Fatigue Safety Performance Indicators

A Key Component of Proactive Fatigue Hazard Identification

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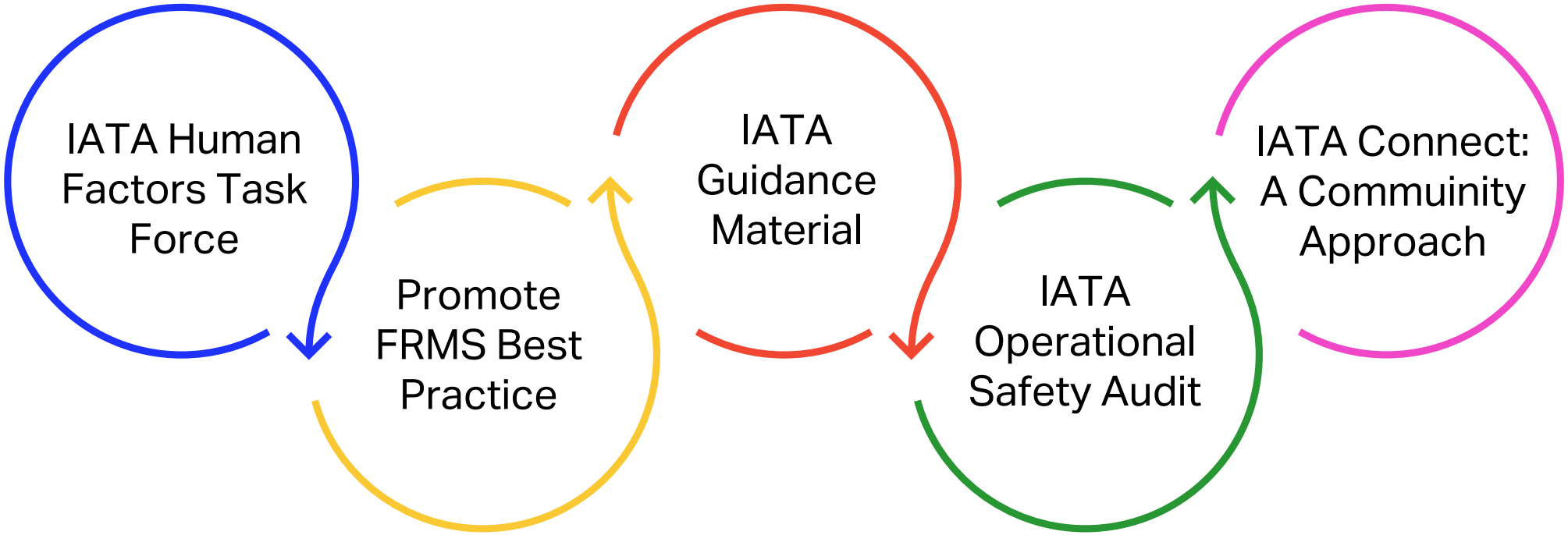
IATA Engagement on Fatigue Management

