

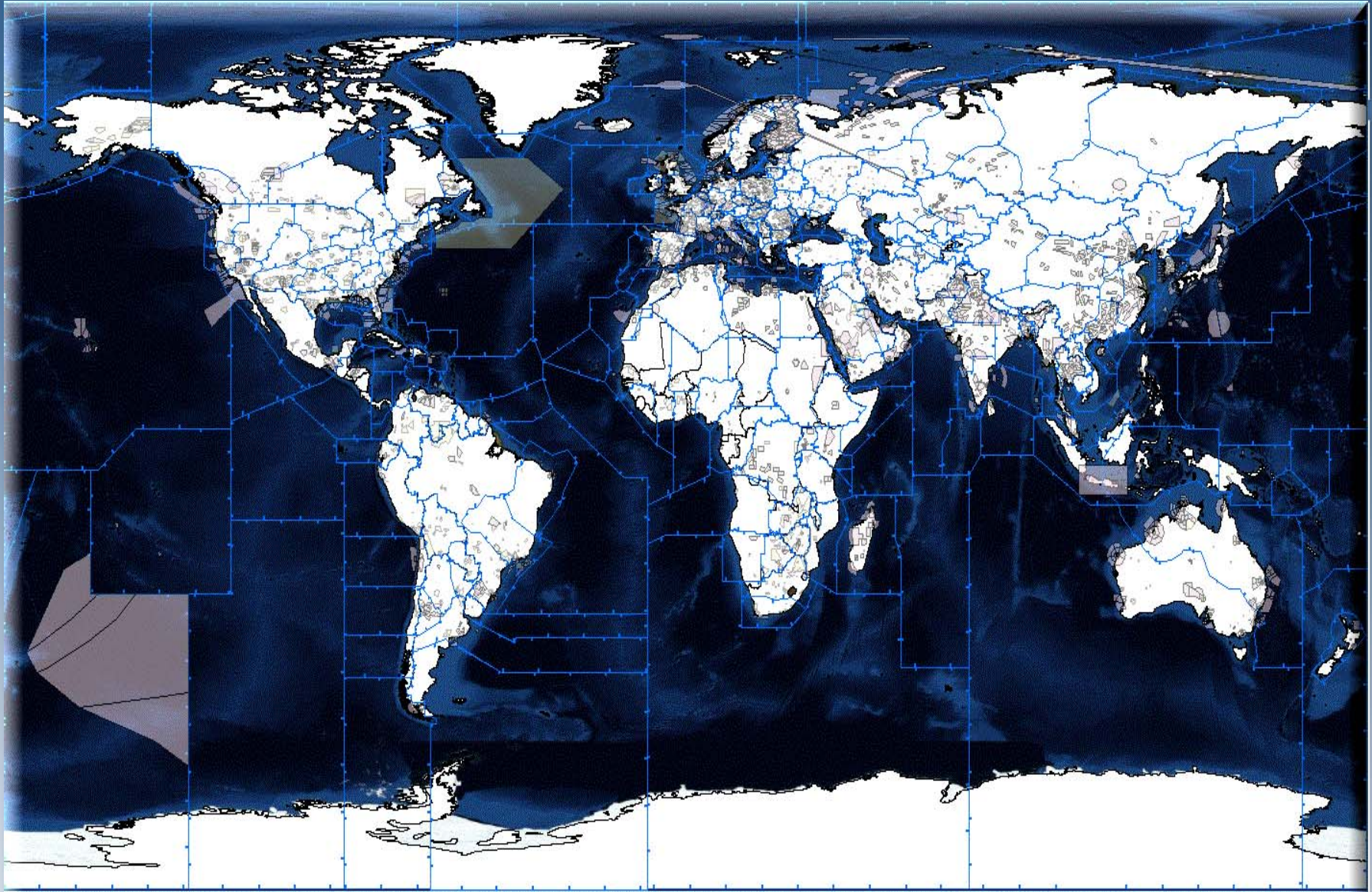


canso
civil air navigation services organisation

**YOU
&
ASBU**

TRANSFORMING
GLOBAL ATM PERFORMANCE

August 24, 2016

