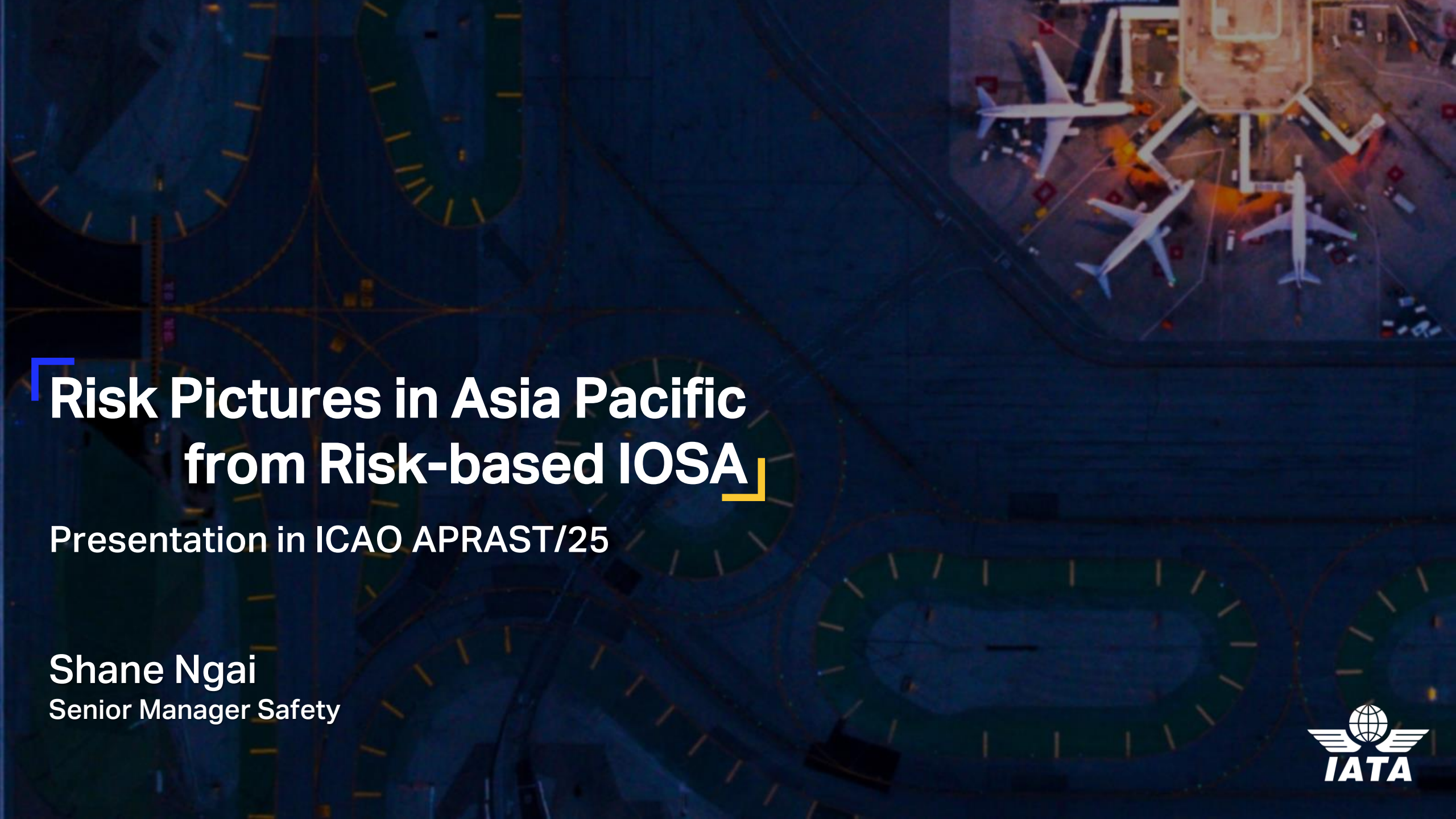




Risk Pictures in Asia Pacific from Risk-based IOSA

Presentation in ICAO APRAST/25

Shane Ngai
Senior Manager Safety



AP-RASP 2026-2028

Goal	APAC Target		Indicators
Goal 6: <i>Expand the use of industry evaluation programmes and safety data sharing programmes</i>	6.1	By 2028, industry in APAC to maintain an increasing trend in its use of industry evaluation programmes and safety data sharing programmes in the below area: - Aerodrome - Aircraft operations - ANSP - Ground Handling * <i>The trend is calculated using year 2025 as a baseline.</i>	• Number of service providers in APAC States participating in the corresponding ICAO-recognized industry evaluation programmes • Number of service providers in APAC States participating in industry safety data sharing programmes

Positive Safety Culture



"Just Culture is about trust, learning and accountability."

”

- Sidney Dekker

"A good Safety Culture is a culture that allows the boss to hear bad news."

”

