



**INTERNATIONAL
CIVIL AVIATION
ORGANIZATION**



ICAO APAC SWIM Indicators

ICAO APAC SWIM Training cum Workshop
SWIM TF Co-Chair & Secretariat

Agenda

01 Why SWIM Indicators?
Background information

02 SWIM TF/10 Discussion
Relevant outcomes of SWIM TF/10

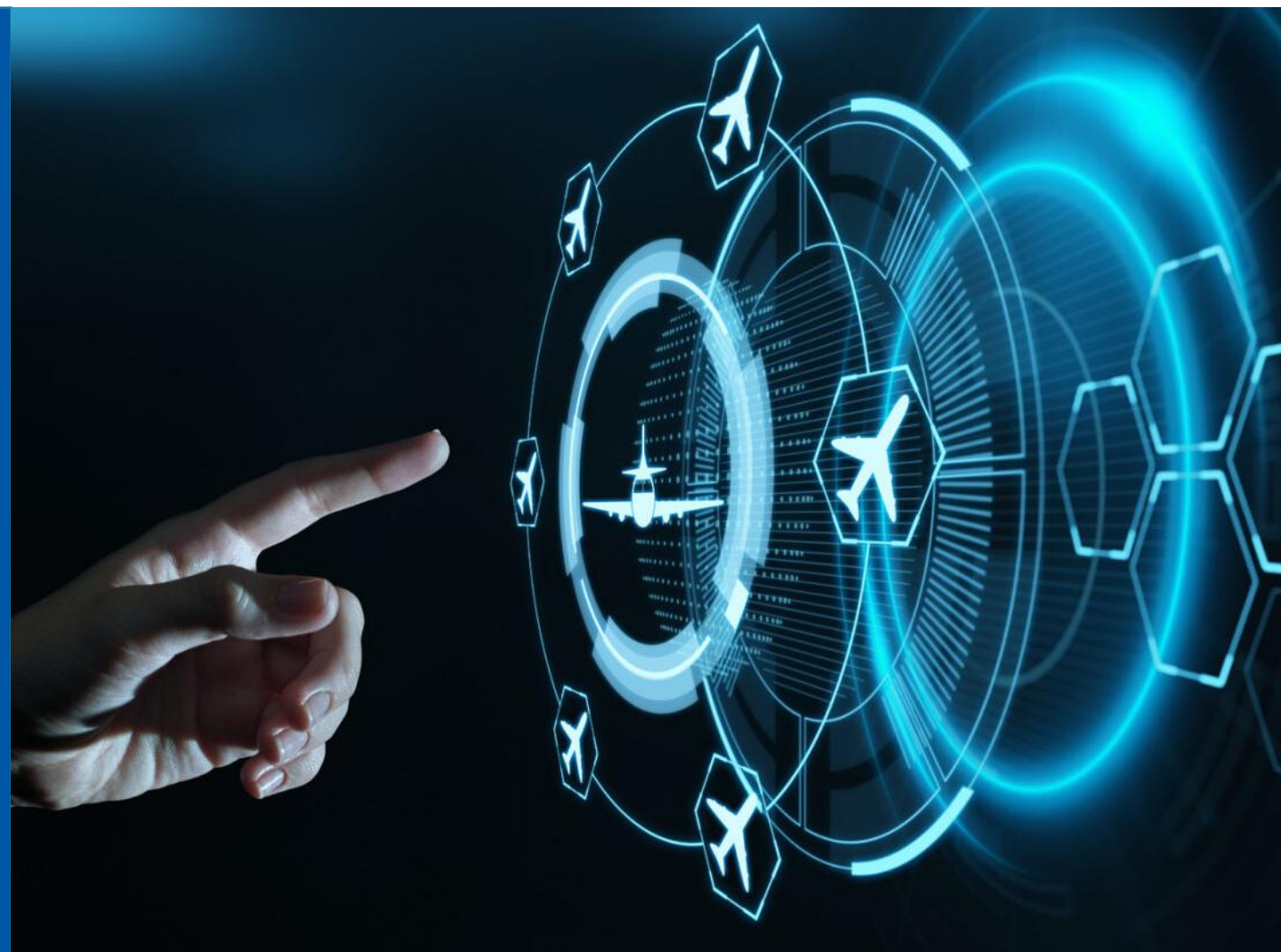
03 SWIM TF/11 –
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01 Why SWIM Indicators?