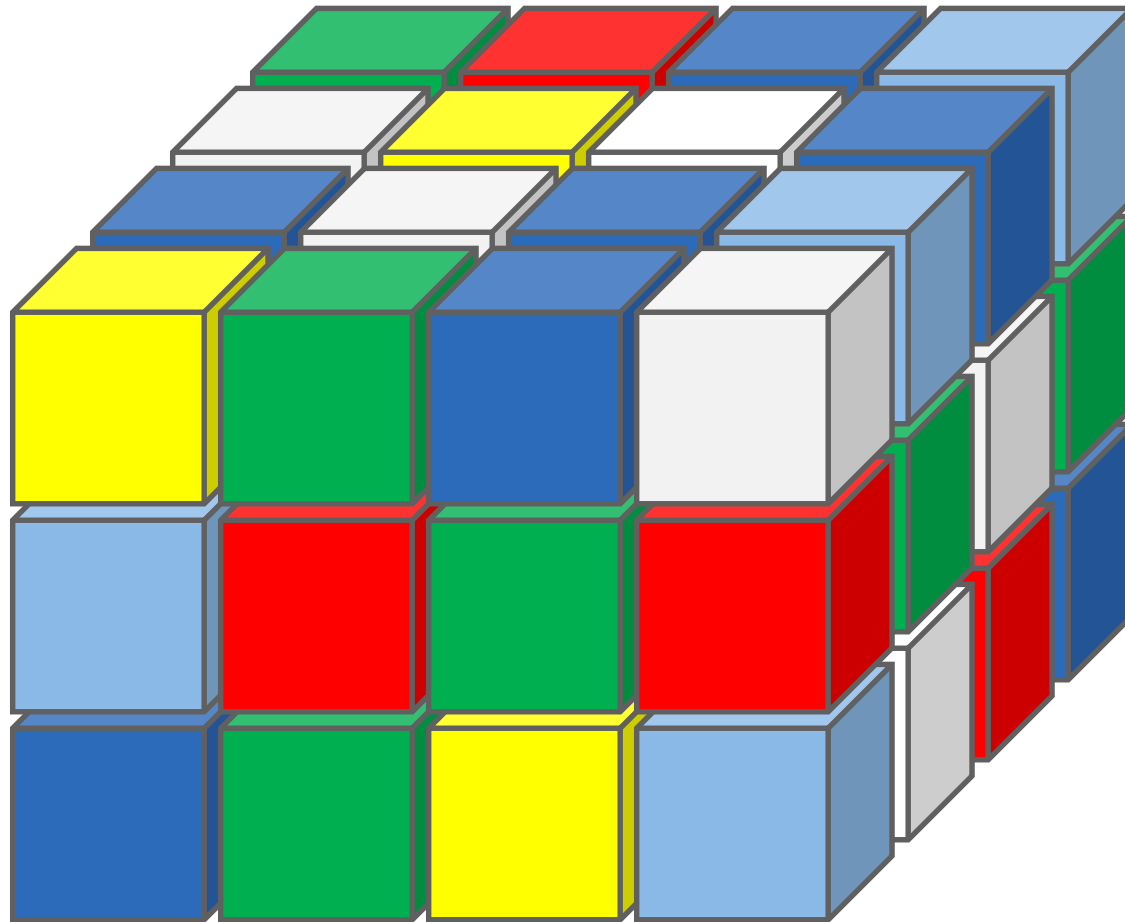


Miles ICAO Copyright



TRANSFORMING
GLOBAL ATM PERFORMANCE

THE REALITY OF OUR SYSTEM TODAY

