
AIS to AIM 2.0

The Global View

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Outline

- The Challenges
- The Present, AIS to AIM 1.0
- The Future, AIM 1.0 to AIM 2.0



Global Overview

THE CHALLENGES



TRAFFIC DENSITY

2040





Challenges

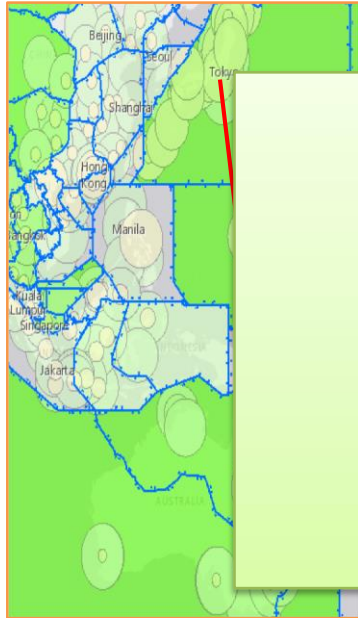
Zero Fatalities
New technology
Increasing traffic
New entrants
Global interoperability

....

Other Challenges



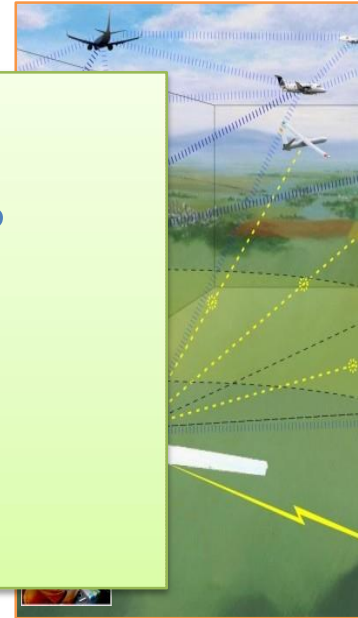
Conflict Zones



Global Tracking



Cyber Safety



RPAS



Space Transportation

What's next?

AIM, key enabler for operational improvements



Attainment of Global Air Navigation Priorities

AIM is an essential enabler for the attainment of Global Air Navigation Priorities



- Performance-based Navigation (PBN)
- CDO/CCO
- Air Traffic Flow Management (ATFM)
... need high quality and digital data!

Support airspace users

Quality-assured and digital aeronautical information are needed by all airspace users



- Greater safety
- Greater autonomy in decision making
- Greater capability in resolving conflicts
- Greater equity in airspace access

AIM, key element of the GANP

WELCOME TO THE GLOBAL AIR NAVIGATION PLAN PORTAL

The GANP Portal is a web portal where all aviation stakeholders will be able to find the most relevant information related to the GANP



D-AIM

BBBs – Quality-assured product-centric Aeronautical Information Services

B1- DAIM - Service Improvement through enhanced data quality and digital exchange and processing of information

