

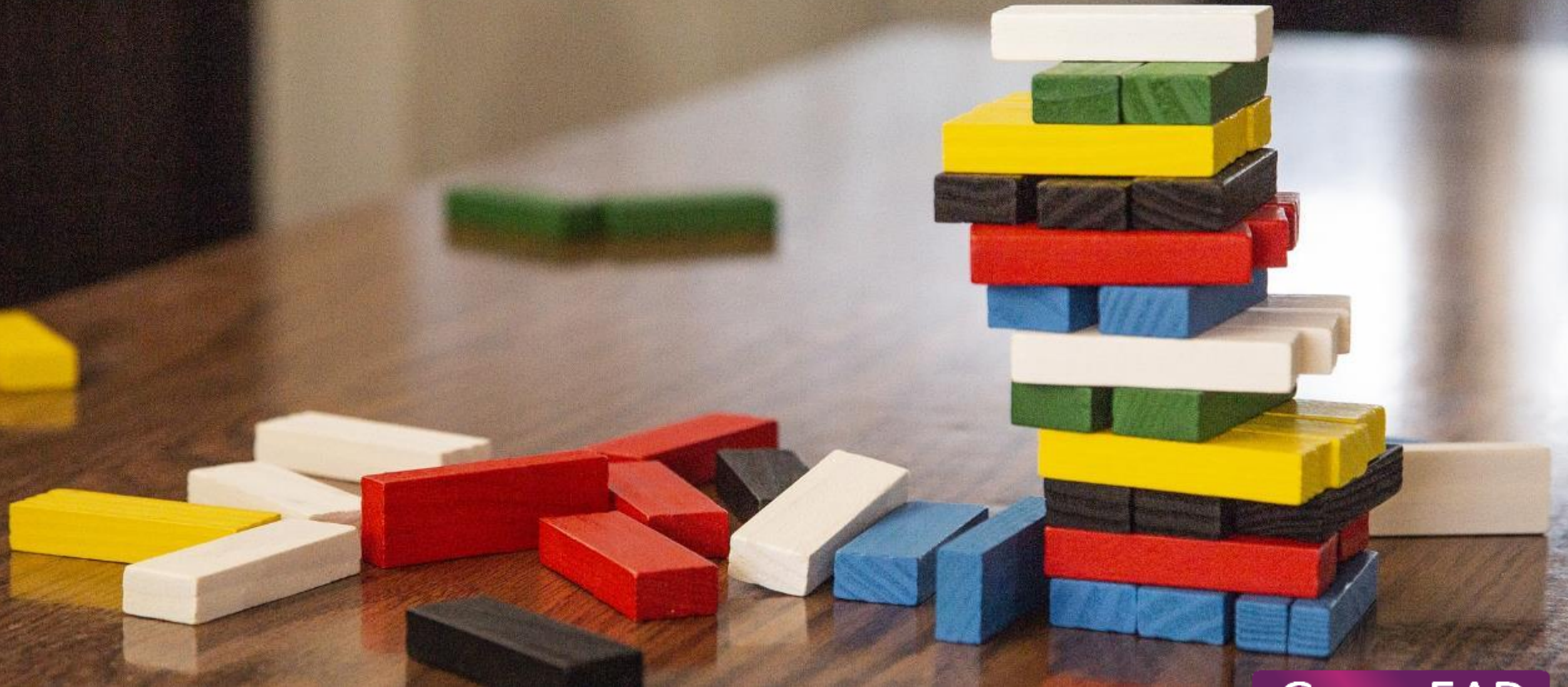
# Building SWIM on a Solid AIM Foundation

SAM/AIM/13 - May-20, Rev. 01.50

## In this presentation we will learn...

- What is SWIM and where is the idea coming from.
- Why AIM is considered the foundation of SWIM
- How an Organization can successfully build up a solid AIM service.

# How important is a Solid Foundation?

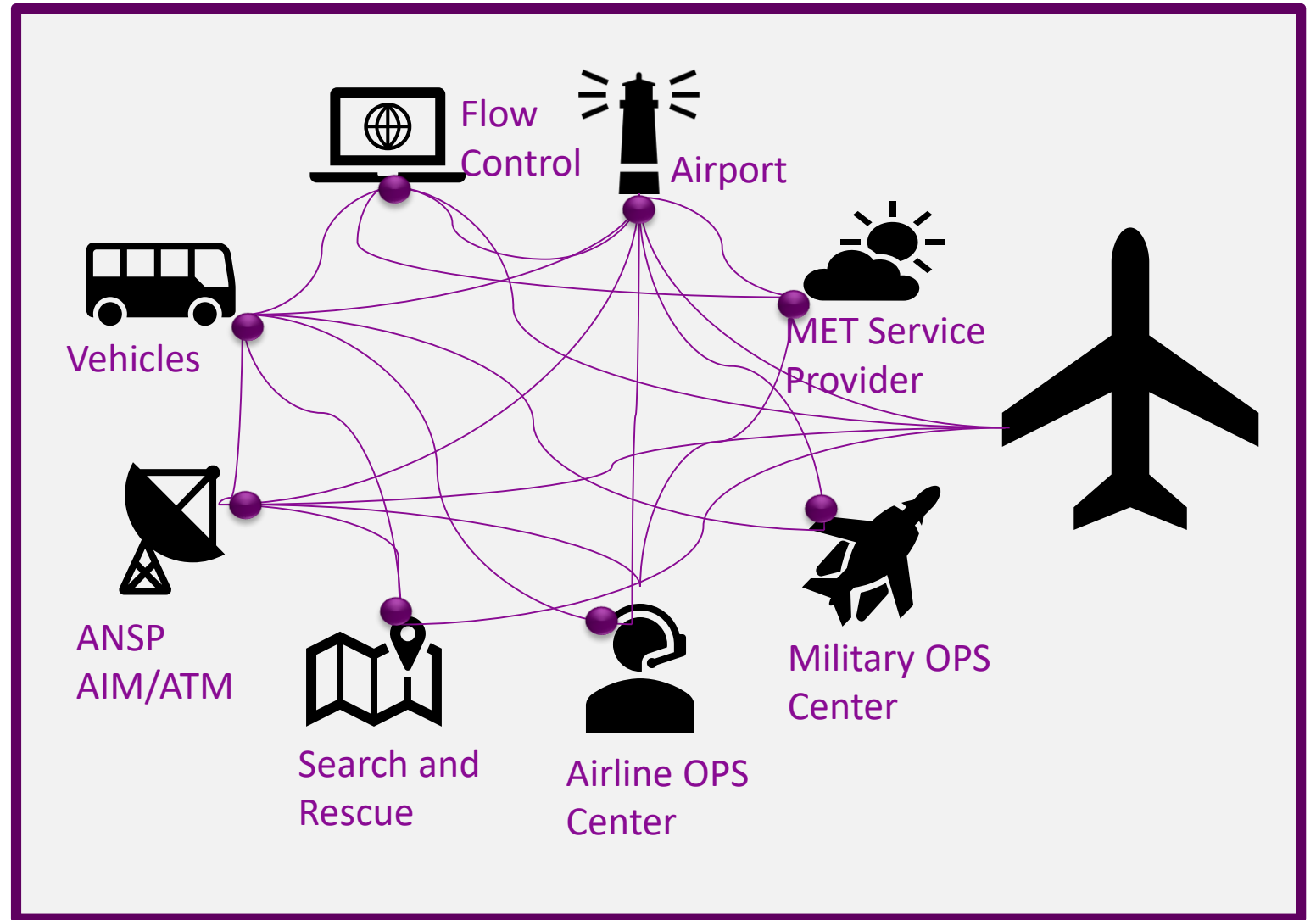




# SWIM IN A NUTSHELL

# What is NOT SWIM?

- Point to point network
- Many specific domain communication protocols
- Custom designed interfaces