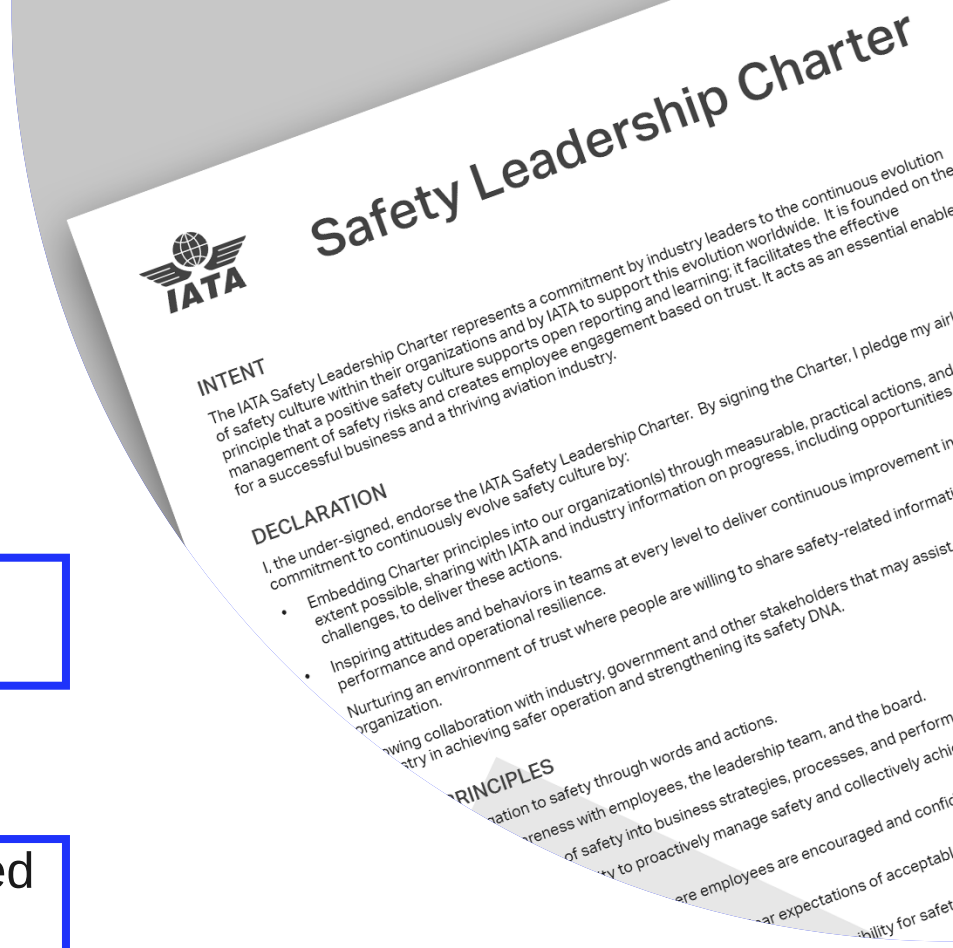


IATA Safety Leadership Charter

Safety Leadership Charter

Guiding Principles

1. Lead obligation to safety through words and actions.
2. Foster safety awareness with employees, the leadership team, and the board.
3. Guide the integration of safety into business strategies, processes, and performance measures.
4. Create the internal capacity to proactively manage safety and collectively achieve organizational safety goals.
5. Create an atmosphere of trust, where employees are encouraged and confident to report safety-related information.
6. Establish a working environment in which clear expectations of acceptable and unacceptable behaviors are communicated and understood.
7. Create an environment where all employees feel responsibility for safety.
8. Regularly assess and improve organizational Safety Culture.



IATA Safety Leadership initiative

1. Sign the Charter
2. Demonstrate Commitment
3. Share with Industry

Commitment From The Top

Practical Application

Lessons-learned & Best Practices

IATA safety activities

Safety Culture Assessment

IATA I-ASC

Assess ● Understand ● Improve

Risk-Based IOSA

IATA IOSA

Maturity Assessment Criteria

IATA

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https://www.iata.org/en/programs/safety/safety-leadership/

IATA Human Factors Task Force

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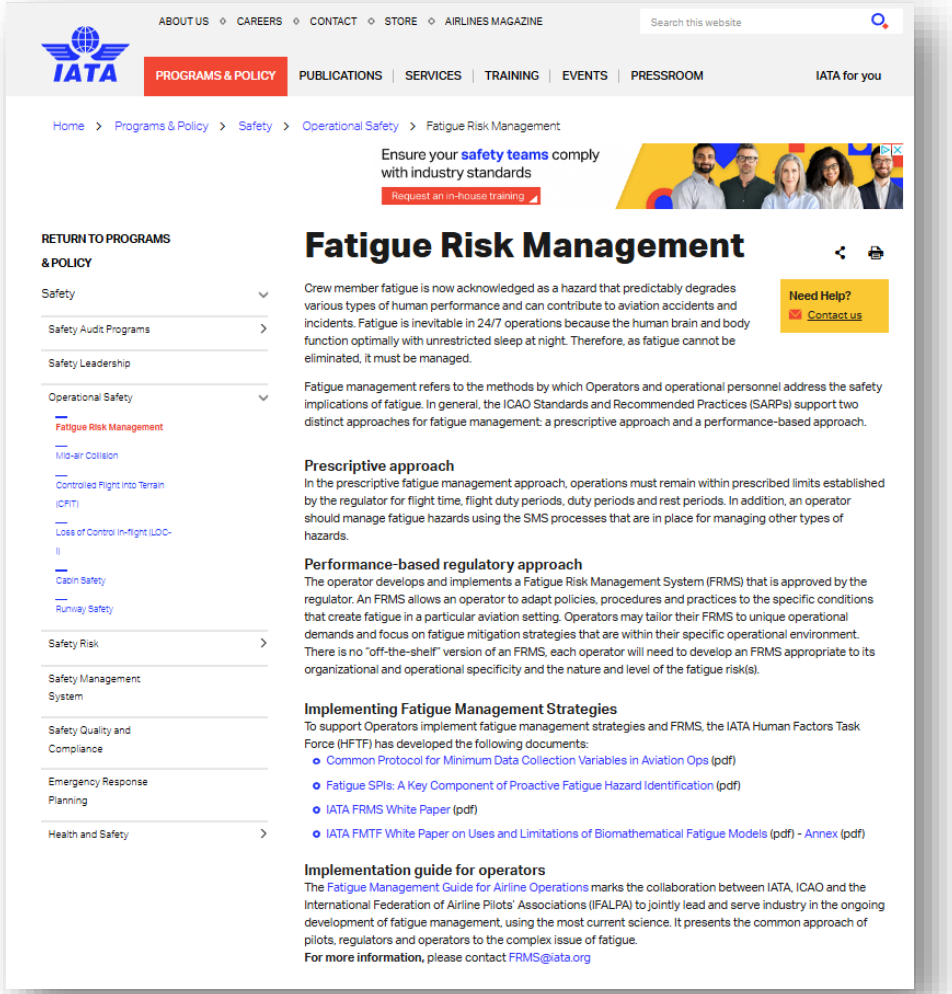
Fatigue Management Best Practices