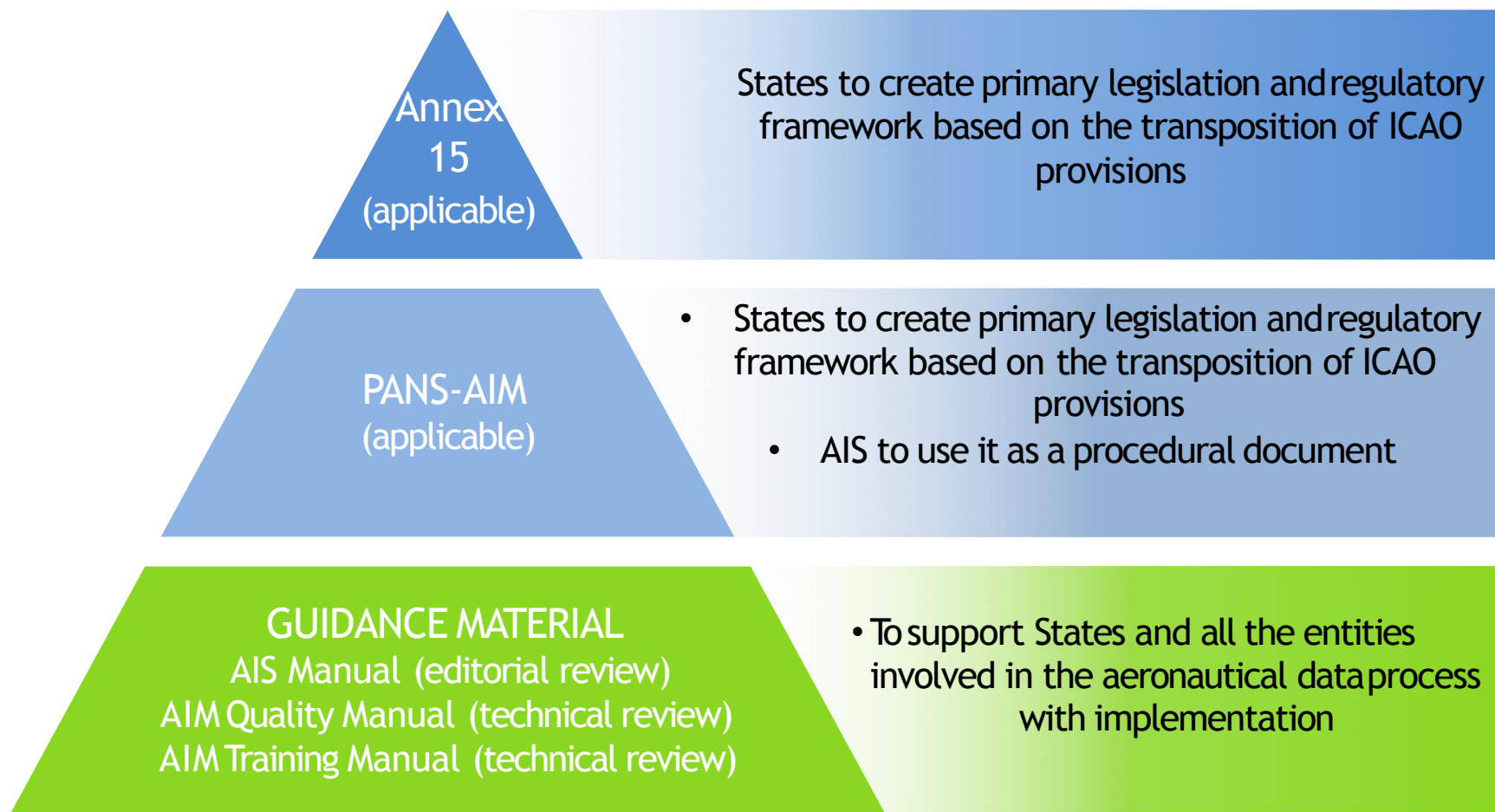
B2-DAIM - Service improvement through fully digital aeronautical information exchanged through a SWIM infrastructure and new information required to support new users

Global Overview

THE PRESENT AIS TO AIM 1.0



ICAO AIM Provisions



AIM 1.0: what have we addressed?

- With AIM 1.0 we have:
 - Raised the focus on data and information
 - Raised the focus on the need for quality-data from authoritative sources
 - Introduced aeronautical information in digital format
 - Raised the focus on the need for collaborative environments among stakeholders for enhanced quality services



Global Overview

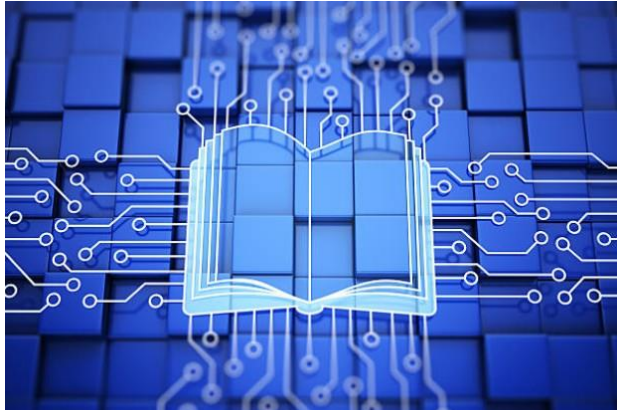
IMPLEMENTING AIM 1.0



Importance of implementation

- **States to focus on implementation to be prepared for future**
 - **Strengthen the existing business:**
 - AIM, to be treated as a priority through robust policies and financial support
 - All entities in the process to be organized and staffed with qualified personnel
 - Collaborative decision-making environments among stakeholders in the process
 - Strengthen quality of existing products and services
 - **Prepare for the digital transformation effectively:**
 - Digital transformation demands vision and leadership
 - New technology to be embraced to light the way to modify/replace old processes
 - Digital transformation requires new skills and competencies
 - Prepare the organizational structure (a new data management unit to deal with support and operational activities)
 - Set priorities: start replacing legacy products based on priorities/capabilities

The ICAO AIM Implementation support mechanisms



AIM Guidance material



AIM Training Programmes



Results-based implementation (RBI) support



The ICAO AIM recognition of compliance

Global Overview

THE FUTURE AIM 1.0 TO AIM 2.0



AIM 1.0 to AIM 2.0... what does it mean?



Leveraging SWIM to provide increased opportunities to access and integrate aeronautical information with other information domains to contribute to complete situational awareness.

