneous projects
- New works within active facilities

KEY CHALLENGE

Engineering delivery and information management must advance together.



The airport cannot pause while its information environment evolves.

From BIM Models to Information Management

OUR APPROACH



OUR FOCUS

- We are not building BIM models for the sake of BIM.
- WE ARE BUILDING**
- Trusted information
- Repeatable processes
- Organizational knowledge
- Future operational capability

WHY WE CHOSE A STEP-BY-STEP APPROACH

- WE ARE DELIBERATELY AVOIDING:**

 - Large-scale technology deployments
 - Overly ambitious transformation initiatives
 - Trying to digitalize everything at once
- INSTEAD, WE ARE FOCUSING ON:**

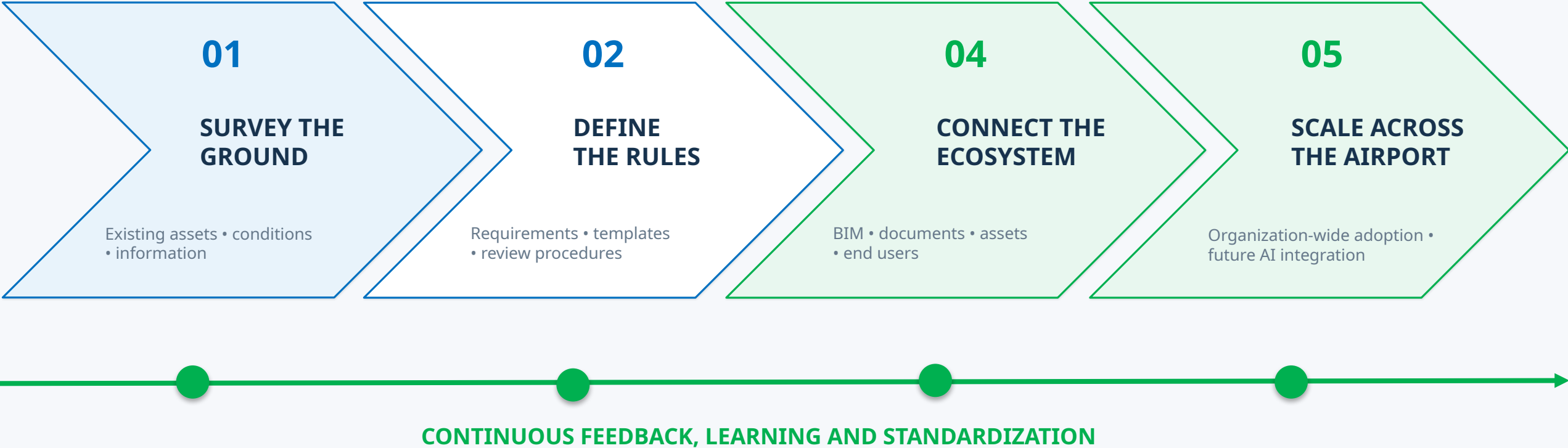
 - Pilot projects
 - Real use cases
 - Process testing
 - Lessons learned
 - Incremental improvement
 - Organizational capability building

KEY MESSAGE

Our challenge is not managing models; our challenge is managing information.

A Deliberate Step-by-Step Approach: Building the Foundation First

The journey is sequential, but each capability continues and strengthens the next.

