



Blueprint for Malaysia Free Route Airspace (FRA) Strategic Enhancement

15 - 16 September 2025

VTC

TEAM CAAM
Safe Sustainable *Skies*

Guiding Principles and Strategic Objectives



Objectives

- To effectively address the complex and dynamic demands of the aviation industry.

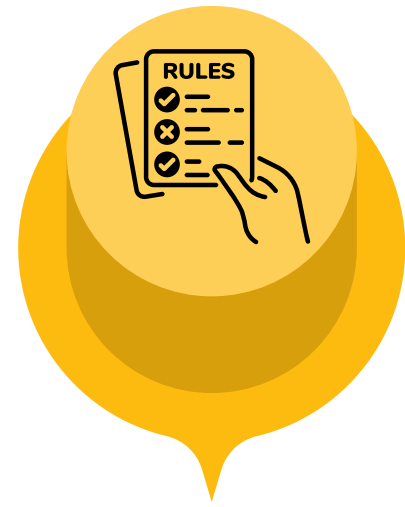


Guiding Principles

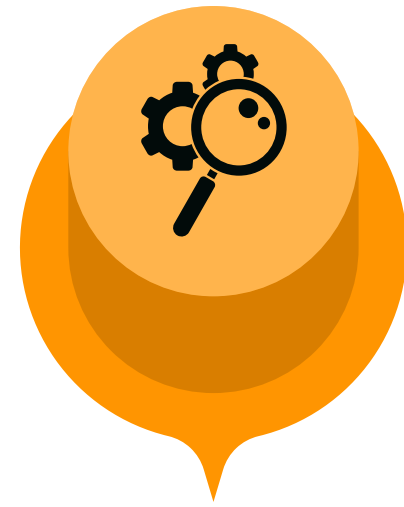
- Ensuring the implementation is in accordance with the standards set forth by the Aviation System Block Upgrades (ASBU).
- Framework is devised to align with the Asia-Pacific (APAC) Seamless Air Navigation Services (ANS) Plan aimed at enhancing aviation safety and efficiency across the Asia-Pacific region.

