

Security Challenges for Airports in the Asia-Pacific Region

World Aviation
Conference 2026
Incheon, South Korea
9 Sep 2026



ACI membership



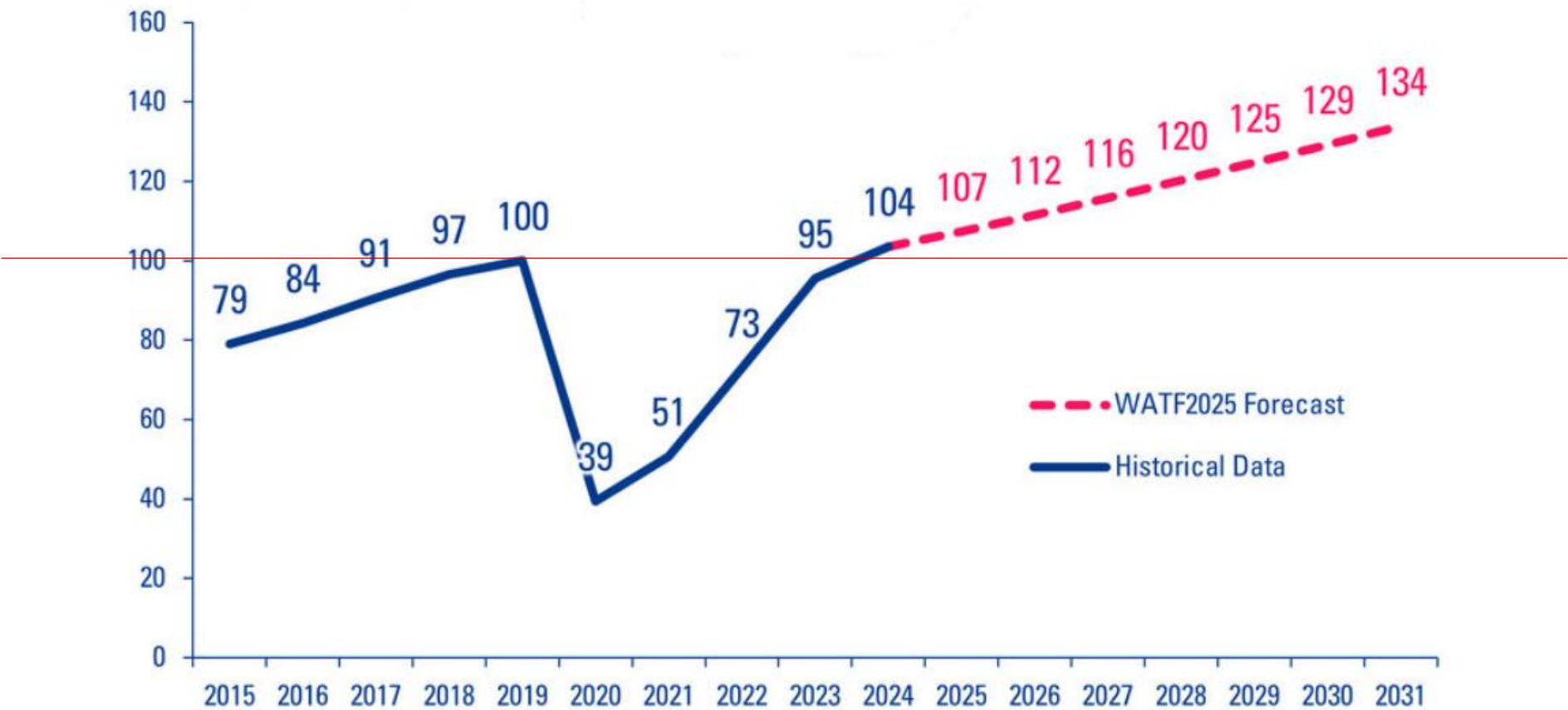
717 members

~2,000 airports

185 countries and territories

Passenger traffic have well suppressed pre-COVID level

Medium-Term Global Total Passenger Traffic Forecast
(indexed, 2019 = 100)



2019 traffic level

*ACI traffic forecast – Jan 2026

APAC becoming the main driver of global traffic growth

2025 busiest airports by international passenger traffic*

Rank	Airport		2025 International Passengers (M)
1	DXB, Dubai		95 M
2	LHR, UK		80 M
3	ICN, Korea Republic		74 M
4	SIN, Singapore		69 M
5	AMS, Netherlands		69 M
6	IST, Turkey		67 M
7	CDG, France		66 M
8	HKG, Hong Kong, China		61 M
9	FRA, Germany		58 M
10	DOH, Qatar		54 M
11	MAD, Spain		51 M
12	BKK, Thailand		50 M
13	TPE, Taiwan		48 M
14	KUL, Malaysia		45 M
15	BCN, Spain		43 M

*Based on ACI Traffic Data

ACI Regional Aviation Security Committee (RASC)

46 committee members, representing over 300 individual airports



Major challenges for airports – regional perspective



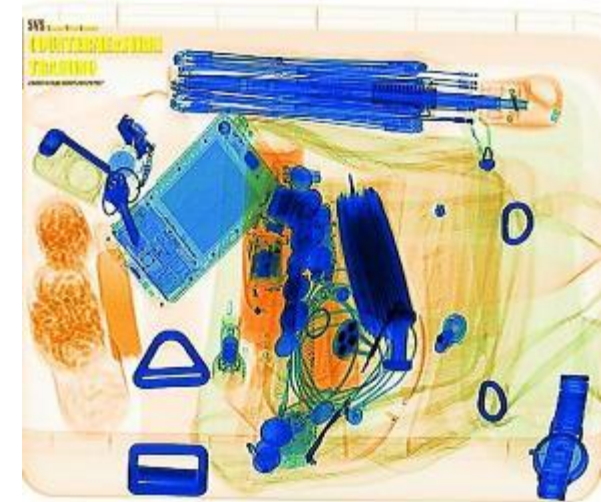
Technology adoption



People development



Airport infrastructure limitation



Evolving security threats to aviation

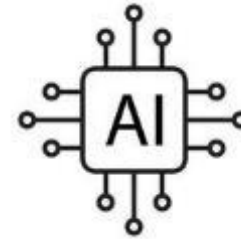
Future trends on screening technology



ACI Smart Security Vision 2040



More seamless
(i.e. less hassle and frictionless)



More intelligent
(i.e. Use of AI for threat & data analysis)



More connected
(i.e. Open architecture concept)

