

# **Cybersecurity Challenges for Airports in the Asia-Pacific & Middle East Region**

ICAO APAC Regional  
Seminar on Aviation  
Cybersecurity

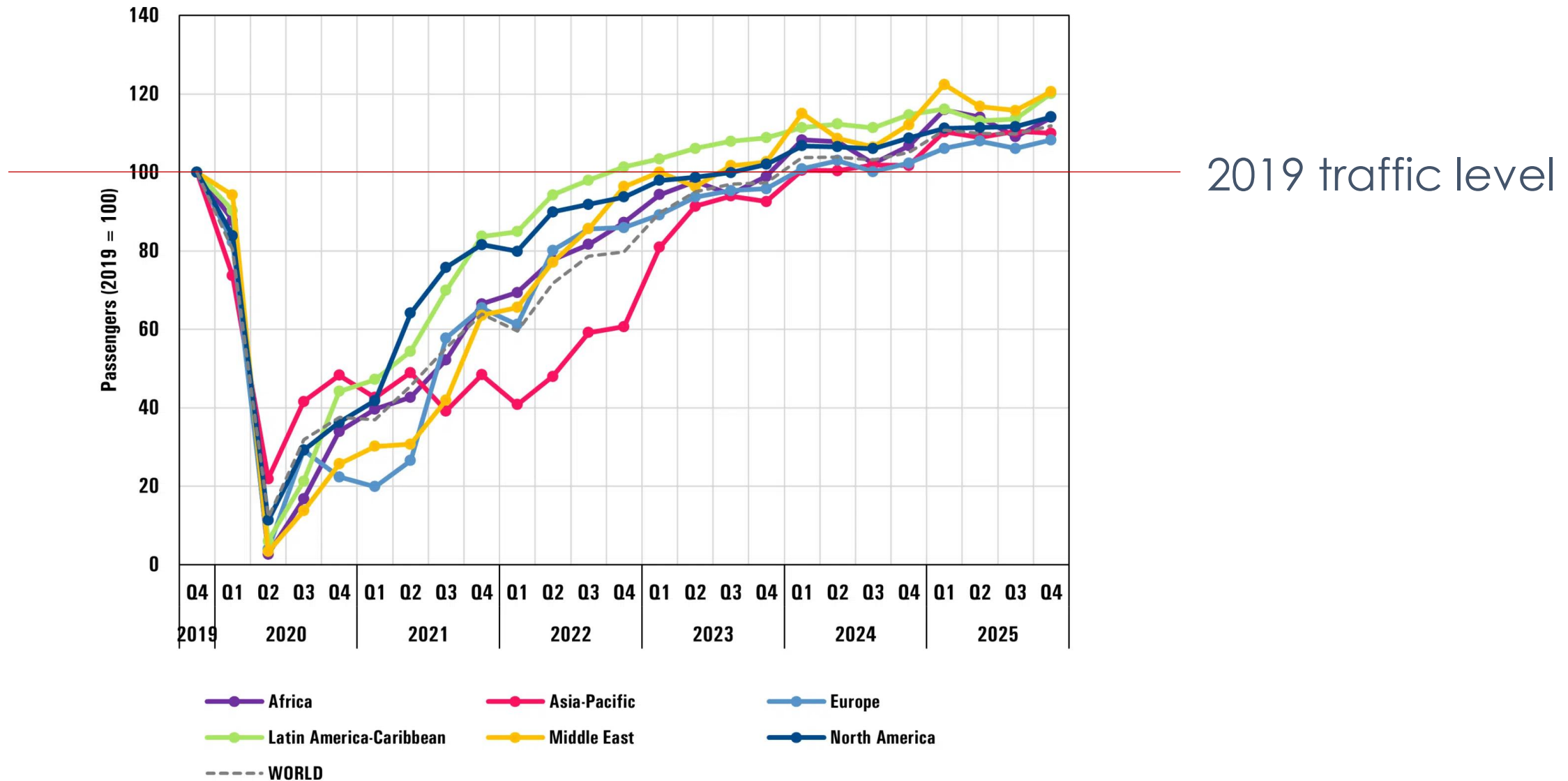
19-21 Mar 2025



# ACI membership & regional offices



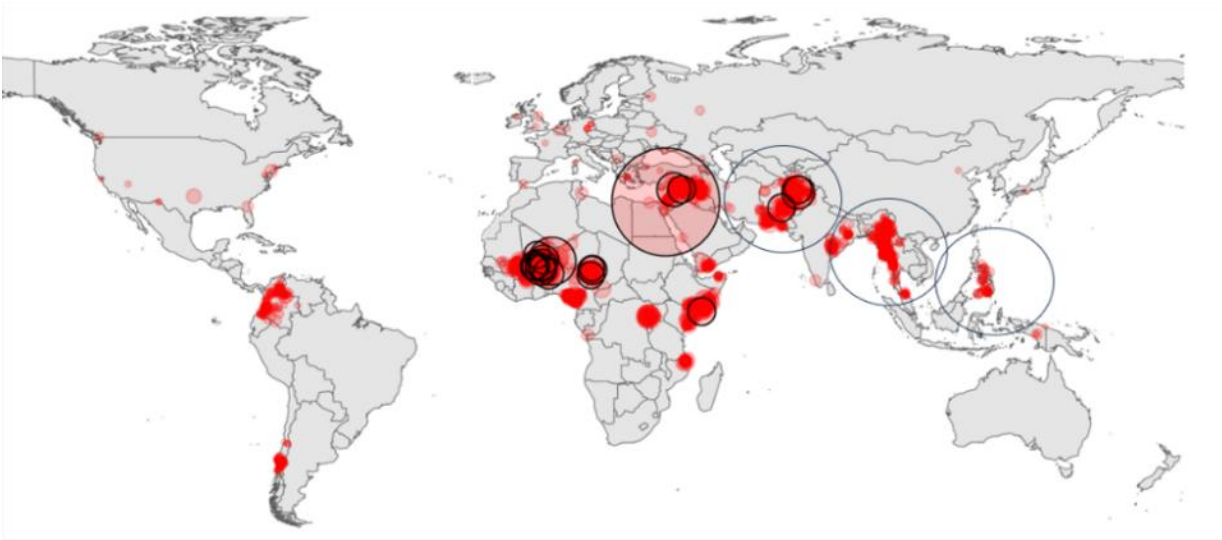
# Air passenger traffic has surpassed 2019 level for all regions





# Civil Aviation still remains an attractive target for terrorists

## Fatal terrorist attacks in 2023 (all types)



## AUls against civil aviation

- 57 AUls in 2022
- **60** AUls in 2023
  - 8 on aircraft in flight
  - 13 on aviation facilities (e.g. airports)
  - 1 unlawful seizure
  - 1 attack using aircraft as weapon
  - 37 attacks as others