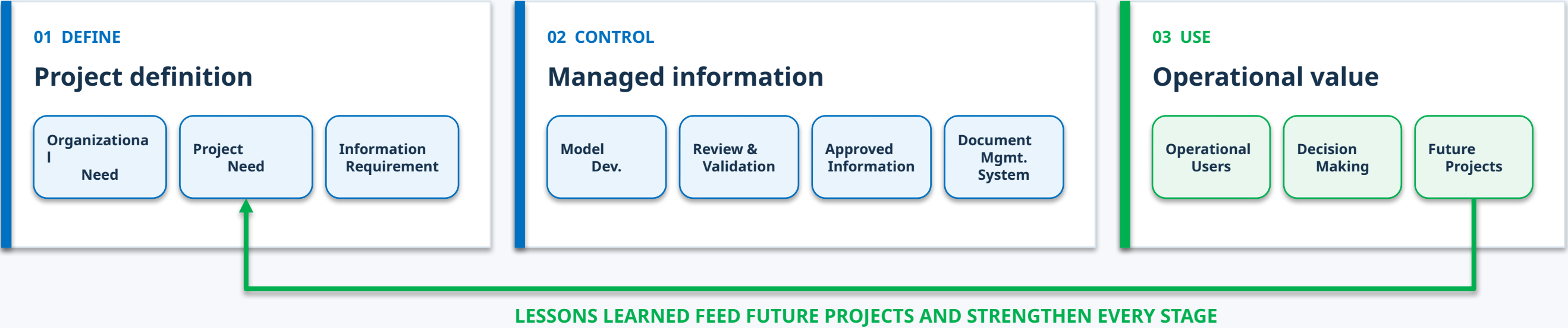


KEY MESSAGE

Later actions can begin before earlier steps are fully complete, while established capabilities remain active throughout the journey.

Information Flow: The Heart of the Strategy

What happens to information after project delivery?

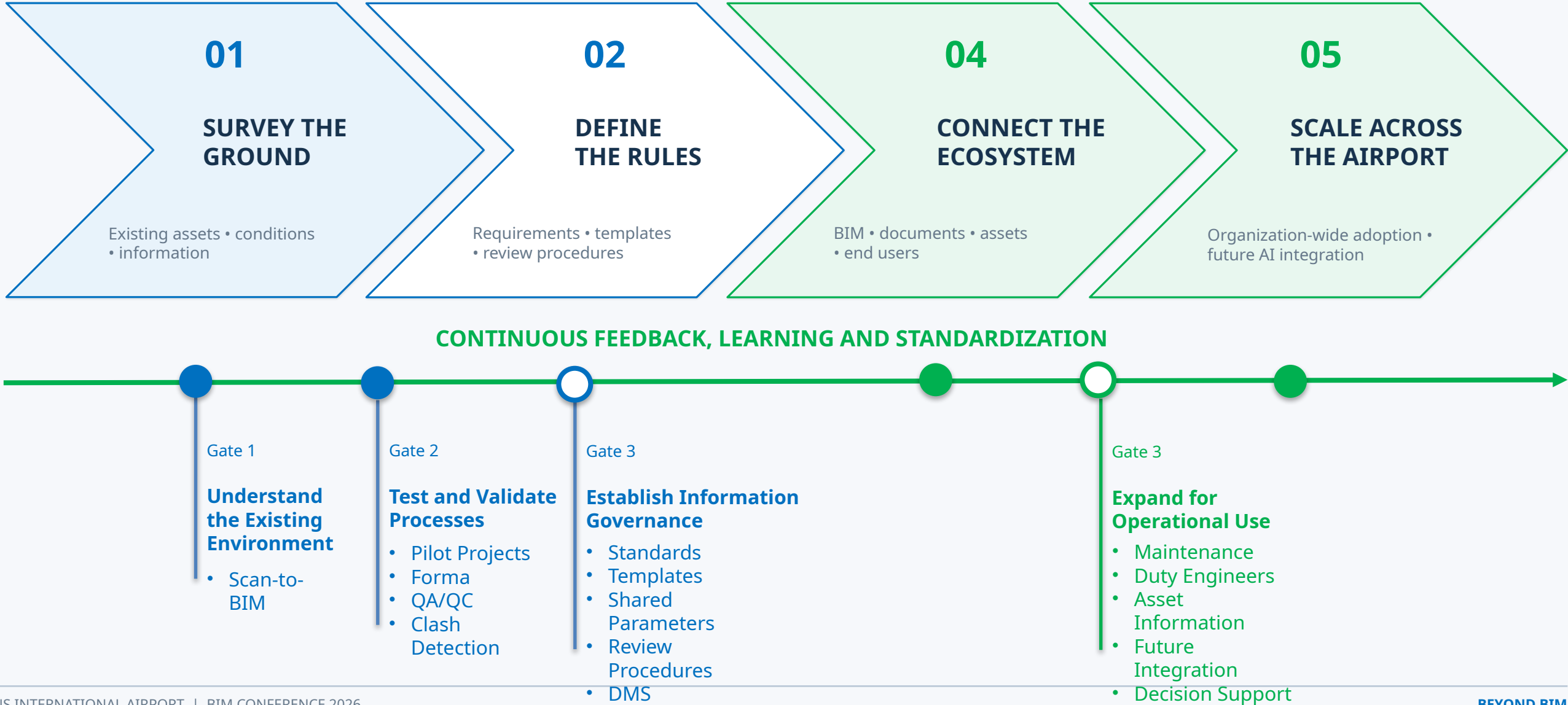


CORE PRINCIPLE

Information should not stop at project delivery. It should continuously support the airport throughout its lifecycle.

