

# IMP Governance

## UPDATE WORK IN PROGRESS

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*Aviation Information World – Forecasting the Future*



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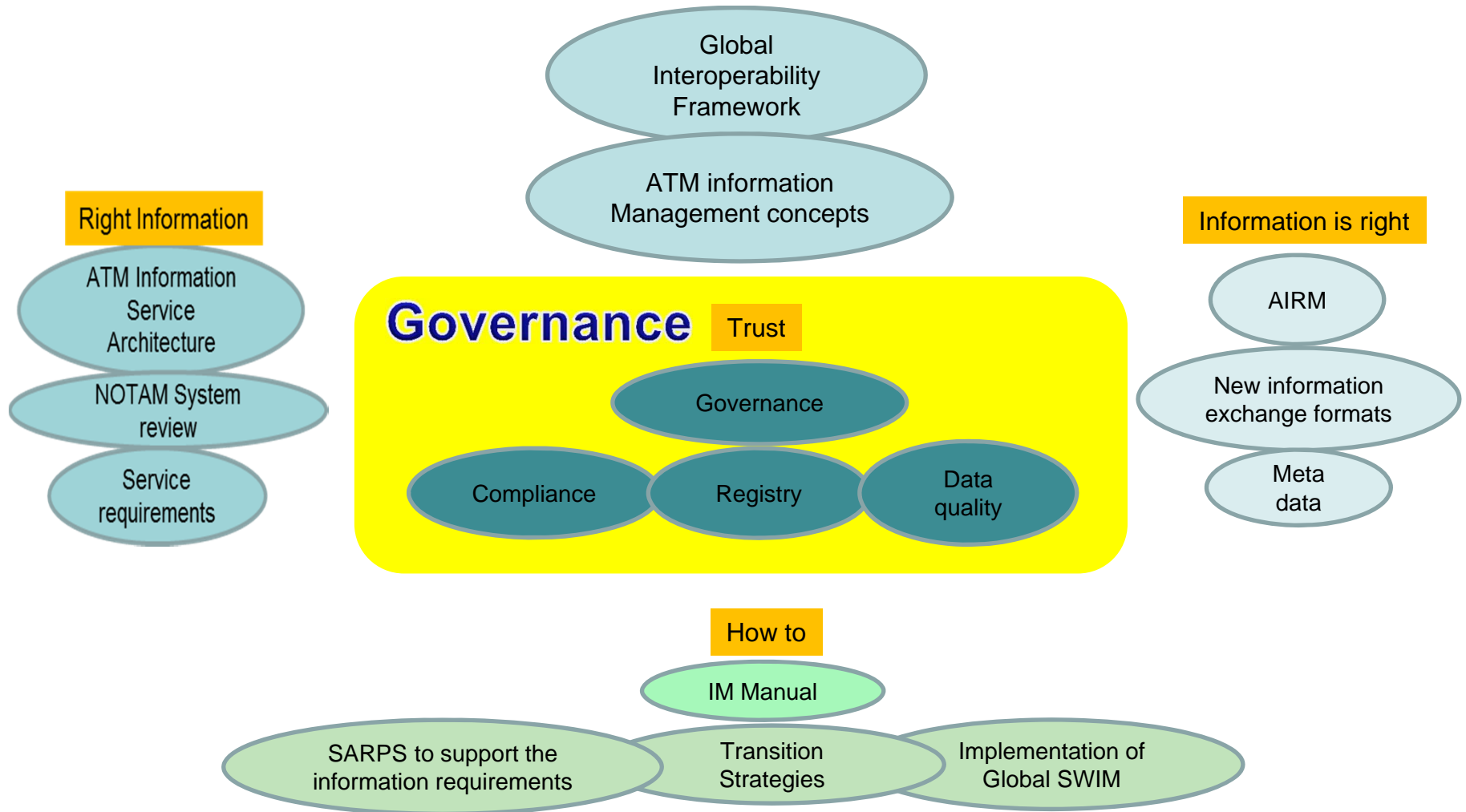
# Governance

- **Governance** : « Consistent management, cohesive policies, guidance, processes and decision rights for a given area of responsibility »
- **Application to SWIM** : standards, policies, compliance, oversight, financial aspects linked to exchange of information