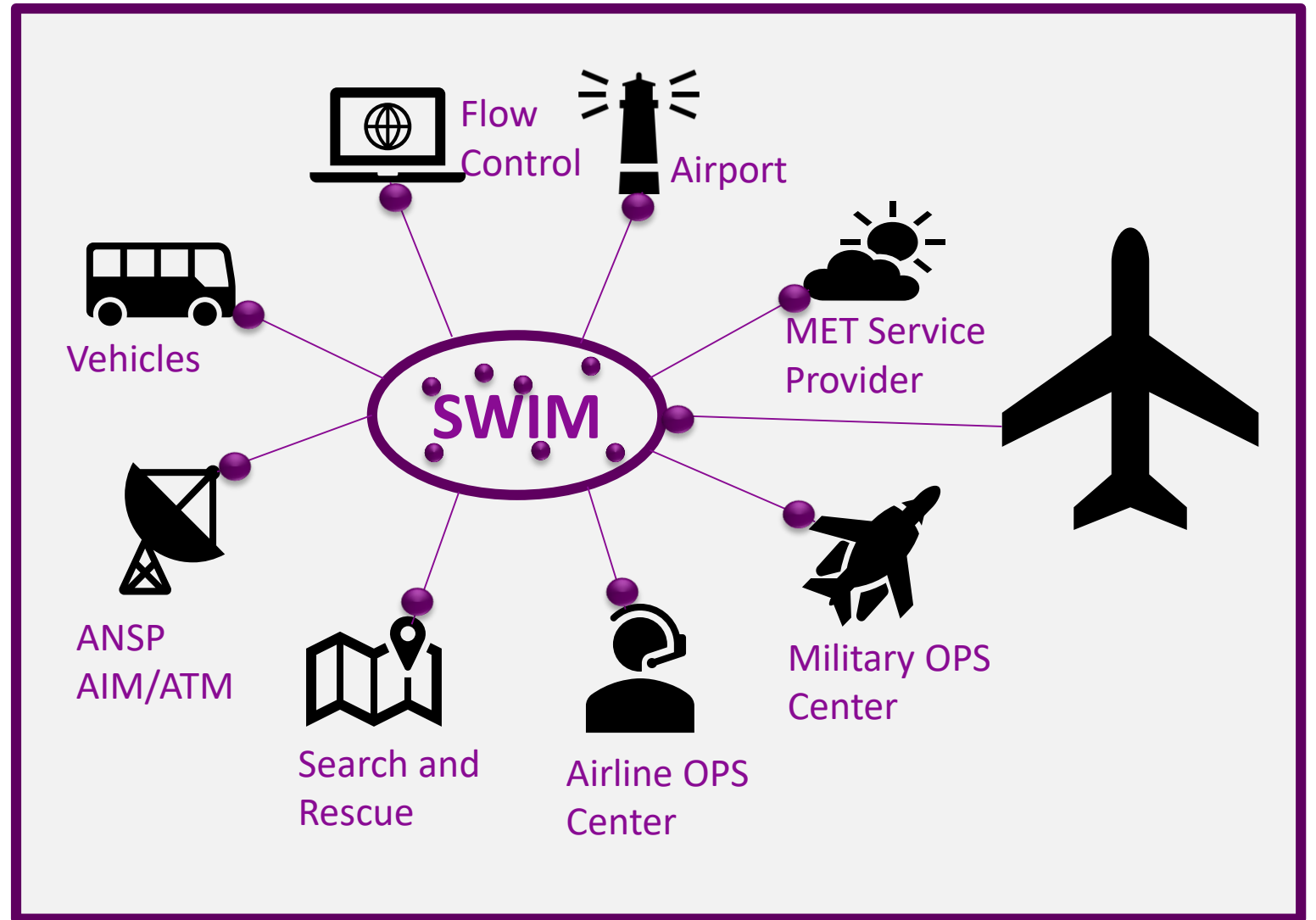
# What is SWIM?