More examples of security checkpoint upgrade in the region



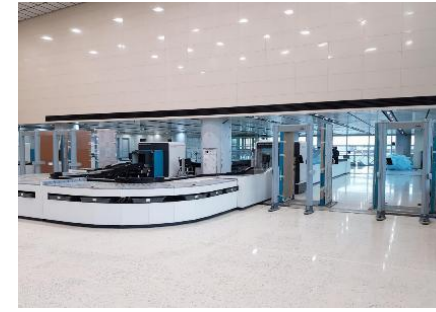
Hong Kong Airport



Changi Airport



Perth Airport



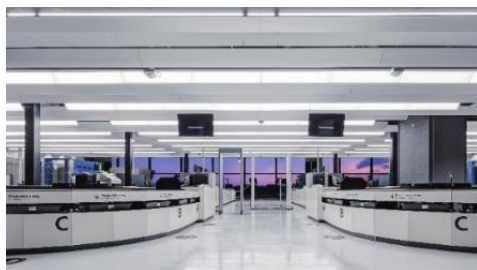
Jeju Airport



Noi Bai Airport



Incheon Airport



Narita Airport



Kansai Airport



Daxing Airport



Brisbane Airport

Survey on checkpoint technology in Asia-Pacific



Conducted in
Nov 2025 among 39 airports
in APAC region



Adelaide Airport (ADL)	Kuala Lumpur International Airport (KUL)
Auckland Airport (AKL)	Macau International Airport (MFM)
Beijing Capital International Airport (PEK)	Mactan-Cebu International Airport (CEB)
Beijing Daxing International Airport (PKX)	Melbourne Airport (MEL)
Brisbane International Airport (BNE)	Nadi Airport (NAN)
Brunei International Airport (BWN)	Narita Airport (NRT)
Chubu Centrair International Airport (NGO)	Paro International Airport (PBH)
Chennai International Airport (MAA)	Perth Airport (PER)
Chinggis Khaan international Airport (UBN)	Phnom Penh International Airport (PNH)
Clark International Airport (CRK)	Pudong International Airport (PVG)
Faa'a International Airport (PPT)	Rajiv Gandhi International Airport (HYD)
Fua'amotu International Airport (TBU)	Samui Airport (USM)
Hong Kong International Airport (HKG)	Singapore Changi Airport (SIN)
Incheon International Airport (ICN)	Soekarno-Hatta International Airport (CGK)
Indira Gandhi International Airport (DEL)	Suvarnabhumi International Airport (BKK)
Jeju International Airport (CJU)	Sydney International Airport (SYD)
Kansai International Airport (KIX)	Taoyuan International Airport (TPE)
Karachi Jinnah International Airport (KHI)	Tan Son Nhat International Airport (SGN)
Kempegowda International Airport (BLR)	Velana International Airport (MLE)
	Yangon International Airport (RGN)

Pivotal moment of equipment upgrade for airports

Forecasted total number of machine by 2028 (APAC)



Cabin baggage
CT machine

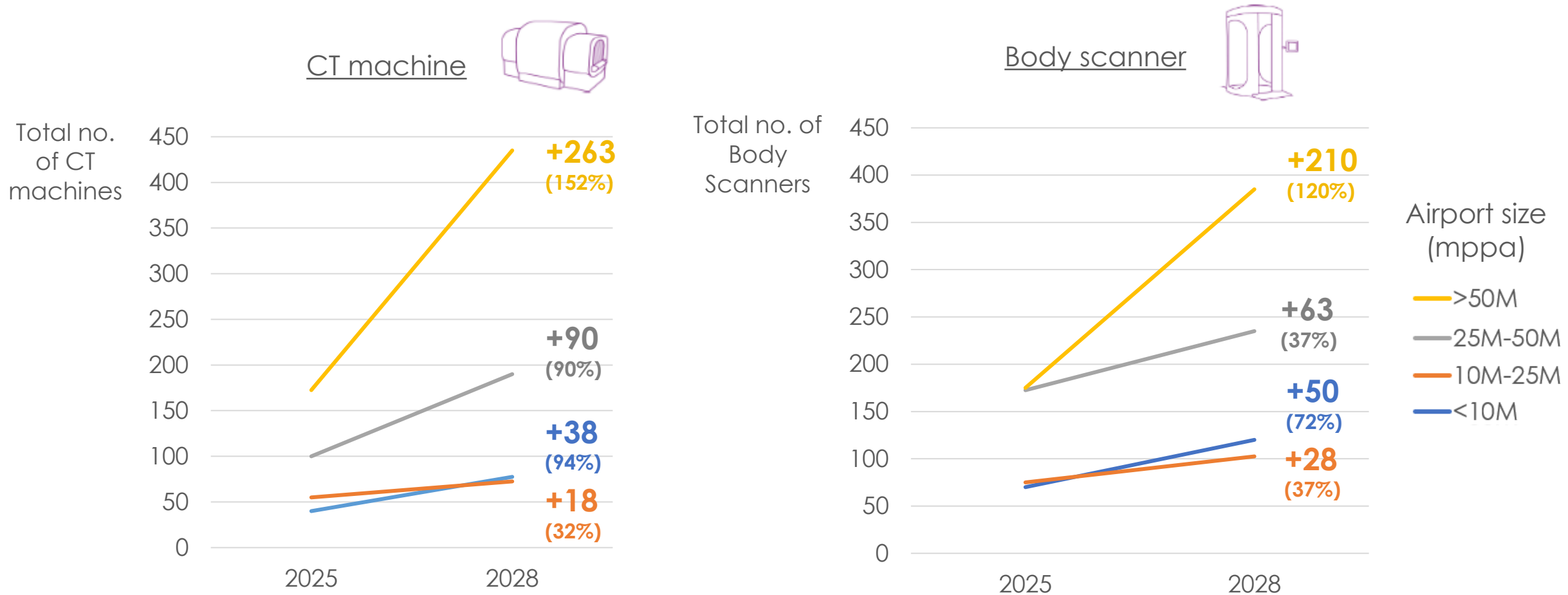
2025: ~368 pcs
By 2028: ~775 pcs
(+112%)



Body scanner

2025: ~493 pcs
By 2028: ~843 pcs
(+71%)

The uptake is not just happening at big airports



Considerations for deploying CT & body scanners

Benefits



Increased detection



Increased efficiency



Increased pax satisfaction



Add-on software solution/algorithm

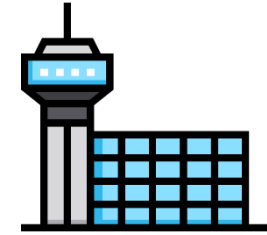
Things to consider



Increased CAPEX
(e.g. equipment cost
change of floor plate,
fire, power, coding)



Increased OPEX
(e.g. maintenance,
staff resources)



Infrastructure impacts
(e.g. space, weight)



New training or
accreditation
requirements



Operational
adjustments (e.g.
CONOPS, staff roles)