Key Reasons

The Second Asia Pacific Ministerial Conference on Civil Aviation, held from 11 to 12 September 2024 in New Delhi, India, endorsed the Second Asia and Pacific Ministerial Declaration on Civil Aviation (Delhi), also known as the **Delhi Declaration**.

- b. Improved Airspace Safety and Capacity through the implementation of more efficient Air Traffic Control (ATC) separation minima;
- c. Performance Based Navigation (PBN) implementation in accordance with ICAO Assembly Resolution A37-11 on Global PBN Goals;
- d. Common Ground/Ground Telecommunication Infrastructure to support ANS applications;
- e. Expediting the implementation of ICAO provisions related to System Wide Information Management (SWIM);
- f. Enhanced civil/military cooperation;
- g. Enhanced Surveillance capability for improved Safety and Efficiency;
- h. Air Traffic Flow Management (ATFM) and Airport Collaborative Decision Making (A-CDM) implementation;
- i. Air Traffic Management (ATM) contingency planning, in coordination with neighbouring States/Administrations;

Key Reasons

Delhi Declaration

- The Meeting was invited to collaborate towards achieving the targets of the Delhi Declaration and to share the latest implementation status of commitments with the ICAO APAC Office for accurate progress tracking
- Standard Practice: Progress updates on all Delhi Declaration Commitments in every Subgroups/APANPIRG/DGCA Conference/Ministerial Conference Meetings



02

SWIM TF/10 Discussion on SWIM Indicators



**The ICAO Asia/Pacific (APAC) System Wide Information Management (SWIM) Seminar
ICAO Asia and Pacific Regional Office, Bangkok, Thailand, 19 May 2025**



SWIM Implementation Indicators for APAC – Recap of SWIM TF/10

- The Meeting discussed **various potential indicators** to assess the progress of SWIM implementation within the APAC region
- Suggestions included measuring the **level of involvement of APAC States / Administrations in SWIM-related demonstrations or trials**, the existence of national SWIM activities, plans, or policies, as well as enhancements in ANS infrastructure aimed at meeting SWIM requirements.
- Additionally, the Meeting discussed **a simplified categorization approach** to classify **States' SWIM implementation progress** into three levels, i.e., “In Preparation/Planning”, “Under Development/Implementation” and “In Operation”.

SWIM Implementation Indicators for APAC – Recap of SWIM TF/10

Action Item 10-31

- ICAO Secretariat will inform the DGCA/60 Conference that indicators to measure SWIM implementation in the APAC region are under development, and the latest status of APAC States/Administrations' readiness for SWIM implementation will be shared with the DGCA/61 Conference – **Completed**

Action Item 10-32



- SWIM TF Co-Chair and ICAO Secretariat will define the first draft of indicators by the end of 2025 and share with SWIM TF Task Leads for review.
- A survey will then be conducted in Q1 2026 to finalize the preferred indicators for the APAC region.

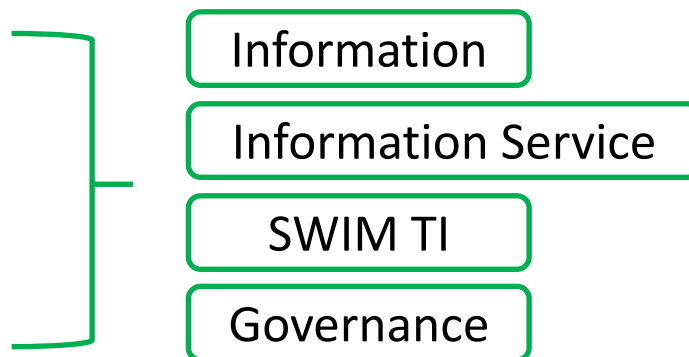
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SWIM TF/11 Agreed SWIM Indicators



SWIM Indicators

1. In preparation/planning
2. Under development/implementation
3. In operation



*Indicator to measure progress, not a recommendation for SWIM implementation steps

