International Civil Aviation Organization

RASG-MID Steering Committee

Seventh Meeting (RSC/7)
(Cairo, Egypt, 3 – 5 March 2020)

Agenda Item 3:   **Regional Performance Framework for Safety**

IMPLEMENTATION PROGRESS OF THE SEIs RELATED
TO SAFETY MANAGEMENT

(Presented by the Secretariat on behalf of the Champion of the SSP AD-Hoc Group)

SUMMARY
This paper presents the progress in achieving the SEIs related to Safety Management and including the Draft MID Region Safety Management Implementation Roadmap for 2020-2025
Action by the meeting is at paragraph 3.

REFERENCES
- Annex 19
- ICAO Doc 9859 - Safety Management Manual (SMM) (Disclaimer)
- ICAO Doc 10004 - 2020–2022 Global Aviation Safety Plan
- RASG-MID/7 Report

1.   INTRODUCTION

1.1   The Enhancement of the global civil aviation safety is one of the five strategic objectives of ICAO. Annex 19, *Safety Management,* requires States to implement a SSP and SMS by the services providers in order to manage safety effectively.

2.   DISCUSSION

2.1   The GASP 2020-2022 Edition Goal 3 calls for the implementation of effective SSPs. The goal addresses organizational challenges faced by States when implementing an SSP and includes the implementation of SMS by service providers within individual States, in accordance with Annex 19. Two targets are linked to this goal and they represent a phased approach to SSP implementation, as follows:

- Target 3.1 calls for all States to implement the foundation of an SSP by 2022.

- Target 3.2 calls for all States to implement an effective SSP, as appropriate to their aviation system complexity by 2025. An "effective SSP" refers to an SSP that actually achieves the objectives that it is intended to achieve.

2.2   The MID Region Safety Strategy was developed in line with the GASP taking into consideration specific needs identified within the framework of the Regional Aviation Safety Group-Middle East (RASG-MID). Goal 5 is related to the Implementation of Effective SSPs and SMSs.

2.3   The RASG-MID meeting supported the development of the Regional Roadmap for Safety Management Implementation in the MID Region and agreed to the following RASG-MID Decision:

> *RASG-MID DECISION 7/5:   SSP IMPLEMENTATION AD-HOC ACTION GROUP*
>
> *That, an SSP Implementation Ad-Hoc Action Group composed of the following experts, is established to develop the Regional Roadmap for SSP implementation in the MID Region:*
>
> – *Mr. Khalid Alhumaidan from UAE (Champion)*
> – *Mr. Mohammad Hushki from Jordan*
> – *Mr. Mohamed Salah from Egypt*
> – *Mr. Mohamed Chakib from ICAO*
> – *Mr. Mashhor Alblowi from ICAO*

2.4   The SEI was initially established to improve the status of implementation of State Safety Programme (SSP) and Safety Management System (SMS) in the MID Region. However, due to the low progress related to the actions on SMS of (ANSPs, Aerodromes, Air Operators, AMOs and ATOs), it was concluded by the group that the implementation of the SMS for the service providers would be addressed under the proposed MID Region Safety Management Implementation Roadmap to cover SSP and SMS. It's also to be highlighted that under Annex 19, the State obligation is to require service providers under their authority to implement an SMS, including the initial acceptance and continuous surveillance of the SMS.

2.5   The Roadmap at **Appendix A**, would be mainly focusing to support MID Region States to implement their SSP, consequently the States could provide appropriate guidance, documents and tools to the service providers to implement an effective SMS. In addition, States could implement documented surveillance processes, by defining and planning inspections, audits and monitoring activities on a continuous basis. Accordingly, the meeting may wish to agree to the following Draft Conclusion:

WHY	To assist States in the implementation of SSP, which would lead to effective implementation of SMS by service providers
What	Draft MID Region Safety Management Implementation Roadmap
Who	RSC/7
When	March 2020

DRAFT RSC CONCLUSION 7/XX: MID REGION SAFETY MANAGEMENT IMPLEMENTATION ROADMAP

That, the MID Region Safety Management Implementation Roadmap is endorsed

3. **ACTION BY THE MEETING**

3.1 The meeting is invited to Review and endorse the MID Region Safety Management Implementation Roadmap at **Appendix A**.

APPENDIX A

MID REGION SAFETY MANAGEMENT IMPLEMENTATION ROADMAP 2020-2025

1.   Introduction

1.1   An SSP comprises a range of processes and activities that together provide a State with the means to manage safety and to deliver well-directed safety oversight. An effective SSP assists States to proactively identify hazards and mitigate safety risks at the national level. It is the foundation on which a State builds a proactive approach to national aviation safety.

