



# Status of Implementation of ASBU Threads/ Elements related to CNS

CNS SG/11

Oman – Muscat (16-19 May 2022)

Presented by the Secretariat



# Revised MID Region Air Navigation Strategy

- MIDANPIRG/18 endorsed the Revised MID Region Air Navigation Strategy (ICAO MID 002) inline with the GANP 6<sup>th</sup> edition;
- Priority 1 ASBU Element: Elements that have the highest contribution to the improvement of air navigation safety and/or efficiency in the MID Region. These Elements should be implemented where applicable and will be used for the purpose of regional air navigation monitoring and reporting.
- Priority 2 ASBU Element: Elements recommended for implementation based on identified operational needs and benefits by States.
- Priority 1 Thread: Any Thread with at least one priority 1 element

# Revised MID Region Air Navigation Strategy

Thread	Element code	Title	Priority	Start Date	Monitoring		Remarks
					Main	Supporting	
<i>Information Threads</i>							
<b>DAIM</b>							
	<b>B1/1</b>	Provision of quality-assured aeronautical data and information	1	2021	AIM SG		It was B0, monitored earlier
	<b>B1/2</b>	Provision of digital Aeronautical Information Publication (AIP) data sets	2				
	<b>B1/3</b>	Provision of digital terrain data sets	1	2021			It was B0, monitored earlier
<b>DAIM</b>	<b>B1/4</b>	Provision of digital obstacle data sets	1	2021			It was B0, monitored earlier
	<b>B1/5</b>	Provision of digital aerodrome mapping data sets	2				
	<b>B1/6</b>	Provision of digital instrument flight procedure data sets	2				
	<b>B1/7</b>	NOTAM improvements	2				
<b>AMET</b>							

Priority 1 element

Priority 1 Thread

Priority 2 element



# Revised MID Region Air Navigation Strategy

COMS							
COMS	B0/1	CPDLC (FANS 1/A & ATN B1) for domestic and procedural airspace	2				
	B0/2	ADS-C (FANS 1/A) for procedural airspace	2				
	B1/1	PBCS approved CPDLC (FANS 1/A+) for domestic and procedural airspace	2				
	B1/2	PBCS approved ADS-C (FANS 1/A+) for procedural airspace	2				
	B1/3	SATVOICE (incl. routine communications) for procedural airspace	2				

# Revised MID Region Air Navigation Strategy

NAVS					
NAVS B0/3	Aircraft Based Augmentation Systems (ABAS)	All States	<p>Indicator: % of States requiring Aircraft Based Augmentation System (ABAS) equipage for aircraft with a max certificated take-off mass greater than 5,700 Kg to enable PBN Operations</p> <p>Supporting metric: Number of States requiring Aircraft Based Augmentation System (ABAS) equipage for aircraft with a max certificated take-off mass greater than 5,700 Kg to enable PBN Operations</p>	70%	Dec 2021
NAVS B0/4	Navigation Minimal Operating Networks (Nav. MON)	All States	<p>Indicator: % of States that have developed a plan of rationalized conventional NAVAIDS network to ensure the necessary levels of resilience for navigation</p> <p>Supporting metric: Number of States that have developed a plan of rationalized conventional NAVAIDS network to ensure the necessary levels of resilience for navigation</p>	70%	Dec 2022

*New  
Threads  
added*



# Status of Priority 1 ASBU Threads/ Elements

- Web-based report is <https://www.icao.int/MIDANReport/Pages/default.aspx>
  - ✓ increase users engagement;
  - ✓ improve information accessibility; and
  - ✓ increase visibility
- The MID Air Navigation Report – 2021 has been developed based on:
  - ✓ States' replies
  - ✓ Outcome of relevant Sub-Groups
  - ✓ MID AN Report 2020
  - ✓ Regional Guidance materials/Doc