SWIM Indicators

ICAO APAC SWIM INDICATORS

SWIM Implementation Status	Criteria 1: Readiness of the implementation plan	Status	Score associated with status	Final Score for Readiness of the implementation plan (Total Score/6) (%)
In preparation/planning	1)Use case development: Identify and develop use case(s)	Please Select	#N/A	#N/A
	2)Stakeholder mapping: Identify information providers and consumers	Please Select	#N/A	
	3)Gap analysis: Determine required data transformation/preparation to standardised information exchange models	Please Select	#N/A	
	4)Service identification: Decide on and prioritise information services to be implemented	Please Select	#N/A	
	5)TI design: Decide on SWIM TI architecture	Please Select	#N/A	
	6)Governance framework design: Draft SWIM governance and policy framework	Please Select	#N/A	

*Indicator to measure progress, not a recommendation for SWIM implementation steps

SWIM Indicators

SWIM Implementation Status	Criteria 1- Engineering buildup and testing		Status	Score associated with status	Final Score for Engineering buildup and testing (Total Score/6) %
Under development/implementation	1)Data preparation: Transforming/preparing data into standardised information exchange models		Please Select	#N/A	#N/A
	2)Information services buildup:	a.Developing and implementing information	Please Select	#N/A	
		b.Ensuring service discoverability through the service registry	Please Select	#N/A	