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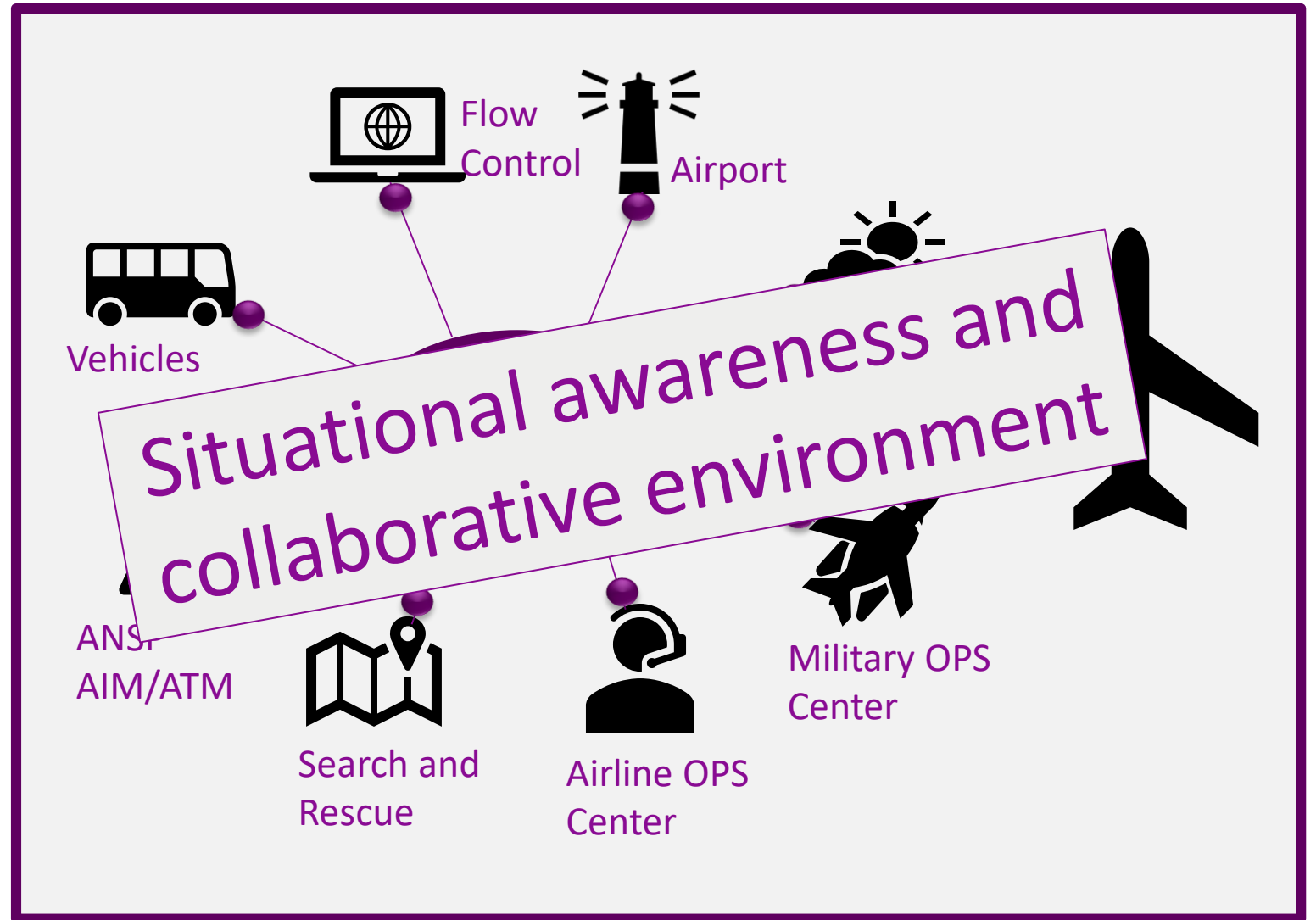
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M  
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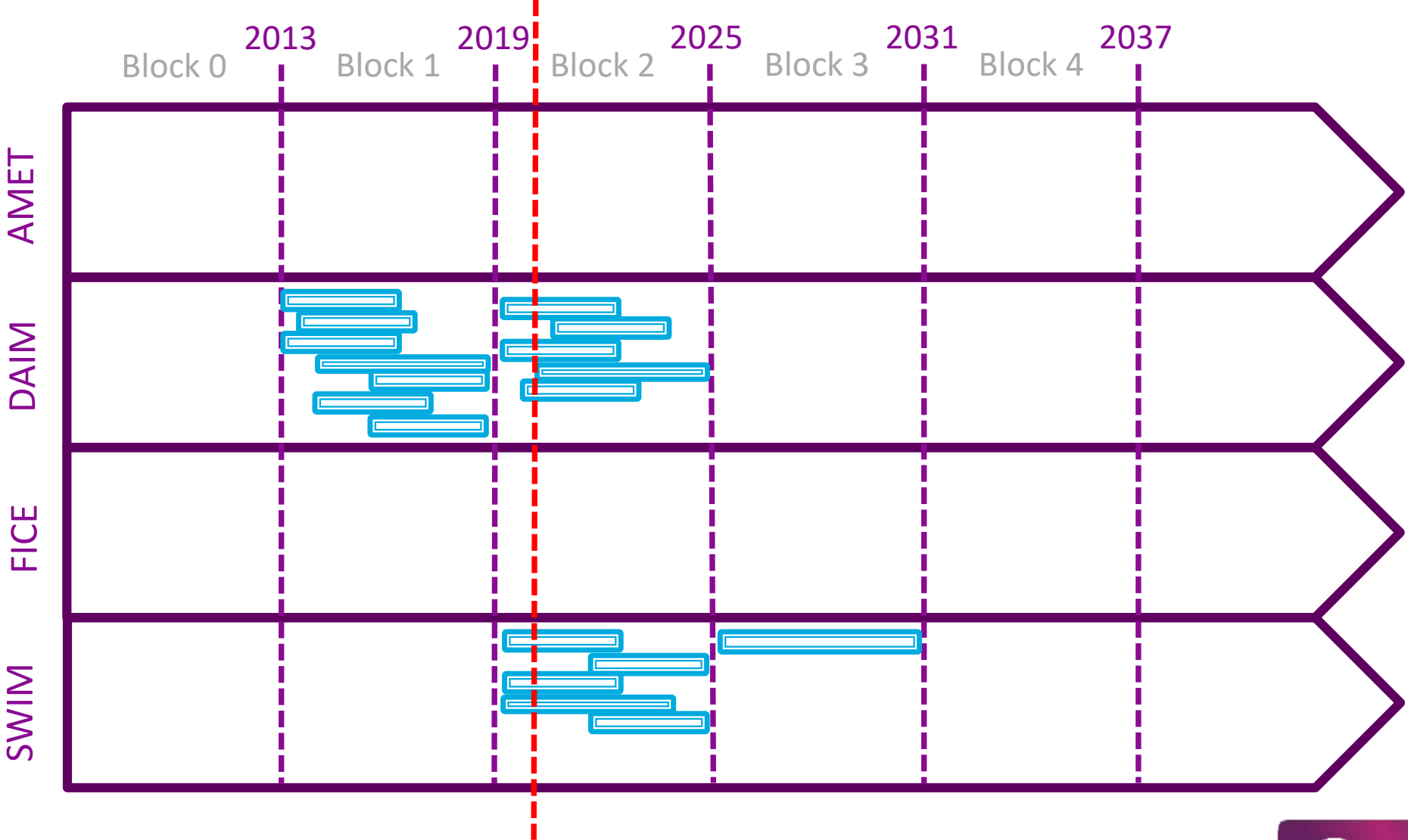
# What is SWIM?

- Network centric exchange
- Standard communication protocols
- Global operational concept



# DAIM and SWIM – Essential ASBU components in the ICAO GANP

Information Threads



## SWIM in Block 2

- **Internet** technologies instead of **point-to-point**
- **Publish/Subscribe – Request/Reply**
- **Aircraft** as a node in A/G exchange (non safety critical information)