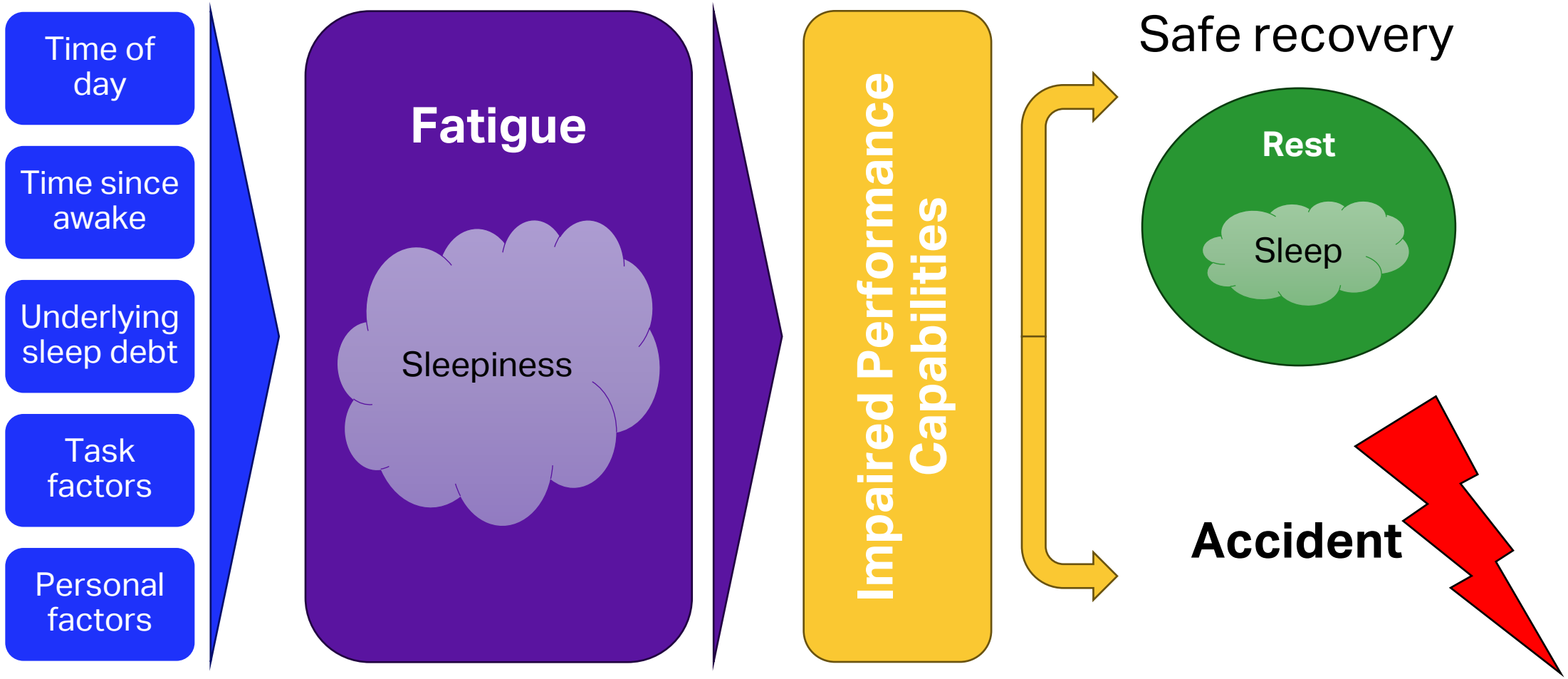
- IATA fatigue SPI guidance published since 2014

- HFTF is working on updating and upgrading it by the end of year

What's cooking?



Core Knowledge: The Power of Fundamental Definitions



ICAO Doc 9966

Back to Basics: Embracing Scientific Foundations

The need for sleep: Periods of wake need to be limited. Getting enough sleep (both quantity and quality) on a regular basis is essential for restoring the brain and body.

Sleep loss and recovery: Reducing the amount or the quality of sleep, even for a single night, decreases the ability to function and increases sleepiness the next day.

Circadian effects on sleep and performance: The circadian body clock affects the timing and quality of sleep and produces daily highs and lows in performance on various tasks.

The influence of workload: Workload can contribute to an individual's level of fatigue. Low workload may unmask physiological sleepiness while high workload may exceed the capacity of a fatigued individual.