- Sidney Dekker

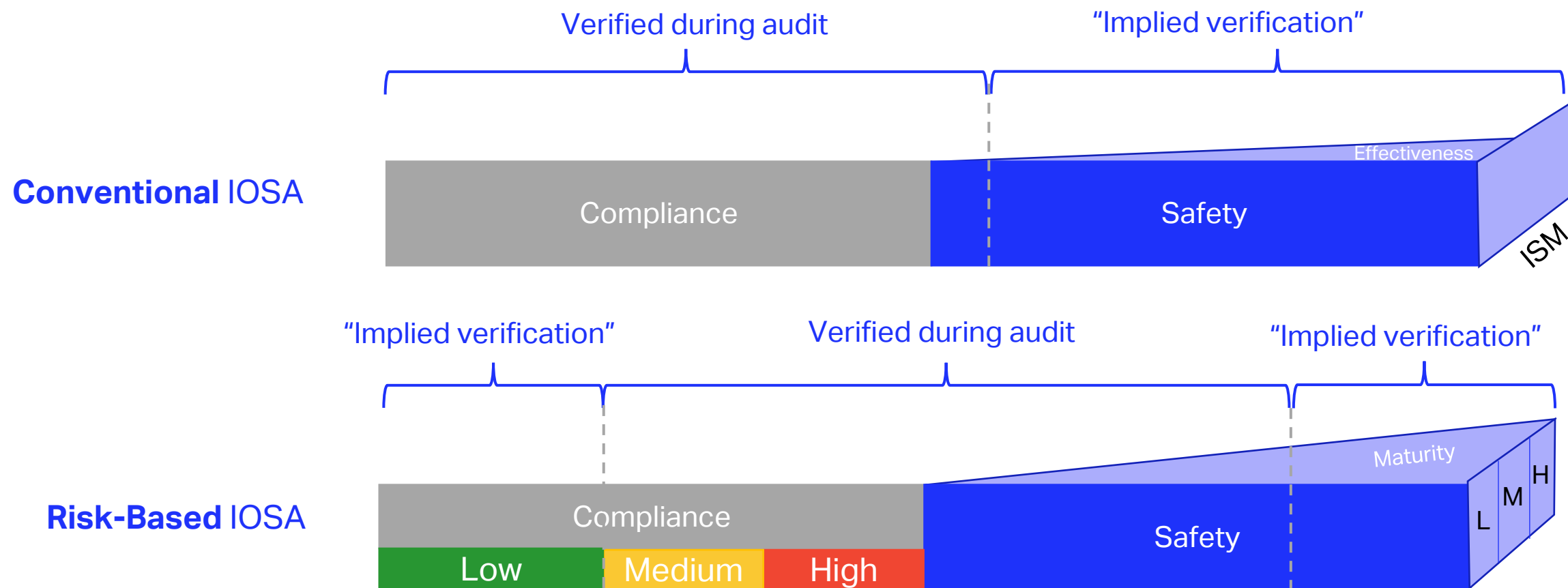


IATA Operational Safety Audit

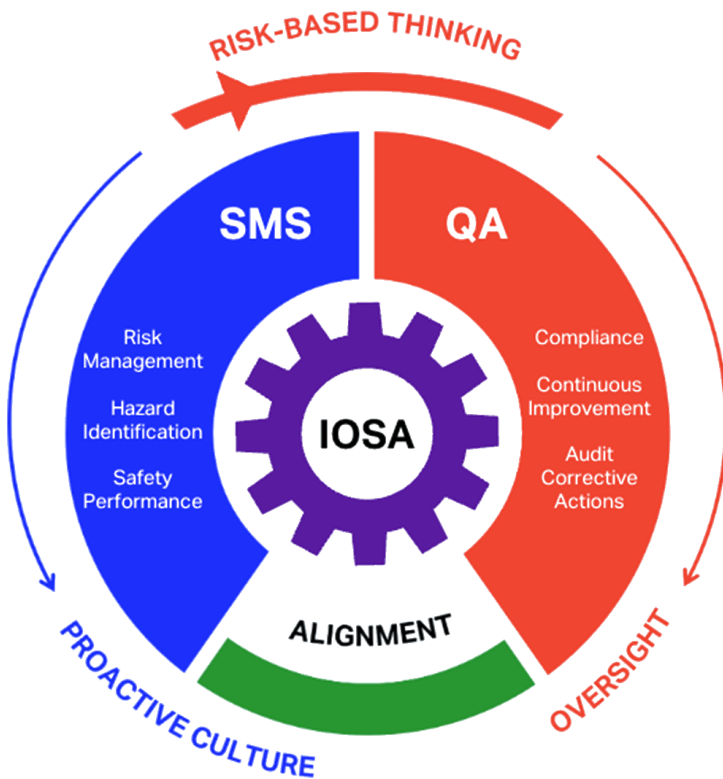


Shift in Audit Focus

The audit moves from a compliance towards a safety audit



Integration of SMS & QA



Complementary Objectives



SMS focuses on risk management, hazard identification, and safety performance.

QA ensures compliance, consistency, and continuous improvement.

Together they help in proactive risk management and systemic issue resolution.



Integration Mechanisms



Shared data systems enable unified tracking of safety reports, audit findings, and corrective actions.

Joint planning cycles involve the alignment of SMS hazard analysis and QA audit schedules to ensure early risk identification and mitigation.

Cross-functional teams bring safety and quality personnel together to collaborate on investigations, root cause analysis, and performance reviews.

Together they create a cohesive framework that supports IOSA compliance and elevates operational safety.



Building a Culture of Safety Accountability



Leadership commitment is essential wherein executives must visibly support SMS-QA integration and empower teams to act on findings.

Transparent reporting (voluntary and mandatory reporting) channels should be linked to both safety and quality processes.