# Perpetrators are constantly looking for the weakest link



# ACI Regional Aviation Security Committee

38 committee members, representing over 130 individual airports



The Voice of  
Asia-Pacific &  
Middle East Airports

# Top 4 concerning threats for airports in the region



Drones



Landside



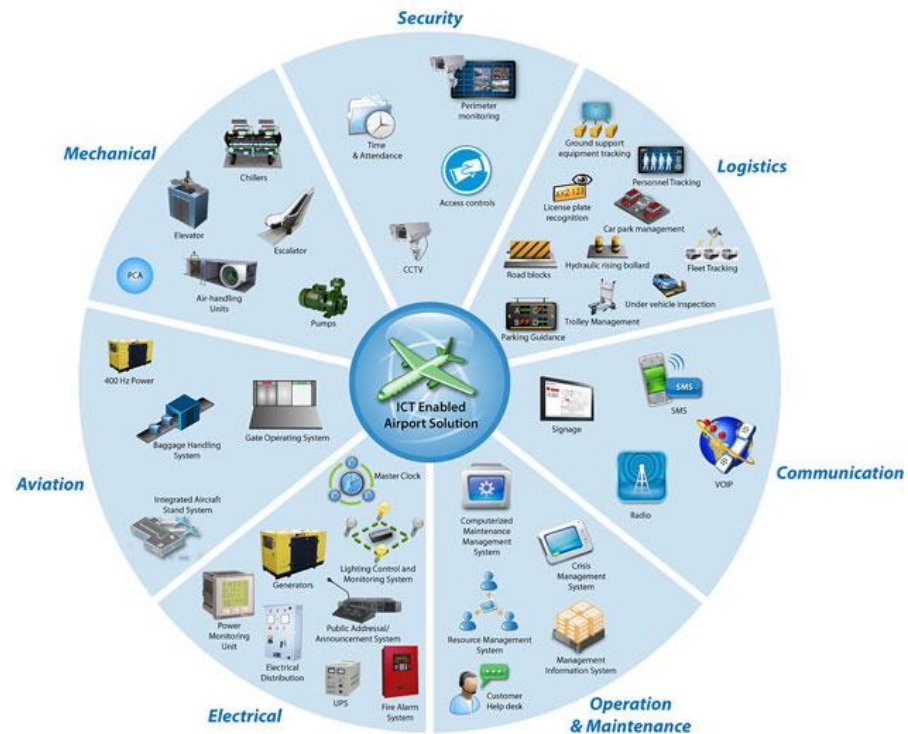
PB-IED & explosives



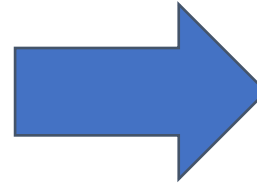
Cyber



# More digitization at airports, higher risks to cyber-attacks



↑ use of technology



↑ exposure to cyber threats



# Growing adoption of advanced technologies at airports

## Examples of interconnected systems at airports



Security screening systems



Pax management system



Airport operations system



Flight information display system



Baggage handling system



Airport wifi network

## Investment priorities for technology



Biometric ID management



Data exchange



5G network



Artificial intelligence



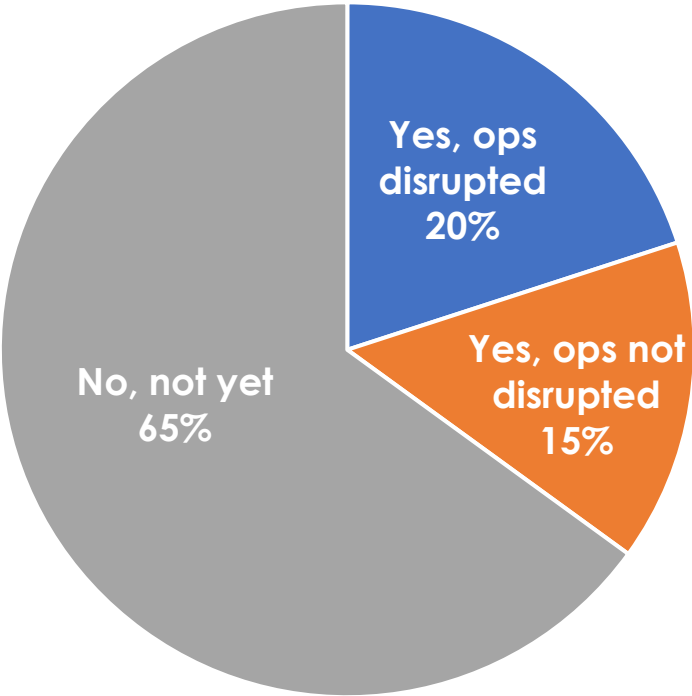
Interactive navigation/wayfinding



Business intelligence software

# Cyber attacks fast becoming a problem for airports in the region

Successful attempt of cyber-attack against airports in APAC?



