# Implementation of an effective CMAC and FUA

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# Civil/Military ATM Cooperation and Flexible Use of Airspace

## From the operators' perspective

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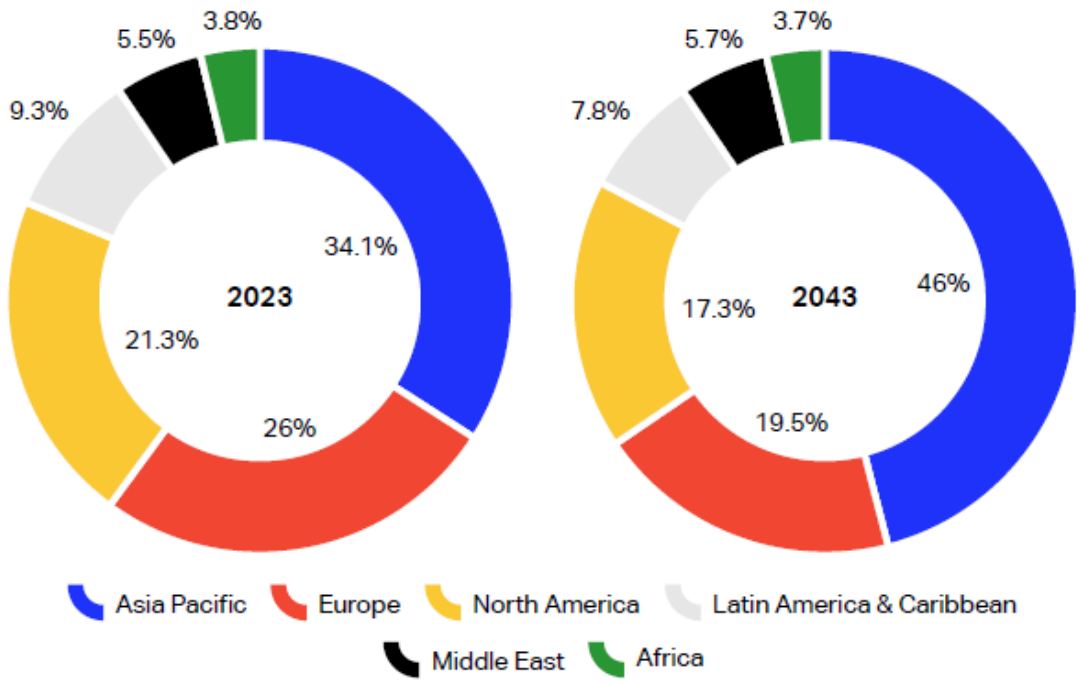
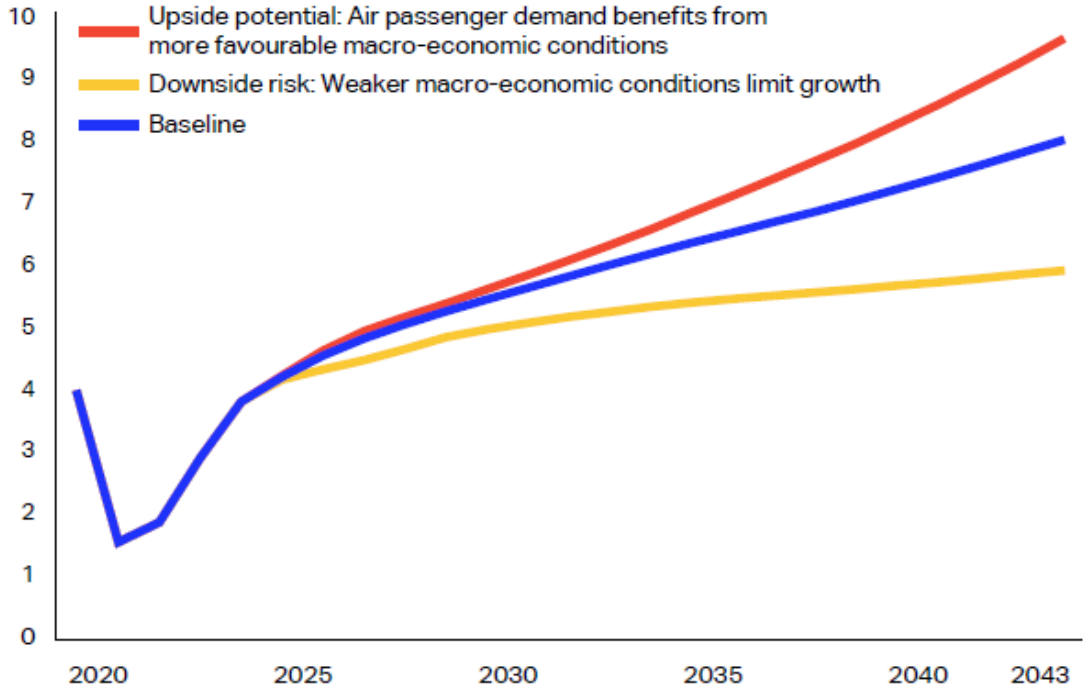
# Traffic to reach an all-time high