Training and safety promotion efforts should include QA principles, reinforcing the shared responsibility for operational integrity.

Feedback loops enable continuous learning by using QA findings to refine SMS processes, and vice versa, creating a dynamic system of learning and adaptation.



GAPRI into Risk-Based IOSA



Global Risk Picture



RWY incursion



Tail strikes



TO Perf calcs



Unstable App



GNSS RFI



Bird Strikes



Li-B Cargo

HOW ?

GAPPRI recommendations and IOSA Safety Standards

31 GAPPRI

Recommendations
to Air Operators

Safety Management Training

- 6 AO Recommendations
- 3 SMS implementation
- 3 FC training

Runway Operations

- 11 AO Recommendation
- Mostly SOP & Policies
- 2 Technology

Ground Operations

- 7 AO Recommendations
- 100% linked to SOP & Policies

Approach and Landing

- 2 AO Recommendations
- Both SOP & Policies

Work Management And monitoring

- 5 AO Recommendations
- Mostly SOP & Policies

13 IOSA

Safety Standards

ORG 3.1.1
ORG 3.1.2
ORG 3.2.1
ORG 2.4.3

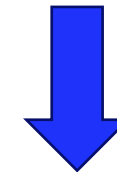
**Safety
Management**

FLT 2.1.1A
FLT 2.2.26
FLT 2.2.14

**Training &
Qualifications**

FLT 3.12.7
FLT 3.11.17
FLT 3.10.4
FLT 3.11.18
FLT 3.11.59
FLT 3.11.23

Line Operations
(Ground, runway, approach,
lading operations)