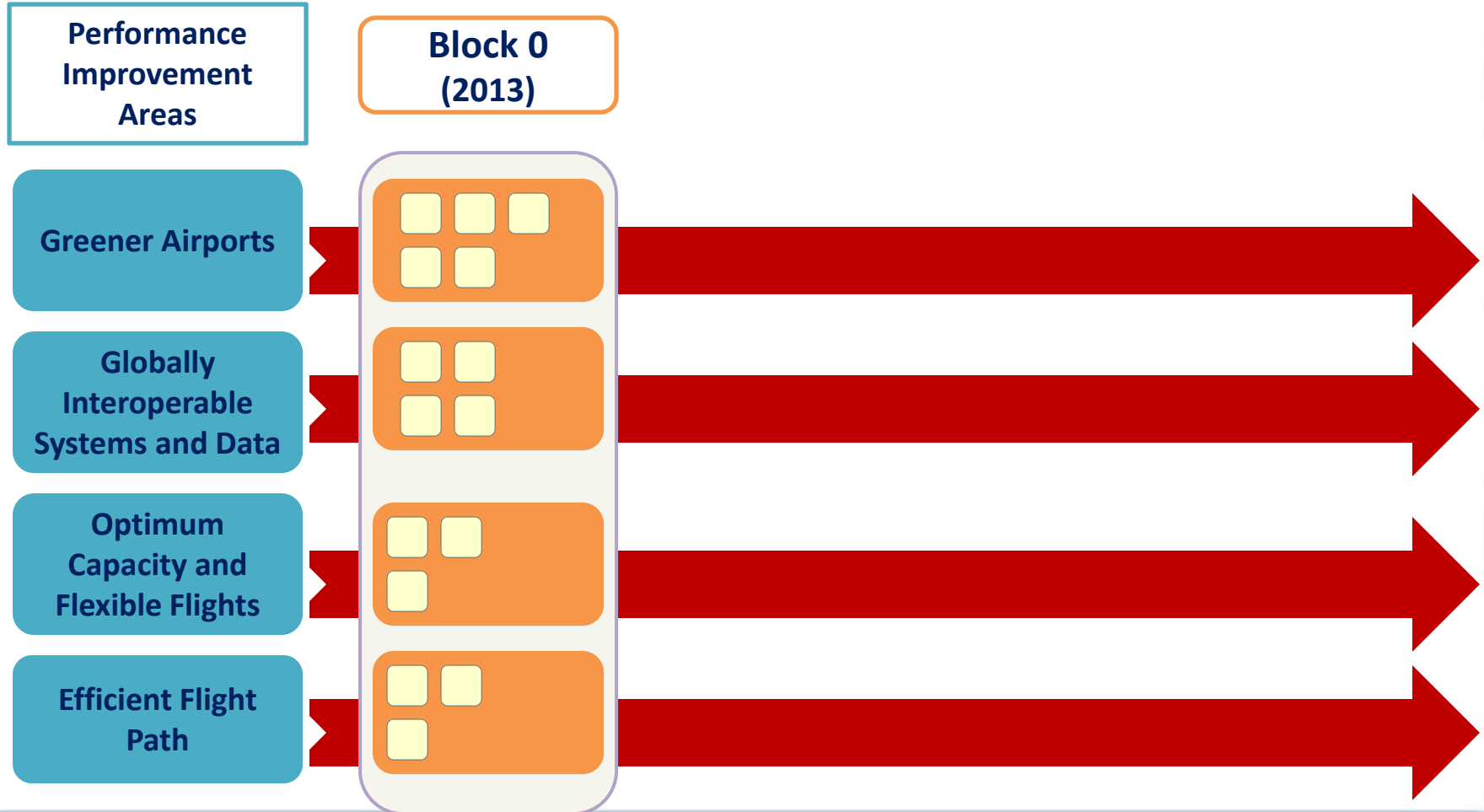






canso 

A Look at Block 0

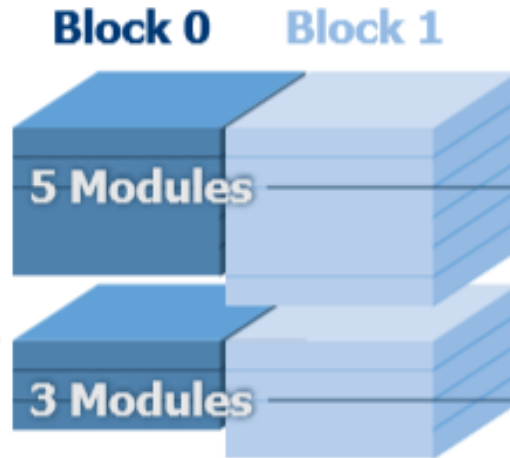


A Look at Block 0

Performance Improvement Areas (PIA):