1.2   Effective SSP implementation is a gradual process. The State plans, organizes, develops, implements, maintains, controls and continuously improves the SSP in a manner that meets its safety objectives. The complexity of the air transportation system and the maturity of the State's safety oversight capabilities determine the time required to achieve a fully mature SSP. The level of effective implementation of an SSP in the State affects its relationship with the national aviation safety plan.

2.   Objective

2.1   Assist MID States to comply with the requirement for the implementation of the State Safety Programmes (SSPs) by States and the SMS by service providers as established in the Annex 19, Safety Management, Global Aviation Safety Plan (GASP) and MID Region Safety Strategy. The Roadmap is to be linked to the MID NCLB Strategy in order to support the States in a prioritized manner and will be implemented within the RASG-MID framework.

GASP 2020-2022

2.2   Goal 3 of 2020-2022 edition of the GASP calls for the implementation of effective SSPs. The goal addresses organizational challenges faced by States when implementing an SSP and includes the implementation of SMS by service providers within individual States, in accordance with Annex 19. Two targets are linked to this goal and they represent a phased approach to SSP implementation, as follows:

- Target 3.1 calls for all States to implement the foundation of an SSP by 2022.

- Target 3.2 calls for all States to implement an effective SSP, as appropriate to their aviation system complexity by 2025. An "effective SSP" refers to an SSP that actually achieves the objectives that it is intended to achieve.

MID Region Safety Strategy

2.3   The Strategy was developed in line with the GASP taking into consideration specific needs identified within the framework of the Regional Aviation Safety Group-Middle East (RASG-MID). Goal 5 is related to the Implementation of Effective SSPs and SMSs with the following targets:

- 13 States that have completed the SSP Gap Analysis on iSTARS by 2020
- 13 States that have developed an SSP implementation plan by 2020
- Regional Average SSP Foundation of 70% by 2022
- 10 States that have fully implemented the SSP Foundation by 2022
- 10 States that have established an ALoSP by 2025
- 7 States that have implemented an effective SSP by 2025

SSP Gap Analysis

2.4   A State moving into SSP implementation should conduct an SSP gap analysis to ensure it is ready to begin SSP implementation. It should use the ICAO iSTARS SSP Gap Analysis application to complete this process. If a State already has an effective SSP, it can use the established safety risk management process to identify hazards.

SSP foundation PQs

2.5   The term "foundation of an SSP" refers to a subset of the USOAP PQs that have been identified as fundamentals and are considered as prerequisites for sustainable implementation of the full SSP. These are referred to as "SSP foundational PQs". SSP foundational PQs are grouped in nineteen subject areas derived from Annex 19 and Doc 9859. States can prioritize and address these PQs when conducting the SSP gap analysis or while defining the SSP implementation/action plan. The concept of "foundation of an SSP" is intended to replace the 60 per cent EI score previously used in the GASP as a threshold to progress into implementation of the SSP. The intent is that these PQs be included in the SSP implementation planning to ensure sustainability.

National Aviation Safety Plan

2.6   Assembly Resolution A39-12 on ICAO resolves that States should develop and implement national aviation safety plans, in line with the goals of the GASP. Each State should produce a national aviation safety plan. If the State has implemented an SSP, the plan should be linked to this Programme. If the State has other national plans, the national aviation safety plan should be linked to these, as appropriate. The national aviation safety plan presents the strategic direction for the management of aviation safety at the national level, for a set time period (e.g. over the next five years). It outlines to all stakeholders where the CAA and other entities involved in the management of aviation safety should target resources over the coming years.

SSP Implementation Assessment (SSPIA)

2.7   The SSPIA Programme has been rolled out beginning 2018, however the perquisite for scheduling an SSPIA as follows:

- Evidence of a robust and sustainable safety oversight system and aircraft accident/serious incident investigation system (including implementation aspects);
- Evidence of effective mandatory safety reporting system, aircraft accident and incident database and safety analyses; and
- Effective completion and updates of PQ self-assessment by the State (for both "legacy" PQs and SSP-related PQs.
-

2.8   The SSPIA broken down into 8 areas: GEN (SSP general aspects), SDA (safety data analysis), PEL, OPS, AIR (AMO aspects only), ANS (ATS aspects only), AGA, and AIG.