Vision to Execution Plan

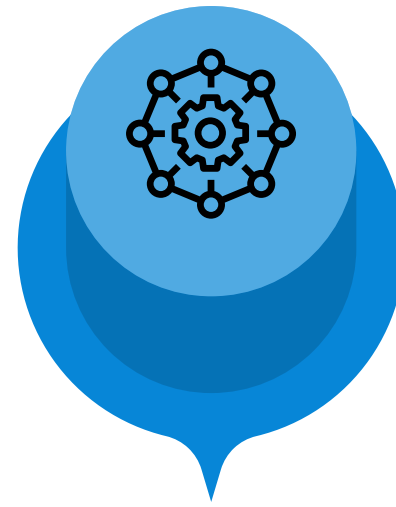
Policy and Vision



Operational
overview



Framework
development



Engagement



Phased Approach



Vision to Execution Plan

Policy and Vision



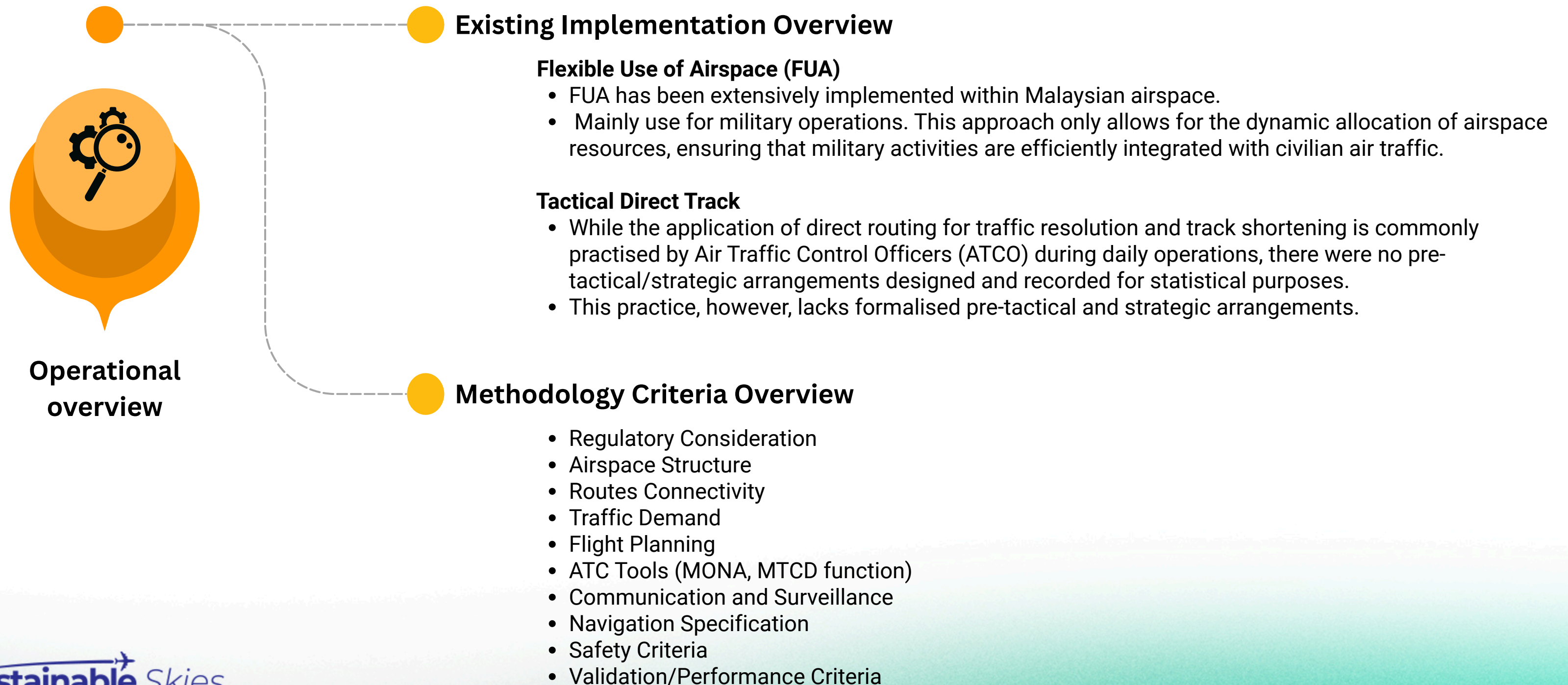
Malaysia

- Government's Commitment Towards Climate Change

CAA Malaysia

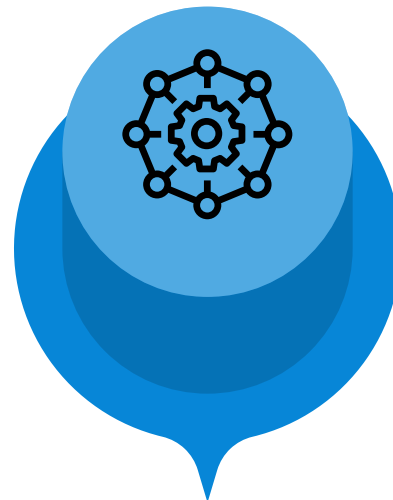
- Malaysian Green Skies Initiative and Action-Plan.
 - strategic document developed in response to the global challenge of climate change and the specific impact of commercial aviation on the environment.
 - outline a comprehensive strategy for reducing CO2 emissions from international civil aviation
- .In line with CAAM commitment to "continuously enhance safety and security for a sustainable aviation industry," Malaysia is focused on sustainable aviation
- Mitigation Measures to Mitigate CO2 Emission and Expected Result
 - Medium-Term Target (2030 – 2040)
 - Long-term Target (2040 – 2050)