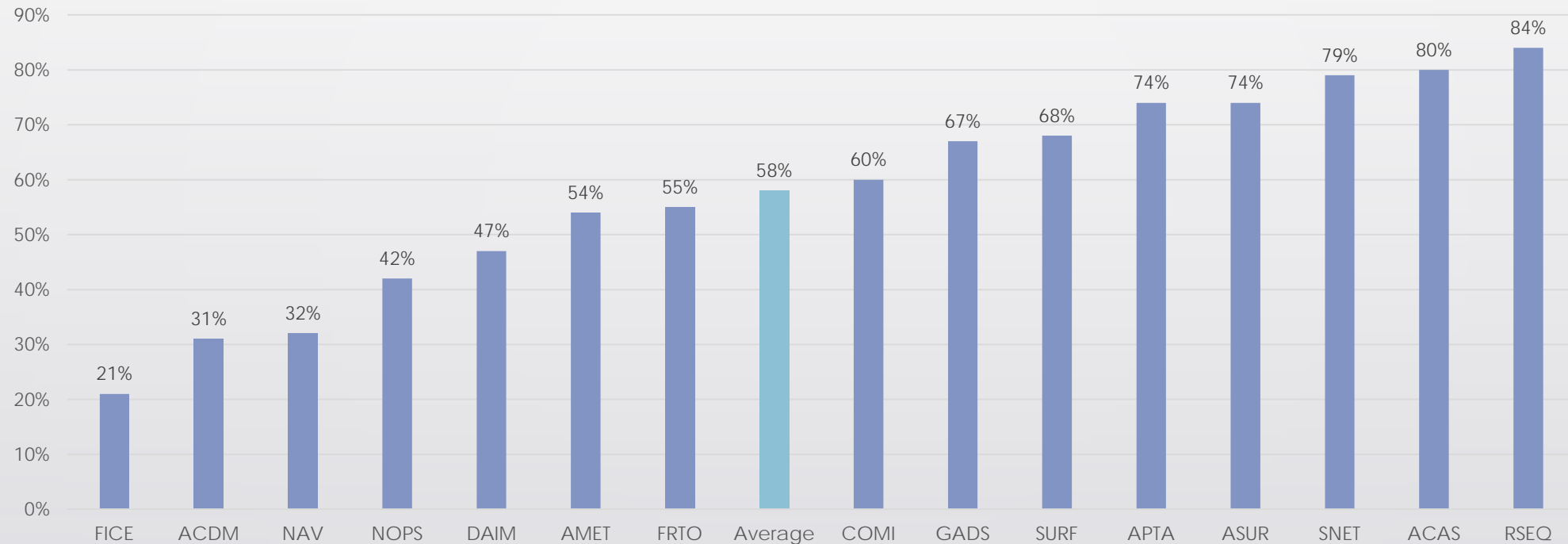


# Status of Priority 1 ASBU Threads/ Elements

*Demonstration*

# Status of Priority 1 ASBU Threads/ Elements

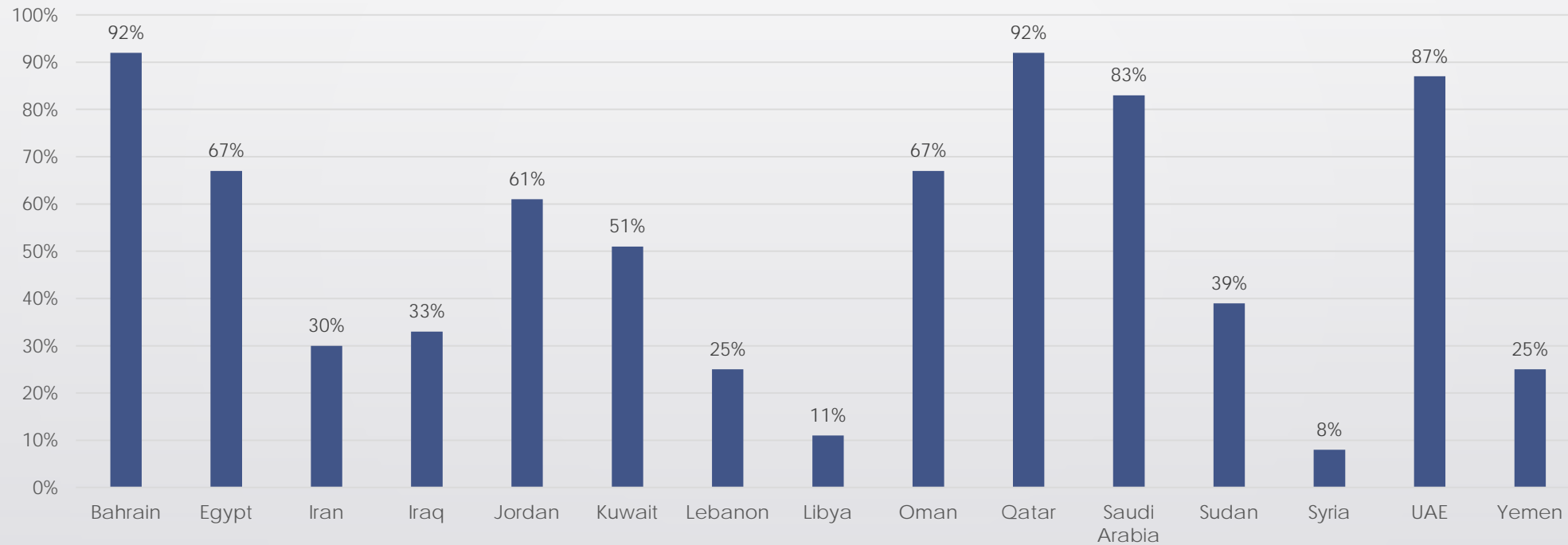
Status of Implementation of Priority 1 ASBU Threads/Elements in the MID Region for 2021