3.   Scope

3.1   Based on the data analysis at **Appendix A**, the followings are grouping schemes of States for the   SSP implementation proposed:

a. Tier 1: States that currently have a validated SSP Foundation Index above 85%, agree with the ICAO MID Office for an initial assessment mission to be followed by the development of a SSP Implementation Plan (in coordination with the State), in order to receive necessary technical assistance.

b. Tier 2: States that have a validated SSP Foundation Index between 75% and 85%, agree with the ICAO MID Office for an initial assessment mission to be followed by the development of a SSP Implementation Plan (in coordination with the State), in order to receive necessary technical assistance.

c. Tier 3: States that have a validated SSP Foundation Index below 75%, agree with the ICAO MID Office for an initial assessment mission to be followed by the development of a SSP Implementation Plan (in coordination with the State), in order to receive necessary technical assistance.

4. Implementation of the Roadmap

4.1 In order to achieve the objectives and goals of the Roadmap, a Safety Management Implementation Team (SMIT) will be established, with the objective to conduct assistance missions to States, provide workshops and training under the leadership of ICAO in line with the MID Region NCLB Strategy. The main functions and responsibilities of the SMIT are:

a. Assist and support MID States to develop and implement SSP and SMS for Service Providers
b. Assist and support States to complete the SSP Gap Analysis and Implementation Plans
c. Provide SSP workshops and trainings including risk management, safety assurance, safety culture, as required

4.2 The Team will be composed of SMEs from the MID Office, States and other Stakeholders, as needed.

4.3 States are encouraged to provide support for the implementation of the Roadmap.

4.4 The ICAO MID Office will coordinate and monitor the Roadmap's implementation in coordination with the Safety Enhancement Implementation Group (SEIG), and provide technical assistance on this matter.

5. Activities

5.1 The activities comprise direct actions to assist MID States to complete the implementation of every element required for the SSP implementation, including,

a) meet with State high level decision makers to establish and empower the SSP implementation team;
b) conduct an initial assistance mission to determine the State main achievements and identify opportunities for enhancement which will be culminated with the development of an SSP implementation action plan in coordination with the State;
c) assist and support States to complete the SSP Gap Analysis and Implementation Plans;
d) monitor and assess the maturity of the State SSP Implementation;

e) provide SSP workshops and trainings including risk management, safety assurance, safety culture, as required;
f) assist and support State in the development of the SSP documentation including processes/procedures, etc.;
g) prepare States for the USOAP –SSP Implementation Assessment (SSPIA); and
h) follow-up implementation missions, as required.

6. Monitoring the progress of the SSP implementation

6.1 ICAO MID Office will monitor the progress of the MID Region SSP implementation Roadmap 2020-2025 in line with the GASP and MID Region Safety Strategy.

7. Benefits

7.1 The main benefits are to:

a) improve the level of implementation of SSP for States and SMS for Service Providers; and
b) achieve the objectives and targets of the GASP and MID Region Safety Strategy.

8. Beneficiaries

8.1 The main beneficiaries are MID States and their associated civil aviation systems including service providers.

Appendix A: MID Regional Status

    a. The implementation of SSP requires certain maturity level of implementation of Critical Elements (CEs) and areas to support an effective safety oversight system that integrates the prescriptive and the performance base concept.

    b. ICAO also developed the SSP Foundation PQ tool, which is available on SPACE/iSTARS 3.0. This application displays a sub-set of 299 PQs out of the 1,047 PQs used to calculate the USOAP EI level. This sub-set of PQs is considered as the foundation for an effective SSP implementation. The SSP Foundation Indicator is calculated, as the percentage of PQs which are either validated by USOAP or submitted as completed through the Corrective Action Plans (CAP) on the USOAP CMA Online Framework (OLF). This sub-set of PQs aims to assist the States to build a solid safety oversight foundation for the implementation of SSP and identify the real gap.

    c. The analysis of the SSP implementation in this report is based solely on States' responses (self-assessment) using the ICAO Integrated Safety Trend Analysis and Reporting System (iSTARS) portal.

