



CANSO GLOBAL SAFETY CONFERENCE 2025

24 – 28 MARCH 2025 • CHRISTCHURCH, NEW ZEALAND

HOSTED BY **AIRWAYS**



COMPLETE AIR TRAFFIC SYSTEM – CATS ASK ME ANYTHING!

PRESENTERS



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WHAT'S NOT GOING TO CHANGE AVIATION OVER THE NEXT 30 YEARS?

1

Safety will always be the top priority in aviation

2

In the future, self-separating aircraft may eliminate the need for structured airspace altogether

3

Weather and environmental conditions will continue to impact flight operations, no matter how advanced automation becomes.

4

Air traffic controllers will always be the primary decision-makers

5

Airports will remain the primary hubs for passenger and cargo operations

6

Regulatory oversight will always be compliance focused

7

The concept of separation provision will always rely on human intervention, ensuring safe distances between aircraft.

8

Separation minima will remain constant

9

Risk management will always require human judgment, as machines cannot fully capture the complexities of safety.

10

Public trust in aviation safety will always be a critical factor

11

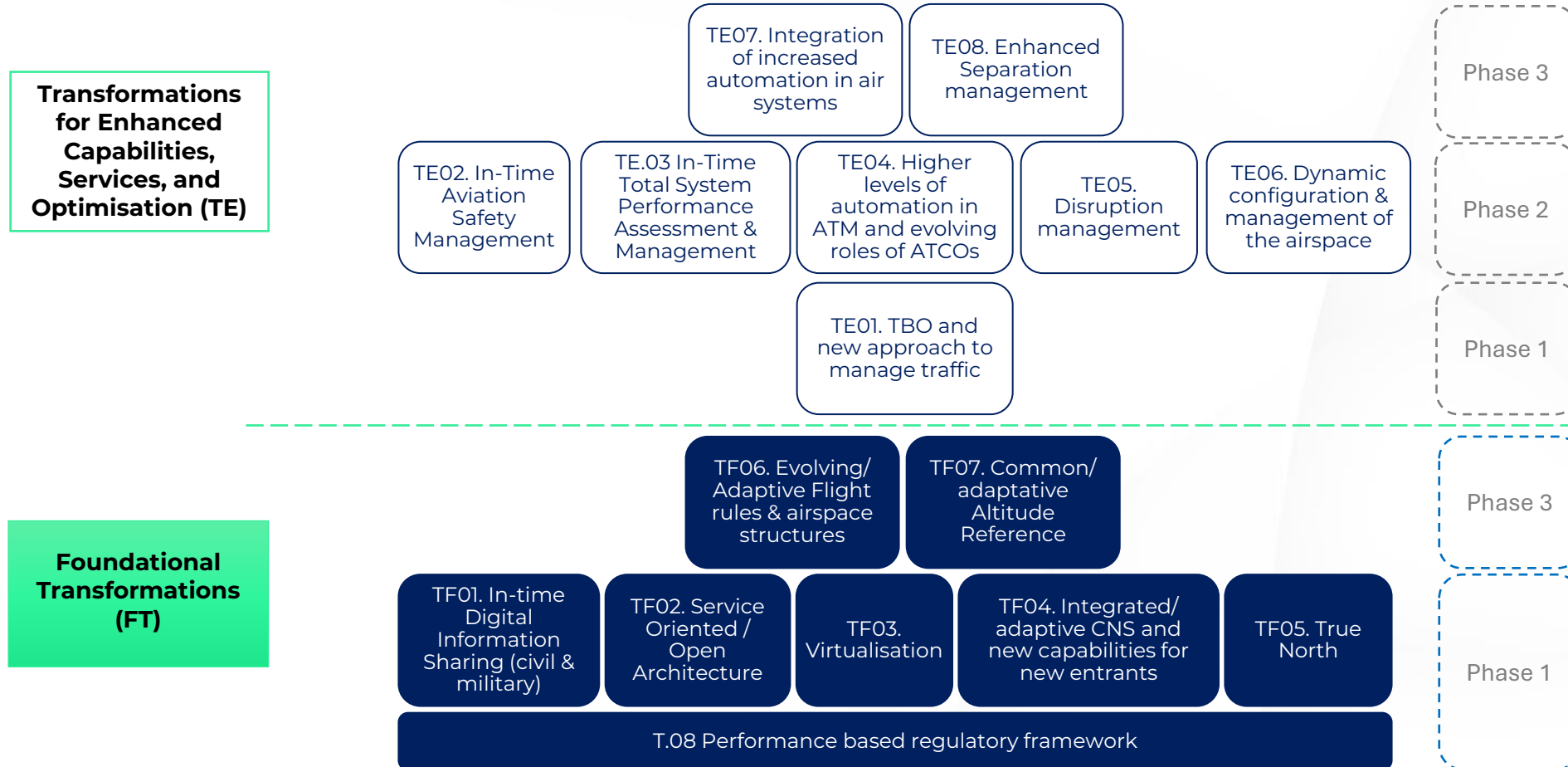
No matter how advanced automation becomes, safety oversight will remain rooted in assessing human performance — not algorithms

12

Liability will continue to drive accountability in aviation safety

KEY TRANSFORMATIONS IN ATM

"If we truly want to enable change, accelerate deployments and make a real difference, we need to focus and to set the right foundations now"



PATHWAY TO DELIVERING THE FUTURE OF TRAFFIC MANAGEMENT

Higher Airspace Operations (HAO)

Phase 1:
**Airspace and Flight
optimisation**
based on Advanced Digital
Information Sharing

Phase 2:
**Advanced
Automation**
& Real-Time Performance
Management

Phase 3:
**Seamless
Airspace**

Advanced Air Mobility (AAM) /
UAS Traffic Management (UTM)

2035

2040

2045+

HOW IS THE CATS CONOPS GOING TO BE USED?



Credit: Airbus & Boeing



HOW IS THE CATS CONOPS GOING TO BE USED?

The CATS CONOPS will serve as a strategic reference to guide CANSO's regional engagement and ensure alignment across the CANSO Standing Committees, helping to accelerate meaningful progress in airspace transformation.

The primary focus will be on understanding the short- and medium-term implications of the CATS CONOPS, including:

- Identification of priority projects for ATM improvement, aligned with both the CATS CONOPS and Regional Plans
- Development of initiatives to support Regional and State Air Navigation Plans
- Integration with ICAO PIRGs, ensuring coherence with global and regional frameworks

SAFETY AS AN ENABLER OF FUTURE AIRSPACE

How shall safety evolve to support the CATS CONOPS transformations?

- **Development and Implementation of In-Time Aviation Safety Management Systems (IASMS):**
Establish advanced, data-driven safety management systems that leverage predictive analytics and real-time monitoring to detect emerging hazards and proactively mitigate risks before they impact operations.
- **Total System Performance approach:**
Design integrated frameworks that enable the dynamic balancing of safety, capacity, efficiency, and environmental performance, based on live data inputs.
- **Automation Pathway:**
Define strategies for increasing automation while addressing the evolving role of humans in the system, ensuring safety assurance frameworks adapt accordingly
- **Change Management and Organisational Transformation:**
Develop robust change management frameworks to support organisations and personnel through the transition to future airspace operations, promoting adaptability, resilience, and alignment with new operational paradigms.
- **Establishing a Globally Harmonized Safety Culture:**
Promote a common safety culture across all stakeholders, ensuring consistent safety values, behaviours, and practices in increasingly diverse and globally interconnected airspace environments.



THANK YOU