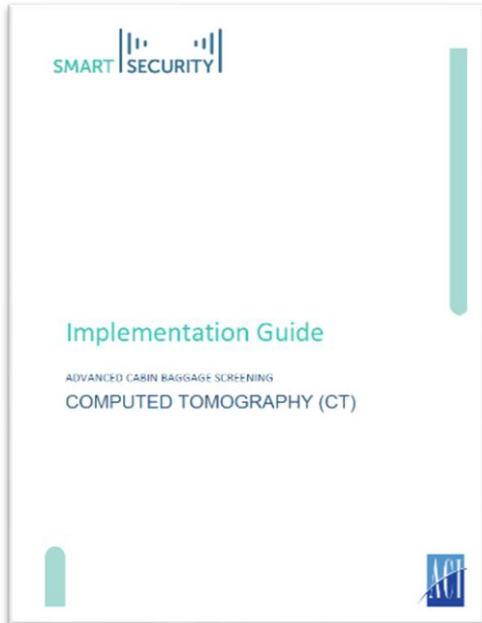


HF impacts in
view of tech
advancement

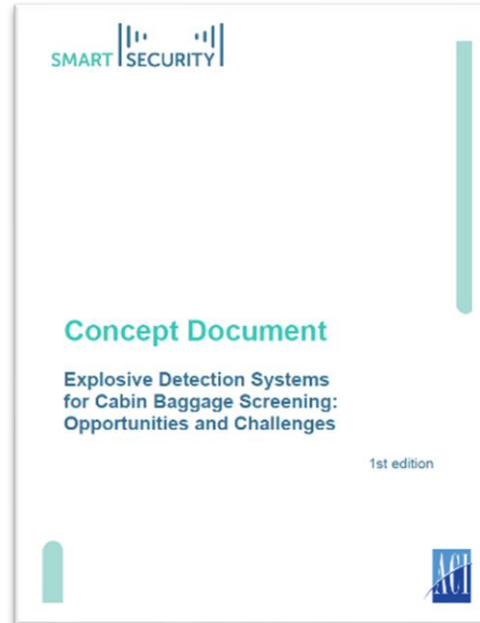


Legal/health impacts
(e.g. radiation, data
privacy)

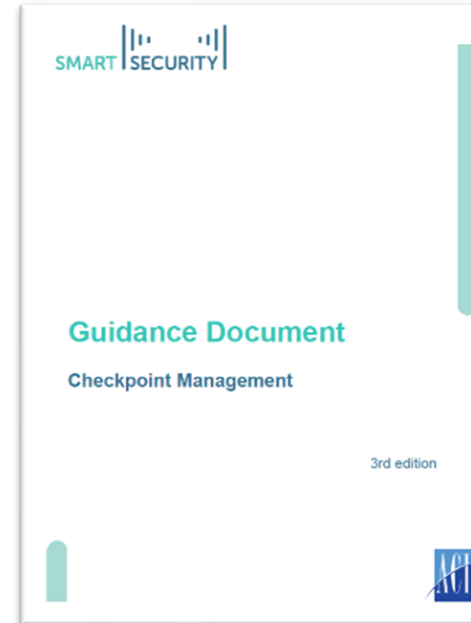
ACI's guidance to assist airports on implementation