# IMP SCOPE



# SWIM Governance WG in brief

- **Scope:** information, services, technical infrastructure, compliance
- **Deliverables**
  - **Candidate SARPs** (hi-level IM governance principles)
  - **Contributions to SWIM Manual**
- **Main themes**
  - **Foundation:** roles and responsibilities, institutional issues
  - **Information:** controlled vocabulary, governance of “XMs” + AIRM
  - **Services:** description, link with **Registry**
  - Data / Information / Service **Quality**
  - **Compliance**



# Definition – Institutional issues **COMPLETED** (Almost)

- **SWIM Governance definition** : set of standards, policies and processes that ensure information required for global interoperability is provided by reliable, trusted services
- **Institutional issues**

<i>Institutional Issues</i>	<i>Addressed by SWIM Governance</i>	<i>Alternative</i>
<b>Reliability and Trust</b>	Yes, through quality	
<b>Non-Compliance</b>	No	Existing ICAO processes
<b>Information Ownership</b>	No	National Issue
<b>Liability</b>	No	National Issue
<b>Responsibility</b>	Yes	
<b>Withholding of Information</b>	No	Existing ICAO processes
<b>Funding</b>	No	ICAO ANC charges
<b>Registry Proliferation</b>	Yes, standards for service	
<b>Resistance to SWIM Principles</b>	No	Awareness WG

# Roles and Responsibilities

IN PROGRESS

## Stakeholders (from Doc 9854)

- Aerodrome community
- Airspace providers
- Airspace users
- ATM service providers
- ATM support industry
- ICAO
- Regulatory authorities
- States
- Military organizations



## • Roles

- Originator
- Provider
- Regulator
- Consumer

## • Responsibilities

- Service availability
- Data/information quality
- Service performance
- Compliance with Standards
- Security

Only for Guidance Material (no SARPs)



# Controlled Vocabulary

IN PROGRESS

- Contents worked out by the Architecture WG
- Design in accordance with global standards by the Governance WG

Name	Definition	Obligation	Note
<i>Identifier</i>	A language-independent identifier that uniquely identifies the term in the context of the vocabulary.	Required	Industry best practices recommend the use of a URI (Uniform Resource Identifier) as the identification mechanism, which provides a significant advantage over using plain labels or numbers.
<i>Preferred Label</i>	An English expression of the	Required	

<i>ID:</i>	<a href="http://icao.int/imp/vocabulary#data">http://icao.int/imp/vocabulary#data</a>
<i>Preferred Label:</i>	<b>Data</b>
<i>Definition:</i>	A representation of fact, concept, or instruction represented in a formalized form suitable for communication, interpretation or processing either by human and/or by automated systems. Data are the fundamental components of information and knowledge.
<i>Related:</i>	<a href="#">Information</a>
<i>Editorial Note:</i>	Source of definition: Annex15: Aeronautical Data
<i>Historical Note:</i>	Original Source: Appendix ATMRPP WP 555

			resource from which the term's definition is obtained.
<i>Historical Note</i>	A description of changes to the meaning or form of the term for the purposes of vocabulary administration and maintenance.	Optional; may be more than one	



# Governance of eXchange Models

IN PROGRESS

- **Principles**

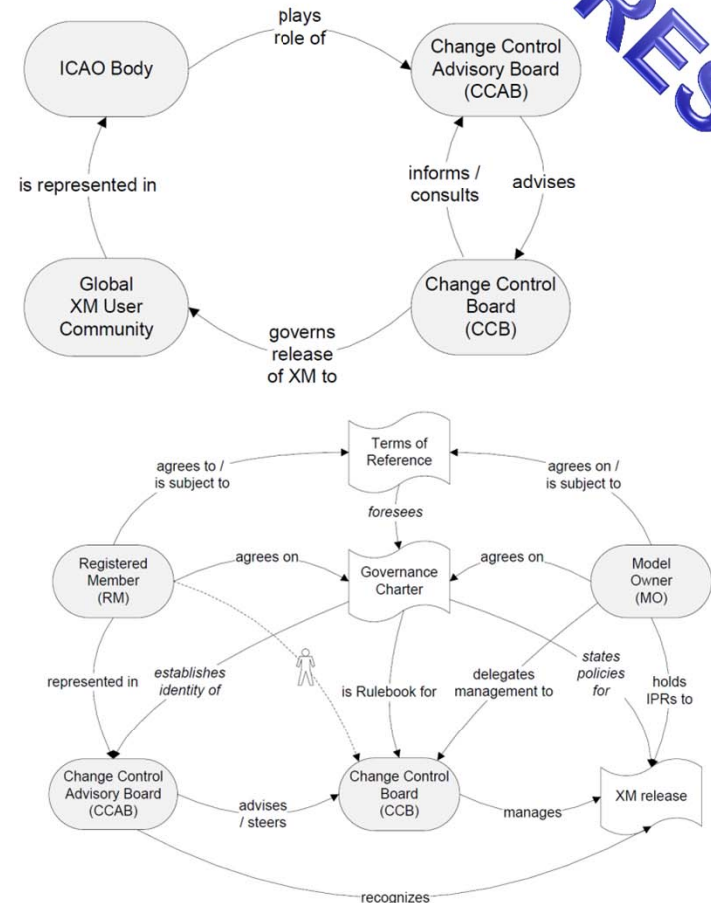
- Hi-level ICAO level governance of XMs
- Change Control Advisory Board as ICAO steering / advising body for CCBs
- One CCAB per model (ATMRPP, IMP, METP)