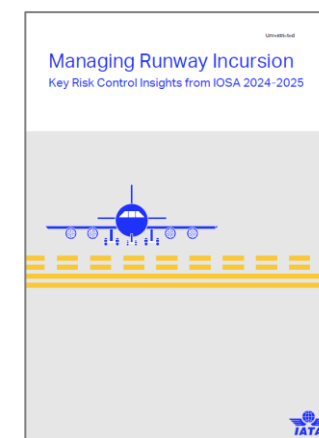
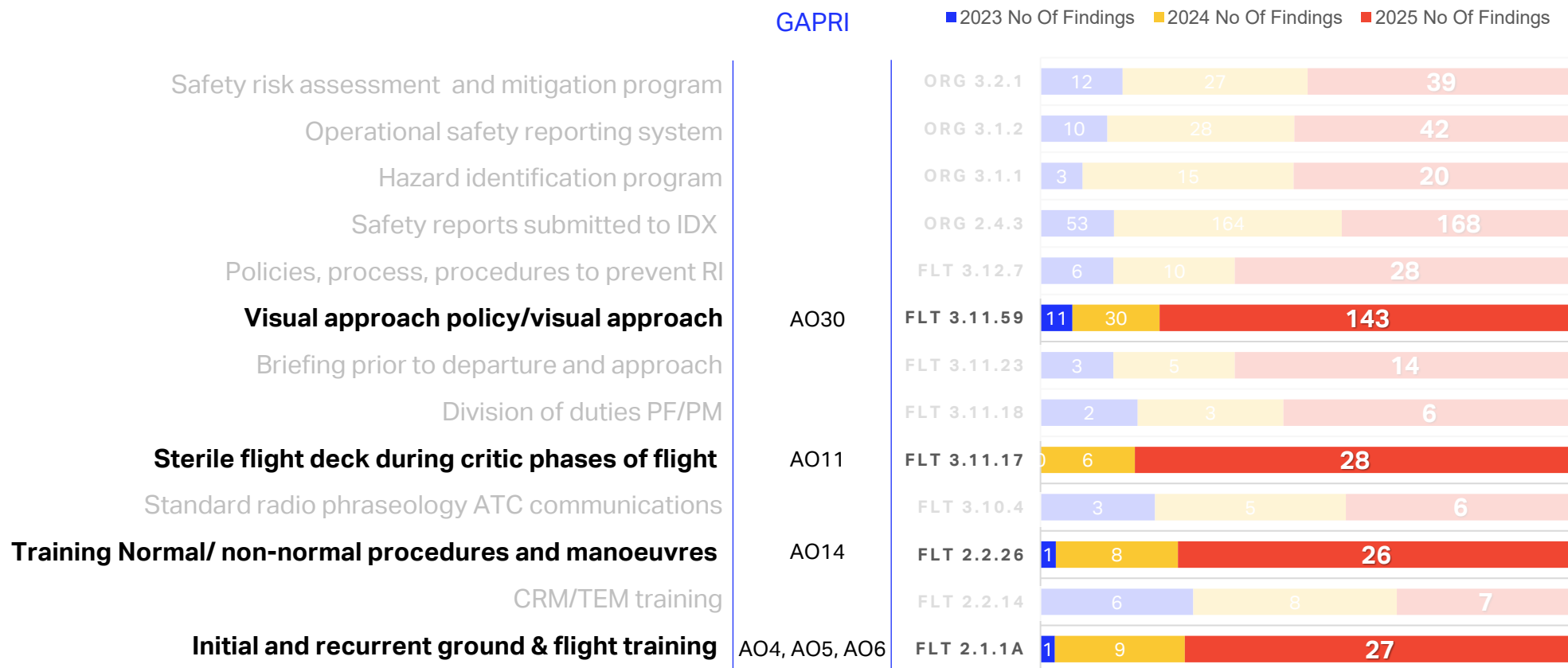