MID Region States overall SSP foundation status

The Graph 1 shows that the overall SSP Foundation Protocol Questions (PQs) results by State as follows:
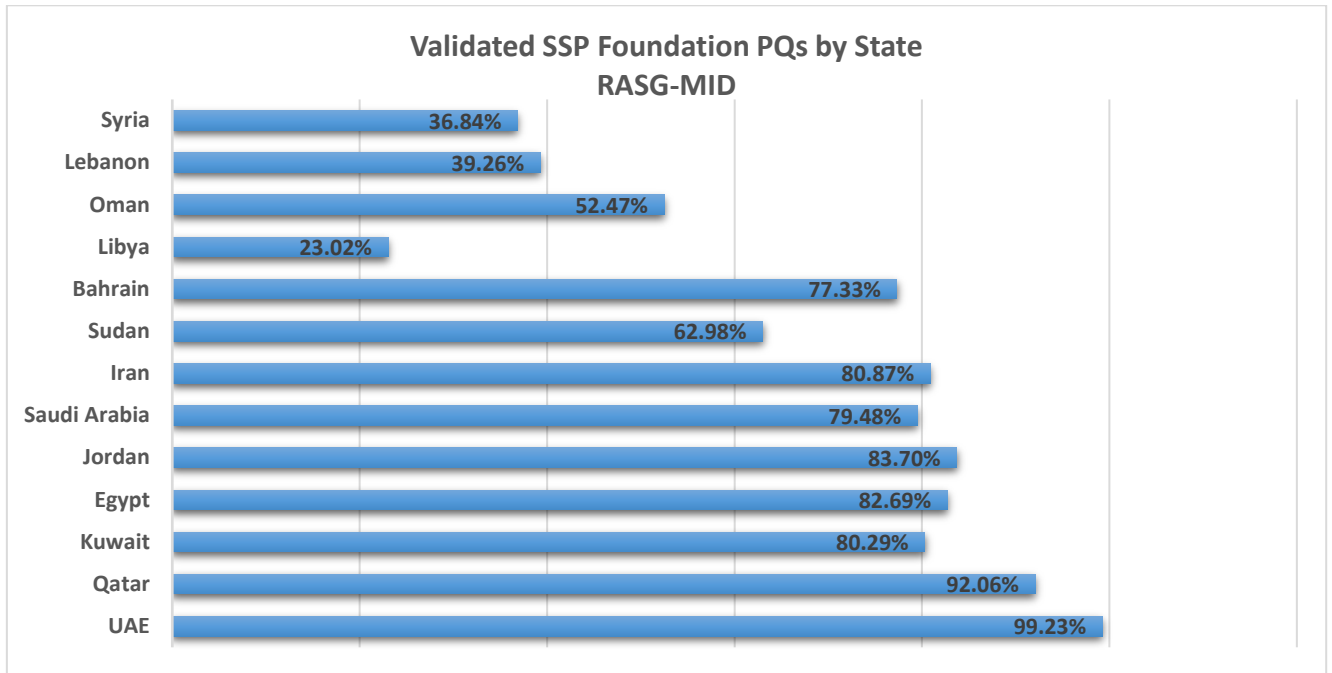
    a. Above 95% (1 States): United Arab Emirates
    b. Between 80-91 (6 States): Qatar, Kuwait, Saudi Arabia, Jordan, Egypt, Iran;
    c. Between 74-80% (3 States): Bahrain, Sudan, Libya; and
    d. Below 74% (3 States): Syria, Lebanon, Oman.
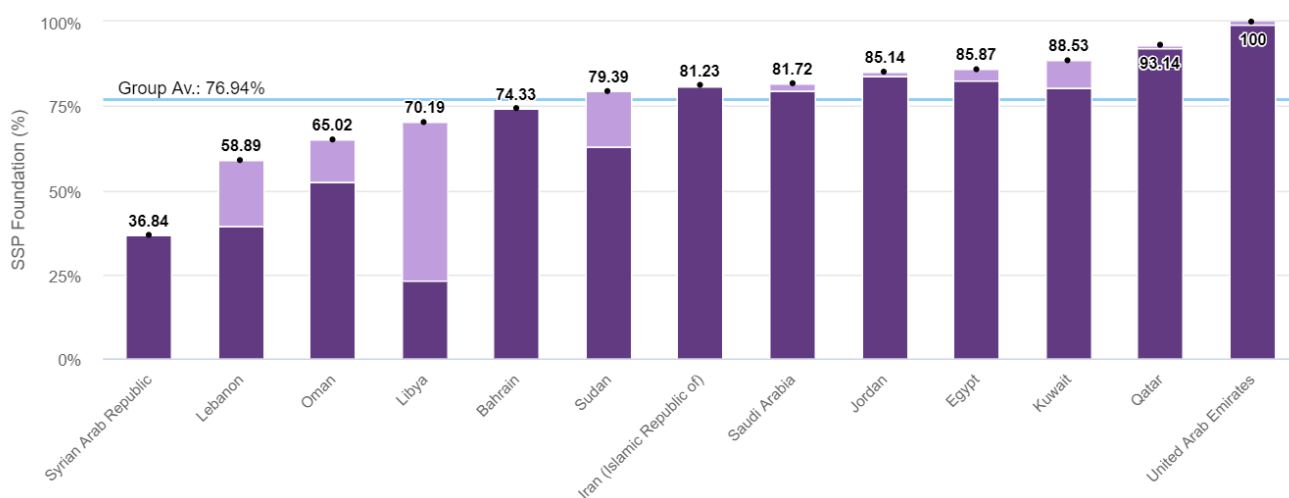
*Graph 1: Over all SSP Foundation (RAG-MID) Source: iSATRS on 28 Nov 2019*

