



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



A 'NO COUNTRY LEFT BEHIND' Initiative:

# IMPLEMENT

Catalin RADU  
DD/SAF/ANB

ANC Informal Briefing  
02 March 2016



ICAO State Safety Briefing

Performance Dashboard

Indicator	Target	Value	Achieved
USQAP EI	60%		
Significant Safety Concerns (SSCs)	0		
Fatal Accidents	0		
Aerodrome Certification	Satisfactory		
State Safety Programme (SSP)	Level 2		
ICAA	>0		
FAA/NSA	Cat 1		
EVT Safety List	Unrestricted		
PEIN	70%		

USQAP Results by Area and Critical Element

Significant Safety Concerns (SSCs)

Certification of International Aerodromes

ICAO State Cost of Aviation

Cost of Aviation

LEG	ORG	PEL	OPS
CE-1	1		

ICAO State Cost of Aviation

Money

Infrastructure

People

ICAO STATE SAFETY BRIEFING

ICAO

State Cost of Aviation

Romania in RASG-EUR

Automatically Generated by ICAO/ANB 2019-05-13

ICAO STATE SAFETY BRIEFING

ICAO

Enhanced State Briefing

Romania in RASG-EUR

Automatically Generated by ICAO/ANB 2019-05-13

IMPLEMENT

NO COUNTRY LEFT BEHIND

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**COSTS**

**COST OF AN ACCIDENT**  
(Lives, resources, etc.)

Money

Infrastructure

People



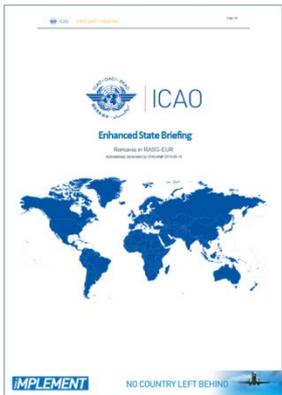
# Enhanced State Briefings

- High-level report showing State information and provides recommendation on priority areas of improvement
- Facilitates the enhancement of a State's implementation rate by helping prioritize activities based on data
- Shows the economic and social impact of aviation development

