INTERNATIONAL CIVIL AVIATION ORGANIZATION



Implementation of AIM Basic Building Blocks (BBB)

South American (SAM) Region

Global Vision: ICAO Strategic Plan 2026-2050

Objective: All flights are safe and secure

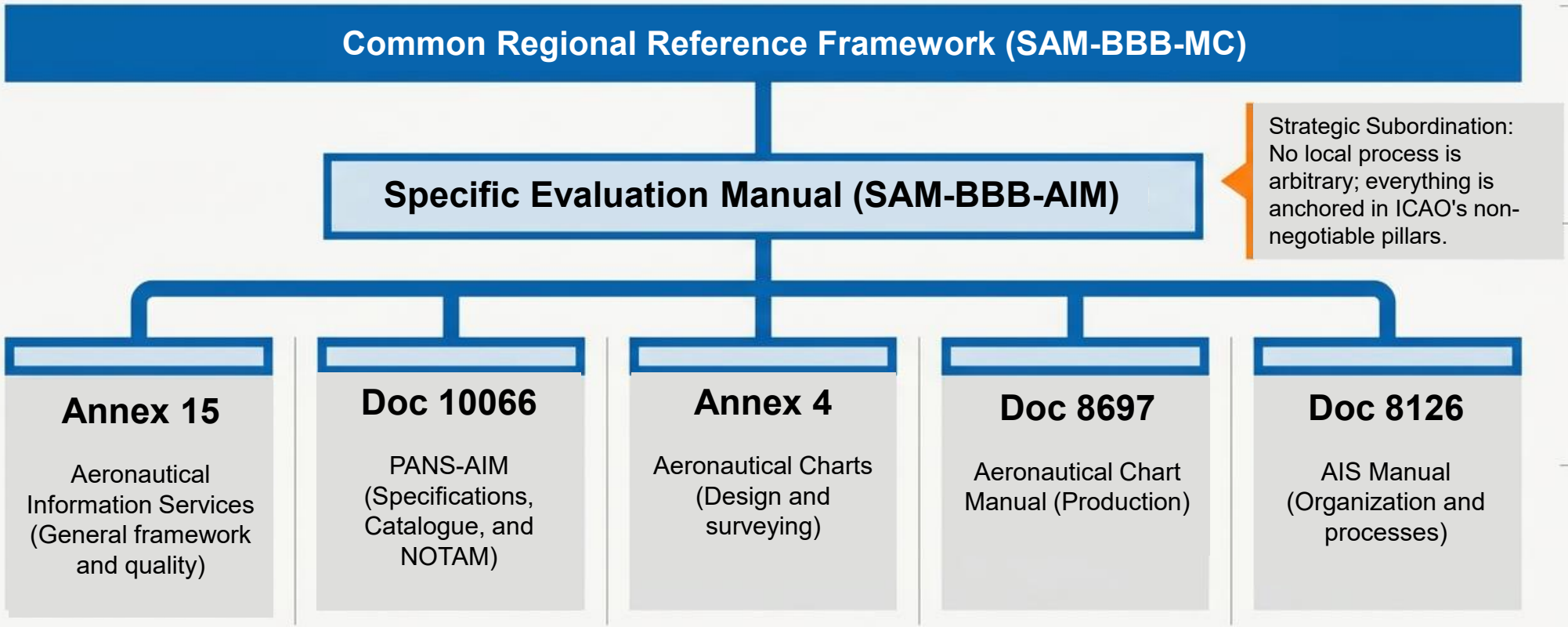
Mandate: To audit and guarantee aeronautical information as a non-negotiable pillar



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AIM Regulatory Ecosystem: From Strategy to Operation