The Graph 2 shows that the validated SSP Foundation Protocol Questions (PQs) results by State:

    a.   Above 85% (2 States): United Arab Emirates and Qatar
    b.   Between 75%-=85% (6 States): Kuwait, Saudi Arabia, Jordan, Bahrain, Egypt, Iran; and
    c.   Below 75% (3 States): Sudan, Libya, Syria, Lebanon, Oman.

Validated SSP Foundation PQs by State
RASG-MID

State	Percentage
Syria	36.84%
Lebanon	39.26%
Oman	52.47%
Libya	23.02%
Bahrain	77.33%
Sudan	62.98%
Iran	80.87%
Saudi Arabia	79.48%
Jordan	83.70%
Egypt	82.69%
Kuwait	80.29%
Qatar	92.06%
UAE	99.23%

Graph 2: Validated SSP Foundation by State- (RASG-MID) Source: iSATRS on 28 Nov 2019

The Graph 3 includes the sub-set of PQs are grouped by 17 subjects based on the Annex 19 amendment 1 and the 4th edition of the Safety Management Manual (forthcoming). States with EI above 60% may still have PQs to address which are fundamental for their SSP. These PQs can be prioritized and addressed when conducting the SSP Gap Analysis or while defining the SSP implementation/action plan Hazard identification and risk assessment is the lowest one with 51%, followed by qualified technical personnel with 55%, resources with 57%, and management of safety risks with 59%.
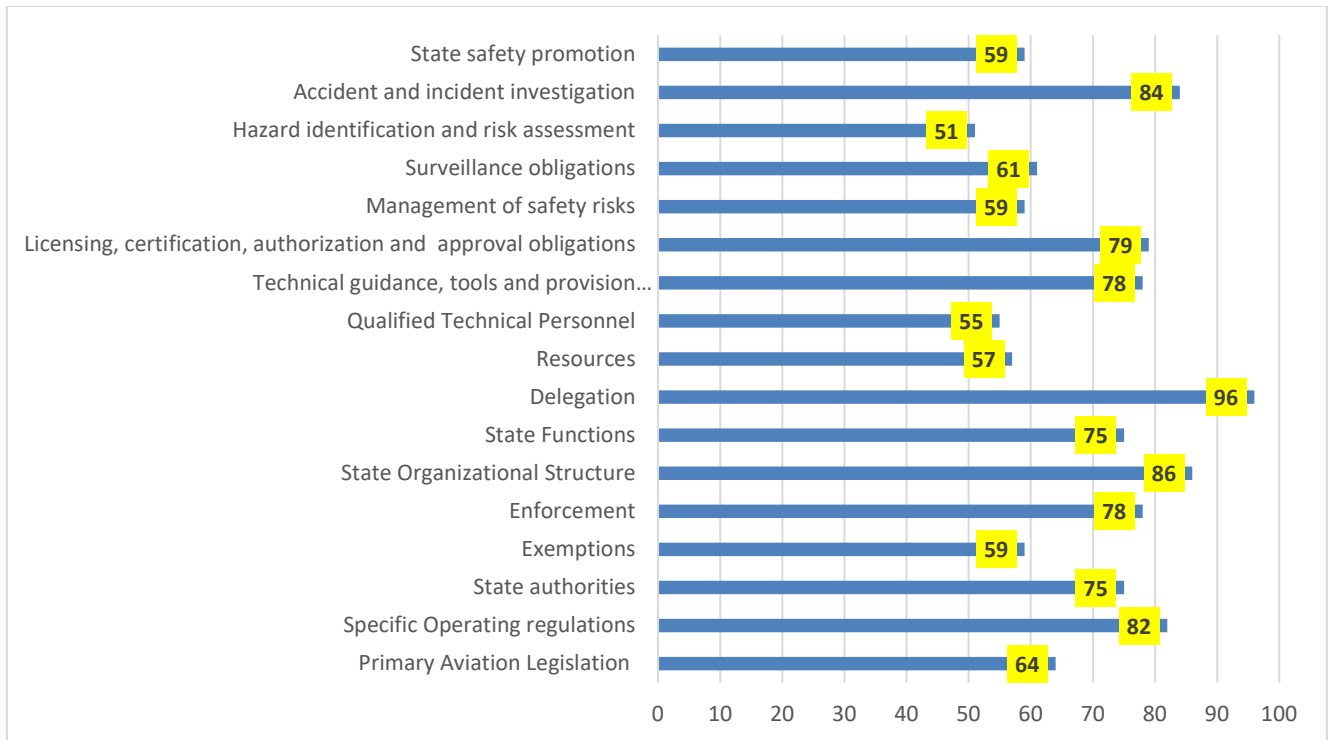
Graph 3: Average EI by Safety Management subjects for States in MID Region (Source: iSTARS as of 30 Oct 2019)