	3)TI buildup: Developing and implementing SWIM TI		Please Select	#N/A	
	4)Testing & validation		Please Select	#N/A	
	5)Governance establishment		Please Select	#N/A	

SWIM Indicators

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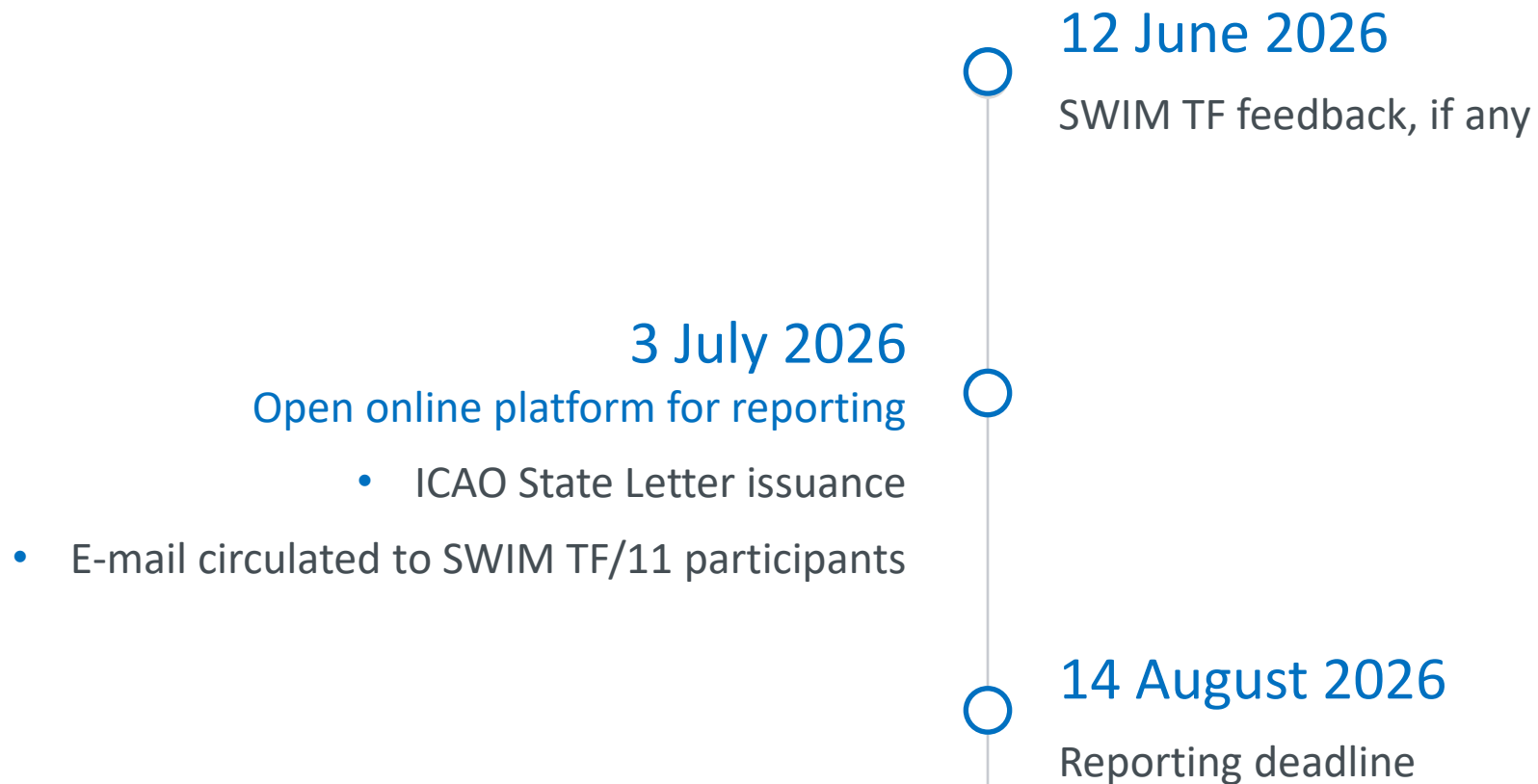
SWIM Implementation Status	Criteria 1- Establishment of SWIM TI + Trial information service(s)	Status	Score associated with status	Final Score for Establishment of SWIM TI + Trial information service(s) (Total)		
In Operation	1)Data delivery: Information delivery in standardised information exchange models through trial information services	Please Select	#NA	#NA		
	2)Service discovery: Information services discoverable	Please Select	#NA			
	3)Governance execution					
	Subcomponents of Governance execution		Status		Score associated	Governance Score (Total)
		i.Executing mechanism to ensure Service Level Agreement(s) tracking	Please Select		#NA	#NA
		ii.Executing mechanism to monitor performance through Quality of Service (QoS) metrics	Please Select		#NA	
		iii.Executing mechanism to ensure Information service lifecycle management	Please Select		#NA	
		iv.Executing framework to ensure SLA and QoS of SWIM TI	Please Select		#NA	
		v.Executing mechanism/framework for access control and	Please Select		#NA	
		vi.Executing framework/guideline for information service onboarding/offboarding	Please Select		#NA	
vii.Executing procedures to resolve disputes between the information service provider	Please Select	#NA				