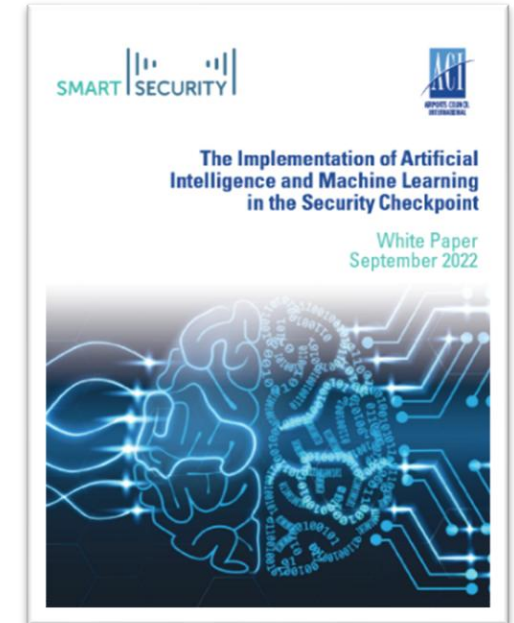
CT implementation guide



EDS concept document



Checkpoint management guide



AI/ML in security checkpoint

Knowledge sharing with ICN on smart security technology



ICN Global AVSEC Seminar
2024

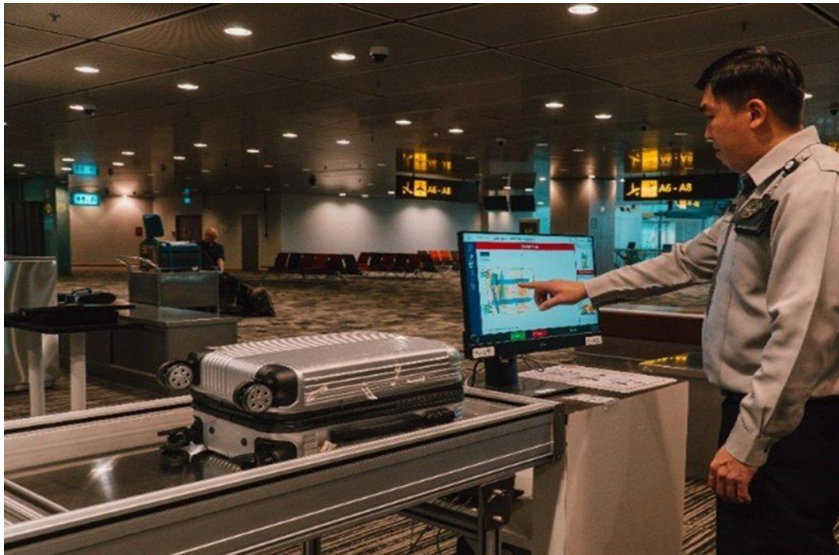


ICN Global AVSEC Seminar
2025



ICN Global AVSEC Seminar
2026

Regulations could be hurdle to technology development



Use of AI in security screening



Screening of LAGs

Cost & space is a challenge, especially for small airports

~ x10 times



Traditional x-ray



CT machine for CB

~30-50 times

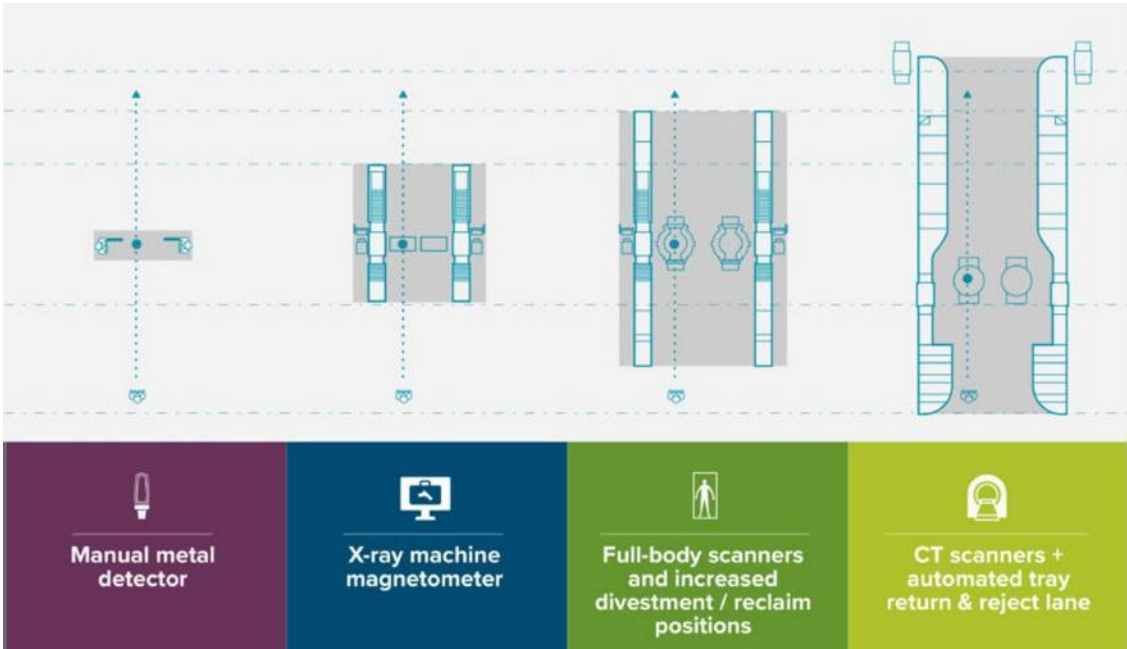


Traditional WTMD



Body scanner

More space required



*These are rough estimate only. Actual difference depends on many other factors

Major challenges for airports – regional perspective



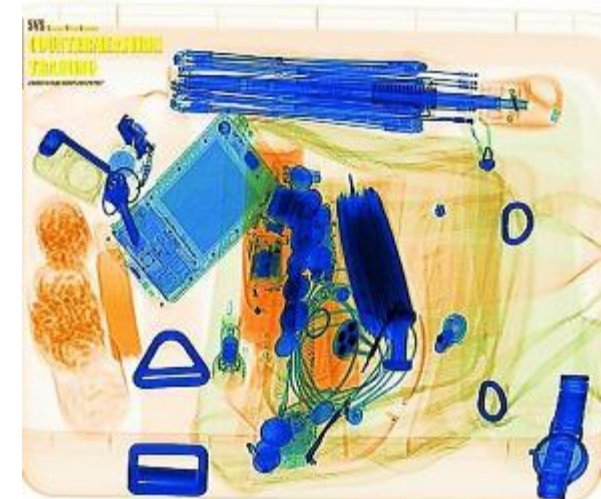
Technology adoption



People development

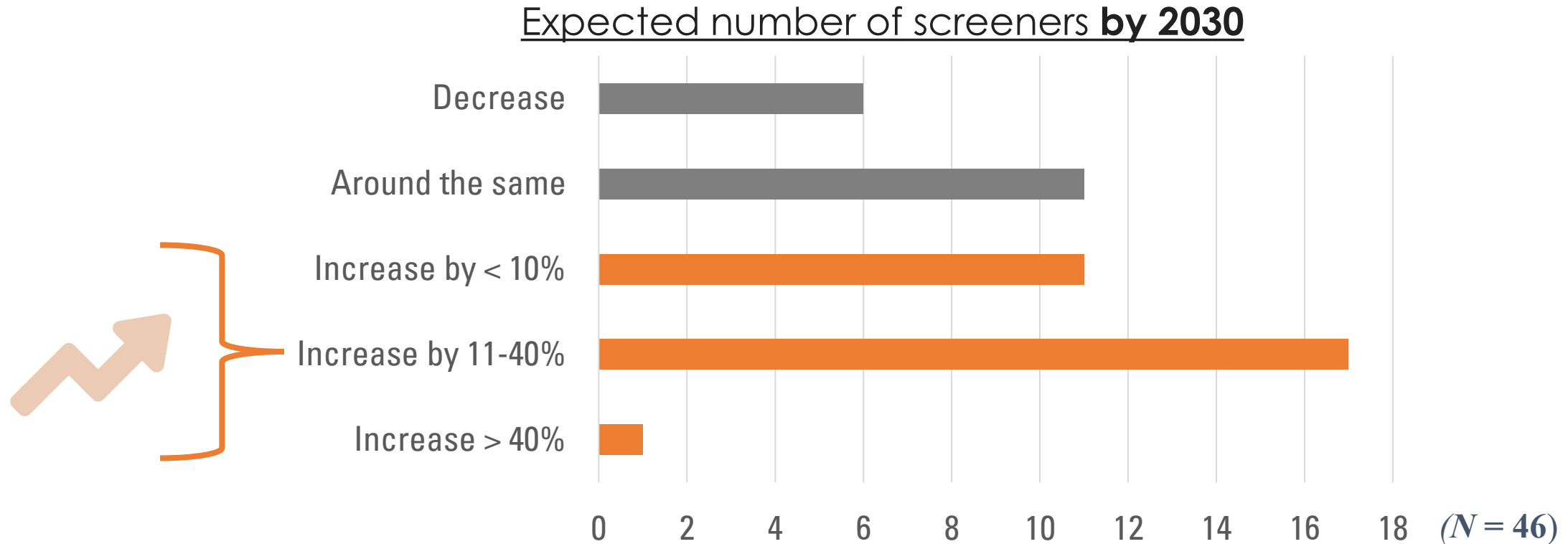


Airport infrastructure limitation



Evolving security threats to aviation

People will still be important in security



Three existing challenges on “people”