Vision to Execution Plan



Vision to Execution Plan

Framework development



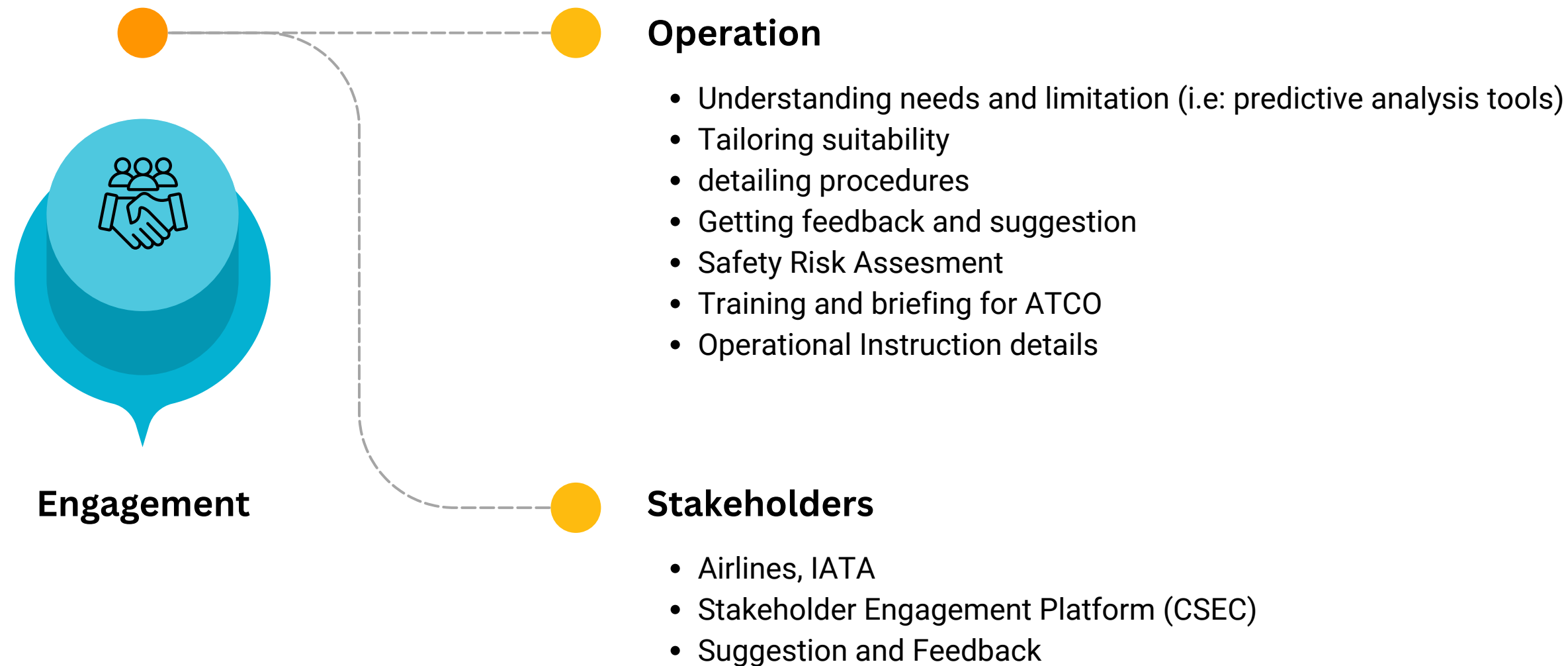
Our Target

- ASBU FRT0 B0-B2
- optimise flight efficiency, with the goal of improving the aviation sector's operational efficiency, capacity, and environmental impact.
- Operational flexibility and empowering airspace users to select their preferred routes, this concept creates opportunities for advancements in airspace design and ATM concepts.
- Facilitate closer civil-military cooperation through the flexible utilisation of airspace.

Our approach

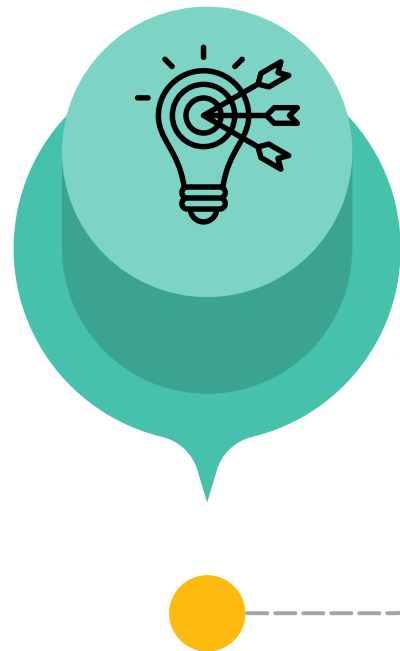
- Phased-Approach Implementation
- To ensure a focused and strategic approach to the implementation of the FRT0 - publication of a comprehensive strategic framework.
- This framework details the expected timeline and key milestones for successful FRT0 implementation.
- Aims to facilitate a smoother transition, ensuring all stakeholders are aligned and well-prepared for the changes ahead