*Indicator to measure progress, not a recommendation for SWIM implementation steps

Agreed Measurement and Result Representation

- Scoring
 - > Not implemented: 0
 - > Partial implementation: 0.5
 - > Full implementation: 1
- Data collection: States/Administrations are advised to conduct border consultation, primarily with AIS providers, ANSPs, MET service providers, and airport operators
- Progress report: Average score of each implementation stage

Agreed Way Forward



04

SWIM Indicators Survey



SL for SWIM Indicators Survey

Ref. T 8/13.1– AP084/26 (CNS)

26 June 2026

Subject: Survey on the implementation of ICAO provisions related to System Wide Information Management (SWIM) using SWIM implementation indicators in APAC Member States/Administrations

Action Required: Complete the Survey by **14 August 2026**

05 Survey Responses



Survey Responses

18 APAC
States/Administrations
responded



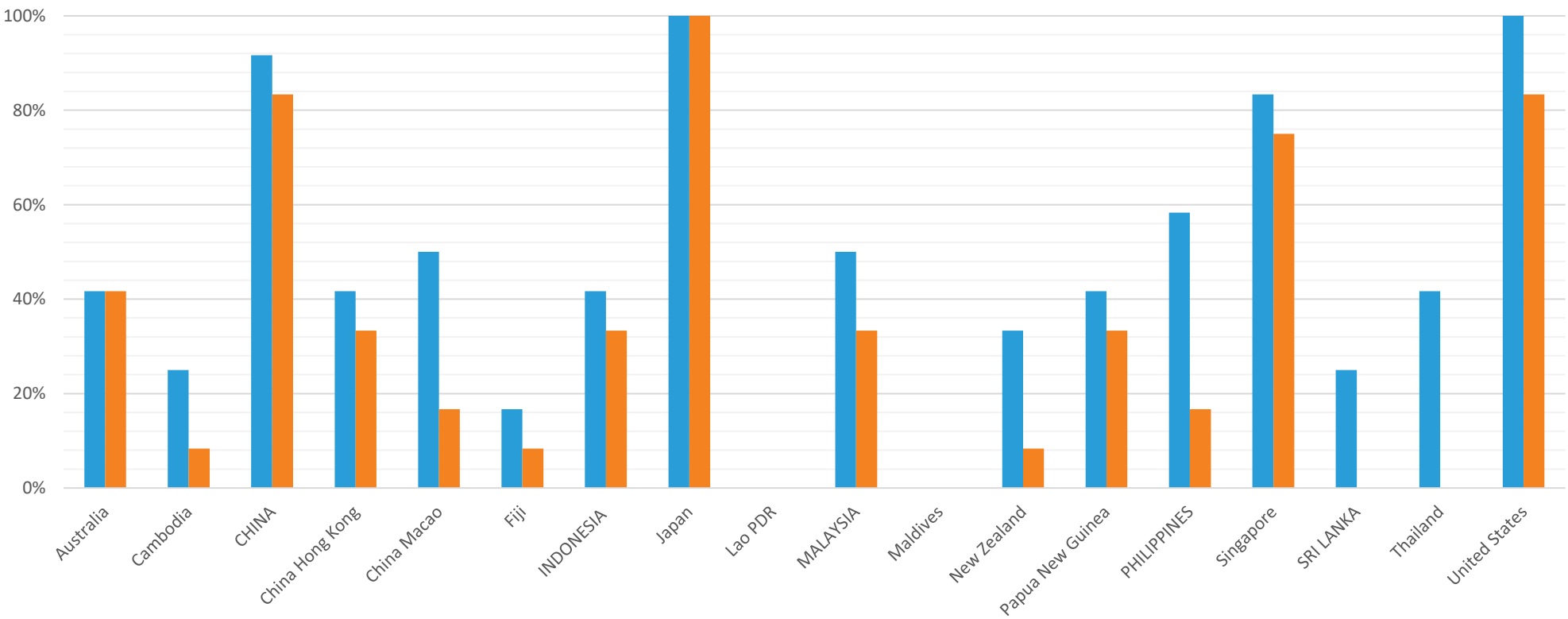
SWIM Indicators Status

State/Administration	In Preparation	Under development	In Operation	
	Final Score for Readiness of the implementation plan (%)	Final Score for Engineering buildup and testing	Governance Score	Final Score for Establishment of SWIM TI + Trial information service(s)
Australia	42%	42%	57%	50%
Cambodia	25%	8%	7%	11%
CHINA	92%	83%	57%	67%
China Hong Kong	42%	33%	0%	0%
China Macao	50%	17%	0%	0%
Fiji	17%	8%	0%	0%
INDONESIA	42%	33%	7%	11%
Japan	100%	100%	86%	83%
Lao PDR	0%	0%	0%	0%
MALAYSIA	50%	33%	50%	39%
Maldives	0%	0%	0%	0%
New Zealand	33%	8%	0%	0%
Papua New Guinea	42%	33%	0%	0%
PHILIPPINES	58%	17%	0%	6%
Singapore	83%	75%	57%	67%
SRI LANKA	25%	0%	0%	0%
Thailand	42%	0%	0%	0%
United States	100%	83%	86%	83%

Survey Results - “In Preparation” and “Under Development”