Common types of attacks against airports



Ransomware



Phishing



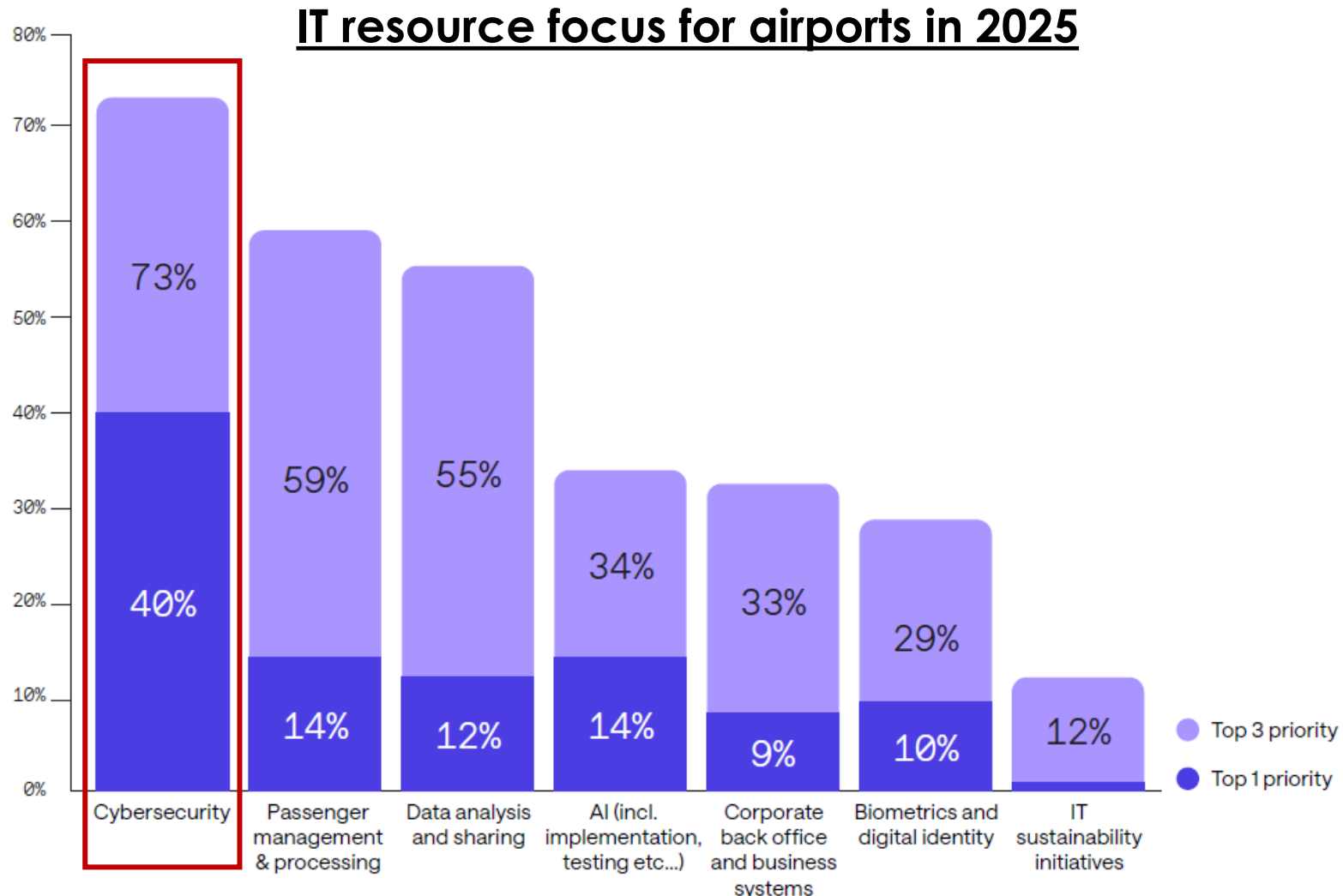
Distributed Denial-of-Service



Data breach

Source: Based on 40 responses from ACI & MID Regional Aviation Security Committee conducted in Nov 2024