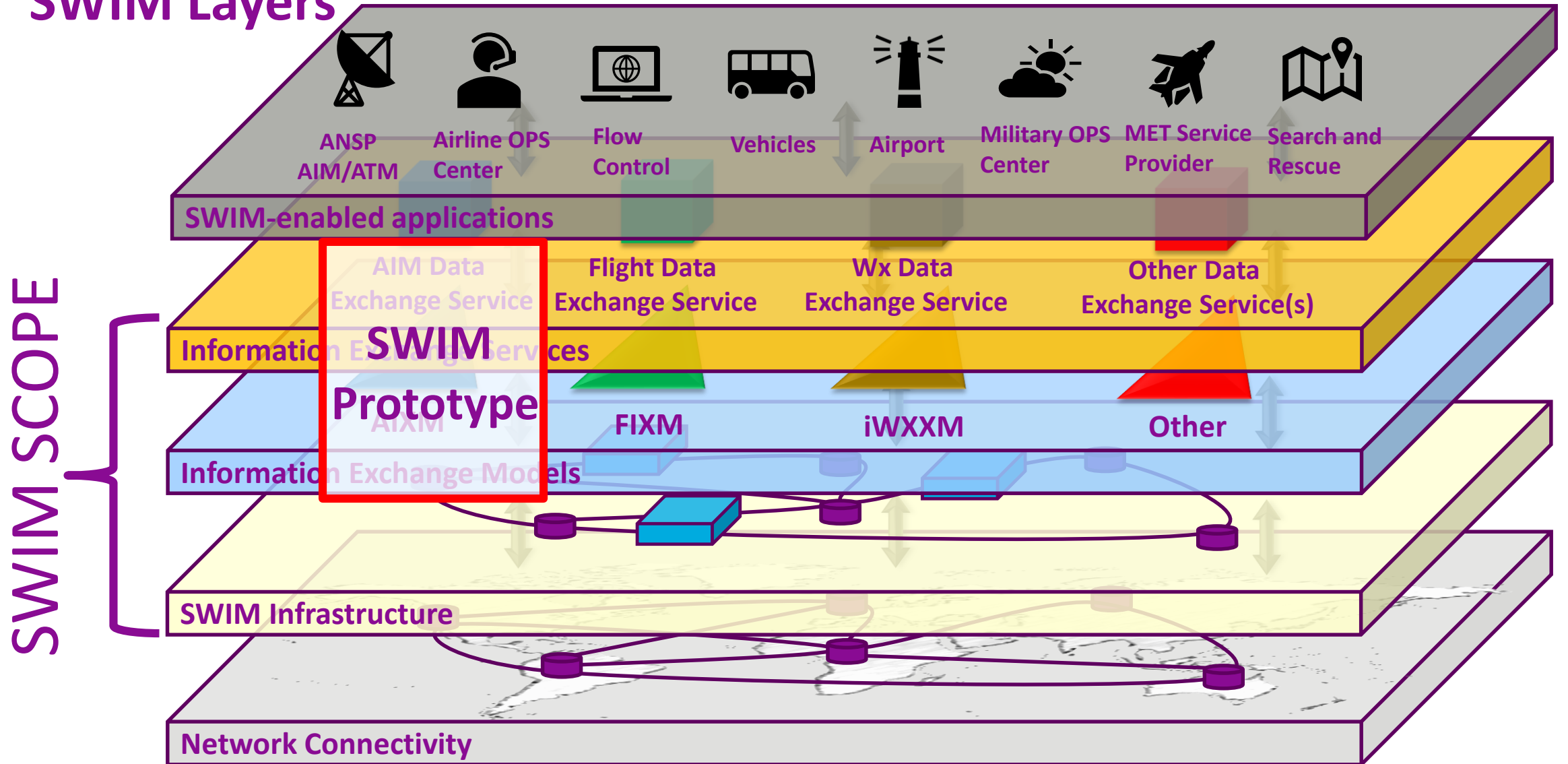


## DAIM in Block 2

- Fully digital exchange as **standard** (SOA)
- Paper should be **abandoned**
- Data **position and time accuracy** improvement.
- Support to **high airspace** or the **UAS** Traffic Management concept.
- A rich dynamic **obstacle database** and automated **dynamic geo-reference** restrictions available.



# SWIM Layers

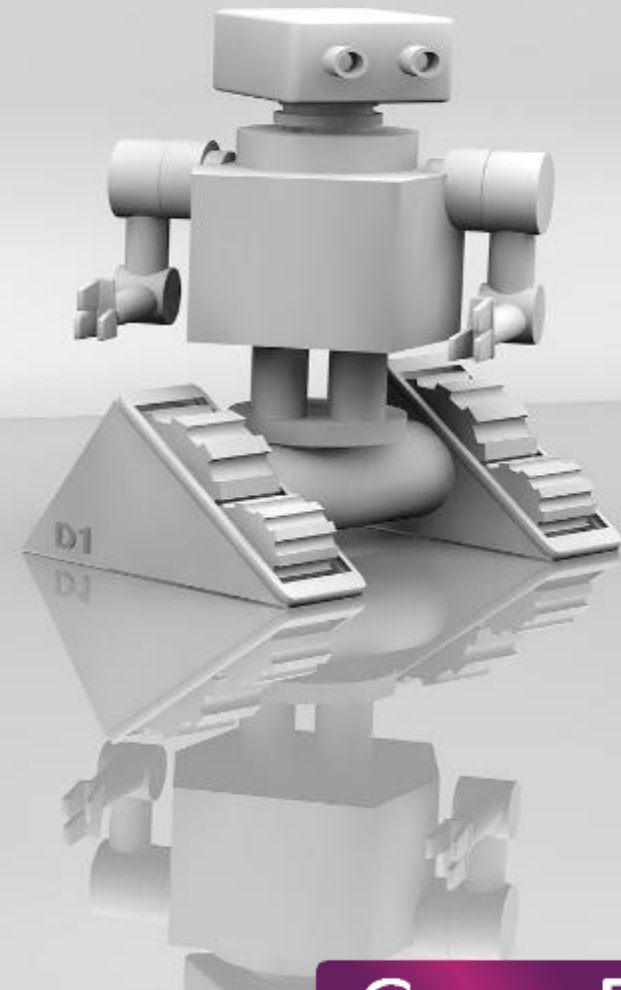


## Summary this far...

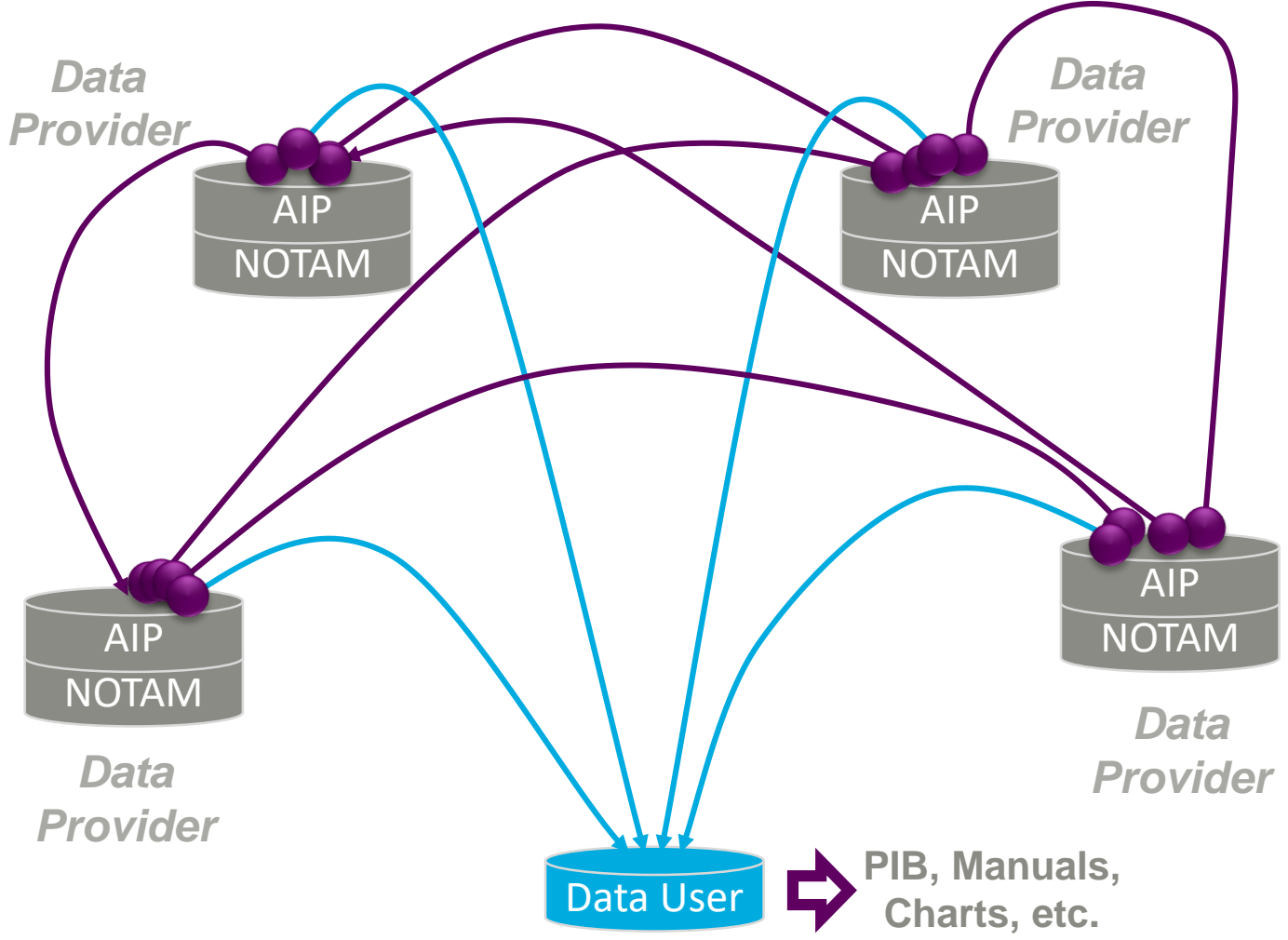
- AIM and SWIM are **essential components** of ASBU and the ICAO GANP
- SWIM is about the implementation of information service **technologies** where AIM is only one domain
- There is already a successful AIM/SWIM **Prototype**