Building Block



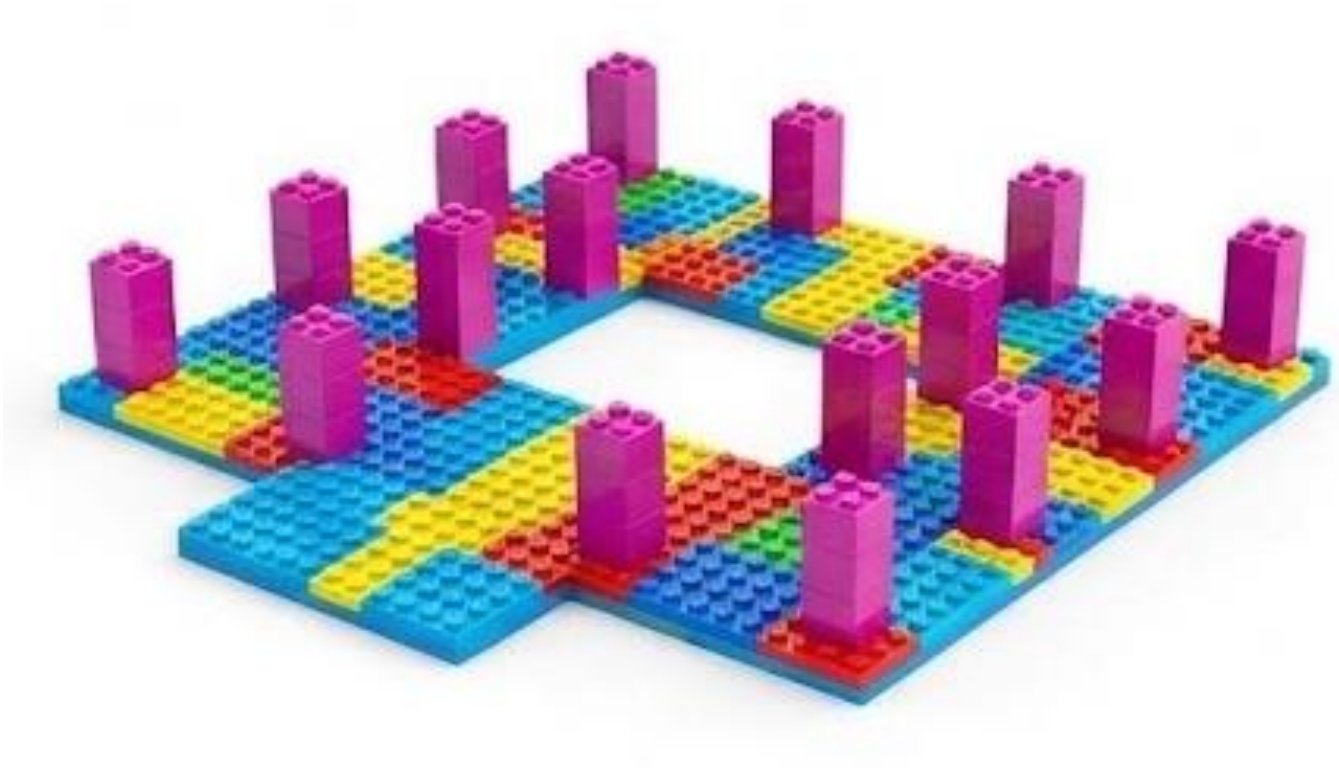
*Unitary, standardized, autonomous piece. On its own, it is limited; its brilliance lies in its **assembly capacity**:*
It is designed to connect seamlessly with others and scale toward complexity.