# Airports are putting more emphasis on cybersecurity



Source: [SITA 2024 Air Transport IT Insights](#)

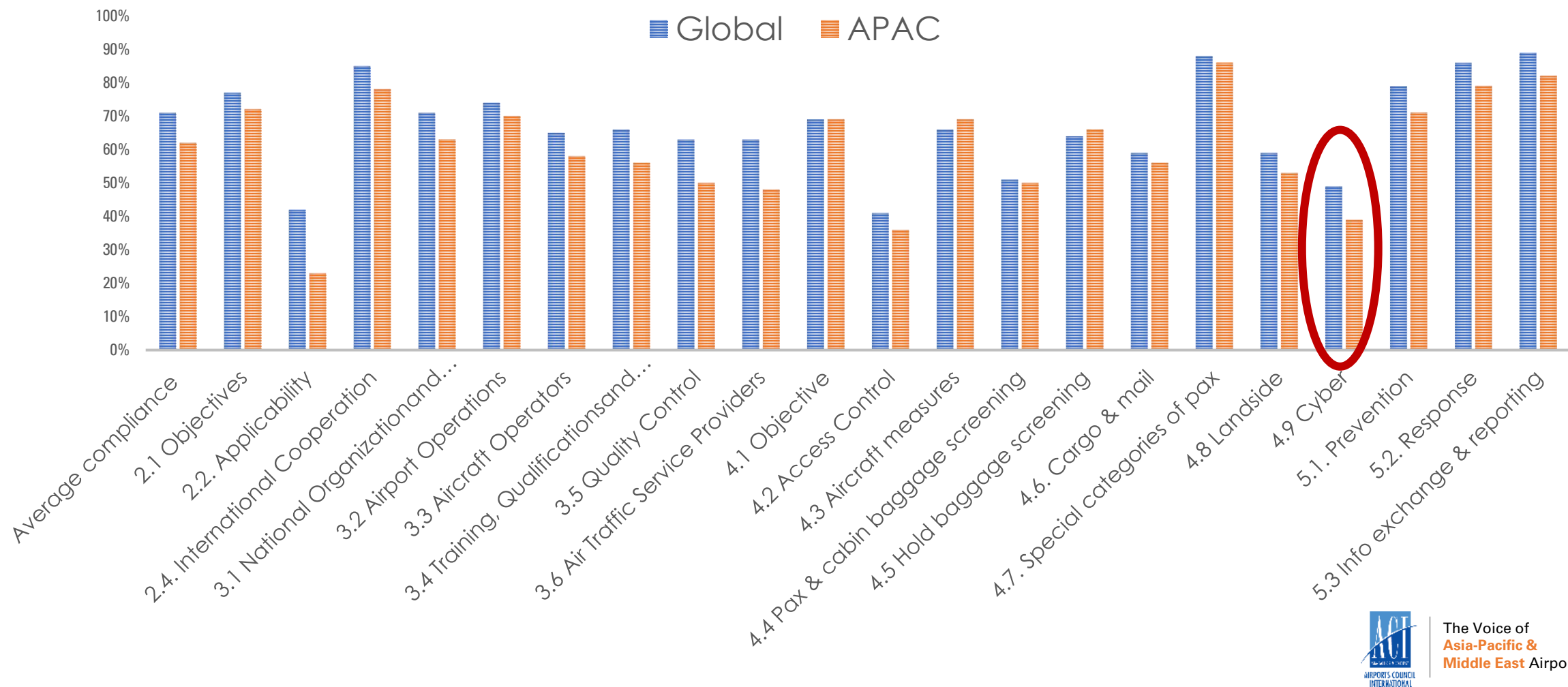


# What should airports do on cyber?

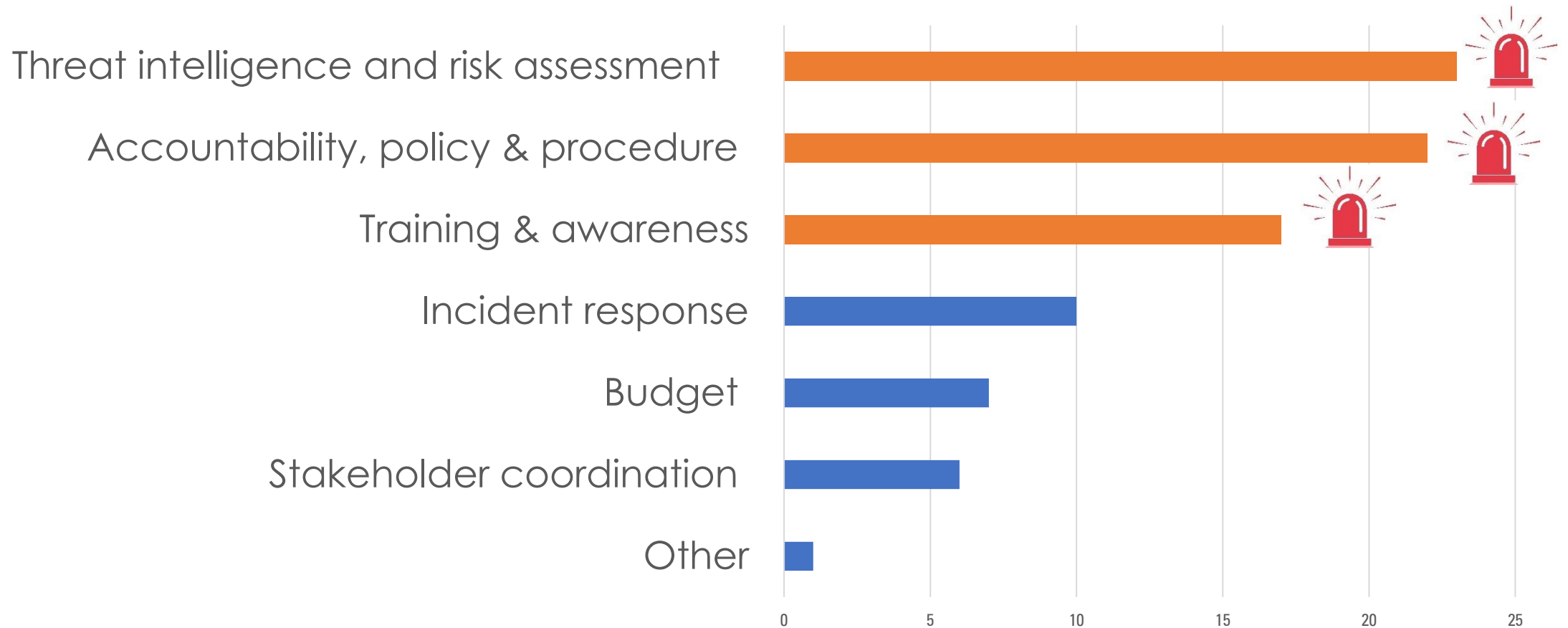
- **Identify** the risks and vulnerabilities for airport systems
- **Protect** airport systems from cyber-attacks
- **Detect** cyber-attacks to airport systems
- **Respond and recovery** to cyber-attacks for airport systems;
- **Quality Control** to ensure effective implementation of cybersecurity measures.