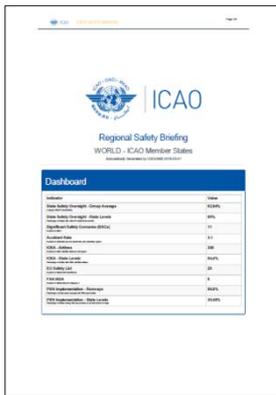




# Executive-level Briefings



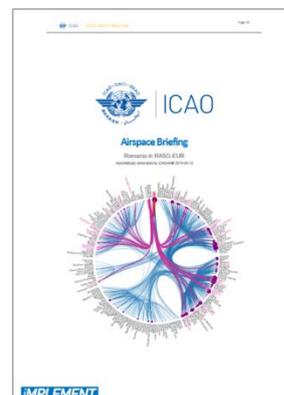
State Safety Briefing



Regional Safety Briefing



Aerodrome Briefing



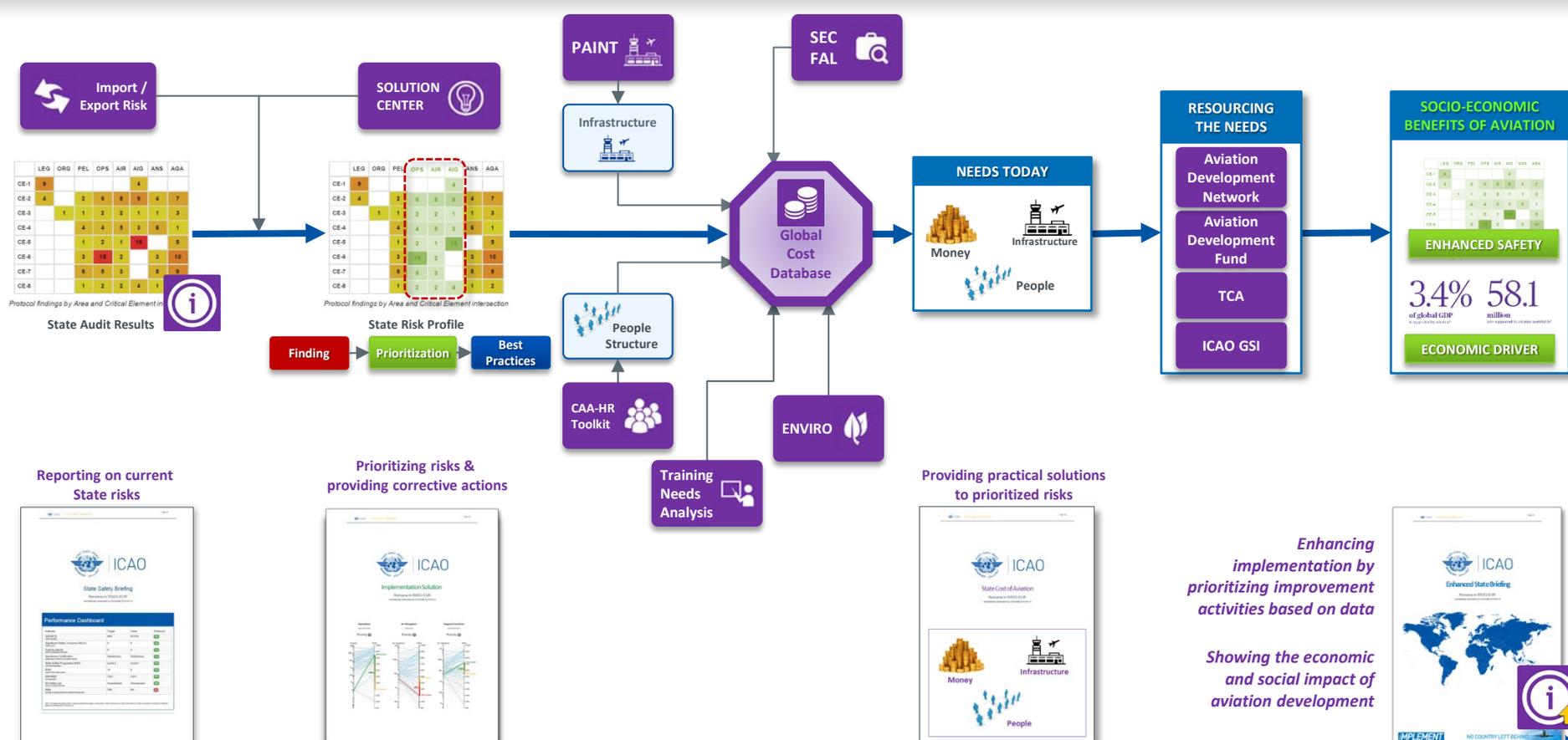
Airspace Briefing



Airline Briefing

Work-in-Progress

\* Accessible through *iSTARS/SPACE*



Reporting on current State risks



Prioritizing risks & providing corrective actions



Providing practical solutions to prioritized risks



Enhancing implementation by prioritizing improvement activities based on data

Showing the economic and social impact of aviation development





IMPLEMENTATION



State Safety Briefings (SSB)



Import / Export Risk

Solution Center

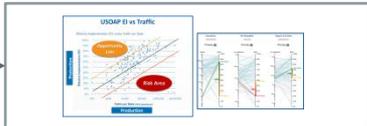
CAA-HR Toolkit

GCDB  
Global Cost Database

ICAO GSI

PAINT

TCA



State Risk Profile

State Customized Solutions

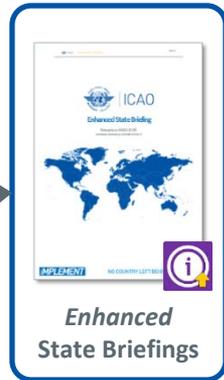
CAA Structure Personnel

Costs

GSI Optimization  
(Pool of Experts)