Building Blocks



There is not just one, but several with their own characteristics

Basic



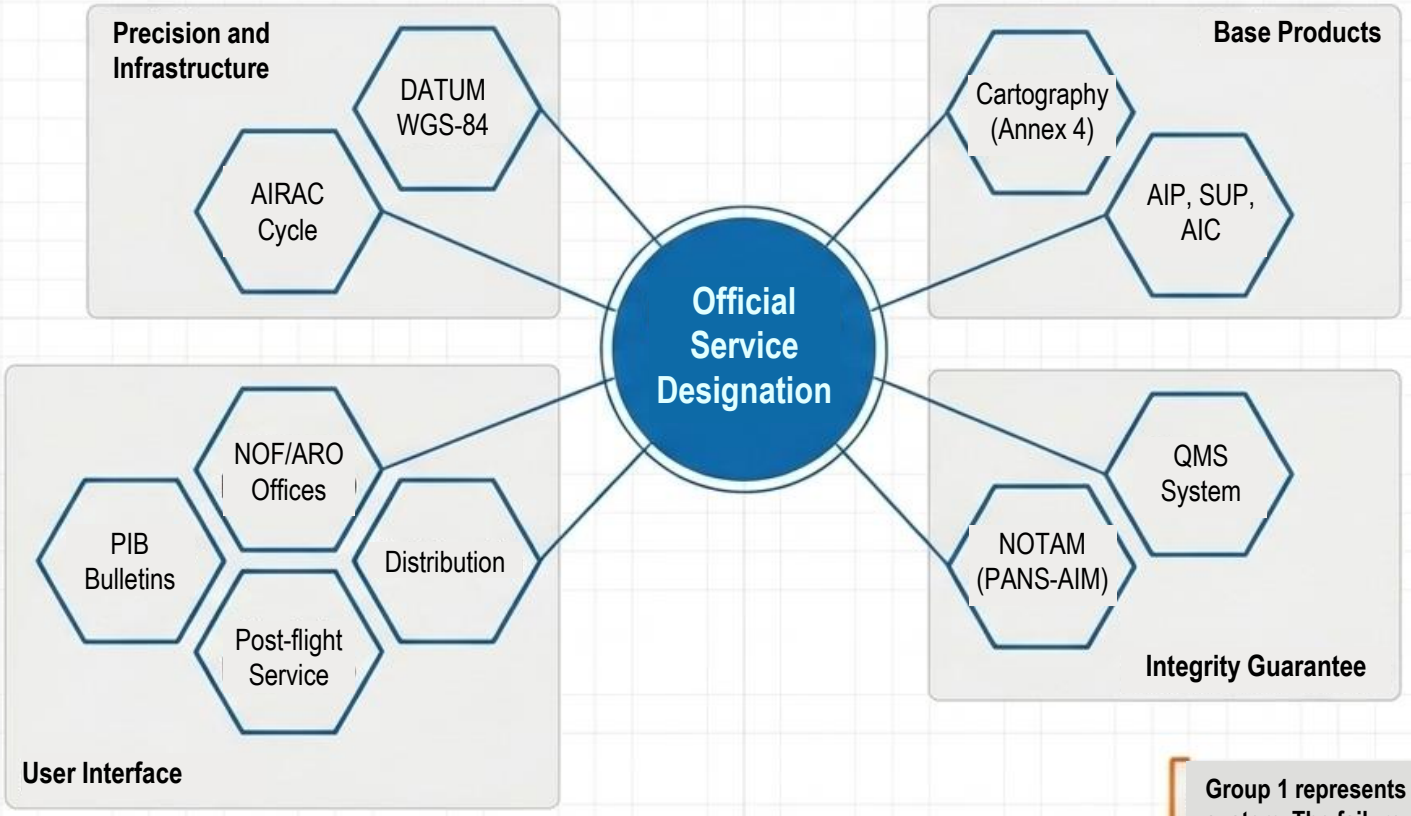
Basic does not mean simple, poor, or improvised. It means foundational and load-bearing. If the basic block fails, the physics of materials dictates that the entire upper structure—no matter how sophisticated—collapses.

Basic Building Blocks



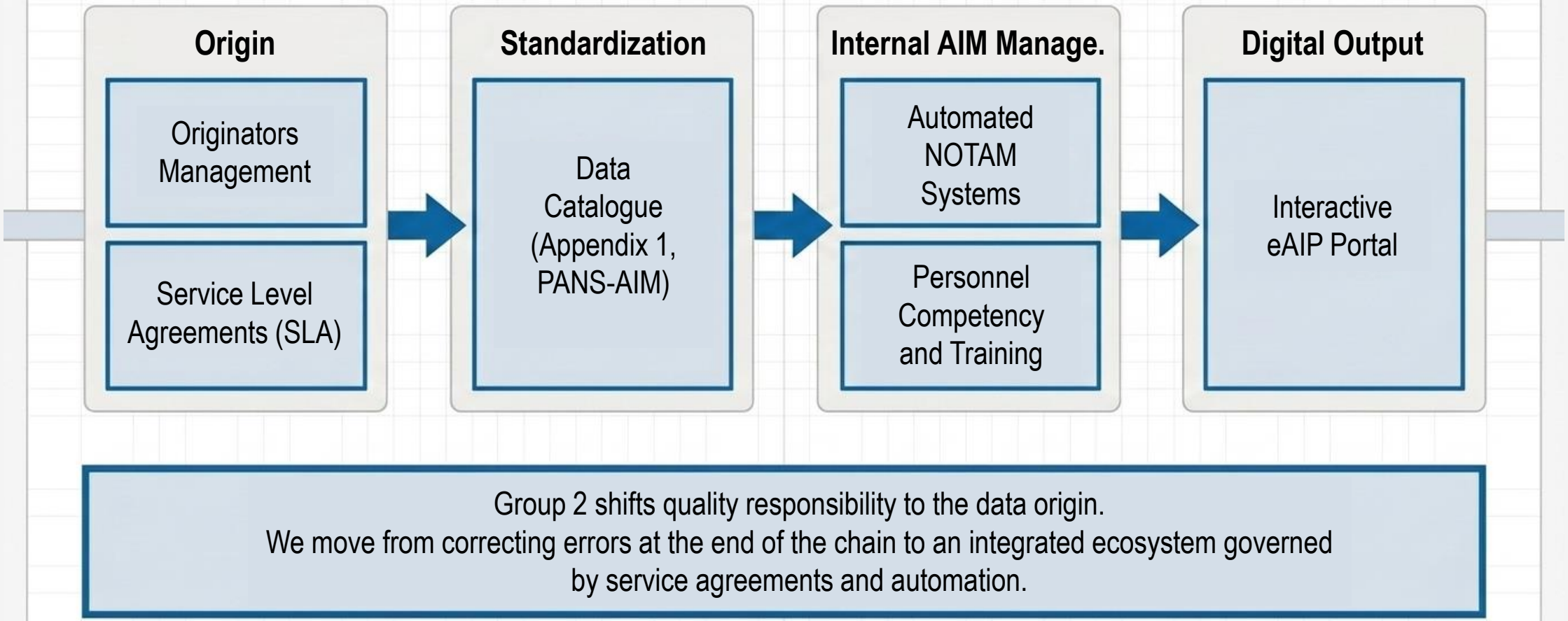
Capacity to sustain and bring life to complex structures