Airport Operations

Globally Interoperable Systems and Data



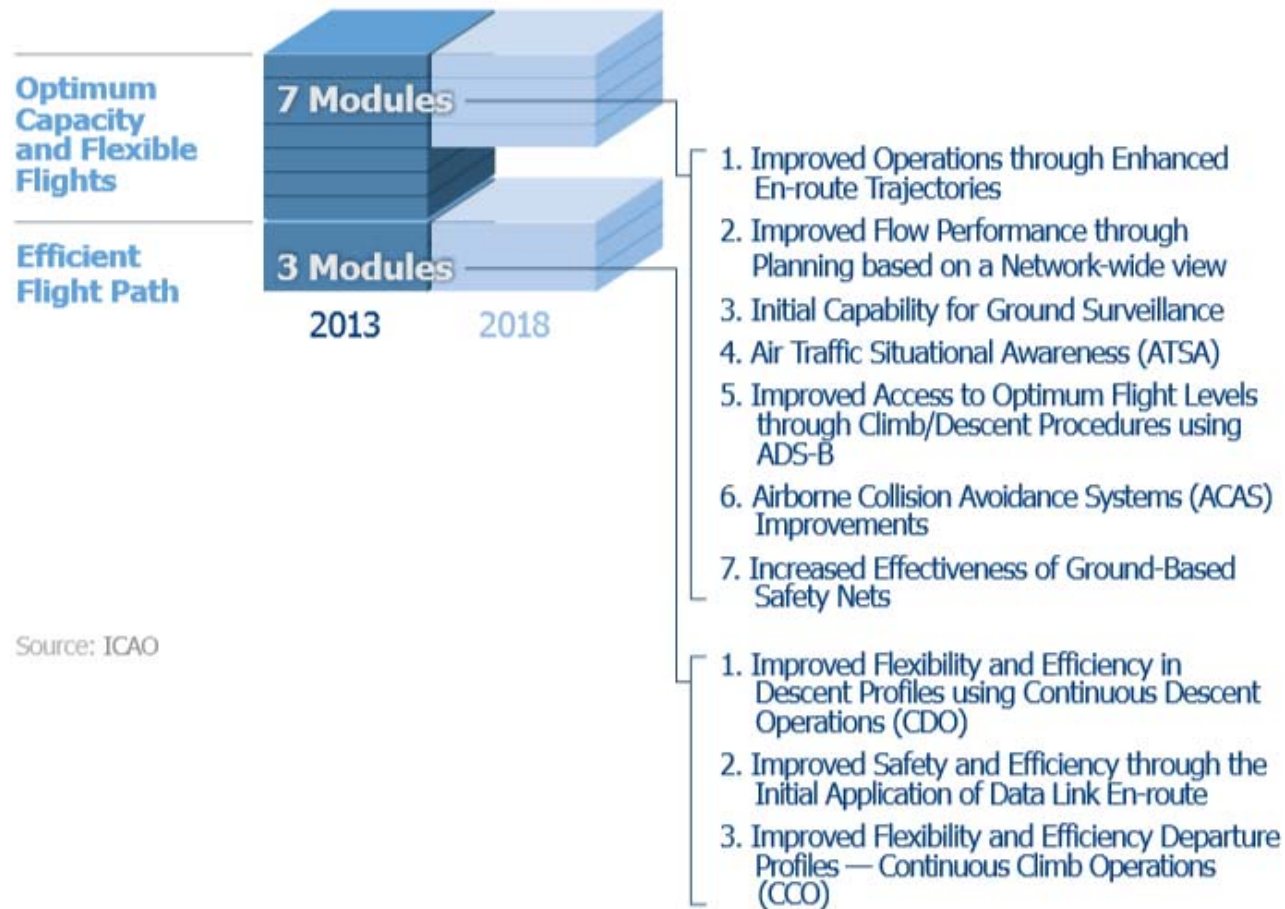
1. Optimised Approach Procedures including Vertical Guidance
2. Increased Runway Throughput through Optimised Wake Turbulence Separation
3. Safety and Efficiency of Surface Operations (A-SMGCS level 1-2)
4. Improved Airport Operations through Airport-CDM
5. Improve Traffic Flow through Sequencing (AMAN/DMAN)

1. Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration
2. Service Improvement through Digital Aeronautical Information Management
3. Meteorological Information Supporting Enhanced Operational Efficiency and Safety