Our Strategic BIM Approach

The journey is sequential, but each capability continues and strengthens the next.



Scan-to-BIM: Understanding the Existing Environment



THE QUESTION WE ASKED

- ✗ How do we create BIM models?
- ✓ How will airport teams actually use them?

WHAT THE PROJECT IS CREATING

- Digital representation of existing assets
- Reliable as-is information
- Foundation for future projects
- Baseline for decision-making

POTENTIAL END USERS

- Maintenance Teams
- Duty Engineers
- Project Managers
- Designers
- AIA stakeholders
- Contractors

POTENTIAL BENEFITS

- Faster understanding of existing conditions
- Better intervention planning
- Reduced uncertainty
- Easier access to asset information
- Improved project preparation

THE JOURNEY: Existing assets → laser scanning → point clouds → BIM models → Asset Information → Operational Use

Design Projects: Turning Project Reviews into Scalable BIM Governance

A repeatable cycle of testing, consistent review and organizational learning.

01 TEST & VALIDATE

Validate the approach

- BIM requirements
- Review procedures
- Coordination workflows

- Collaboration processes
- Deliverable quality

Tools: Cloud • QA/QC • Interoperability Tools

02 REVIEW CONSISTENTLY

Aspects reviewed:

- Model structure
- Coordinates
- Parameters
- Worksets

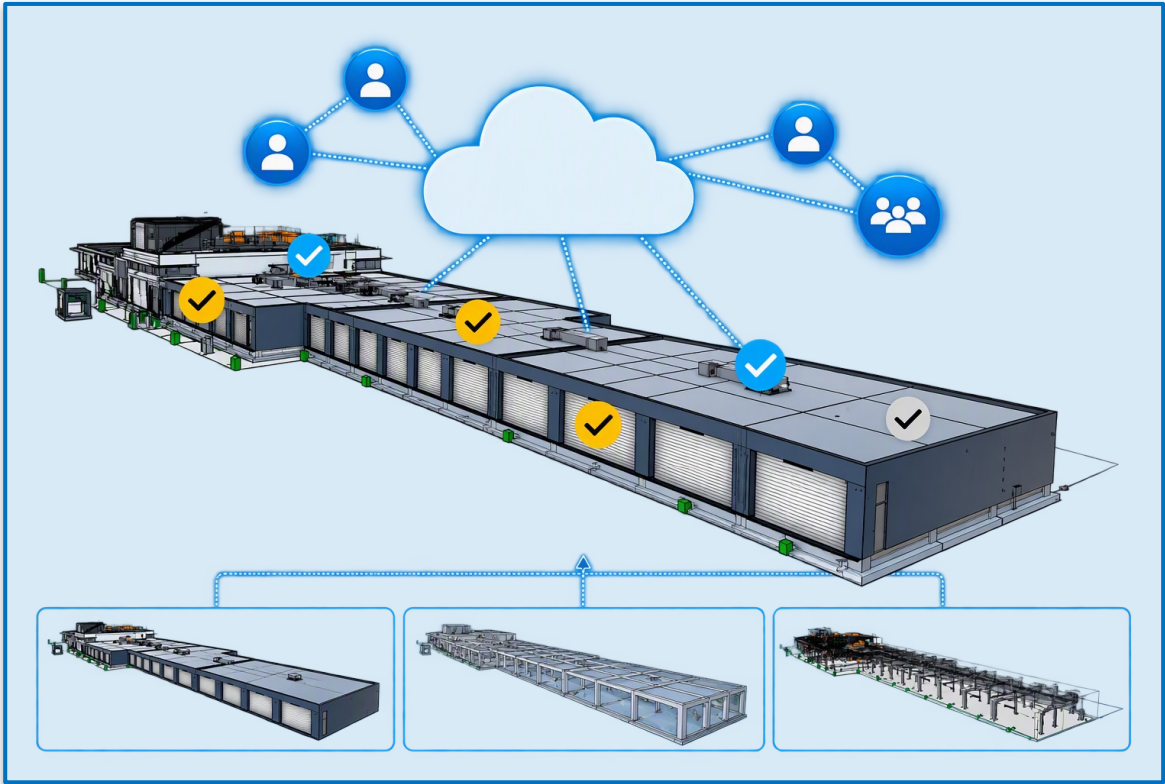
- Linked models
- Drawing consistency
- Asset requirements
- Data quality