# EAD

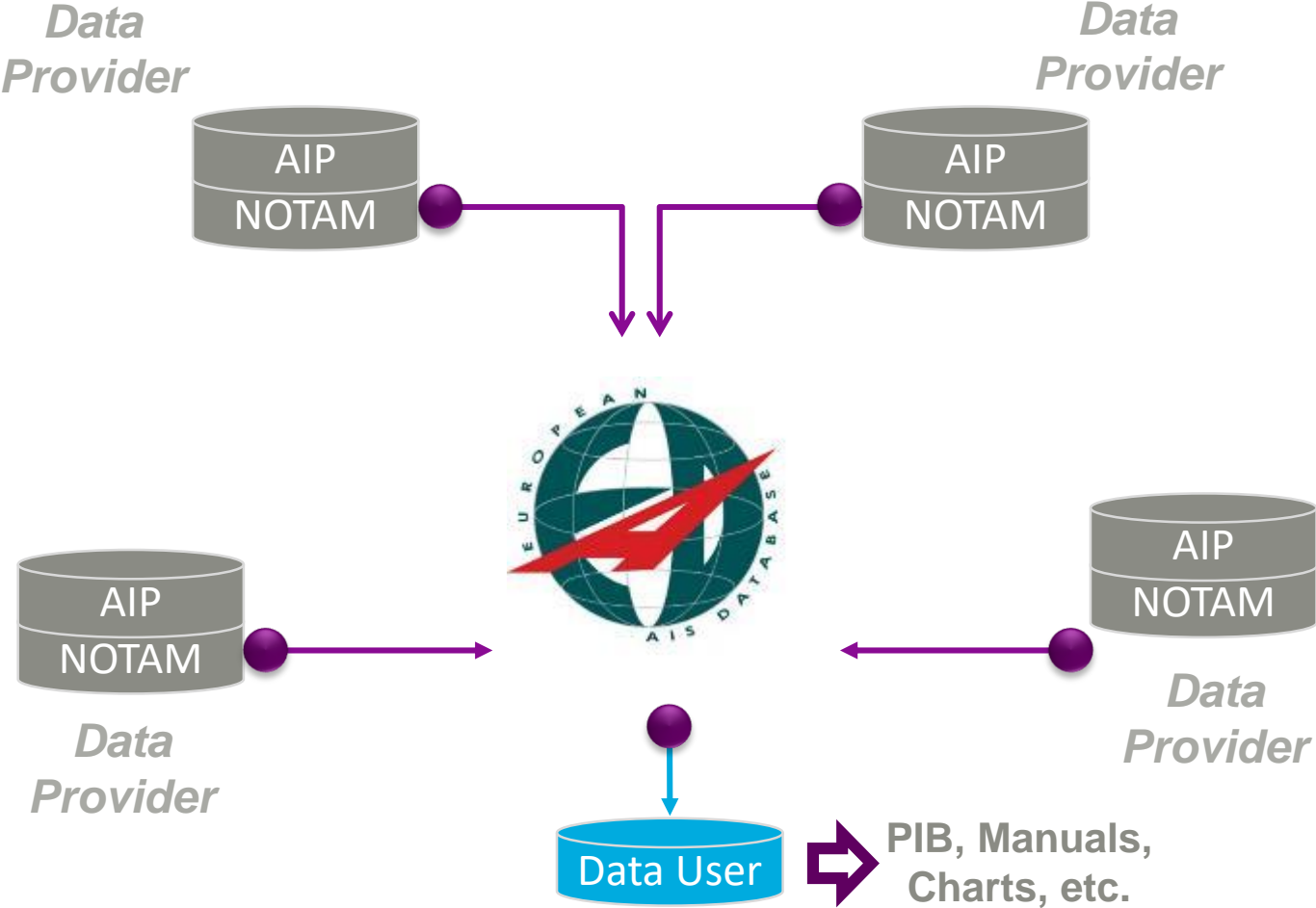
## THE AIM/SWIM PROTOTYPE



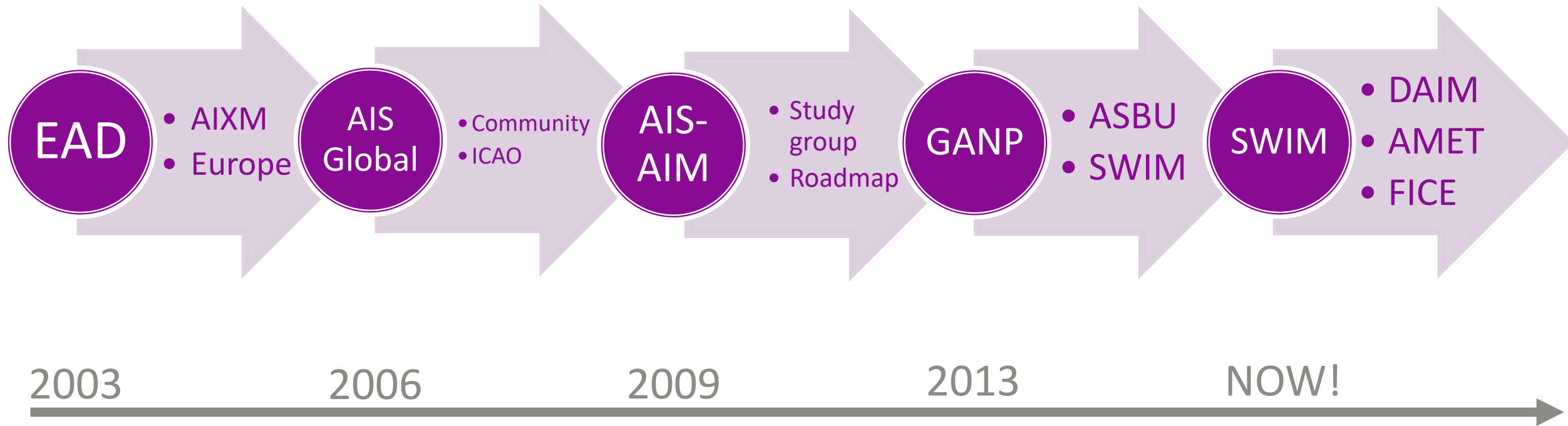
# Once upon a time in Aeronautical Information...



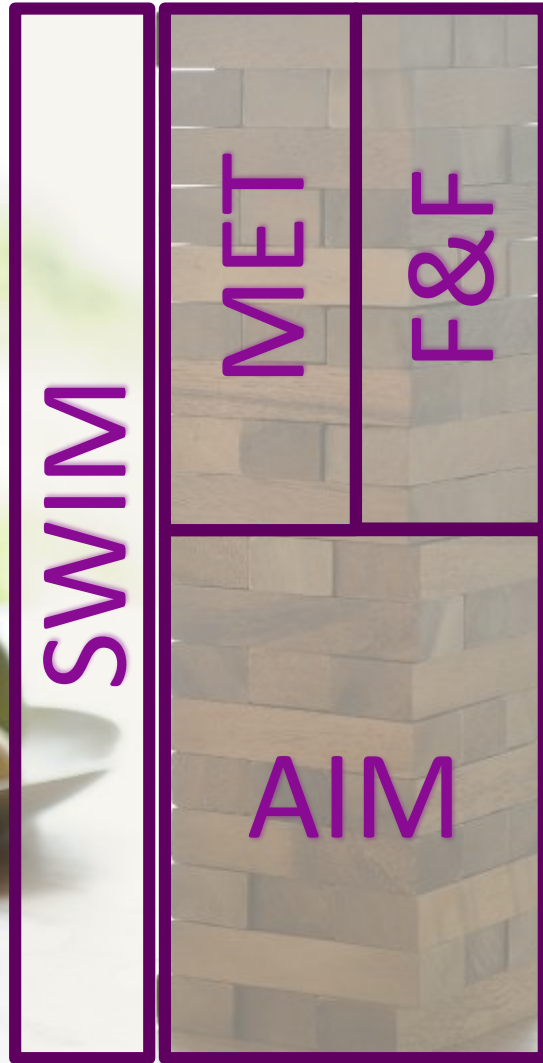
# Centralized Aeronautical Information exchange