TRANSFORMING
GLOBAL ATM PERFORMANCE

A Look at Block 0



Source: ICAO



TRANSFORMING
GLOBAL ATM PERFORMANCE

Boundary-oriented to Business-oriented

Paradigm shift to a business model changes disparate national systems into a universal one*



Boundary-oriented

Non-optimum

Inefficient

Non-optimum

Limited

Air Traffic Control

Unpredictable

Traffic Flow

Ground service for airlines and passengers

Flight profiles

Utilisation of aircraft capabilities

Intervention from ground systems

Airport access

Business-oriented

Optimum

Efficient

Optimised

Maximum

Air Traffic Management

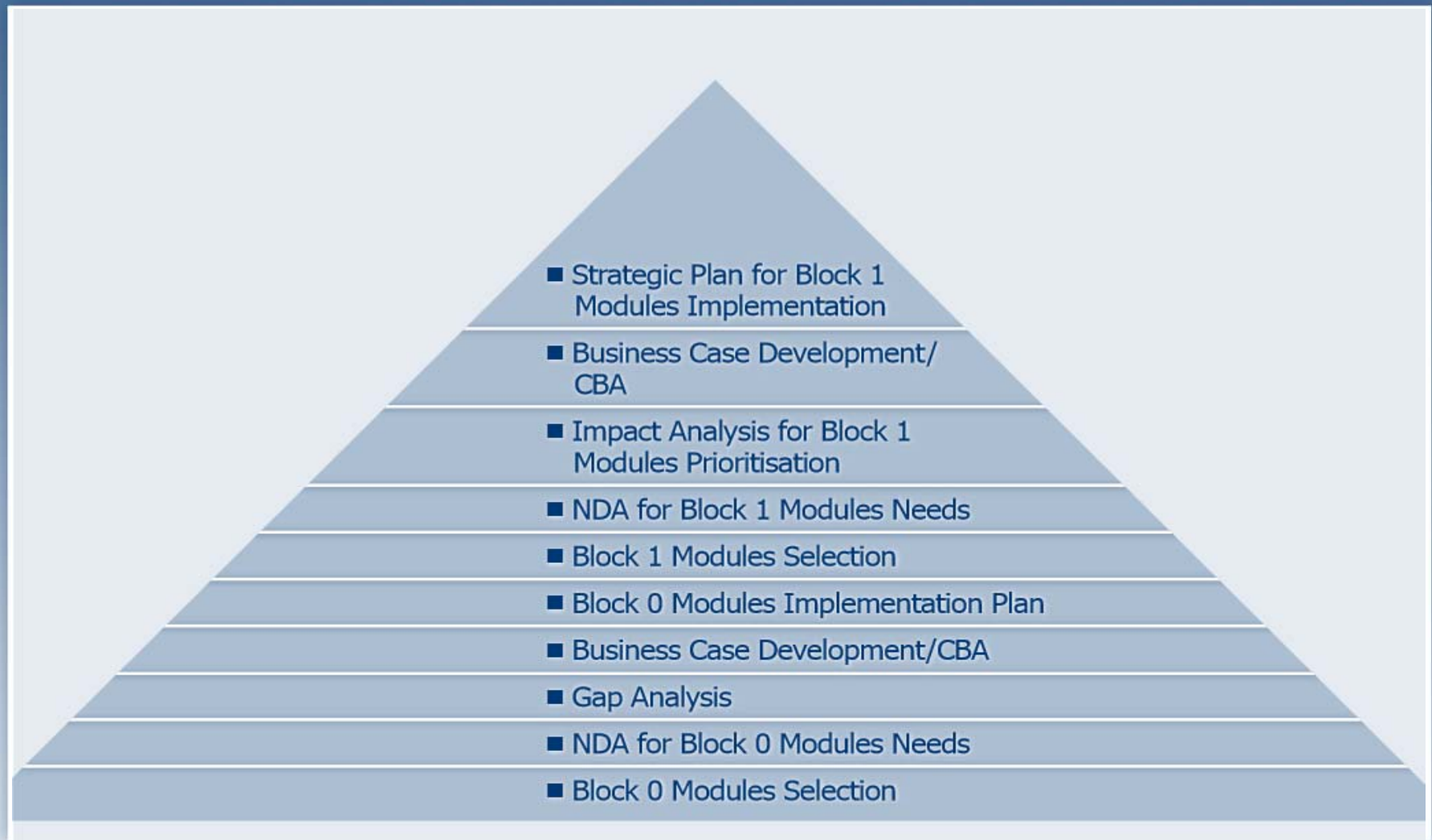
Predictable

*Countries' flags displayed are notional and not indicative of status in the ASBU process.