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Edition Two Draft: Elevating Fatigue SPI Standards

1 Tailored taxonomy

- Your operation, your hazards, your risks, your data, your taxonomy
- Fatigue sources
- Risk levels
- Operational impacts

2 Iterative process with feedback loops

- Data
- Metrics
- Indicators
- Mitigation efforts

➢ Actionable insights

3 Fatigue SPIs and metrics

- Predictive, proactive & reactive hazard identification
- Various data sources

➢ Leading, lagging, hygiene and system indicators

4 A balanced scorecard

- Duty hours and operational conditions
- Safety & Fatigue reporting
- Rostering, rest and sleep
- Mitigation and fatigue mgmt

Air Europa: A practical perspective

Air Europa

Air Europa's fleet includes

- 18 Boeing 737
- 25 Boeing 787 (10- 788 and 15-789)

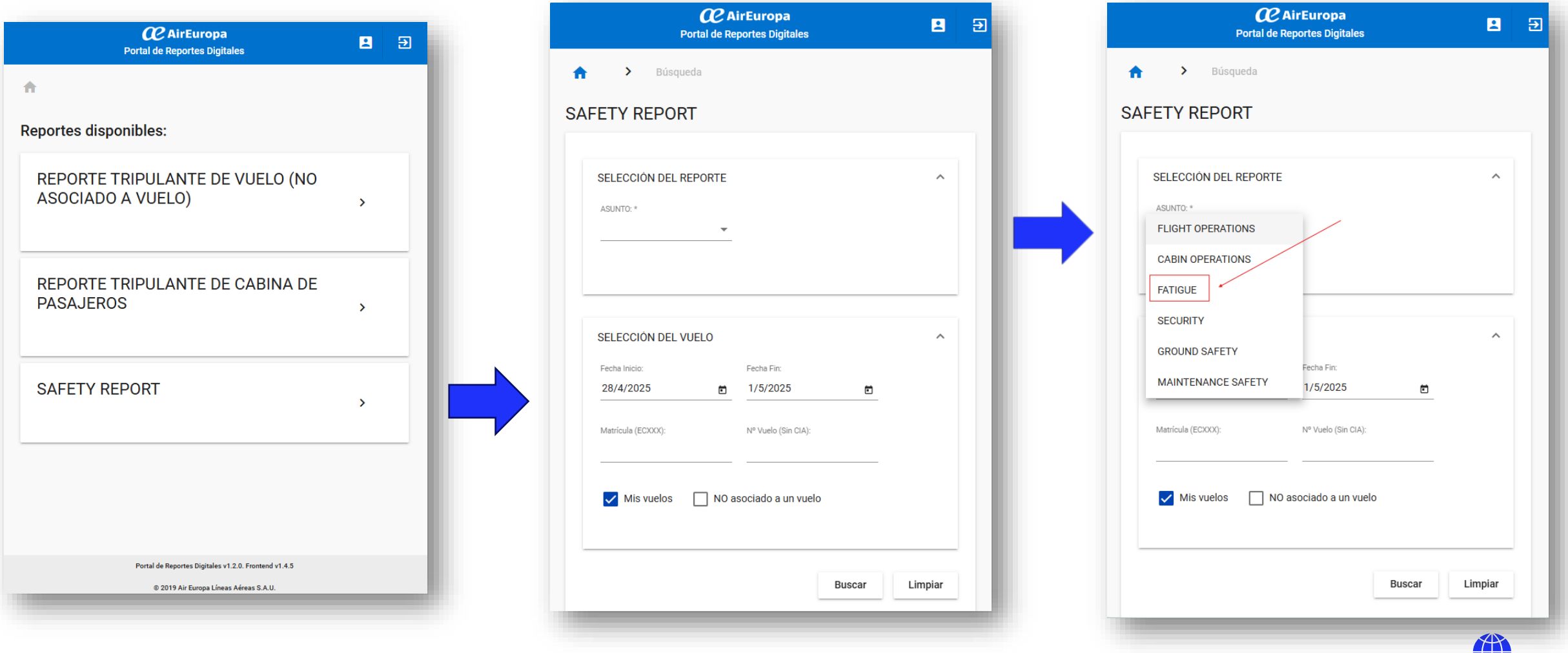
Our routes

- Latin America
- US
- Europe

Headquarters

- Palma de Mallorca - Spain

Effective Reporting System



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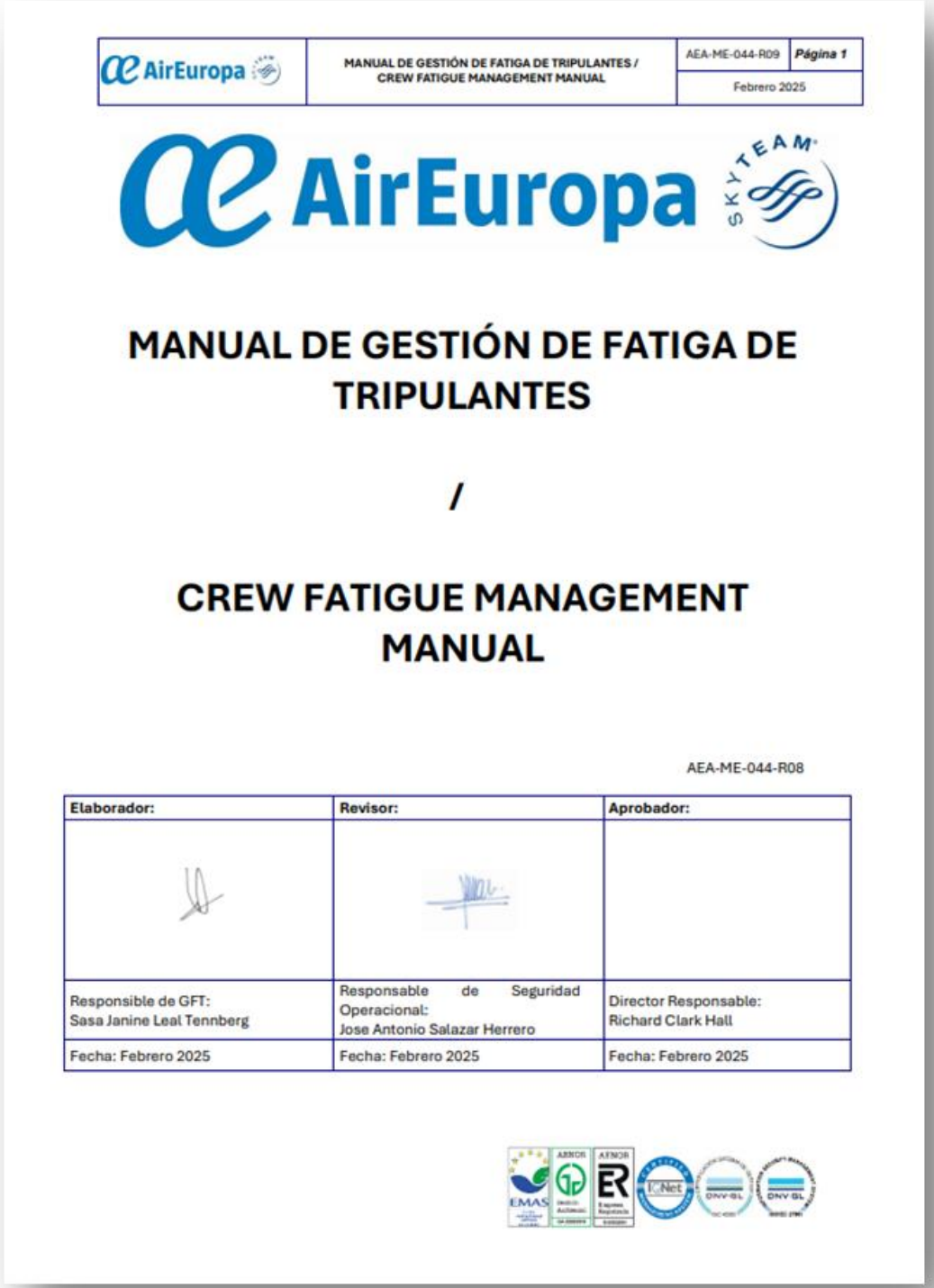
- All reports received are registered in our safety database for its investigation and management.
- Registers are filed during an unlimited period of time. Safety database has been developed in-house and allows to execute all department management processes efficiently, including risk assessments, safety actions and management of changes.
- The database is improved every 3 weeks using agile methodologies.