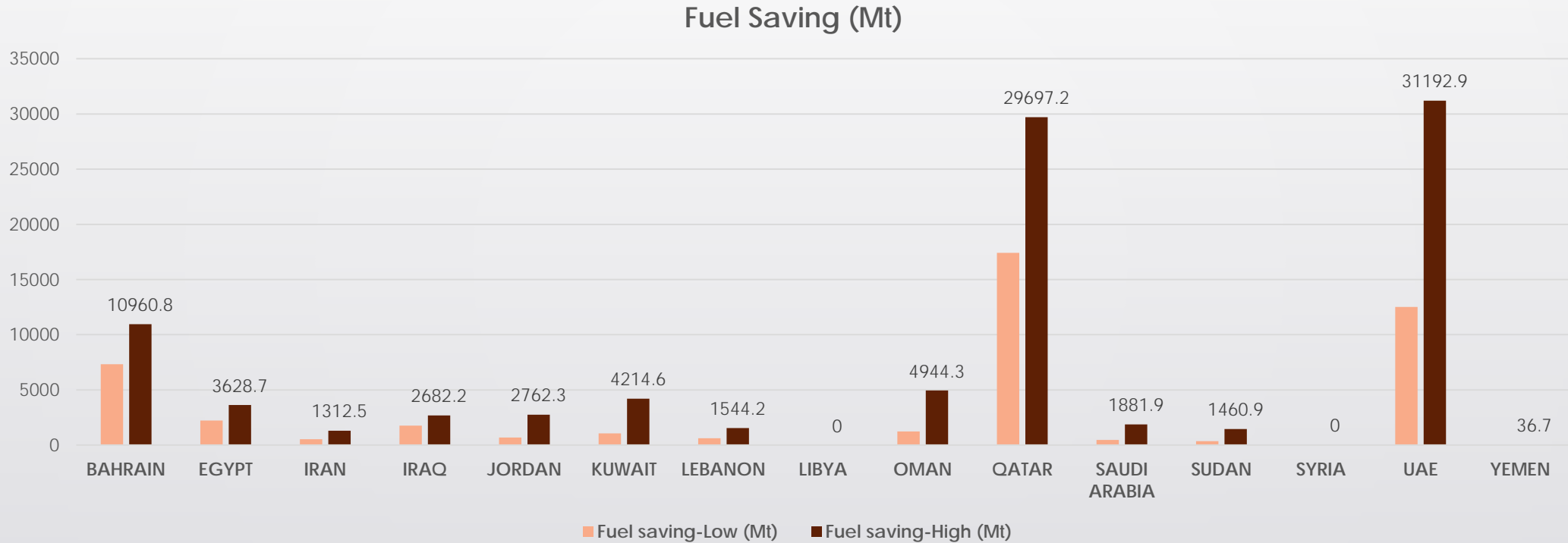


# Status of Priority 1 ASBU Threads/ Elements

Overall Status of Implementation of priority 1 ASBU Threads/Elements in 2021 - by State



# Environment Protection



The estimation has shown a **total of 46207.2 Mt to 96319.2 Mt** of fuel saving in the MID Region, as a result of the implementation of the APTA Thread