TRANSFORMING
GLOBAL ATM PERFORMANCE

Strategic Planning for ASBU Modules Implementation



Needs and Dependency Analysis (NDA)

- **Identify** – ASBU modules that align with the ANSP’s strategic objectives
- **Identify** - Specific needs defined within those candidate modules
- **Define** - Dependencies with other ASBU modules
- **Assess** – Current system capability to meet the needs of the candidate modules
- **Highlight** – The gaps that exist between current capabilities and the ASBU module needs
- **Analyse** - The impact of different means and timing of closing those gaps to meet to ICAO vision for global interoperability
- **Investigate** – The linkage between modules
- **Determine** – The problems for delaying essential capabilities beyond the recommended Block time frame
- **Establish** – The requirements for the new/upgraded modules
- **Assess** – Current ability of the ANSPs existing aviation system and identifies gap and shortfalls
- **Identify** – Areas for improvement
- **Examine** – Lessons learned, and documents to validate shortfalls

Gap and Impact Analyses

Four level of impact

- **No Impact:** There is no contribution to achieving the desired improvements over the intended time period
- **Limited impact:** There is a limited improvement to meet the desired objectives in the selected time period
- **High impact:** Offers satisfactory improvement to meet the desired objectives within the expected timeframe
- **Redundant impact:** Provides improvement in proficiency beyond what is needed for the planned time period



TRANSFORMING
GLOBAL ATM PERFORMANCE

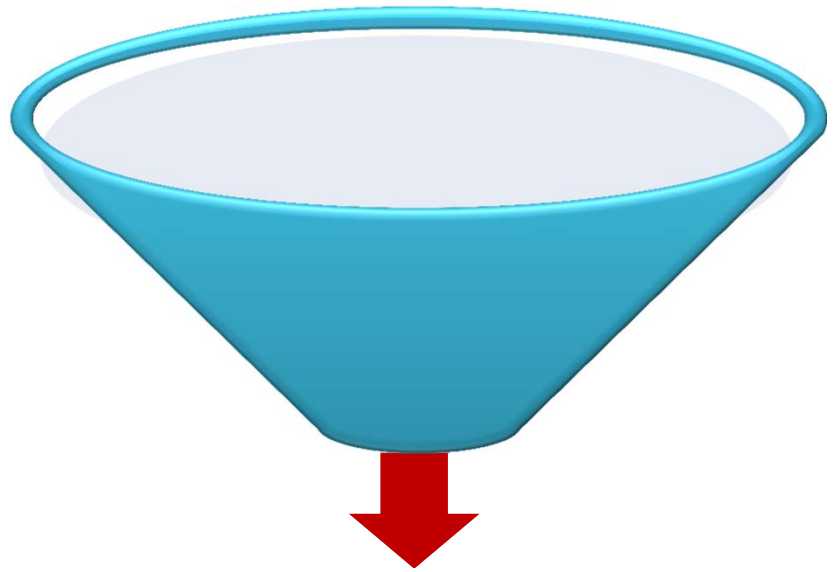
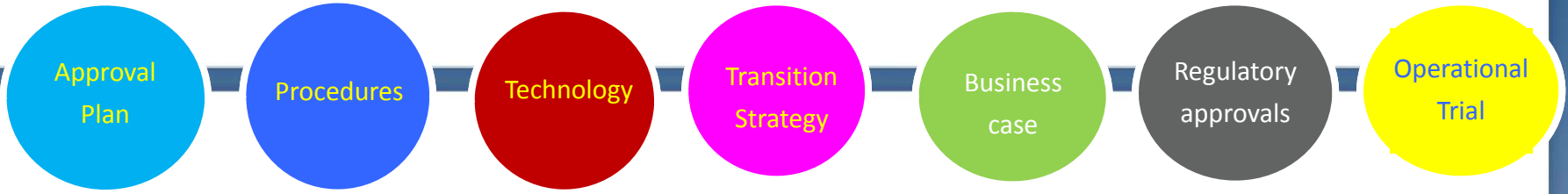
Business Case