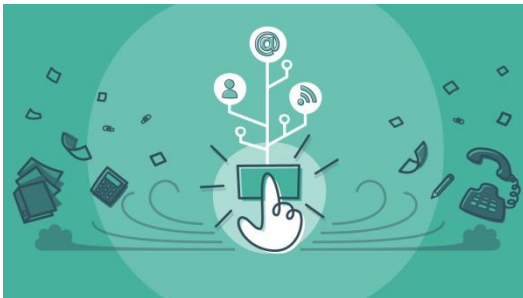
Why?

- Disseminating aeronautical information via SWIM will allow:
 - **Airspace users** to have greater access to quality information for decision support
 - **Service providers** to operate within information-rich environments that will allow optimization of services
 - **Regulators** to operate with robust and open safety systems, more easily integrated and monitored



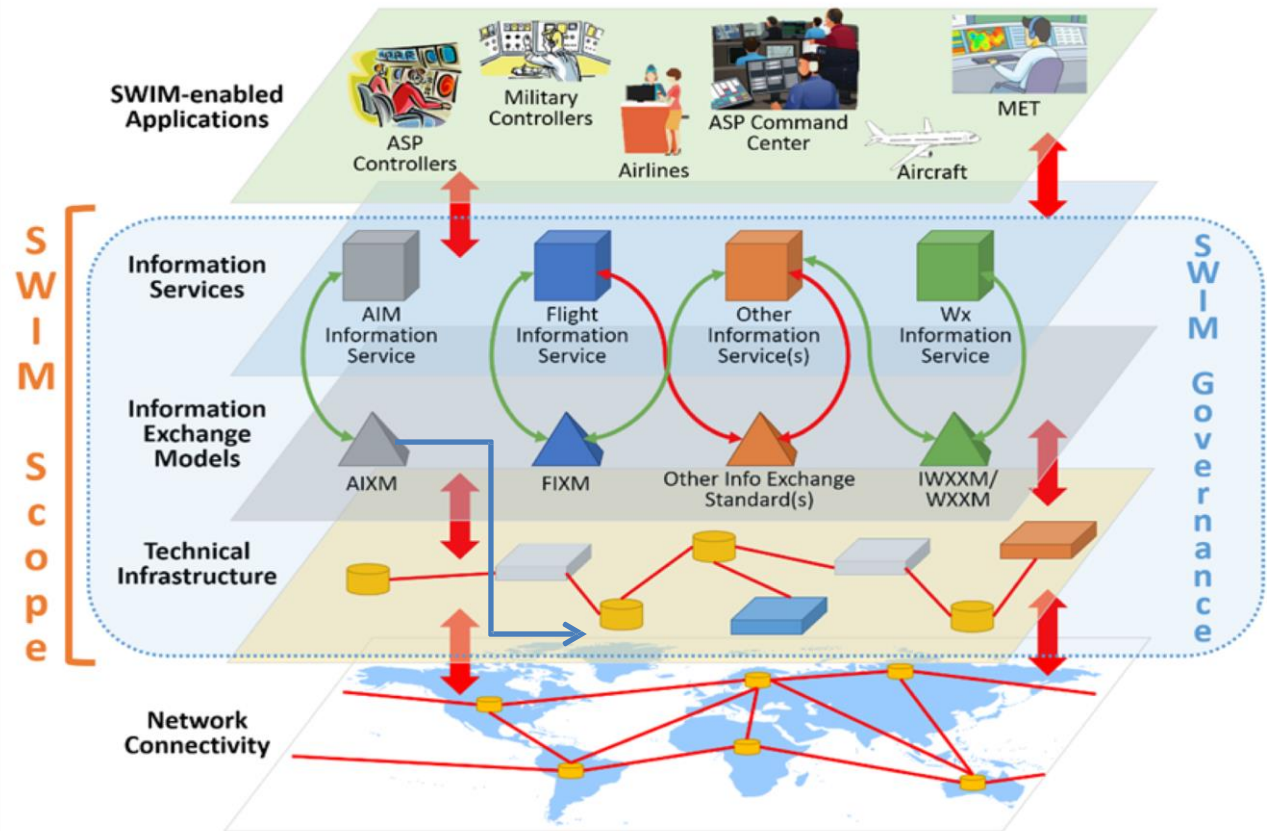
AIM 1.0 to AIM 2.0: what to do?