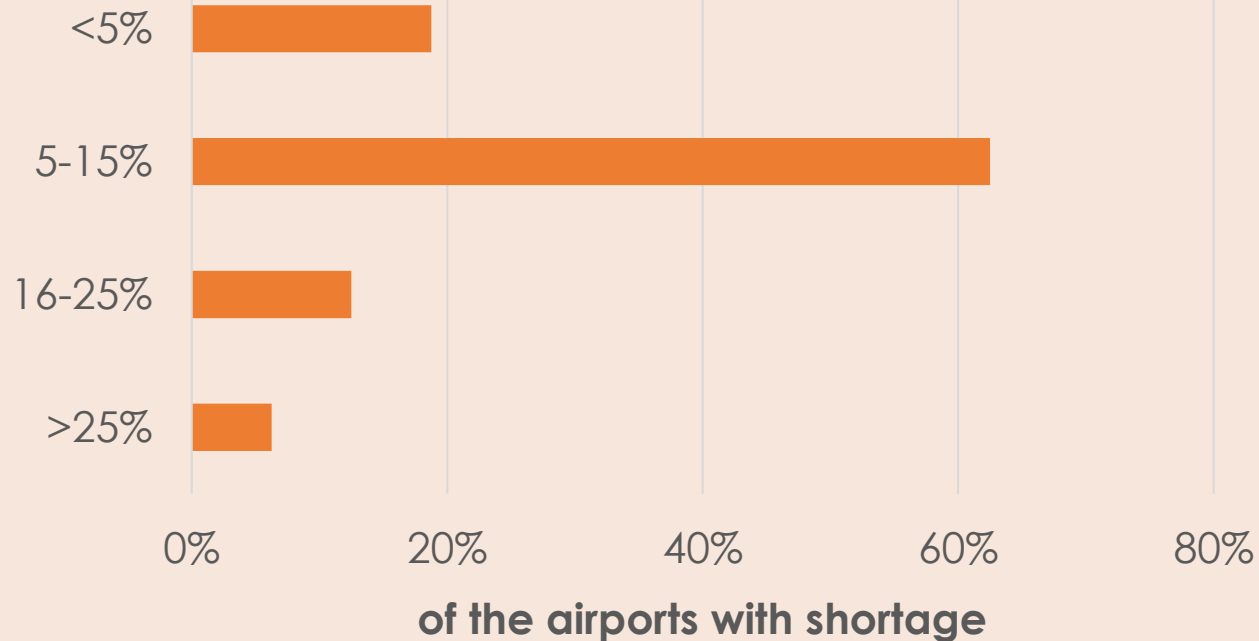
- Shortage of screeners
- Security culture
- Training and competence for screeners

Many airports are still facing screener shortage

Any screener shortage?



Shortage



Most challenging factors



36%

Salary & remuneration



29%

Career progression



15%

Work hour flexibility



12%

Market competition



6%

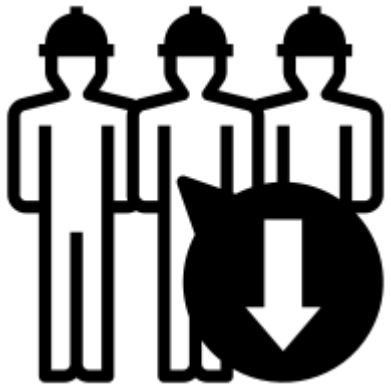
Screener social status



2%

Commute distance

Increasing difficulties to promote security culture



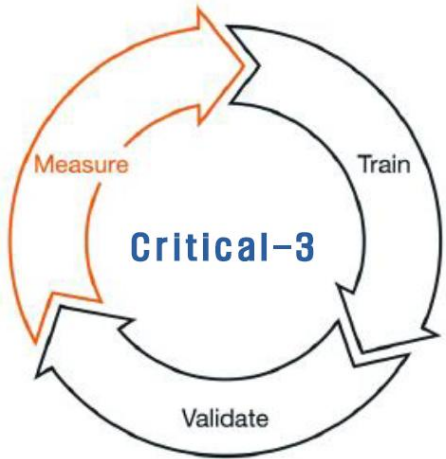
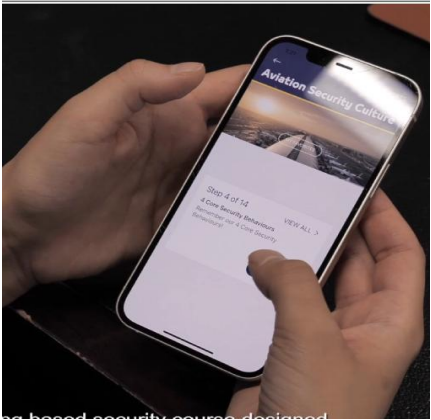
Staff shortage &
high turn over



Other common hurdles in APAC

- Diverse nationalities within workforce
- Increase of temporary or contract-based workers
- High-stress work environment
- Cultural factors
 - Resist to report suspicious behavior
 - Afraid to challenge seniors or people in authority

Recent initiatives by airports to enhance security culture



Declaration on security by CEO

Suspicious activities reporting campaign

Mentorship & shadow coaching programme for screeners

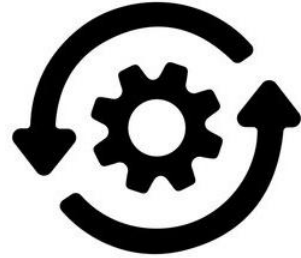
Security awareness quiz on mobile app for staff

Campaign to minimise “routine-driven errors”

Different skillsets needed to operate the new technology



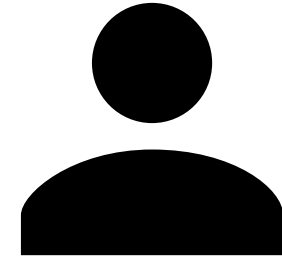
Change in
technology



Different
operations



Different
infrastructure

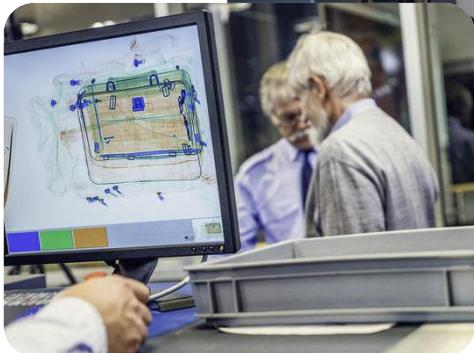


Different kinds
of screeners

ICAO Muscat Declaration (2024)*

“.....States must **nurture diverse, skilled professionals** who can harness emerging technologies and drive innovation” (1 of the 5 pillars)

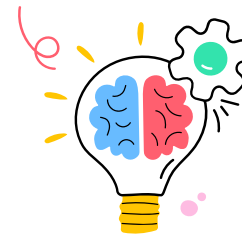
How technology will change screeners in the future?



Potential areas of
change to screeners



Job role



Skills &
competencies



Training



Internal policy &
procedure



RASC guidance to
be issued in
Q3/Q4 2026

Major challenges for airports – regional perspective



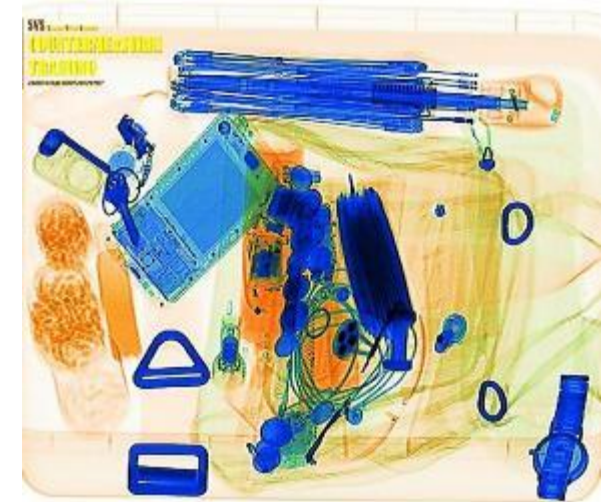
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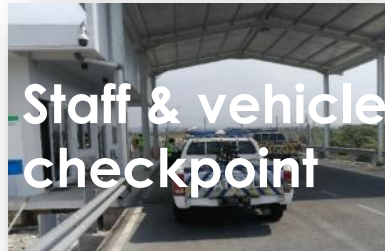