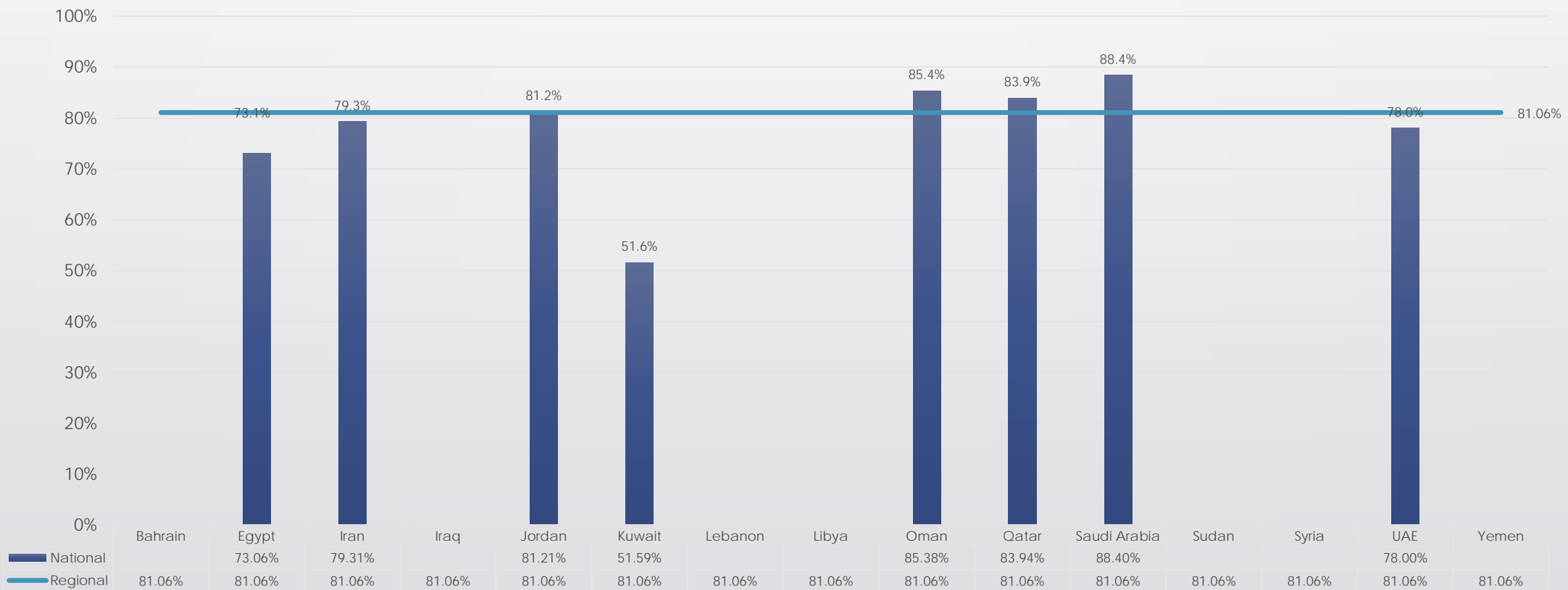


# Performance Monitoring

- MIDANPIRG/18 endorsed the measurement of initial list of Key Performance Indicators (KPIs) – KPI 01, KPI02, KPI13, KPI14
- month of June and July 2021 will be used for the collection of required data for measuring the selected KPIs
- Eight (8) States have been provided required data (Egypt, Iran, Jordan, Kuwait, Oman, Qatar, Saudi Arabia and UAE)
- The provided data covered seventeen (17) out of 57 international aerodromes in the MID Region, representing 29.8% (HECA, HEBA, HESH, HEGN, HELX, HESN, HEMA, OIIE, OJAI, OKBK, OOMM, OTHH, OEDF, OEJN, OEMA, OERK and OMDB).

# Performance Monitoring

## KPI 01 (Departure punctuality)



# Performance Monitoring

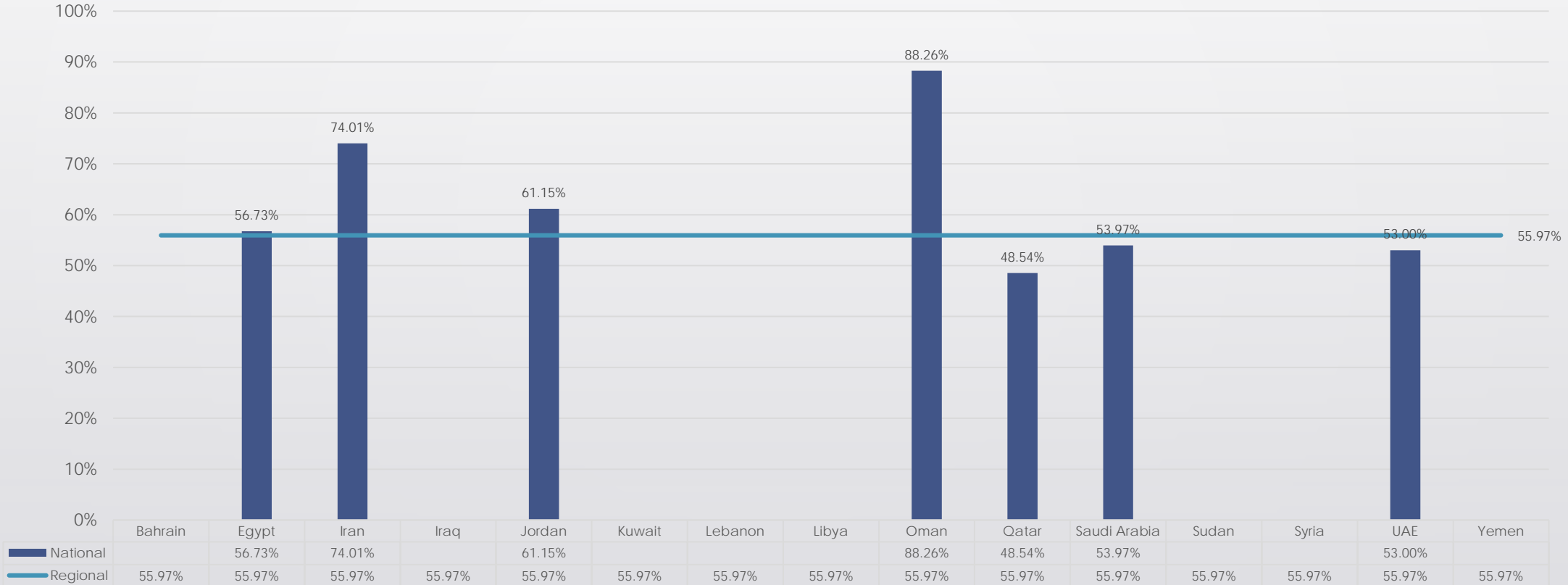
## KPI 02 (Taxi-out Additional Time)