- **Current work**

- Identify / document problems with existing arrangements for XMs
- Draft generic Terms of Reference for the 3 CCABs

- **Next steps**

- Report at next IMP + joint session with ATMRPP



# Services and Registry

Draft  
SARPs

- **Information necessary to discover and access SWIM services shall include:**
  - Name of the Service
  - Service provider
  - Description of the Service
  - Service fees
  - Service version
  - Originator(s) of the information
  - The constraints about the service
  - Technical specifications of the service interface
  - Quality of service, including availability, continuity, response time
- **Information useful to discover and access SWIM services should include:**
  - Quality of information provided by the service
  - Security mechanism, including access control

**GUIDANCE MATERIAL**

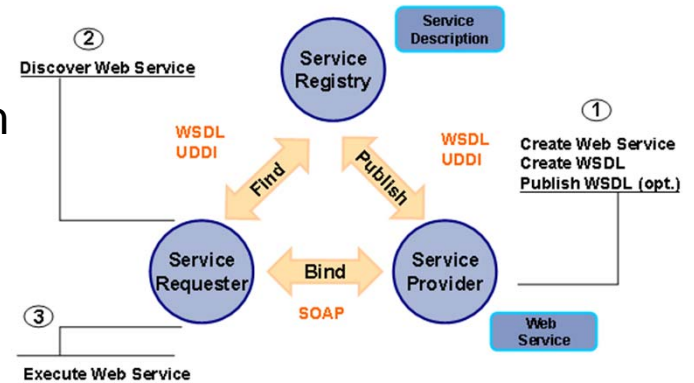
**TO BE DEVELOPED**



# Services and Registry (2)

Draft  
SARPs

- A SWIM registry should be used as the means to discover and access SWIM services
- A SWIM registry shall provide description of services
- A SWIM registry shall provide registration and search functionalities.
- A SWIM registry shall include an access control mechanism for service registration.
- A SWIM registry should be made publicly available



- A service description model may be used to capture the service description in a formalized way. The use of a common service description model is considered as a good way to improve interoperability.





# Information / Data / Service Quality

IN PROGRESS

- **Objectives**

- Identify approaches and best practices from the ATM data domains and develop overall Quality principles and guidance
- Need to determine data requirements across various SWIM domains

- **Current work**

- Identify the quality characteristics in each domain, make proposals to align these where possible
- Definition / scope of Data vs Information vs Service Quality
- List existing references that can be used for guidance

- **Draft SARPs**

- Providers of information services shall implement and maintain Quality Management System (QMS) for information management.
- The QMS shall include plans and procedures for processing data in order to meet the applicable data quality requirements.



# SWIM Compliance

EARLY DAYS Still

- **Objective**
  - Define what compliance with SWIM means and how it may be assessed
  - How to establish “trust”
- **Consensus**
  - Need to have clear standards as the baseline
- **Open questions**
  - Who has to comply ?
  - Compliance with what ?
  - How is it different for SWIM compared to other ICAO domains ?
  - How to address the wide range of potential SWIM providers ?
  - Is a qualification process required ?
  - Is there a need for formal validation of SWIM services ?
- **What’s next ?**
  - Direction for future work to be decided at the next IMP Plenary



# In summary

- **Mature work**
  - Foundation (R&R, institutional issues)
- **Good progress**
  - Controlled vocabulary
  - Information to access / discover services
  - Provisions about registry
- **To be further discussed**
  - Governance of eXchange models
  - Quality
- **Still trying hard...**
  - SWIM Compliance







# Questions