Although the appropriate selection of minimum path required modules is necessary, it is not sufficient without a justification based on Cost/Benefit Analysis (CBA) to support the development of a business case



TRANSFORMING
GLOBAL ATM PERFORMANCE

canso



Module



TRANSFORMING
GLOBAL ATM PERFORMANCE

7th CANSO Latin America and Caribbean Conference

Punta Cana, Dominican Republic (October 2015)

- ACDM Workshop
- RPAS panel discussion
- **ASBU Workshop**
- ATFM Workshop



TRANSFORMING
GLOBAL ATM PERFORMANCE

CANSO's ASBU Workshop

- The Aviation System Block Upgrades (ASBU) Workshop assists participants in their preparation of both State and Regional Air Navigation Plans and associated reporting as they follow the ASBU approach to modernise and harmonise their aviation systems.



TRANSFORMING
GLOBAL ATM PERFORMANCE

Port-of-Spain Declaration



Regional Air Navigation Targets

➤ PBN

➤ ATFM

➤ AIM



TRANSFORMING
GLOBAL ATM PERFORMANCE

PBN is GANP's Top Priority

- CANSO has published the *CANSO Performance-Based Navigation Best Practice Guide for ANSPs*.

The document provides practical guidance on performance-based navigation (PBN) as it applies primarily to the terminal and approach environments. It highlights the need for a clear and concise set of design requirements, and focuses on the areas that ANSPs most commonly identified as areas of concern: knowledge, regulation, avionics equipage, resources, and training.

The Guide describes the expertise and partners needed in the design process. It shows ANSPs how to identify and allocate resources and subject matter experts, and to predict, understand and prepare for managing the changes inherent in PBN implementation.



TRANSFORMING
GLOBAL ATM PERFORMANCE

CADENA to Implement ATFM

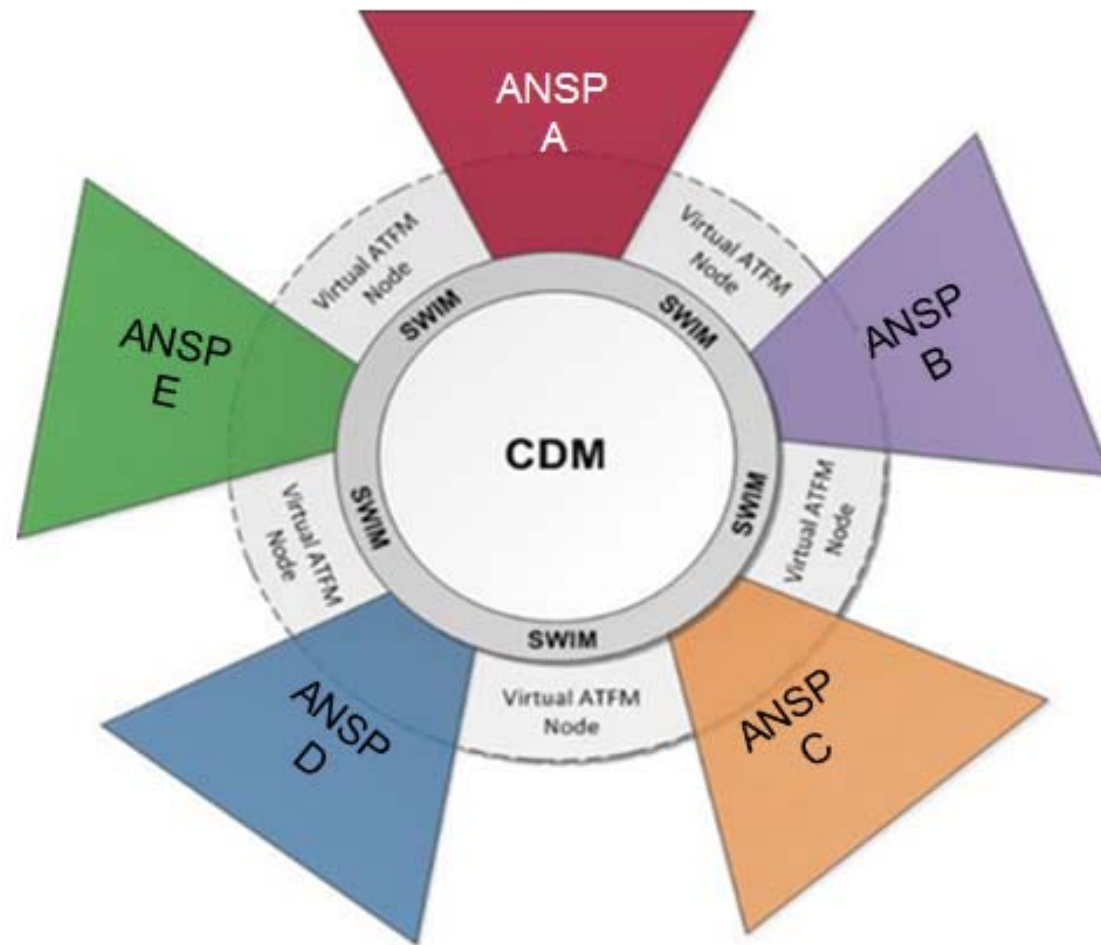
CANSO ATFM Data Exchange Network for the Americas