Evolving security threats to aviation

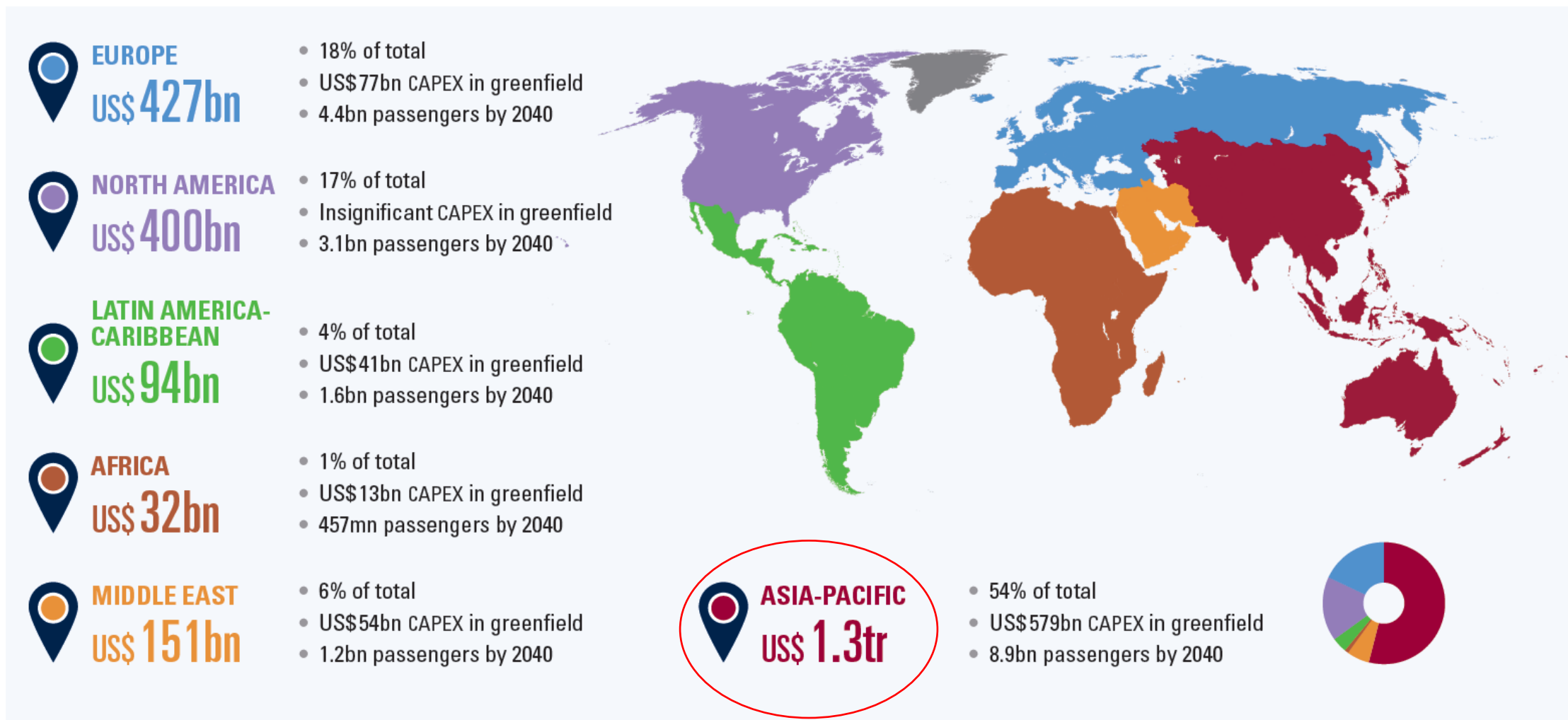
Two major security challenges from design perspectives

- Capacity constraint (e.g. passenger checkpoint)
 - Industry evolution (e.g. technology, threat & risk, pax expectation)
-

Areas that could have done better in terms of design?