Group 1: Essential AIM Elements



Group 1 represents the operational cardiovascular system. The failure of a single node compromises the entire information security network.

Group 2: Quality Elements and Modern AIM Processes



Group 3: Digital Elements

The Final Transition

- Leaving behind the static PDF document to provide structured and incorruptible databases.
- Essential infrastructural requirement to avoid remaining technologically isolated from global information management.



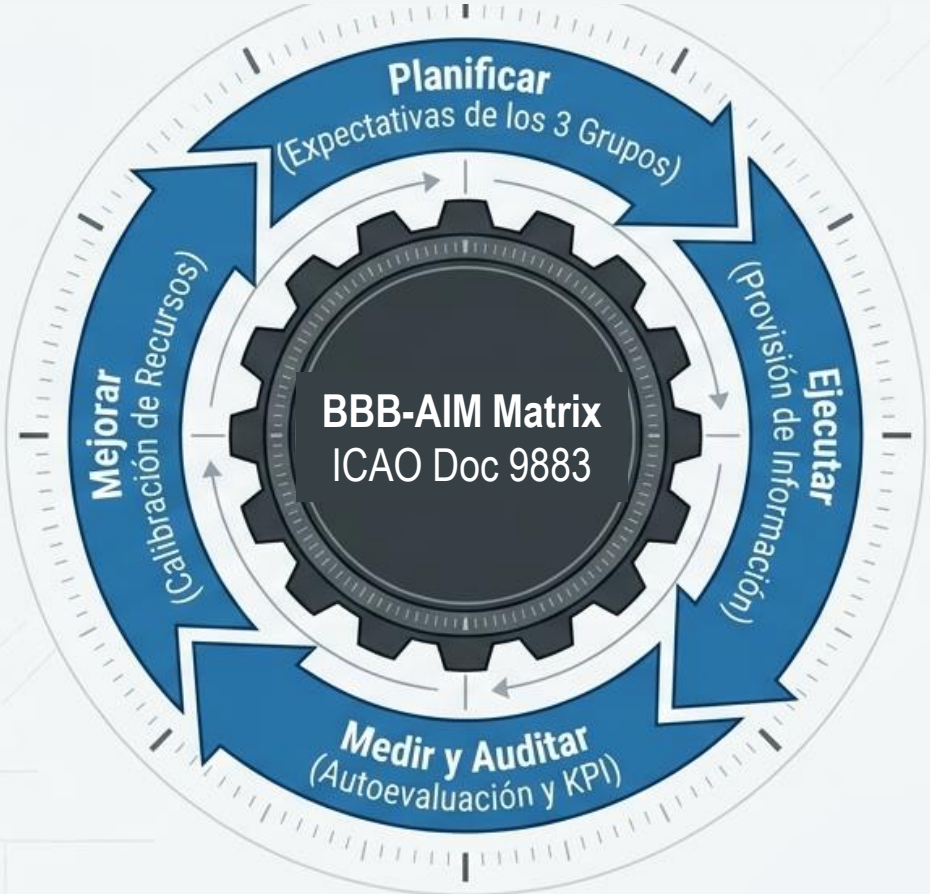
Note: SWIM represents a future concept. The implementation of these BBBs is the preliminary step necessary to tackle the transition toward SWIM.