03 LEARN & IMPROVE

Repeatable review process:

Submission → Review → Issues → Correction

Process improvement ← Lessons learned ← Acceptance

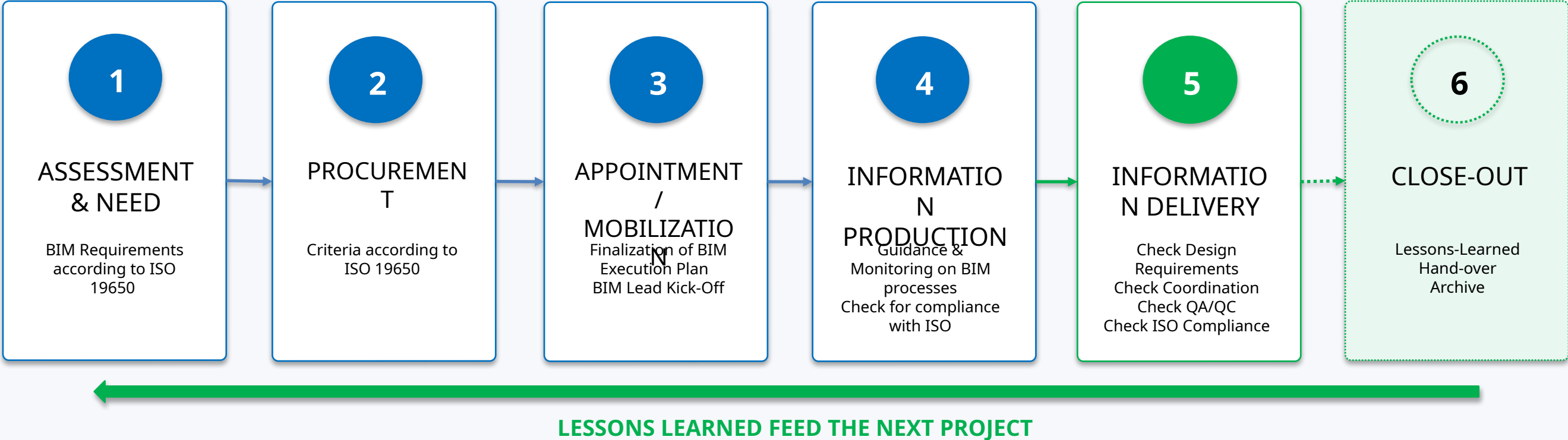


KEY OBJECTIVE

Test, learn, improve, standardize: From project reviews to organizational knowledge

Beyond Review: ISO 19650 from Initiation to Close-out

PROJECT LIFECYCLE • Managed Information at every stage



KEY MESSAGE

Pilot projects tested managed information at every stage: from assessment and procurement through delivery, close-out, and lessons learned

From Pilot Experience to Lessons Learned

✓ WHAT WORKED

- Cloud collaboration
- Structured reviews / Reports
- Structured issue tracking and resolution workflows
- Early identification of coordination issues
- Improved multidisciplinary visibility

WHAT DIDN'T WORK

- Misalignment between specified requirements, agreed workflows, and the final BIM deliverables received
- Gaps between project expectations and actual information delivered
- Inconsistent model setups between disciplines
- Different discipline practices
- Different BIM maturity levels among project teams
- Information that was technically compliant but not always aligned with end-user needs

□ MOVING FORWARD

- ▶▶ Standardized Review Procedures
- ▶▶ Standardized shared parameters and model requirements
- ▶▶ Standardized Issue Classification & Tracking
- ▶▶ Focus on Information Usability, not only Model Compliance
- ▶▶ Involvement of All AIA Disciplines in Review Processes
- ▶▶ Alignment of End-User Needs with BIM Deliverables
- ▶▶ Reuse of Lessons Learned Across Projects

KEY OUTCOME

**From project reviews to organizational knowledge:
Experience from each stage was captured and carried forward into lessons learned and future standards.**

Through People, Processes & Practice



FOUNDATIONAL
Common ISO 19650
understanding

- Information management principles
- Roles and responsibilities
- Information requirements
- Common terminology and processes