2021-2040 total needed airport infrastructure investment



*based on ACI forecast

Airport megaprojects under development



Noida Airport, India



U-Tapao Airport,
Thailand



Busan Gadeokdo New
Airport, South Korea



Western Sydney
Airport, Australia



Gelephu Airport,
Bhutan



Long Thanh Airport,
Vietnam

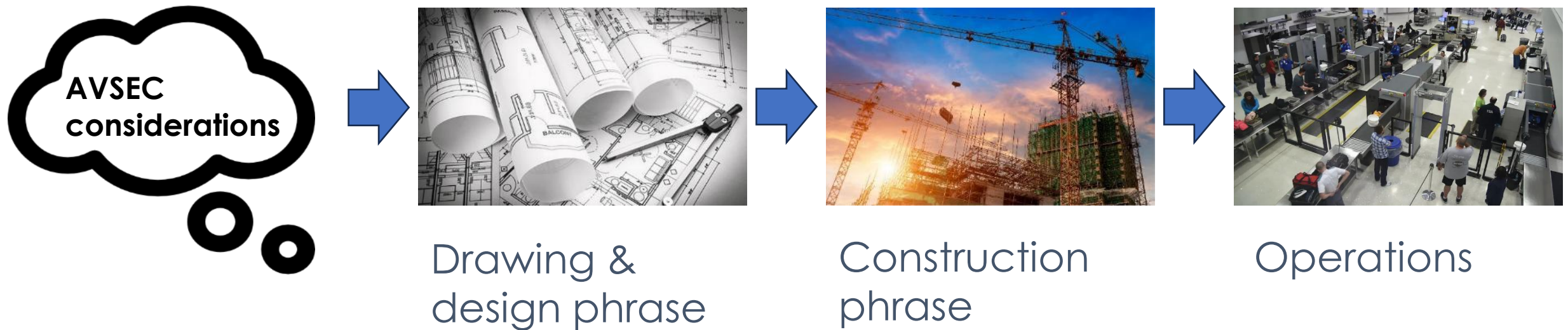


Dhoho Airport,
Indonesia



Changi T5, Singapore

Increasing importance of security-by-design, especially in Asia-Pacific



Examples of good designs incorporating security elements



Spacious kerbside



Future-proof screening halls



Resilient HBS



Flow-optimized terminal zoning

Major challenges for airports – regional perspective



Technology adoption



People development



Airport infrastructure limitation

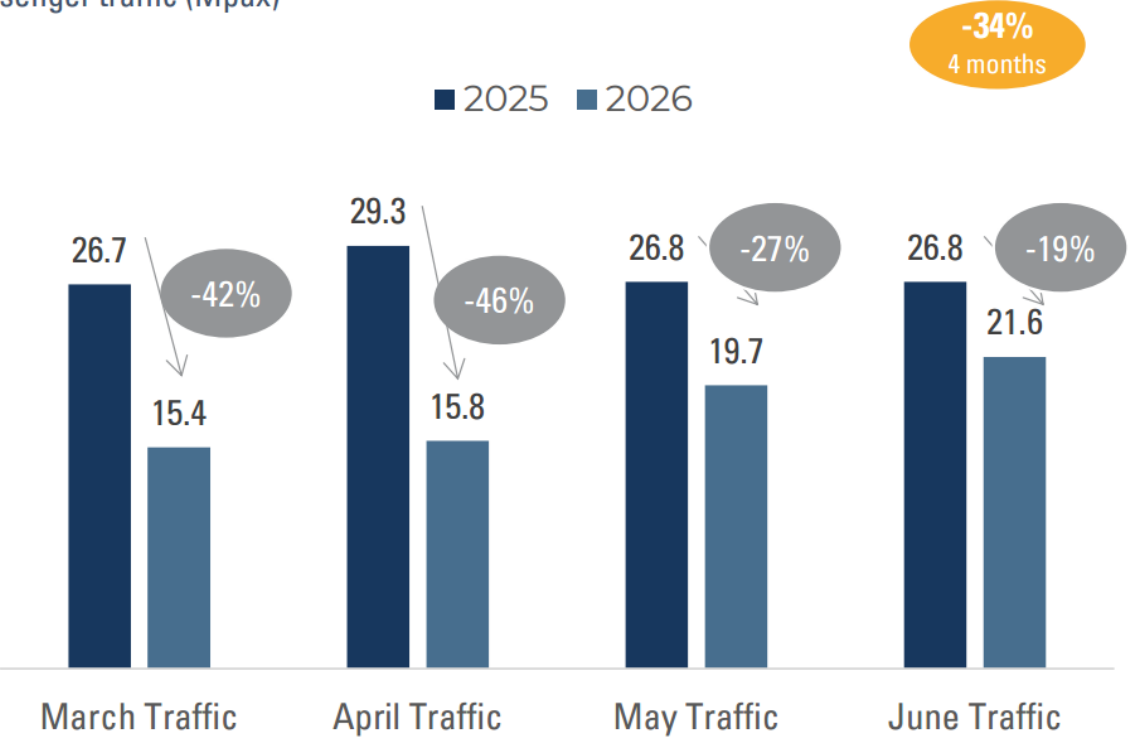


Evolving security threats to aviation

MID conflict - a stark reminder of vulnerability of the industry

Traffic Impacts to MID airports

Passenger traffic (Mpax)



Physical impacts to MID airports

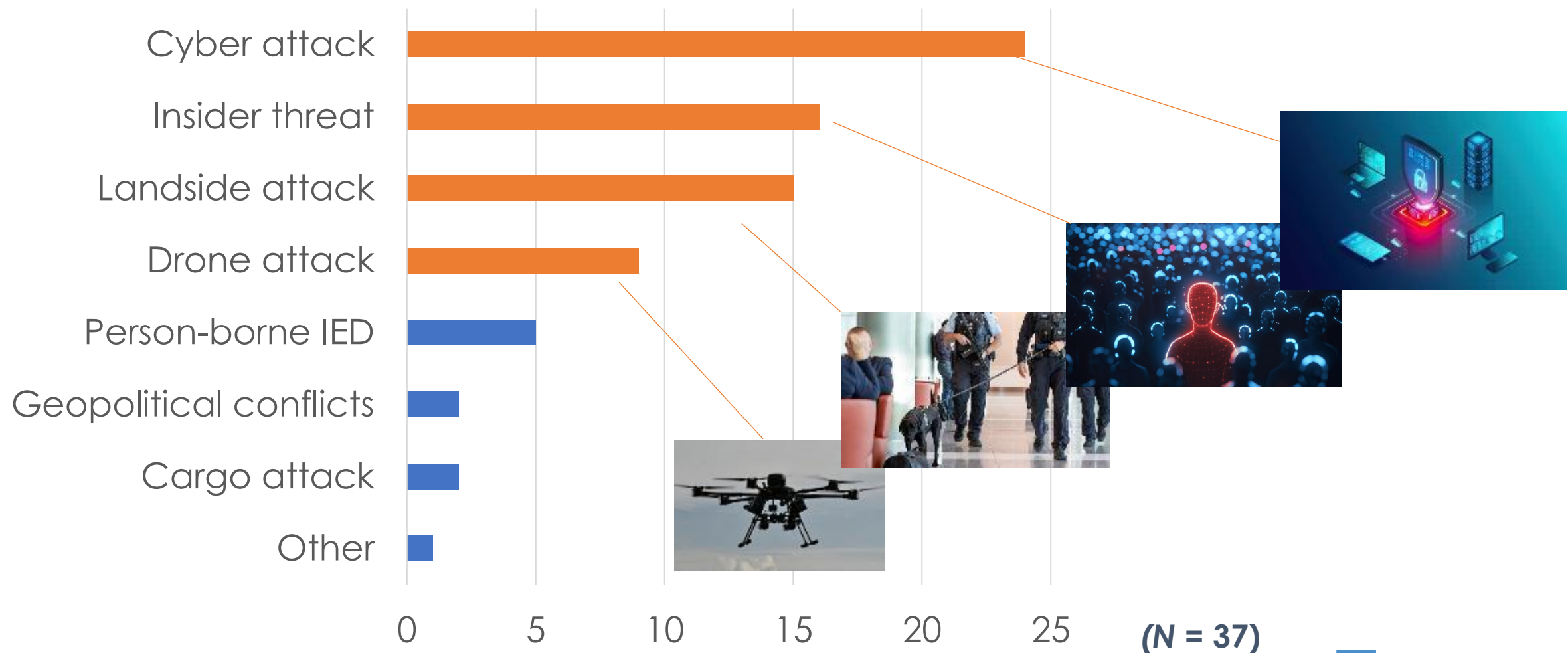


*Based on ACI APAC & MID's study (Jul 2026)

Perpetrators are constantly looking for the weakest link



Top security threats for airports in the region



*ACI's survey in May 2026 with responses from 37 APAC airports

Why are these threats particularly challenging for airports?