83% of GAPPRI

recommendations to air operators
can be verified via Risk-Based IOSA

Risk-Based IOSA - Integration with SMS

Runway Incursion risk controls – IOSA/GAPPRI



[Click here for more detail](#)

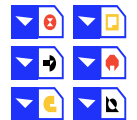
FEATURES



Report and monitor risks within the IATA Safety Issue Hub



Stay on top of the guidance material and exchange **risk mitigation strategies**



Identify and communicate **safety issues** to the appropriate governance forums



Provide RBI auditors with **risk pictures** to drive intelligence and data-driven audit scoping

**IATA
SAFETY ISSUE
HUB**

Process Flow for Risk-Based IOSA

Feeding into
RBI



**SRA
identifies
key risk
controls**



**Link to
ISARPs**



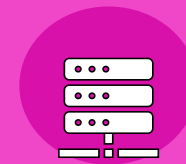
**Worldwide +
Regional
Risk
Pictures**



**Auditor
pack /
briefing**



**Risk Based
Audit**



**SMS
Maturity
Assessment**



Safety Maturity in Asia Pacific



Risk-Based IOSA - Maturity Assessment

Maturity Assessment introduces deeper and more complete way of providing airline with an evaluation of its relevant Safety Management Systems and programmes



- ✓ Assessment beyond conformity through maturity levels
- ✓ Deeper assessment of SMS and operational activities
- ✓ Recommendations for operators