ROLE-BASED
LEARNING
Training targeted to
actual
responsibilities

- End users and project teams
- Design, construction and maintenance
- Quantity surveyors and cost estimators
- BIM & Digital Services specialists



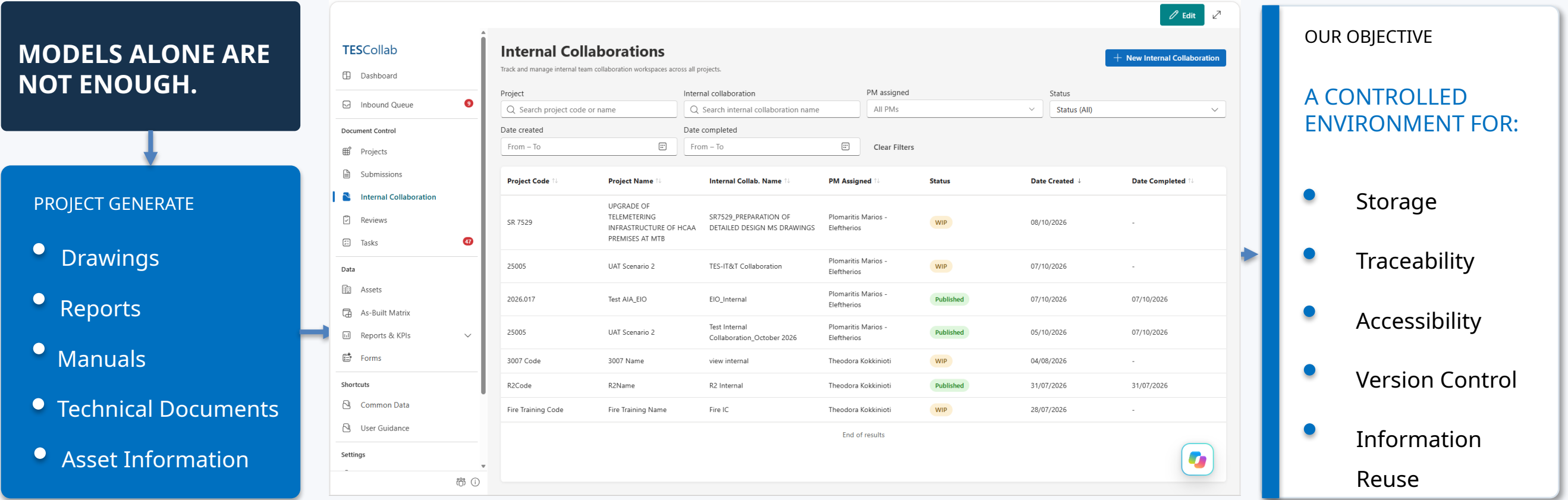
PRACTICAL
APPLICATION
Learning through
real workflows

- Bite-sized online tutorials
- Custom live training and exercises
- Discipline-specific use cases
- BIM tools within AIA-defined processes

KEY OBJECTIVE

**Technology alone is not enough:
Building confident, repeatable application of ISO 19650 and BIM workflows.**

TESCollab: Creating the Information Backbone



KEY MESSAGE

BIM information becomes valuable only when it is connected to controlled, accessible and trusted documentation.

Connecting the Dots — Towards a Unified Digital Information Environment



CONNECTED SOURCES

BIM models • scan data
• GIS • technical documents

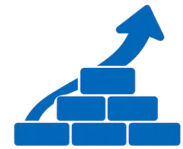
CONNECTED USERS

Maintenance • duty engineers • project teams • management

CONNECTED VALUE

Dashboards • future projects • analytics • decision support

Scaling the Information Strategy



CONTINUE
BUILDING
**Strengthen the
foundation**

- Scan-to-BIM utilization
- DMS implementation
- BIM standards maturation
- Training programs
- Process optimization



CONTINUE
CONNECTING
**Connect
information across
the airport**

- Projects
- Assets
- Information
- Operations



CONTINUE
GROWING
**Learn, improve
and scale**

- Learning Research
- Measure
- Improve
- Scale

KEY MESSAGE

Continue building capability, connecting trusted information and learning from each step to scale sustainable digital practices across the airport.

Our
Destination

A connected airport information ecosystem

Beyond BIM means looking beyond information itself, building the processes, capabilities and connections that enable the airport to grow, operate and evolve.

BIM is one of the ways we get there.