- **AIP DDS**: Structured data with metadata
- **Obstacles DDS**: Impact prevention and route design
- **Terrain DDS**: Digital Elevation Models (DEM)
- **Procedures DDS**: Coding for FMS systems
- **Aerodrome DDS**: Exact surface and taxiway mapping

Transition to the Performance-Based Approach

Previous Paradigm

- Static and binary approach.
- Checklist-based (YES/NO).
- Presumption of compliance by mere existence.



New Paradigm

- Dynamic performance management.
- Calculation of efficacy and metric quality.
- Empirical demonstration of operational capability.

Transition to the Performance-Based Approach Operational and Quality Performance Indicators (KPI - Part I)



KPI-1: AIRAC Compliance

Guarantees the 28-day cycle. Without AIRAC, risky manual data entry in the cockpit is forced.



KPI-2: NOTAM Effectiveness

Emissions without substance or form errors. Eliminates saturation and "noise" for flight crews.



KPI-7: eAIP Availability

Absolute server reliability. A web outage on an AIRAC date is equivalent to a closed runway.



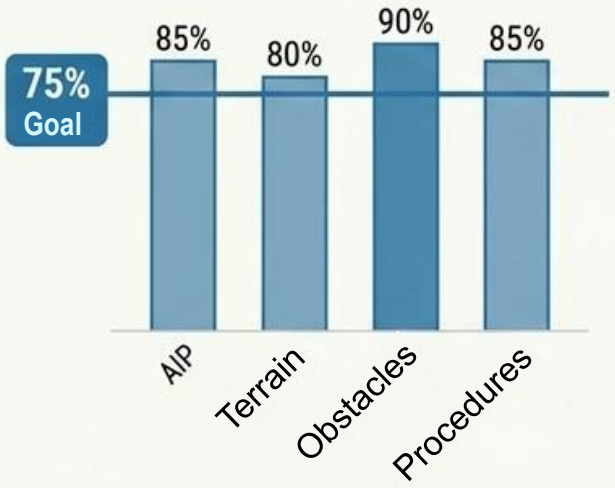
KPI-8: QMS Coverage

AII critical processes auditable. The legal and operational shield against State responsibilities.

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Digital Indicators, Data Integrity, and Satisfaction (KPI - Part II)

KPI 3-6: DDS Progress



KPI 3 to 6: DDS Implementation. Measures the progressive deployment of fundamental enablers for TBO operations.

KPI-9: Data Integrity



Goal : ≥ 95%

Use of Cyclic Redundancy Check (CRC). Ensures critical coordinates do not suffer alterations or computer corruption from their origin.

KPI-10: User Satisfaction



Goal : ≥ 99%

Operational feedback. Empirically validates that information provided to airlines and pilots is accessible and free of ambiguities.

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AIM BBB Evolution of the AIM BBB Assessment Methodology

The proposed methodology constitutes an initial basis for the evaluation and oversight of the implementation of AIM BBB elements in the SAM Region.

The next stage will consider its alignment with the GANP performance management approach, including the identification and utilization of supporting metrics associated with BBB elements, as a basis for monitoring and evaluating results.

The final definition of metrics, their relationships with performance indicators, calculation formulas, and corresponding adjustments to the matrix and regional spreadsheet will be addressed in subsequent methodological development.

Systemic Intelligence and the Regional Picture in GREPECAS



GREPECAS Governance Board

Consolidation of national matrices to identify shared systemic deficiencies.