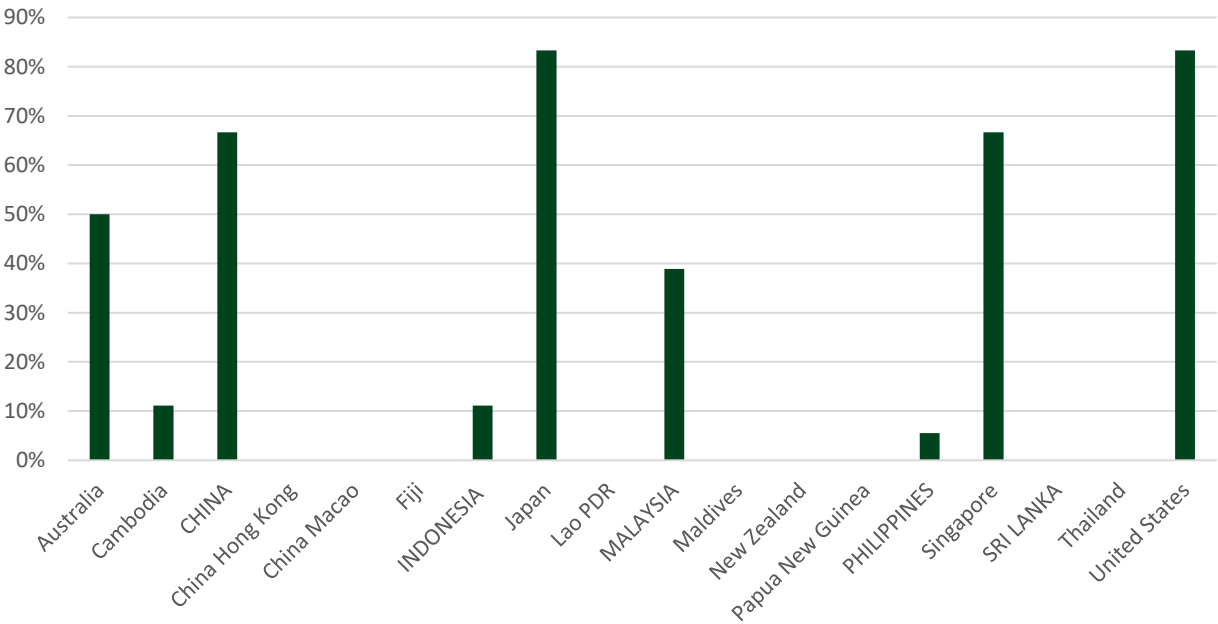
SWIM Indicators Status

■ In Preparation (Final Score for Readiness of the implementation plan (%)) ■ Under development (Final Score for Engineering buildup and testing)

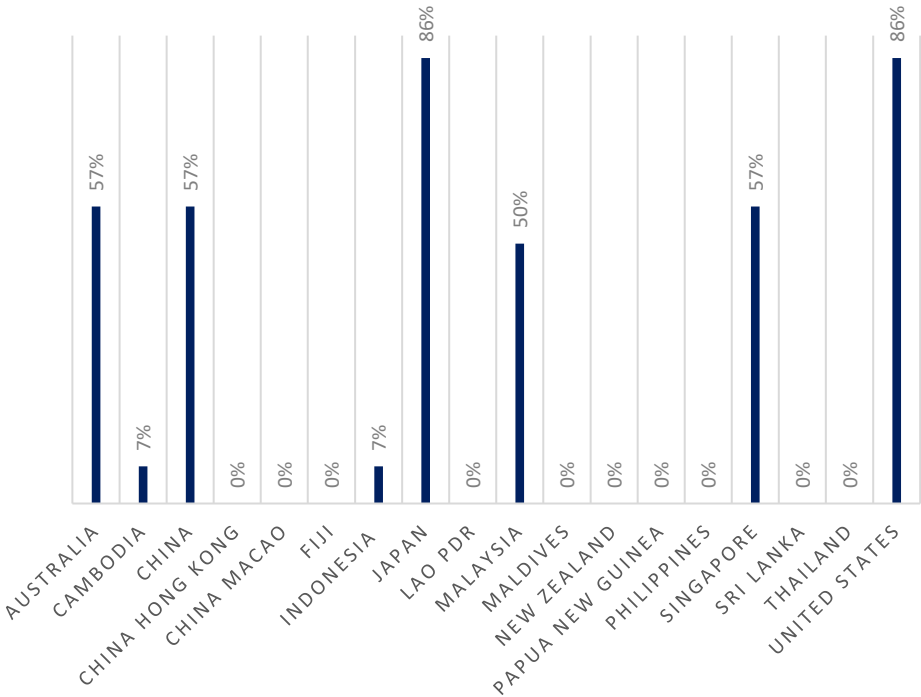


Survey Results - “In Operation”

In Operation (Final Score for Establishment of SWIM TI + Trial information service(s))



In Operation (Governance Score)



06 Conclusions



Conclusions

- Majority of responding APAC States/Administrations are currently at the “In Preparation/Planning” stage
- States/Administrations may adopt different approaches when providing responses, e.g.
 - > Applying different weightings based on the responsibilities of each SWIM stakeholders
 - > Assigning equal weighting among all SWIM stakeholders

APAC SWIM Implementation Timeline: 2024 – 2030

- States/Administrations are encouraged to increase efforts to progress their implementation to the “Under Development/Implementation” stage, and, subsequently towards “In Operation”
- Additional efforts are required for “SWIM Governance”

Thank You