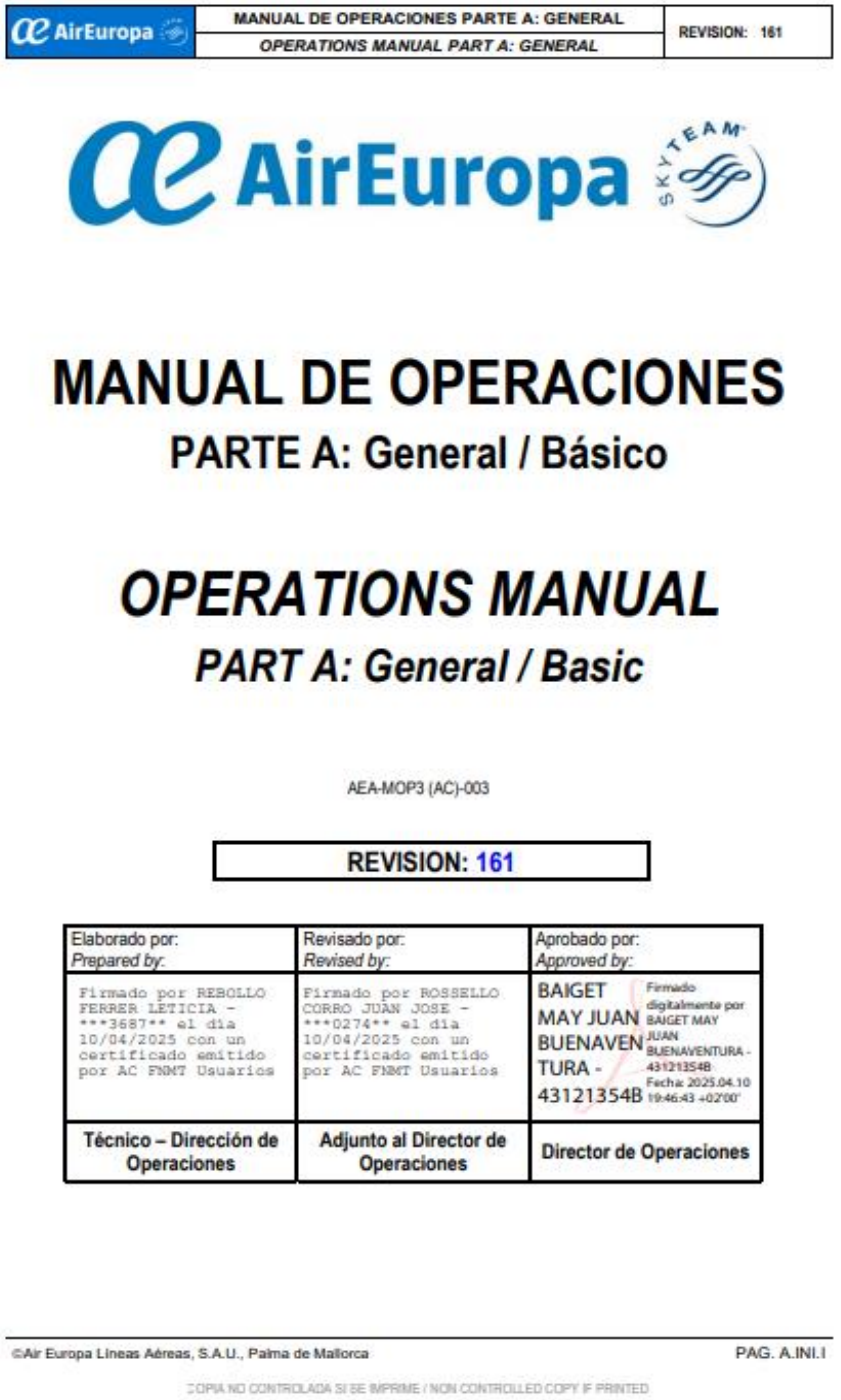
Proactive Fatigue Indicators

- Number of fatigue reports related to:
  - rest in hotel
  - shuttle HTL-APT
  - rostering modifications
- Number of crew members “not fit for duty”
- Use of commanders discretion/ fdp
- Scheduling reports



Proactive Scheduling Indicators

- Differences between actual and scheduled
- Number of night duties and late finishes per crew member
- Number of mínimum rest periods prior to an FDP per crew member/month
- Monthly ratio of duty time/rest periods per crew member and month