- Transitioning from AIM 1.0 to AIM 2.0 means taking additional steps, such as:
 - Apply service oriented architecture (SOA) to aeronautical information
 - Enable interoperable exchanges of aeronautical information
 - Integrate aeronautical information with other information domains
 - Facilitate implementation of effective feedback mechanisms to cope with users changing requirements

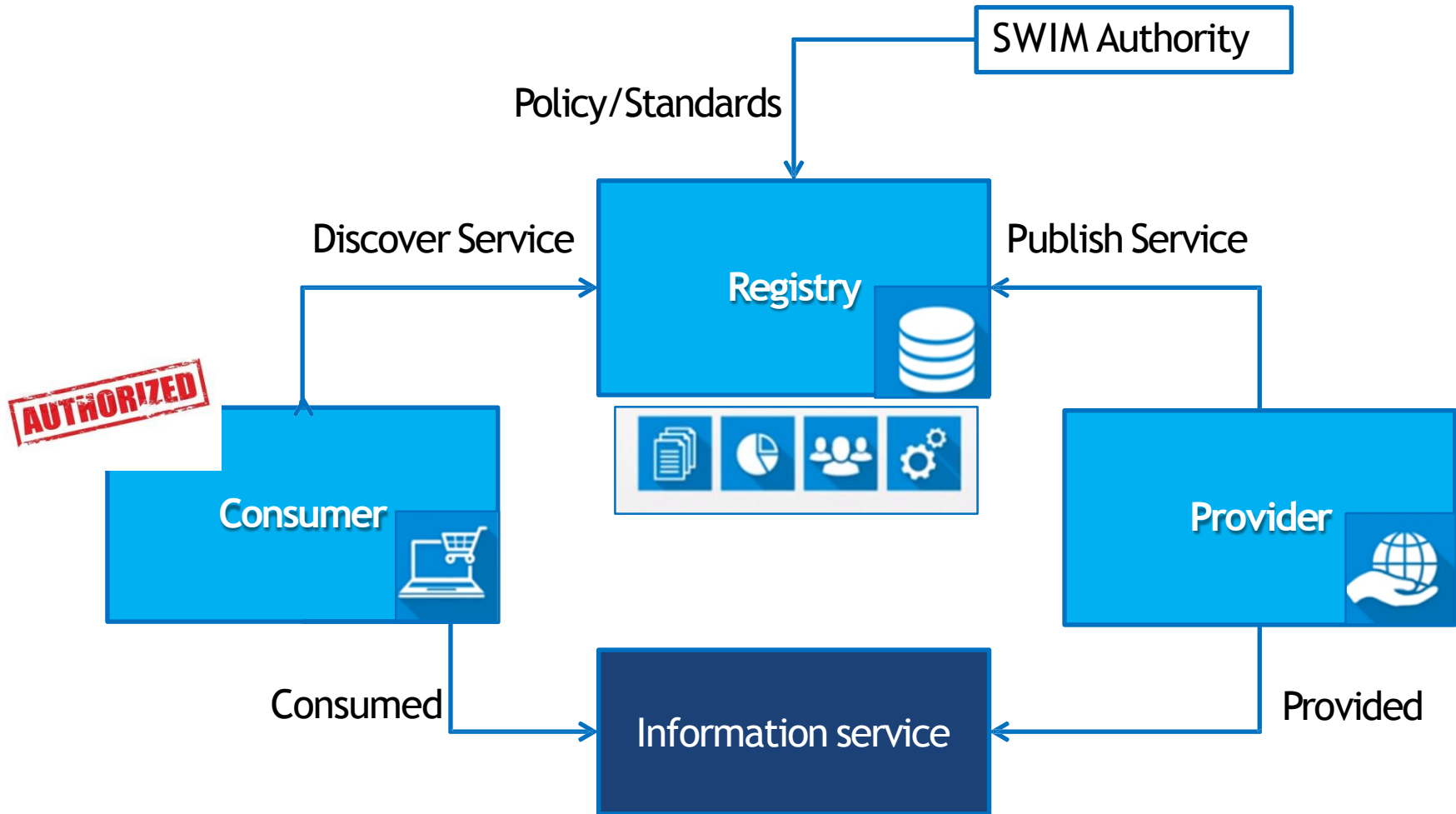


SWIM Global interoperability framework

The ultimate objective is to strike a balance between flexibility and uniformity to achieve global interoperability...



Service oriented architecture (SOA)



ICAO objectives

- To integrate the AIM domain into SWIM...



- Develop provisions on **data coding standards**, based on the work initiated by the AIXM community
- Develop provisions concerning **information services for aeronautical digital data sets** and associated updates
- Develop provisions on **governance aspects** for information services for aeronautical digital data sets

ICAO objectives

- To integrate the AIM domain into SWIM...



Digital Data sets

How to be provided as information services (ICAO provisions to be developed)



NOTAM

Replace the existing system with new information services (ICAO provisions to be developed)



Aeronautical charts

Define the charting digital products and identify how to provide them as map information services (ICAO provisions TBD)

ICAO Target Dates

Information Management Panel



SWIM Provisions : October 2019

SWIM Manual Volume II: October 2019

Architecture Working Group

Services Working Group

Governance Working Group



AIM Working Group

- Digital data sets: first set of provisions in November 2022
- NOTAM: first set of provisions in November 2022
- Aeronautical Charts: first set of provisions in November 2022

AIM 2.0 means also...

Sharing situational awareness across a wider operational community...

...new users?



Thank You / Merci