# From “EAD” to “AIS to AIM” to “AIM” to “SWIM”



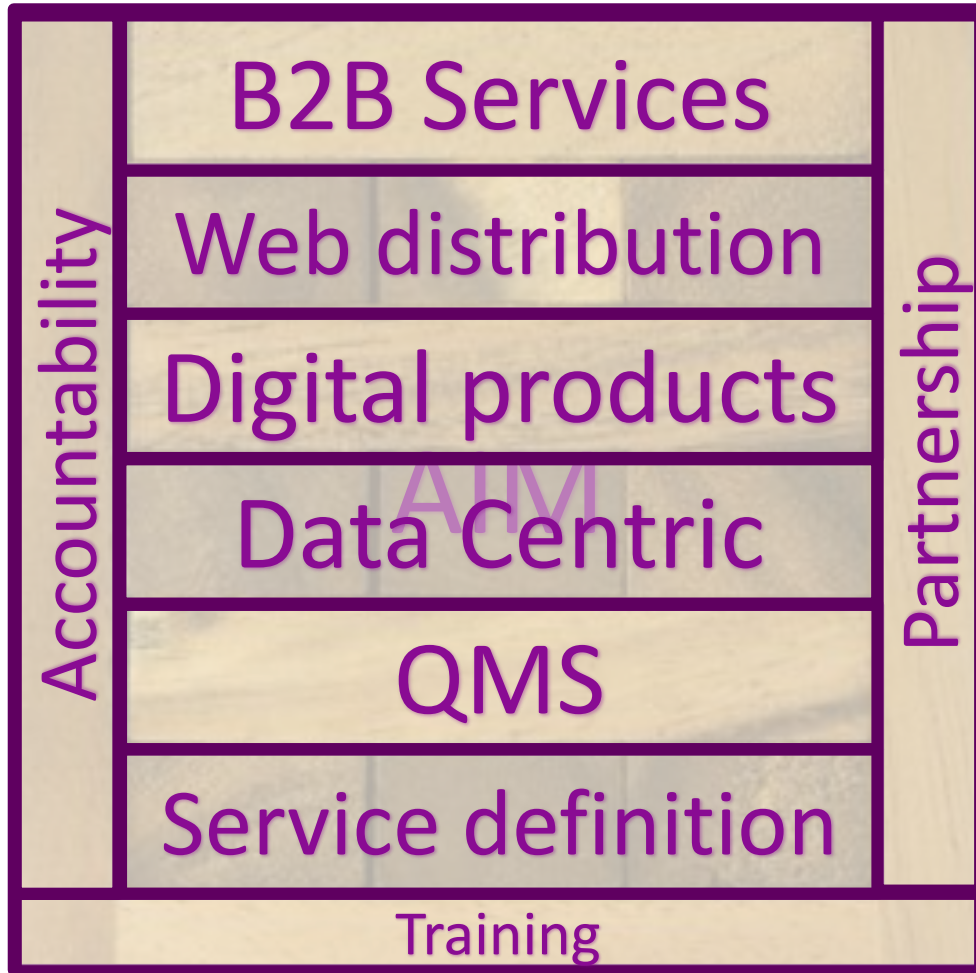
# AIM the Solid Foundation for SWIM



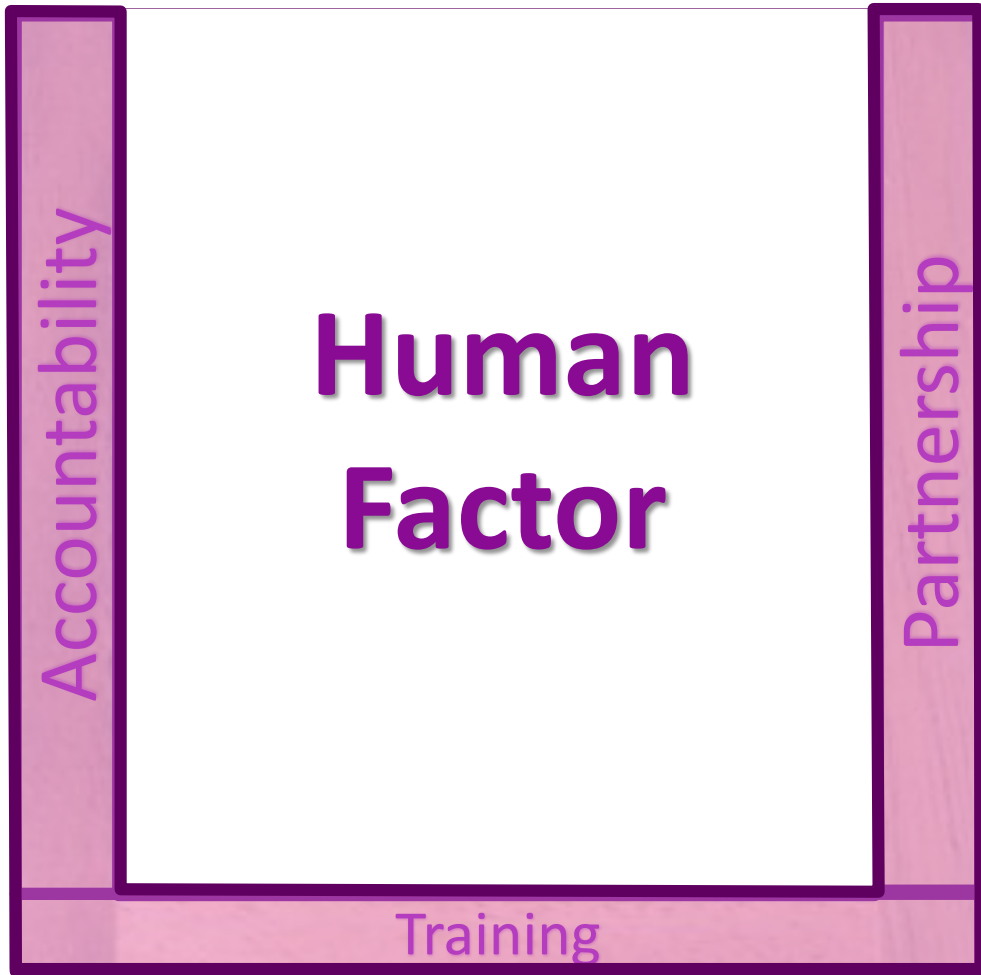
AIM:

- Definition of Aeronautical Features
- Static and Dynamic data
- Update mechanism

# Building blocks for a solid AIM



# Building blocks for a solid AIM



A central image of two hands shaking, surrounded by colorful brushstrokes in shades of blue, red, purple, green, and orange. The words 'LEARNING', 'KNOWLEDGE', 'EXPERIENCE', 'SKILLS', 'ABILITY', 'COMPETENCE', 'TRAINING', and 'GROWTH' are written in bold, black, hand-drawn letters across the scene, each associated with a specific brushstroke color.