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MANUAL DE OPERACIONES

PARTE A: General / Básico

OPERATIONS MANUAL

PART A: General / Basic

AEA-MOP3 (AC)-003

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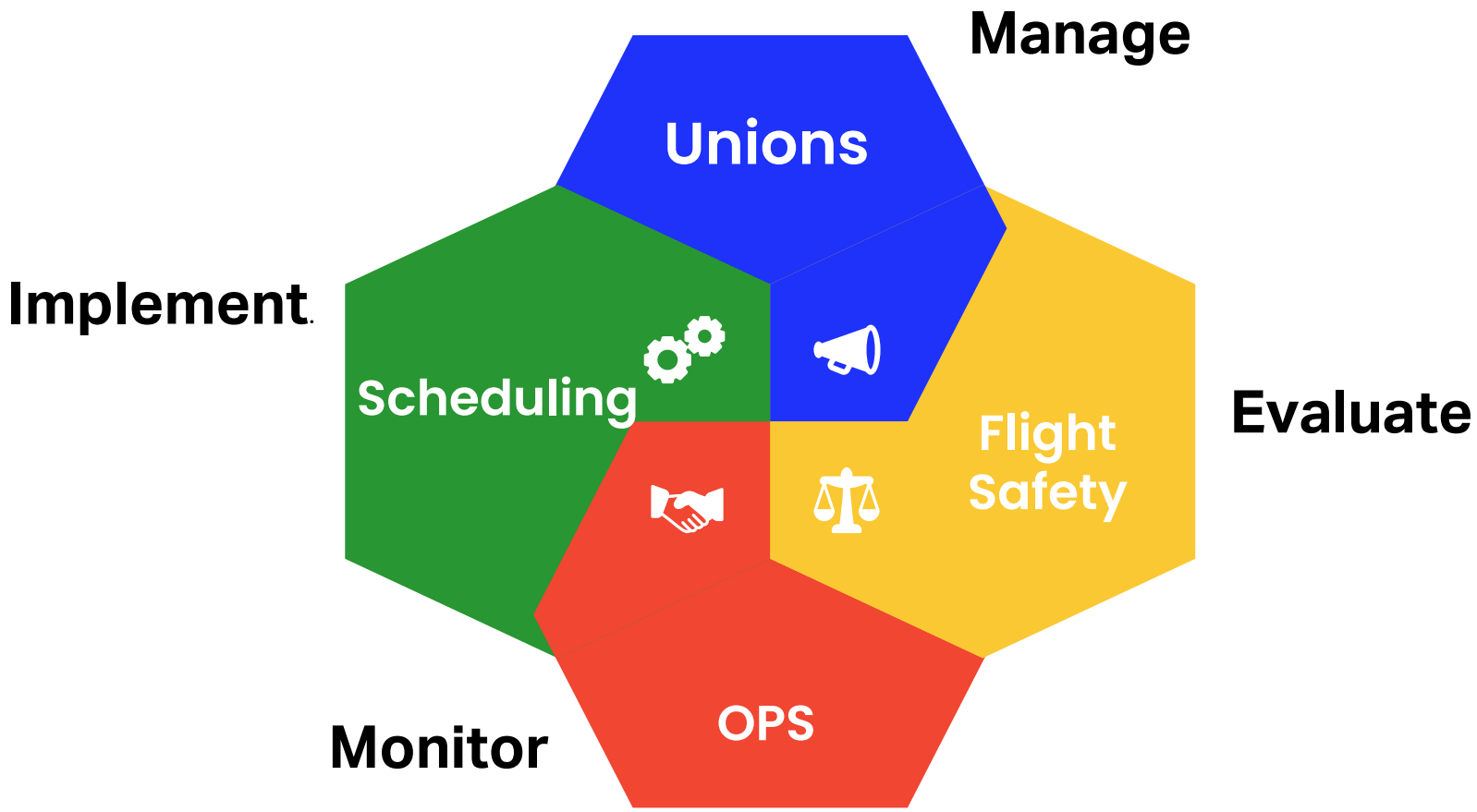
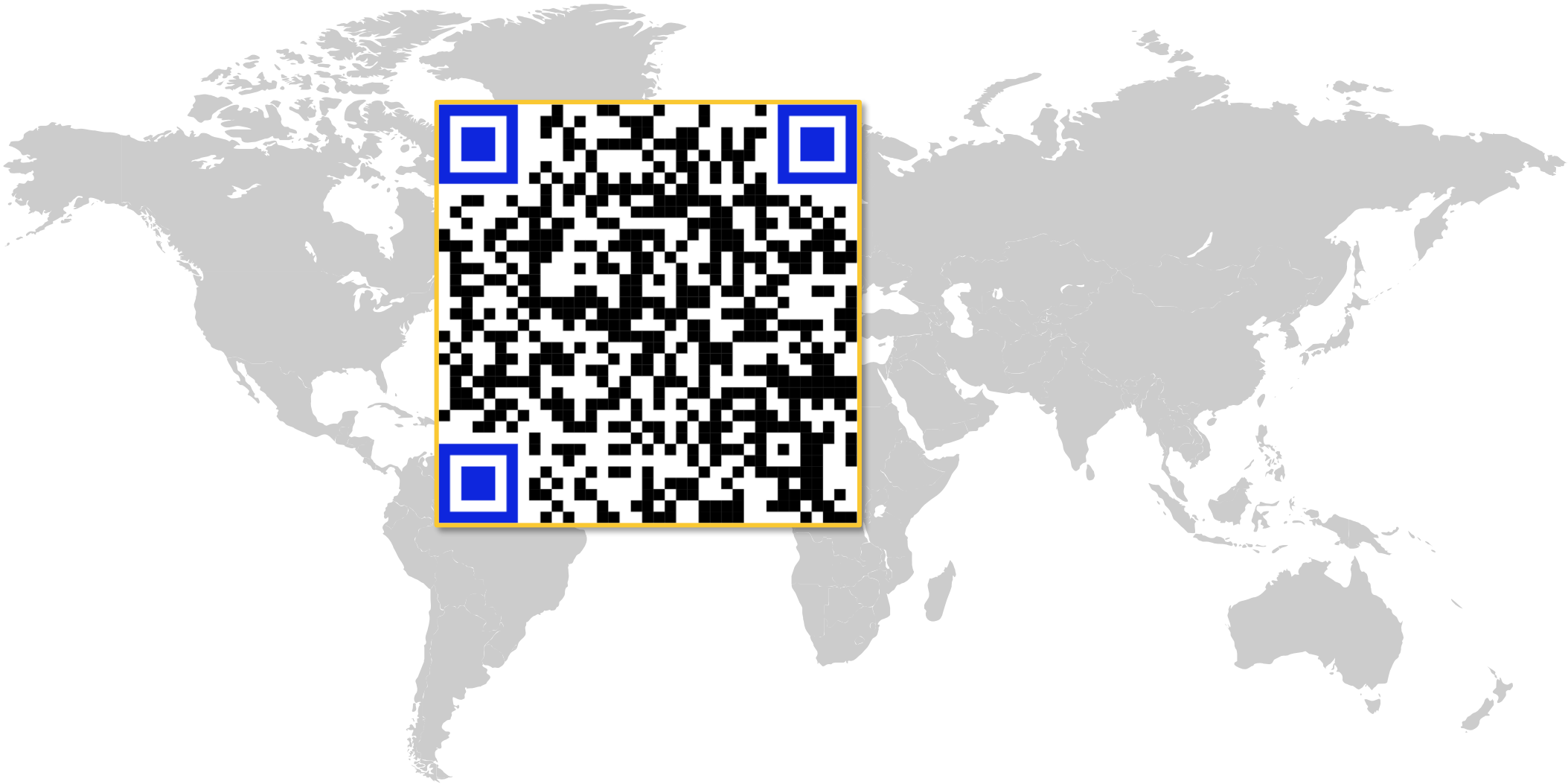