# Cyber continues to be one of the least-complied areas

## USAP Results – Compliance with Annex 17



# Major challenges for airports in cyber protection



Source: Based on 40 responses from ACI & MID Regional Aviation Security Committee conducted in Nov 2024



# Looking closer into the challenges faced by airports in APAC....

## Threat intelligence & risk assessment

- Limited intelligence received
- Lack of capability in cyber risk assessment



## Accountability, policy & procedure

- Varied accountability structure (e.g. IT-led, security-led)
- Lack of clear cybersecurity plan and policy

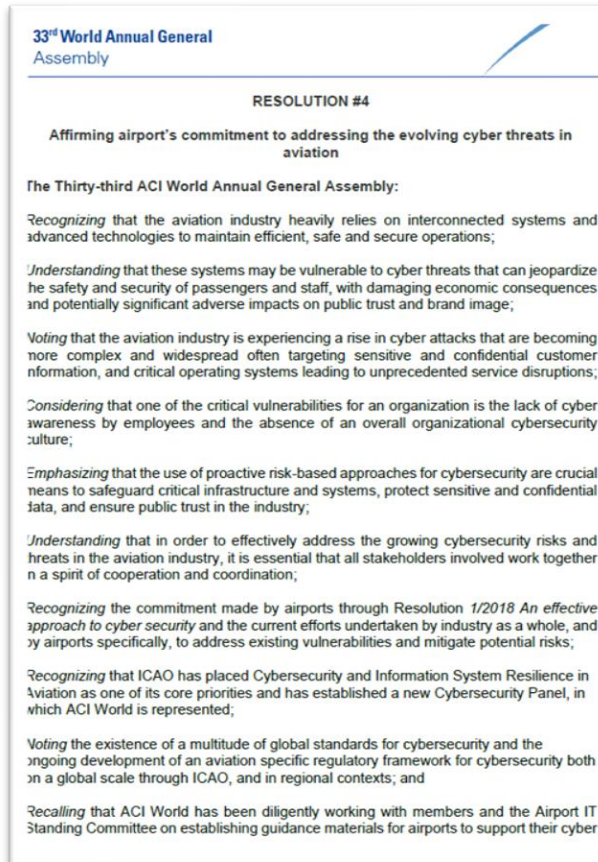
## Training and awareness

- Lack of cyber experts
- Weak cyber ABC (**a**wareness, **b**ehaviour, **c**ulture)

# Resolution adopted by global airports to affirm commitment to address cyber threats



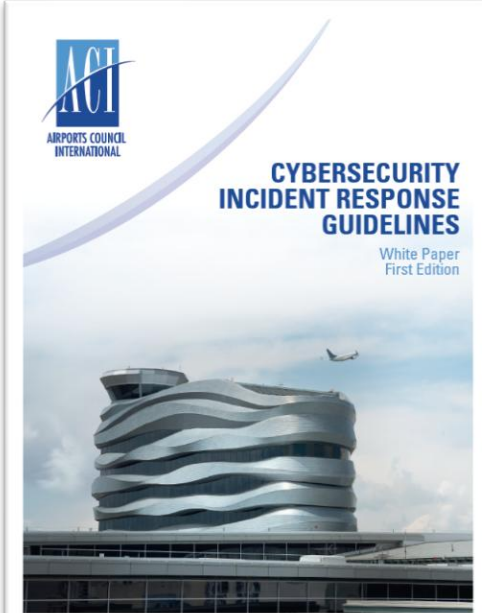
33<sup>rd</sup> ACI World Annual General Assembly,  
Barcelona, Spain, June 2023



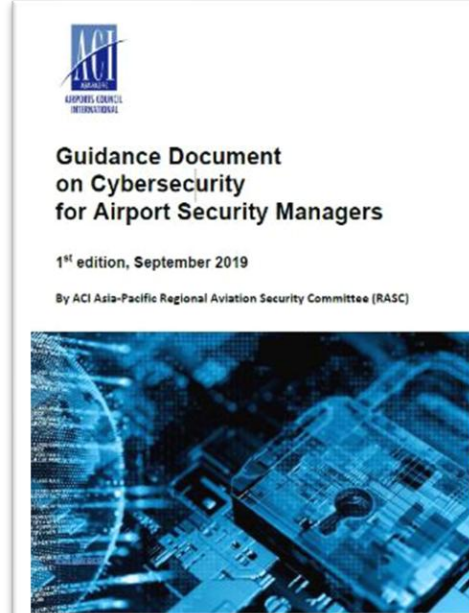
# More guidance over the years to assist airports