Vision to Execution Plan



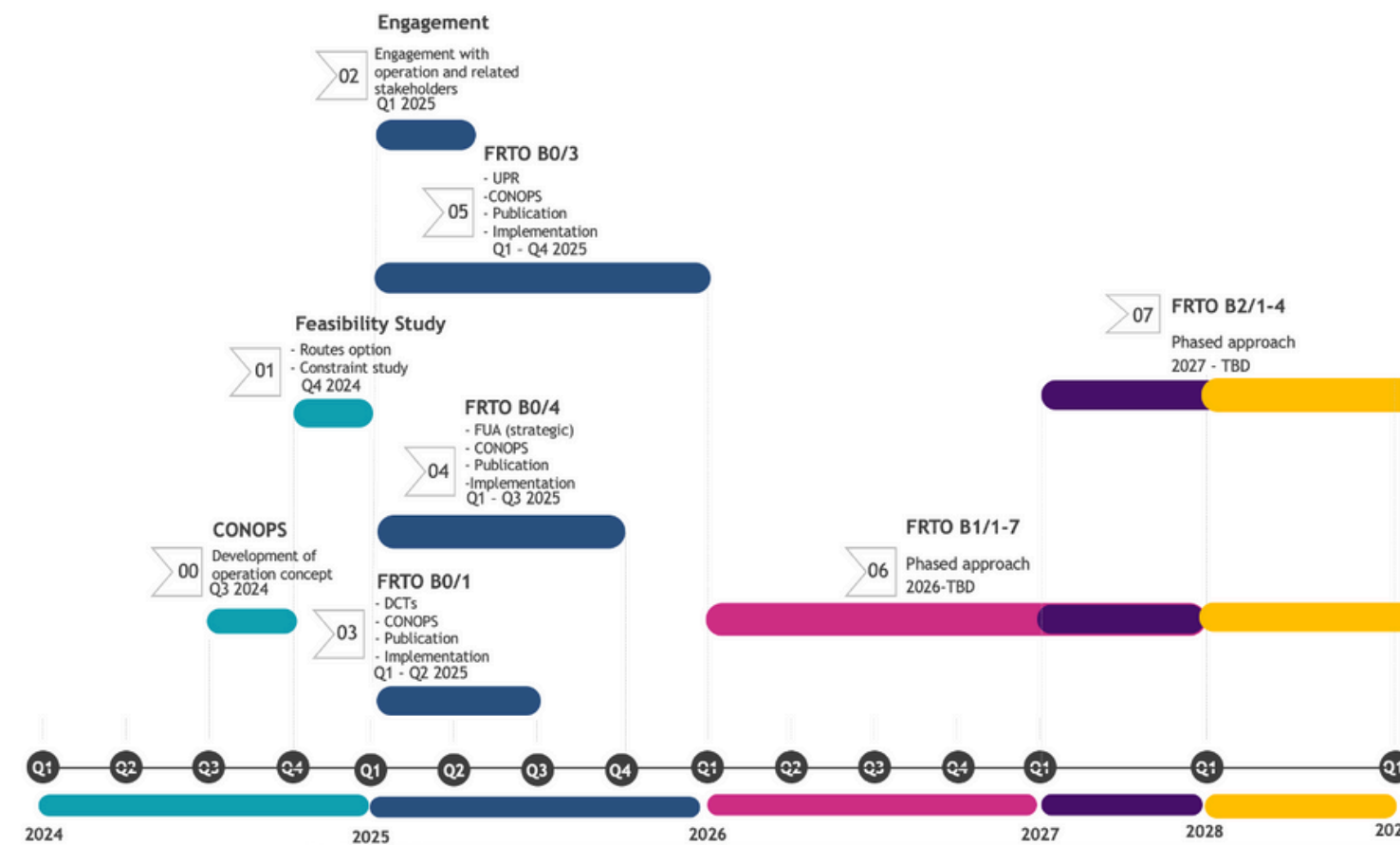
Vision to Execution Plan

Phased Approach



Strategic Roadmap

- Malaysia planned roadmap and timeline



Current Status and Outlook



DIRECT ROUTE OPERATION KL FIR



DIRECT ROUTE OPERATION KK FIR



CROSS BOUNDARY DRO/ UPR

- To effectively address this issue and support airlines in improving flight planning, Malaysia is currently implementing DRO within the Kuala Lumpur (KL) Flight Information Region (FIR) for overflight traffic.
- The implementation of DRO within Kota Kinabalu (KK) FIR will proceed in alignment with the framework strategic approach targeted to be implemented by the end of 2025.
- Plans to address domestic needs with an emphasis on traffic management, focusing on traffic resolution and safety assessments.
- Ongoing planning for UPR and/or cross boundary DRO

Operational Constraint



Managing complex airspace

- High Volume/busy corridor: Manages high traffic volume for major international hub and multiple airports with complex criss-crossing routes.
- Sectorisation: Divided into many sectors to handle traffic density, requiring complex controller coordination.



Coordination and cooperation with stakeholders

- Identifying possible opportunity for implementation and collaboration.
- TOC/FIR Boundary/ Restricted areas:
 - temporary solution - avoidance
 - long term solution (bi-lateral engagement)
- Airspace Management Cell (AMC)



Validation/performance criteria

- Descriptive and diagnostic analytics tools
- Predictive and Prescriptive analytics tools



Operational Planning and Succession Management

- Bridging the information Gap Between Strategic Management and Operational Execution
- Long term planning - Fostering the culture of junior staff involvement in strategic planning



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Thank You



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CIVIL AVIATION AUTHORITY OF MALAYSIA



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