# Performance Monitoring

KPI 14 (Arrival punctuality)





# Performance Monitoring

- **STEP 1: DEFINE SCOPE, CONTEXT AND SET AMBITIONS**

To reach a common agreement on the scope and (assumed) context of the regional air navigation system on which the performance management process will be applied.

The geographical scope is defined in Volume I and in particular in the following tables:

- Table GEN I-1 — List of Flight Information Regions (FIR)/Upper Information Regions (UIR) in the Region
- Table ATM I-1 — Flight Information Regions (FIR)/Upper Flight Information Regions (UIR) of the Region
- Table SAR I-1 — Search and Rescue Regions (SRR) of the Region
- Table AOP I-1 — International aerodromes required in the Region



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# Performance Monitoring

- STEP 2: Know your System – SWOT Analysis





# Performance Monitoring

- **STEP 3: QUANTIFY OBJECTIVES, SET TARGETS AND CALCULATE NEEDS (SMART Objective)**

- Select your State's Performance Objectives and associated KPIs

KPA: Efficiency

KPI 02: Arrival Punctuality

KPI 14: Departure Punctuality



# Performance Monitoring

- STEP 3 (cont'd)
- Measure the performance baseline for the selected KPIs

KPI 01: Arrival Punctuality

KPI 14: Departure Punctuality

- For example Egypt KPI baseline :

KPI 01: 73%

KPI 14: 57%

- Identify the target performance (KPIs) – in 3 years

KPI 01: 90%

KPI 14: 80%



# Performance Monitoring

- **STEP 4: SELECT SOLUTIONS**

- consider operational improvement within the ASBU framework as potential solution
- solution(s) could be ASBU or non- ASBU solution
- conduct CBA

ASBU SOLUTION	START YEAR	END YEAR



# Performance Monitoring

- STEP 5: **IMPLEMENT SOLUTIONS**
  - States to report on the status of solution implementation

ASBU SOLUTION	START YEAR	END YEAR	STATUS OF DEPLOYMENT



# Performance Monitoring

- STEP 6: **ASSESS ACHIEVEMENT**

- Measure the actual achieved performance using the selected KPI(s) in step (3)
- Compare with the target(s) in step (3)
- find performance gaps and their causes and take corrective actions if required
- Update the baseline in step (3) -> to be used in next iteration of the performance management process.



# Web-based MID AN Report 2022

- MIDANPIRG CONCLUSION 19/6:

## **WEB-BASED MID REGION AIR NAVIGATION REPORT (2022)**

*That,*

*a) States be urged to provide the ICAO MID Office with:*

*i) relevant data necessary for the development of the MID Region Air Navigation Report (2022) (Status of ASBU Implementation), by 1 December 2022;*

*ii) the data necessary for the measurement of the KPIs (01, 02, 13 and 14) for the period June & July 2022, by the 1 October 2022; and*

*b) the MID Air Navigation Report (2022) be presented to the MIDANPIRG/20 for endorsement*



# Actions By the Meeting

*The meeting is invited to review and update, as deem necessary, the status of Priority 1 ASBU Threads/Elements related to CNS and encourage States to provide Success Stories to be included in the Web-Based MID AN Report for 2022*