**LEARNING**

**KNOWLEDGE**

**EXPERIENCE**

**SKILLS**

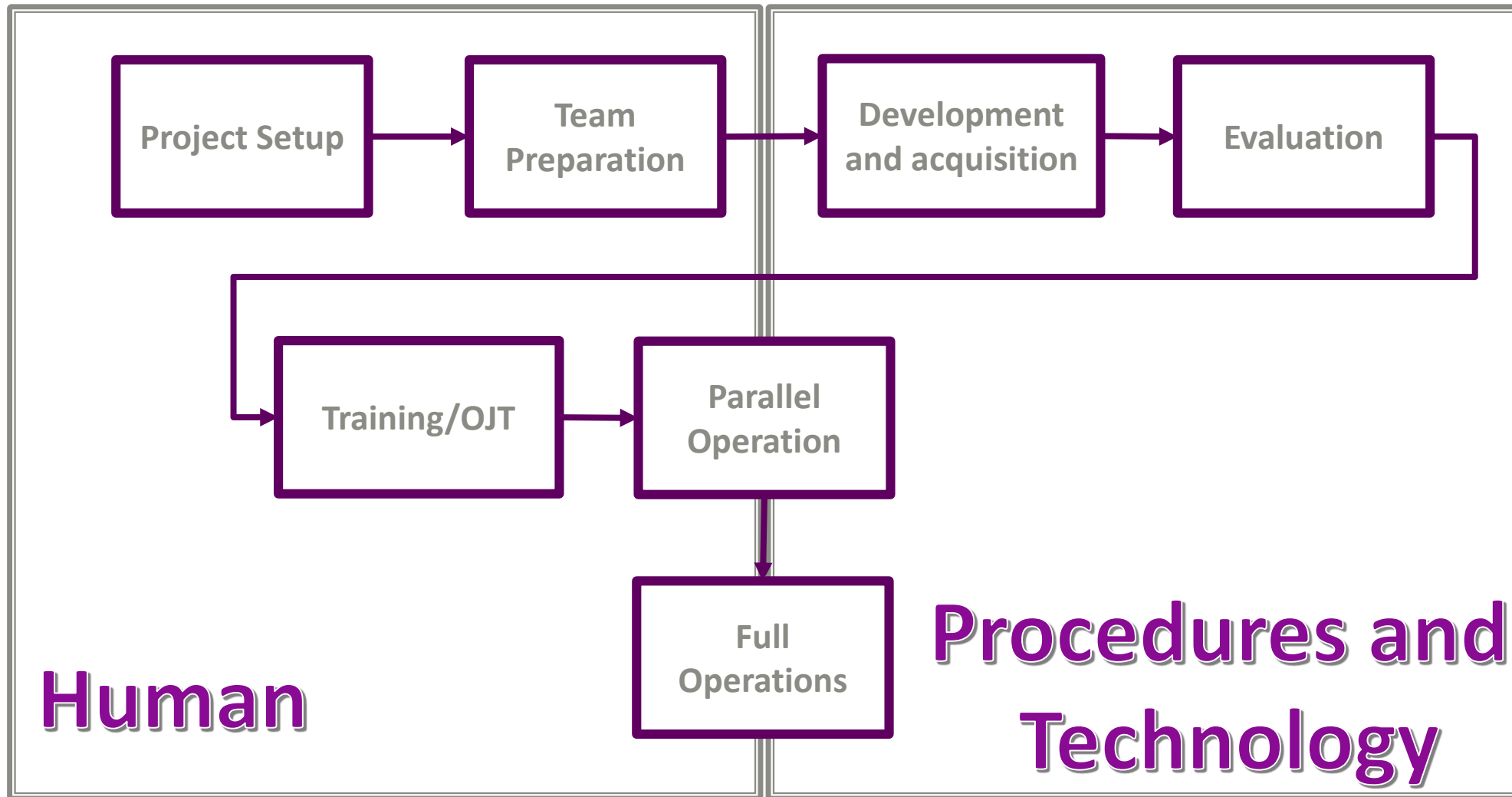
**ABILITY**

**COMPETENCE**

**TRAINING**

**GROWTH**

# How to build a solid AIM without jeopardizing your service provision?



## Summary this far...

- EAD has been the **pioneer** in the evolution from AIS to AIM to SWIM
- Building blocks for AIM require both **procedures/technology** and **human** development
- Powering up the **human factor** is the best **strategy** for not **jeopardizing** your service provision during the transition



**LEADERS IN AIM**

**GROUPEAD**  
**THE FIRST AIM SERVICE PROVIDER**

# A successful story for EAD and AIM



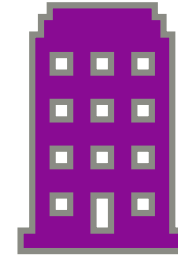
- More than 17 years of EAD successful service provision
- Active participation in all forums and study groups
- Support to 40+ data providers



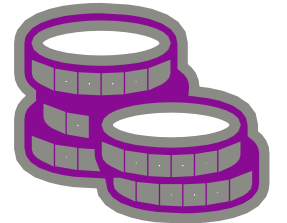
# Meet our company



2001



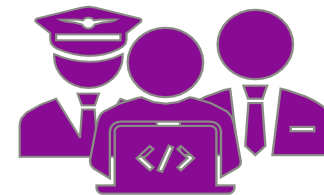
2 premises  
Madrid/Frankfurt



7.4 M EUR  
(2019)



55+ Staff  
members



Different areas  
of expertise



22 nationalities

# Certification and memberships



# To the service of the AIM Community





# ADQ Services

GroupEAD

# ADQ Services

- Gap Analysis
- Compliance Roadmap



L 23/6      EN      Official Journal of the European Union      27.1.2010

COMMISSION REGULATION (EU) No 73/2010  
of 26 January 2010  
laying down requirements on the quality of aeronautical data and aeronautical information for the single European sky  
(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to the Regulation (EC) No 549/2004 of the European Parliament and of the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the framework Regulation) <sup>(2)</sup>, and in particular Article 8(1) thereof,

Whereas:

(1) Aeronautical data and aeronautical information of appropriate quality are required to ensure safety and support new concepts of operation within the European air traffic management network (hereinafter EATMN).