- ATFM belongs to the NOPS thread in ASBU Performance Improvement Area (PIA) 3: Optimum Capacity and Flexible Flights – Through Global Collaborative ATM

ATFM means...

- There are many ways to implement ATFM: From simple human-to-human conversation followed by actions to big and sophisticated technological solution
- CADENA seeks both approaches with the end state of virtual ATFM node solution – big and sophisticated technological solution with CDM principles

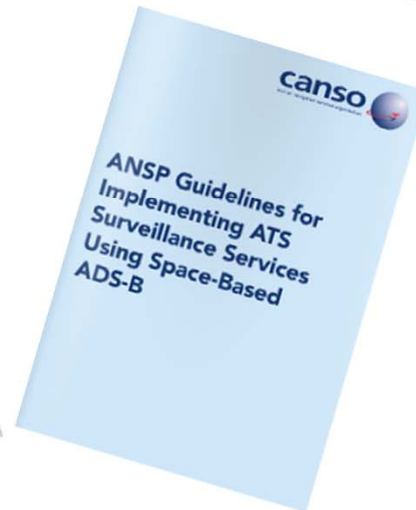
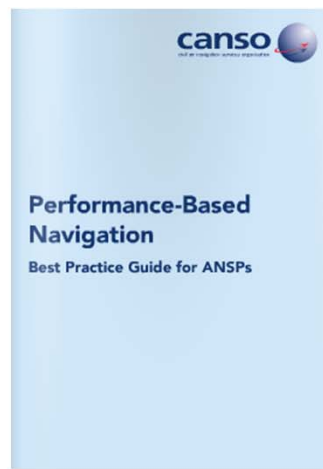
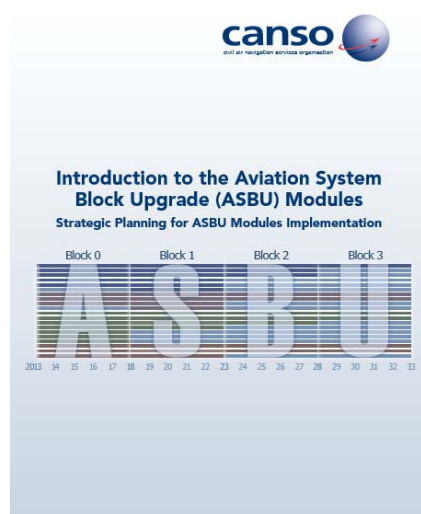
CADENA's End State



Good things happen

- Implementation of SWIM and/or SWIM access capability is necessary to exchange flight data to establish common situational awareness for ATFM
- SWIM is an ASBU module. SWIM is also identified as Information Management enabler in the GANP Technology Roadmap
- SWIM supports ASBU modules such as DATM, FICE, AMET, and SWIM

<https://www.canso.org/publications>



TRANSFORMING
GLOBAL ATM PERFORMANCE



PARTNERSHIP

"You give me half the fish, and I'll tell my mom to let you live."



TRANSFORMING
GLOBAL ATM PERFORMANCE

Thank you!



canso
civil air navigation services organisation