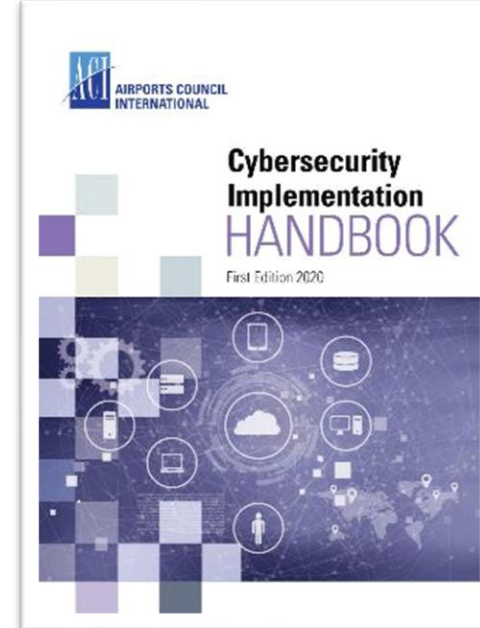
Digital culture & leadership strategy



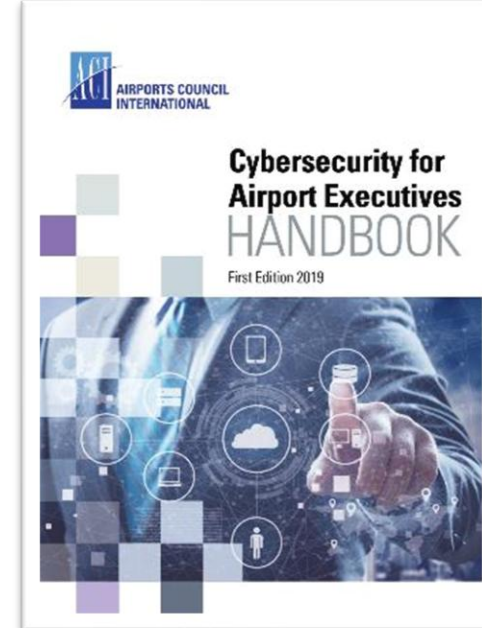
Cybersecurity incident response guidelines



GD on cybersecurity for airport security managers



Cybersecurity implementation handbook



Cybersecurity for airport executives

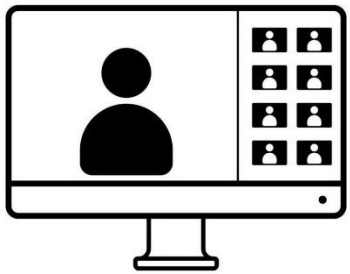


# Also, more training courses available on cybersecurity



## Classroom trainings

- Cybersecurity for airport managers (3-day)
- Management of Cybersecurity for Airport IT Managers (3-day)



## Webinar

- Airport cybersecurity: protecting critical infrastructure
- Digital transformation: leadership, strategy, and innovation
- Cybersecurity for Airport executives (self-paced, virtual)

# ACI APEX programme extended to cybersecurity



Launched in 2012



Launched in 2017



Launched in 2022



First launched in 2023

## In summary, you are invited to....

- Acknowledge the growing concerns on cyber threats against airports in the APAC region
- Note the common challenges in cybersecurity faced by airports (e.g. risk assessment, accountability and policy, and training)
- Make use of ACI's programmes and tools on cyber
- Share experience and best practices in addressing cyber threats against airports and aviation



# THE VOICE OF ASIA-PACIFIC AND MIDDLE EAST AIRPORTS



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