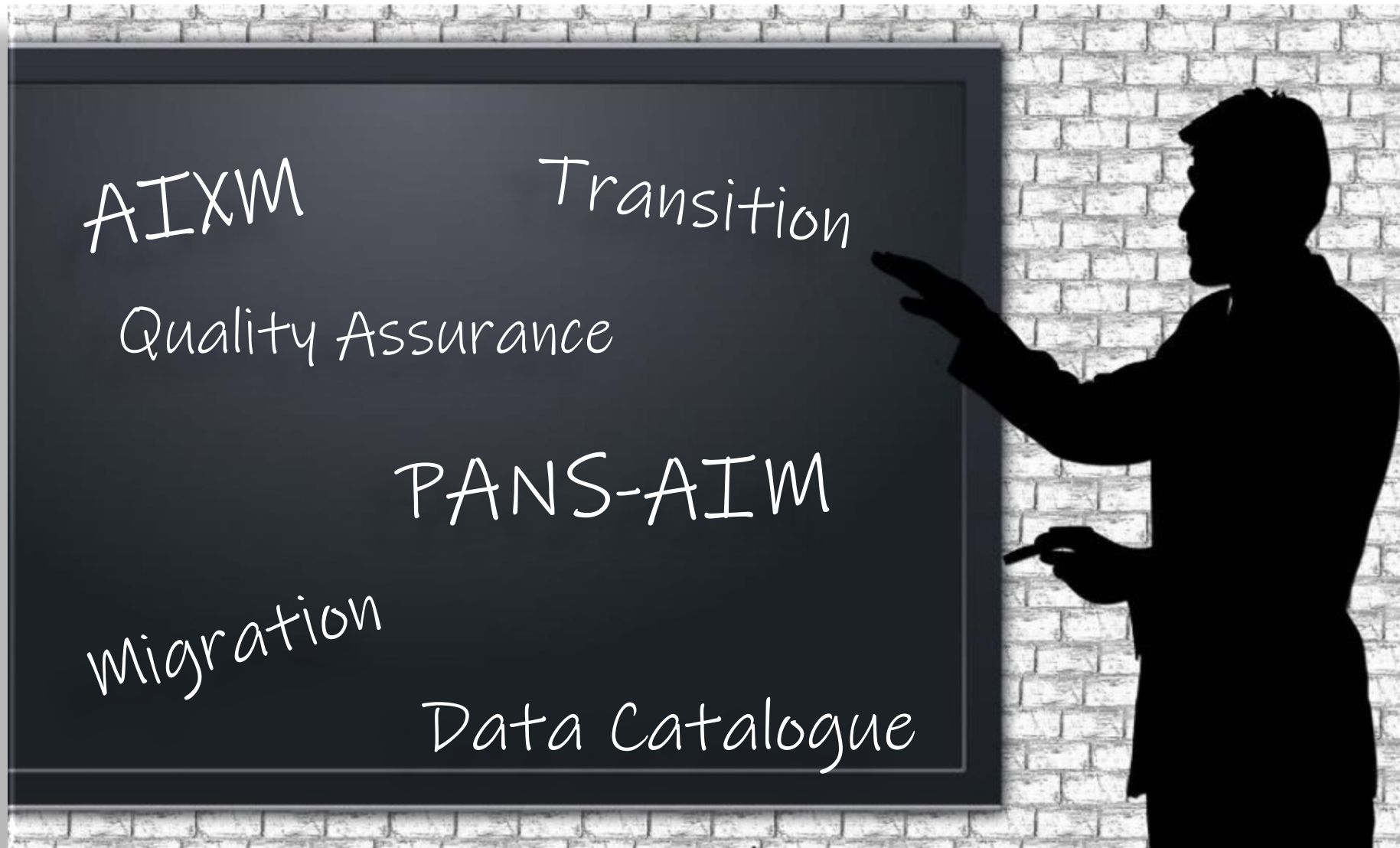
(2) The International Civil Aviation Organisation (hereinafter ICAO) has defined aeronautical data and aeronautical information quality requirements in terms of accuracy, resolution and integrity that should be met and maintained within the EATMN when processing aeronautical data and aeronautical information.

(7) Eurocontrol has been mandated in accordance with Article 8(1) of Regulation (EC) No 549/2004 to develop requirements supplementing and strengthening Annex 15 to the Chicago Convention in order to achieve aeronautical information of sufficient quality. This Regulation is based on the resulting mandate report of 16 October 2007.

(8) In accordance with the requirements of Regulation (EC) No 552/2004, aeronautical information should be provided progressively in an electronic form, based on a commonly agreed and standardised data set. Those requirements should eventually be applicable to all aeronautical data and aeronautical information within the scope of this Regulation.

(9) This Regulation should not cover military operations and training as referred to in Article 1(2) of Regulation (EC) No 549/2004.

**Full compliance of the regulation**



AIXM

Transition

Quality Assurance

PANS-AIM

Migration

Data Catalogue

# AIM Training Academy

AIM TRAINING  
ACADEMY HIGHLIGHTS

[www.groupead.com](http://www.groupead.com)

A world map with several countries highlighted in red, including the United States, Canada, Mexico, the United Kingdom, France, Germany, Italy, Spain, and parts of Africa and South America. A white callout box with a red border is overlaid on the map.

Staff ready for  
implementation and  
operations

# Testimonials - Evolution from AIS to AIM Training Course



*“Beneficial and a simplified way of understanding the phases of the evolution towards AIM.”*



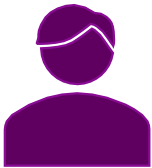
*“The course has well helped us to see what is needed and how to process with the transition”*



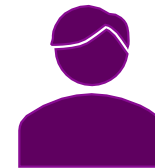
# Testimonials – AIXM 5.1 Basic Training Course



*“Eye opening course for understanding standardization of data formats and databases”*



*“I am looking forward to continuing expanding my knowledge with the second part”*





# AIM Consultancy

# From AIS to AIM to SWIM

- Gap Analysis
- Compliance Roadmap





# AIM Operations

# Migration Services

- Immersive Approach
- Work and Train



## Some of our partners...

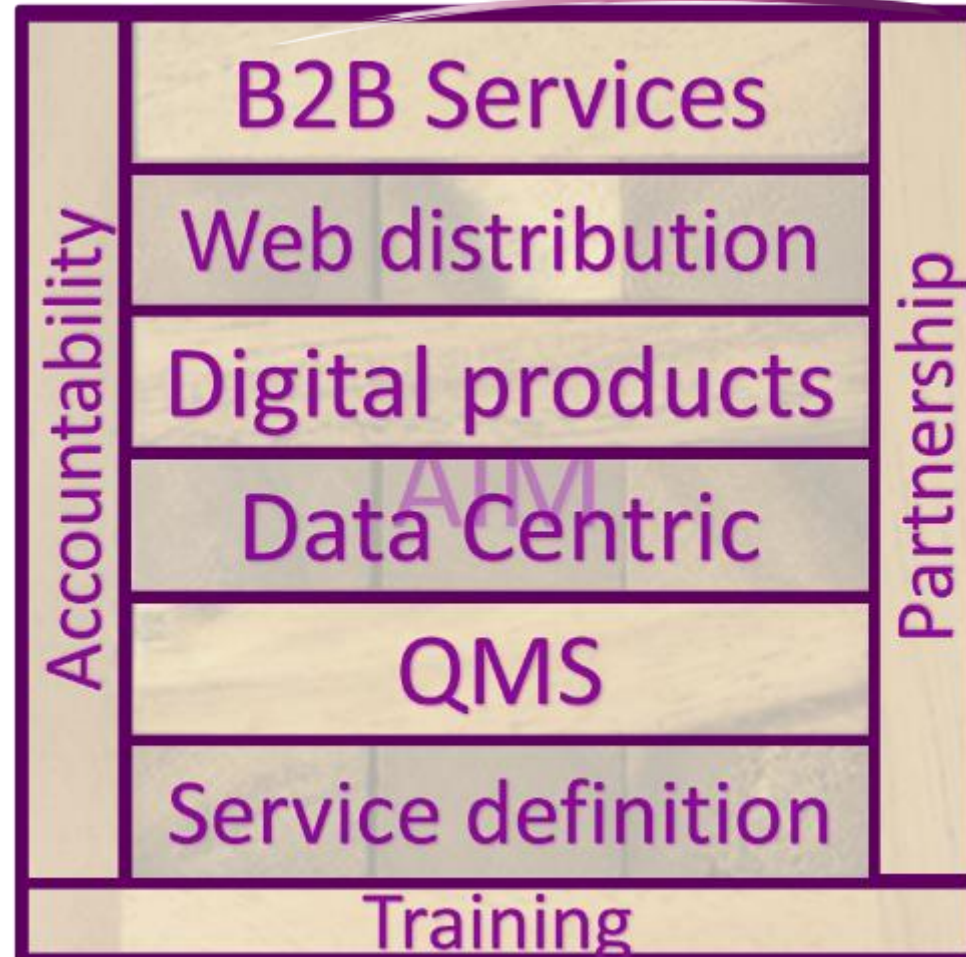


# Service Desk

- Incident and operational 1<sup>st</sup>/2<sup>nd</sup> level support
- 24/7



# GroupEAD



# Build a solid AIM foundation with GroupEAD!

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