MID Region States SSP implementation progress (Gap Analysis)

The SSP statistics shown in the graph 4 are high-level information about each Gap analysis project performed by States themselves (Self-reported by the State and not validated by ICAO). SSP implementation progress has been measured for each State using simple milestones as per the entered data.

The estimated SSP maturity/implementation levels are shown in the graph 2. It shows that the majority of MID Region Member States have still not closed all actions and fully implemented their SSP.

A-8
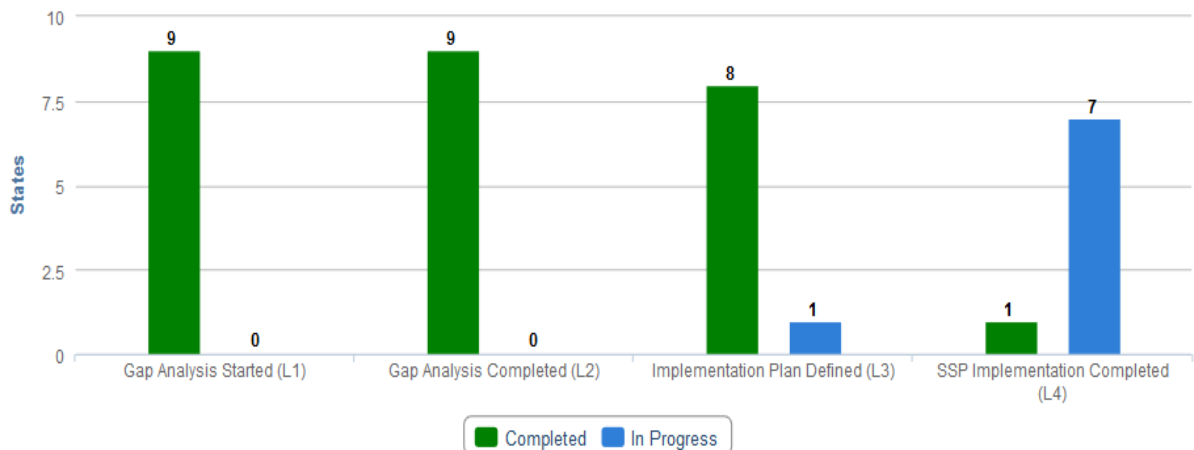
Graph 4: Source: iSATRS on 28 Nov 2019

Code	State Name	Progress	Level (Up %)	
BHR	Bahrain	SSP Implementation Completed	**L4 / 100% L4**	●●●●
EGY	Egypt	Implementation Plan Defined	**L3 / 33.3% L4**	●●●◐
IRN	Iran (Islamic Republic of)	Gap Analysis Completed	**L2 / 33.3% L3**	●●○○
JOR	Jordan	-		○○○○
KWT	Kuwait	Implementation Plan Defined	**L3 / 16.7% L4**	●●●◐
OMN	Oman	Implementation Plan Defined	**L3 / 35.7% L4**	●●●◐
QAT	Qatar	Implementation Plan Defined	**L3 / 88.1% L4**	●●●●
SAU	Saudi Arabia	Implementation Plan Defined	**L3 / 97.6% L4**	●●●●
SDN	Sudan	Implementation Plan Defined	**L3 / 92.9% L4**	●●●●
ARE	United Arab Emirates	Implementation Plan Defined	**L3 / 76.2% L4**	●●●●

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