## Global Outlook for Air Transport – Deep Change (June 2024)

Regional passenger traffic, share of total, %, 2023 and 2043 forecast




Global air passenger journeys, billion




Source: Air Passenger Forecasts, February 2024 update

# CMAC and FUA

## Key to meeting the expectations of the customers and the industry

### Airline operators' needs

- Safety – the highest priority
- Accessibility – access to the optimized routings and flight levels, etc.
- Efficiency – reduced fuel costs and emissions, on-time performance, etc.
- Flexibility – availability to alternative routings in responding to the changing operational environments, e.g., wind, weather, etc.
- Predictability – more transparent and prompt information on airspace constraints during the flight and fuel planning phase, etc.

### From the States' perspective

- The obligations under Chicago Convention and its annexes
- Improve the aviation safety (both civil and military)
- Increase user flexibility, maximize the capacity and efficiency of the airspace system
- Increase the attractiveness of the airspace system

# How to achieve an effective CMAC

- Establish the high-level civil-military cooperation committees and policy board to keep the strategic alignment.
- A gradual implementation is recommended – identify and prioritize the easily achievable changes firstly, which can bring obvious and direct safety and efficiency benefits.
- Review the existing coordination process between civil and military units (e.g., LOAs or informal arrangements) to focus more on airspace users' needs in terms of flight efficiency, and further develop the coordination procedures in between.
- Perform regular review of existing airspace structure and the usage of prohibited/restricted/danger areas, and make necessary changes (e.g., number, type or dimension of the areas).
- A stepped approach to implement FUA (from basic concept to enhanced implementation).
- Enable and keep the direct and promptly communications between the civil and military units to ensure effective tactical coordination and emergency response.
- The development of any operational structure framework for civil-military cooperation and coordination should follow a project management approach.

# How to achieve an effective FUA

## Cooperation between civil-military and between the States

- Close cooperation between civil-military and States can bring more benefits (e.g., increased entry/exit points in UPR/FRA will further allow flexible route planning to better fit operational needs).
- Cross-border implementation enable airspace users to file trajectories in their flight plan irrespective of existing airspace boundaries.
- The FUA should be extended at regional level (fragmented implementation does not provide operational benefits).

## Cooperation between ANSPs and the operators

- ATM system logic and FPL system logic should be compatible, common understanding is required from planning phase, also the engagement of experts is essential.
- Direct cooperation between ATM providers and airlines/CFPS providers is a key element of success, and is required at pre/tactical, operational and post operational level.
- FUA implementation should be followed by relevant simulations (ATC, CFPS, aircraft), coordination of those activities is required.
- Flexibility in cooperation between ATC and the airline operators during the flight can be beneficial by providing optimized and updated routings (e.g., due to weather or military activities).


The efficiency will
be maximized by
improving access to
the airspace itself.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# Thank You