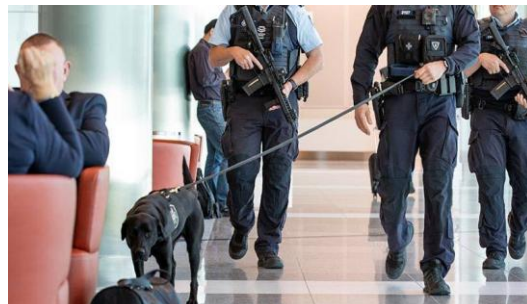
Cyber



Insider



Drones

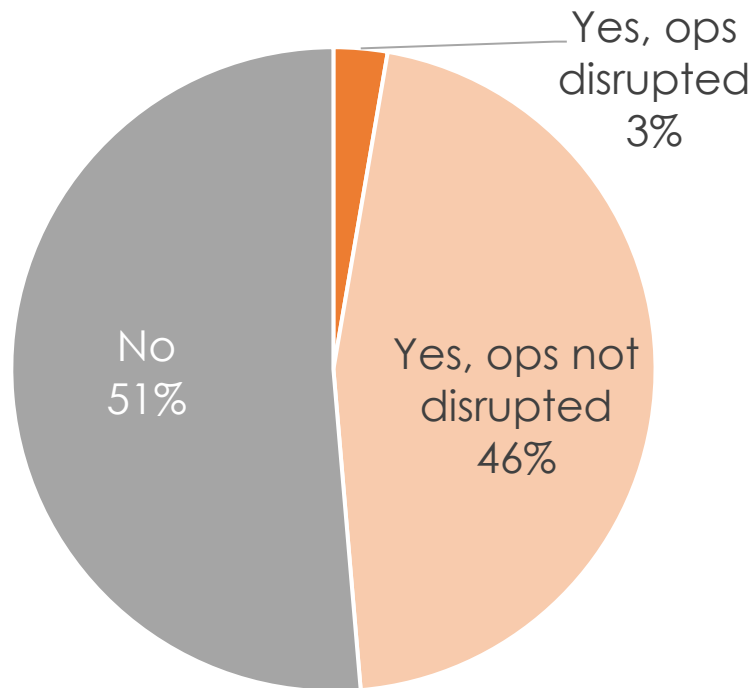


Landside

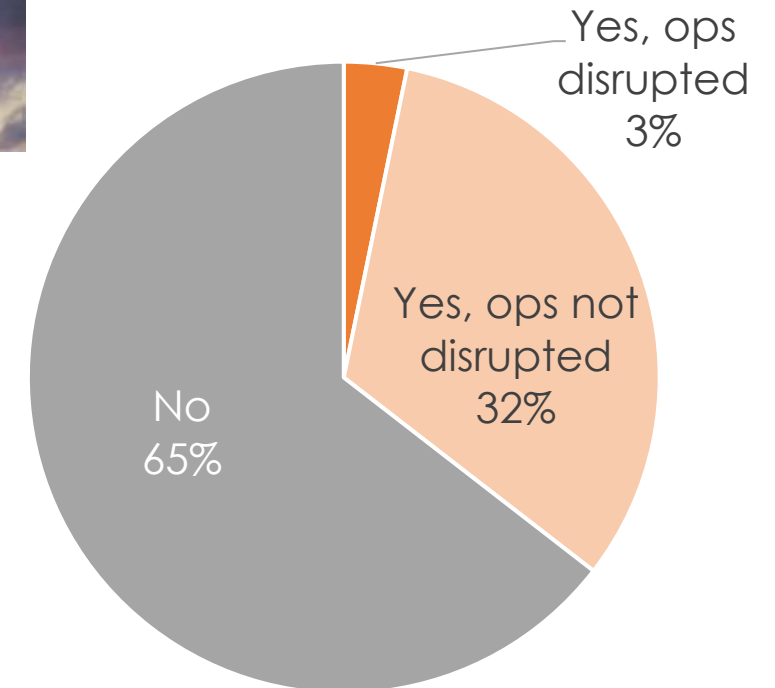
- ↑ incidents targeting the airports
- Potentially huge consequences
- Multiple stakeholders involved
- Counter-measures lag behind the threat

Some emerging threats are not longer hypothetical

Successful **cyber** attacks against airport so far?



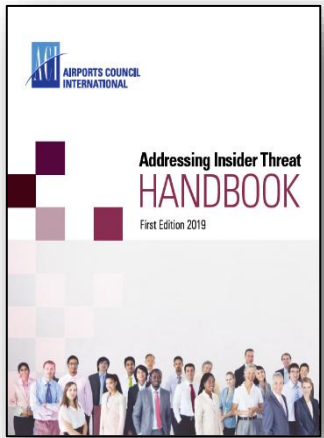
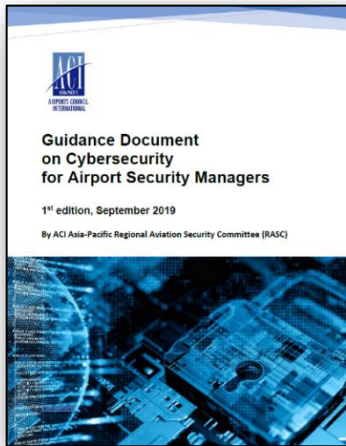
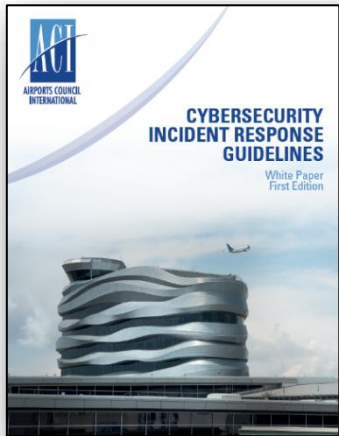
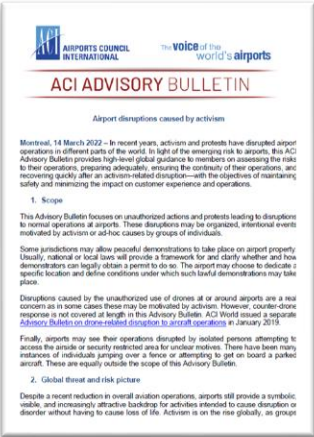
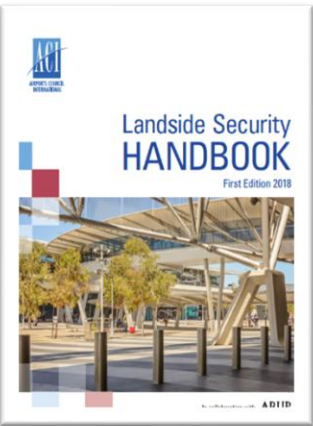
Unauthorized **drone** Intrusion at airport so far?



*Drones - based on RASC survey in 2025 (31 responses)

*Cyber - based on RASC survey in 2026 (37 responses)

Increasing focus by ACI to assist airports on evolving threats



Landside security

Airport disruption caused by activism

Drones in airport environment

Drones knowledge centre

Cybersecurity incident response

Cybersecurity for AVSEC managers

Addressing insider threat

In summary

- Airport security challenges for the region:
 - Technology adoption
 - People development
 - Infrastructure limitation
 - Evolving security threats
- These challenges will continue to impact operational effectiveness and efficiency