Target: ICAO SIP Missions

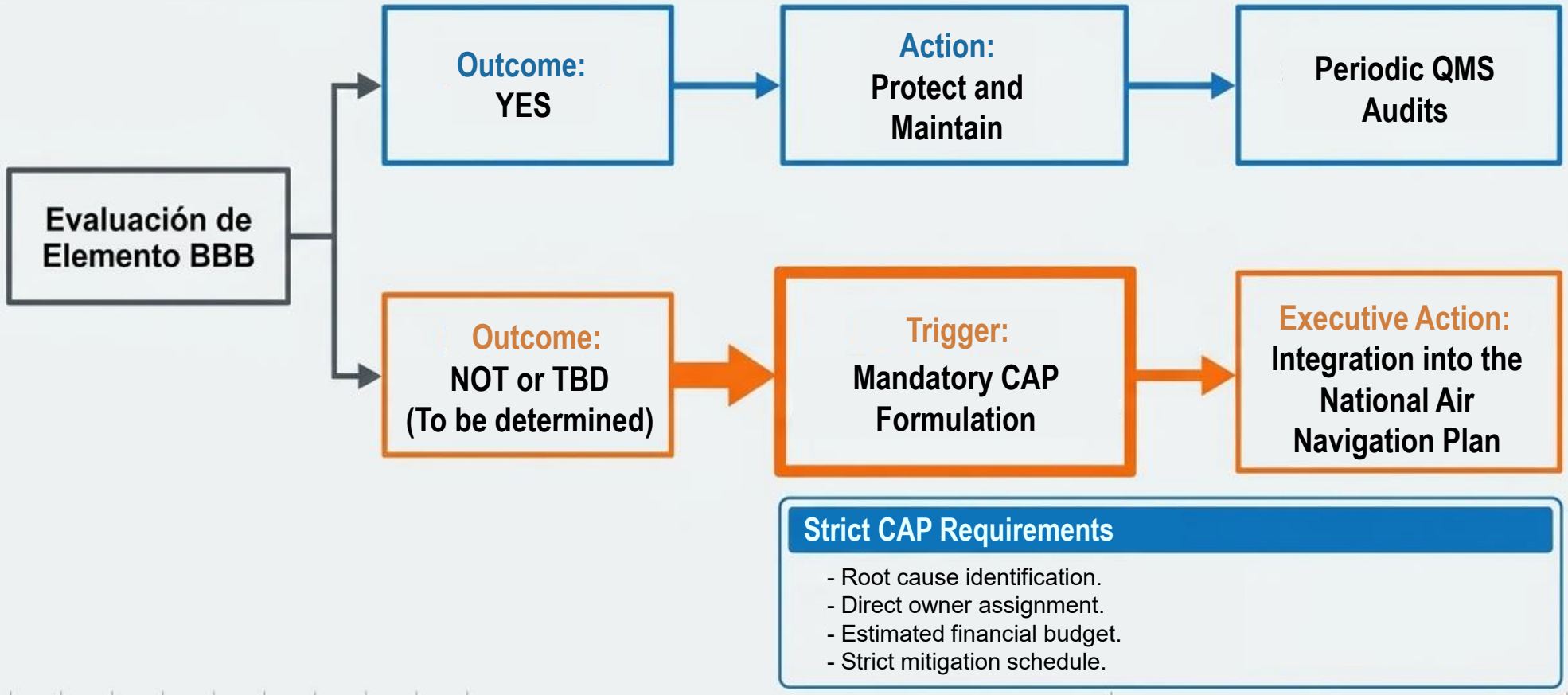
Assistance delivered with surgical precision, targeting areas where operational gaps have been quantified

Target: SAP Program

Joint policies for regions that do not reach TBO metrics, saving evaluation resources.

Consolidation transforms isolated audits into a strategic regional investment map.

Mandatory Formulation of Corrective Action Plans (CAP)



Return on Investment and Institutional Benefits for States



Operational and Regulatory Clarity

Exact, unambiguous X-ray of technical gaps against Annexes 15 and 4 requirements. A defined roadmap toward digitalization.



Budgetary Self-Defense

Technical and quantitative evidence (KPIs) to irrefutably justify resources and investments in IT and automation before State Senior Management.



Rigorous USOAP Preparation

The matrix operates as a permanent strict pre-simulator. A State with the updated tool will pass operational safety oversight audits without surprises.

Flights are Safe and Secure

Article 28 of the Chicago Convention: Provision of facilities and services to facilitate safe air navigation

Data Integrity = Flight Integrity

In modern FMS systems, a digital coding error is as catastrophic as a structural aircraft failure.

Shared Regional Responsibility

Building together the interconnected, digital, and efficient South American ecosystem for the SWIM era.

Call to Action

Implement and maintain the AIM-BBB Matrix as the governing shield of aeronautical information governance in each State.

The future of South American skies is not awaited; it is built with precision. Every standard verified today is the freedom and safety with which our region will fly tomorrow.

Thank You



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