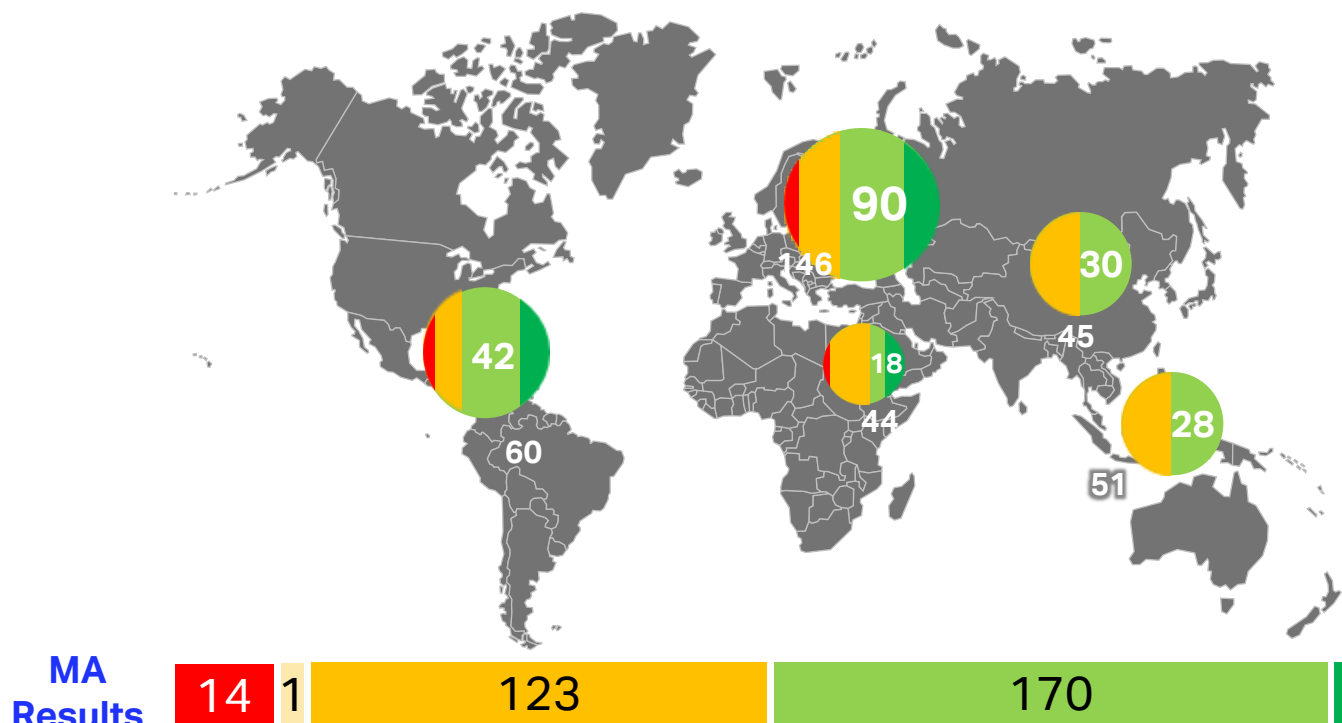
Maturity Assessment on following areas

Safety Maturity Processes

Operating Safety Maturity

Risk-Based IOSA - Maturity Assessment

Current Status after +330 RBI¹



74%
IOSA
Carriers

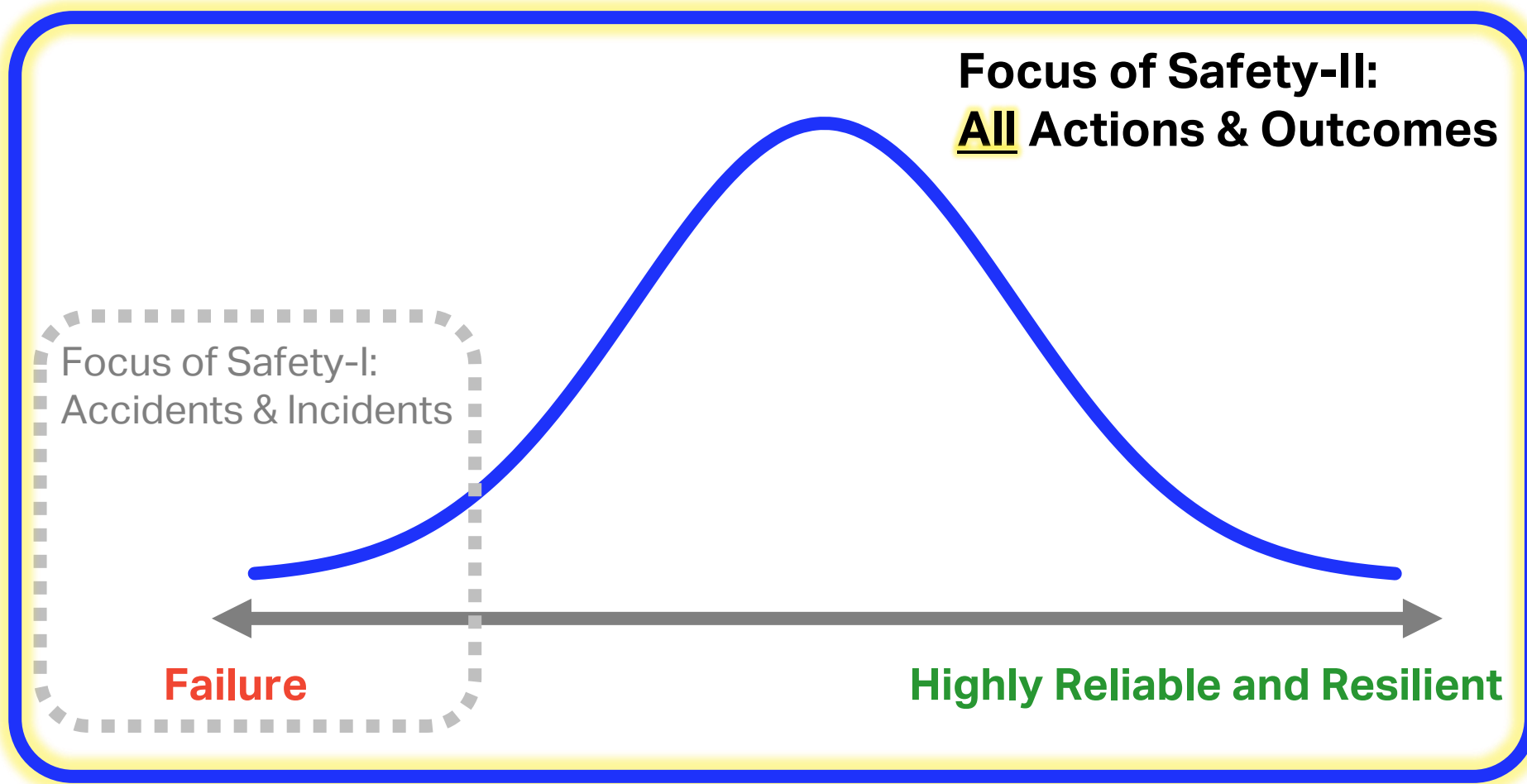
5% airlines already
went through 2nd RBI