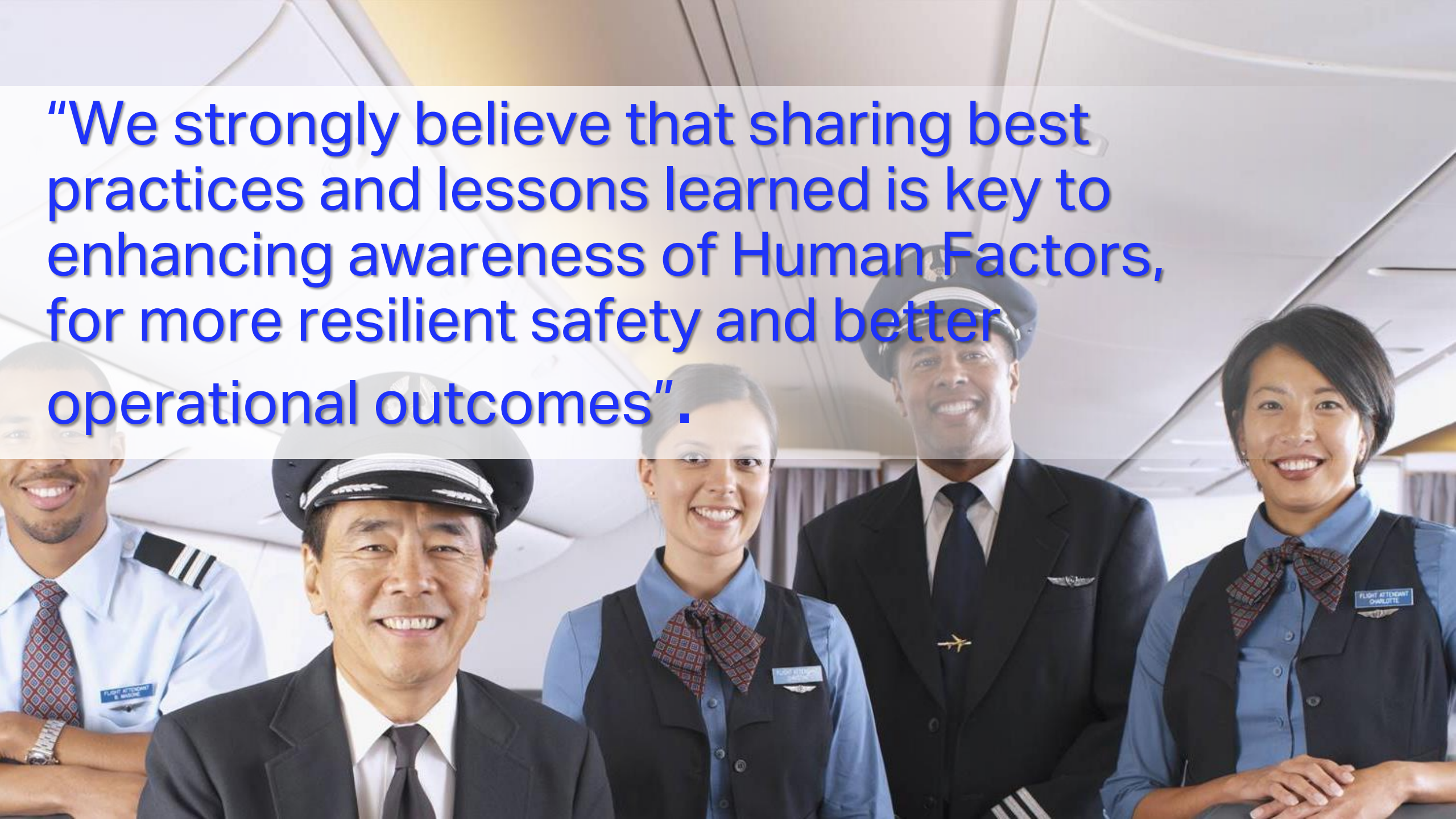


Join the Human Factors and Fatigue Group at IATA Connect





"We strongly believe that sharing best practices and lessons learned is key to enhancing awareness of Human Factors, for more resilient safety and better operational outcomes".