Maturity Index Average
Worldwide

Mature - 3.20

¹RBI Audits carried out in 2026 excluded

Safety Performance: Safety-I vs Safety-II



“Safety is not (only)
the absence of events;
safety is the presence
of defences.”

- Todd Conklin

*Reference: McCarthy, P. (2020). *The Application of Safety II in Commercial Aviation - The Operational Learning Review (OLR)*

Risk-Based IOSA - Maturity Assessment

Where are the gaps in Asia Pacific?

areas for improvement

1. Outsourcing Management

- Selection process inconsistent + selection criteria lacking
- Use of safety performance indicators
- Risk assessment of monopoly providers

2. Quality Assurance

- Integration with SMS
- Lack of root cause training
- Auditor qualifications + training
- Findings to be risk-rated

3. Safety Assurance

- Change management
- Use of proactive SPIs
- Sharing safety objectives with contracted organisations

areas doing well

1. Safety Promotion

- Safety training
- Safety communication

2. Flight Crew Training

- Flight crew training + evaluation
- Objectivity of instructors and evaluators
- Communication with instructors
- Instructor qualifications + training

3. Risk Management

- Hazard identification
- Safety reporting system
- Safety investigation
- Risk assessment

Maturity Index Average
Worldwide

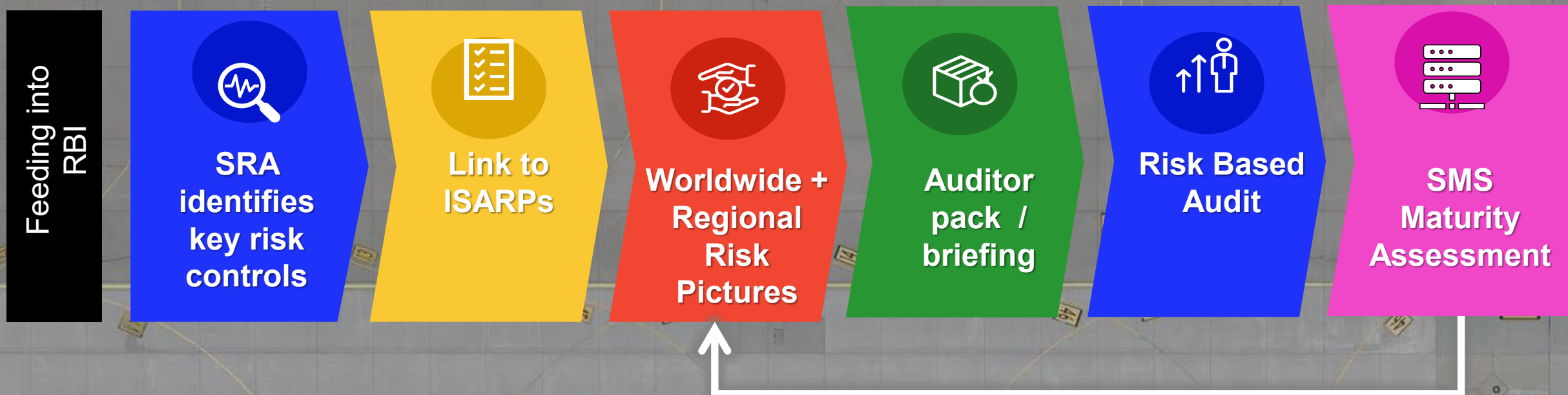
Mature - 3.20



Maturity Index Average
Asia Pacific

Mature - 3.20

Cycle for Continuous Improvement





Thank you