ASBUs Customized Implementation

Effective coordination for improved results



Enhanced State Briefings

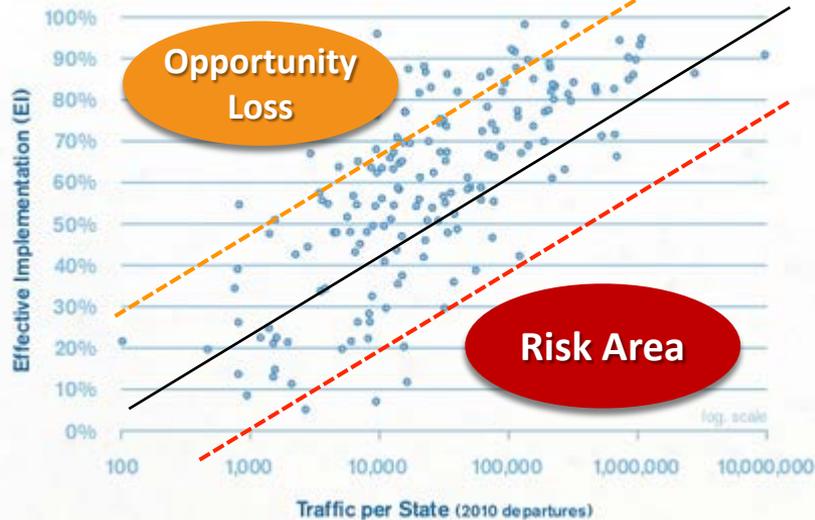




Import / Export Risk

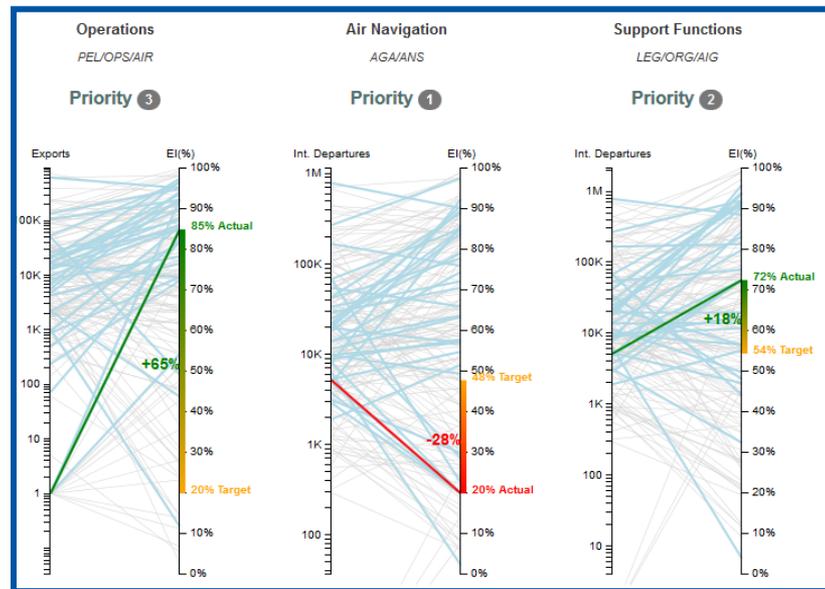
## USOAP EI vs Traffic

Effective Implementation (EI) versus Traffic per State



Protection

Production





## Solution Center

Help and guidance on Protocol Questions

- Priority Criteria
- PQ and Guidance
- Best Practices (Templates, Other State's, Industry)
- SARPs
- Software tools available
- Training
- Regional/Global Initiatives
- States that have resolved the PQ

### 2<sub>122</sub> Aerodromes and Ground Aids (AGA) - Resolution of Safety Concerns (CE-8) (1)

Area Lack ●●●○○○ Benefit ●●●●○○ Ease ●●●●○○

#### 8.329 (CE-8) - Does the State collect and forward wildlife strike reports to ICAO?

1) Review national procedure for recording wildlife strikes. 2) Review established requirements. 3) Evaluate mechanism to ensure effective implementation of the reporting and rectification action. 4) Review evidence to confirm.

Ref: STD A14, Vol. I 9.4.2 GM Doc 9332 1.2.1

#### Adopt Best Practices

[Share Practice](#)

#### Standards and Recommended Practices

Annex 14: Aerodromes Volume I - Aerodrome Design and Operations Current edition (consolidated)

Doc 9332: Manual on the ICAO Bird Strike Information System (IBIS) Third edition

#### Buy a tool

List of available software tools coming soon...

#### Get Staffed

List of required staff coming soon...

#### Get Fit

The following courses are available and related to the subject. For further information, please contact [globalaviationtraining@icao.int](mailto:globalaviationtraining@icao.int) for further help

ICAO - Safety Management System/State Safety Programme (SMS/SSP) by International Civil Aviation Organization (ICAO)

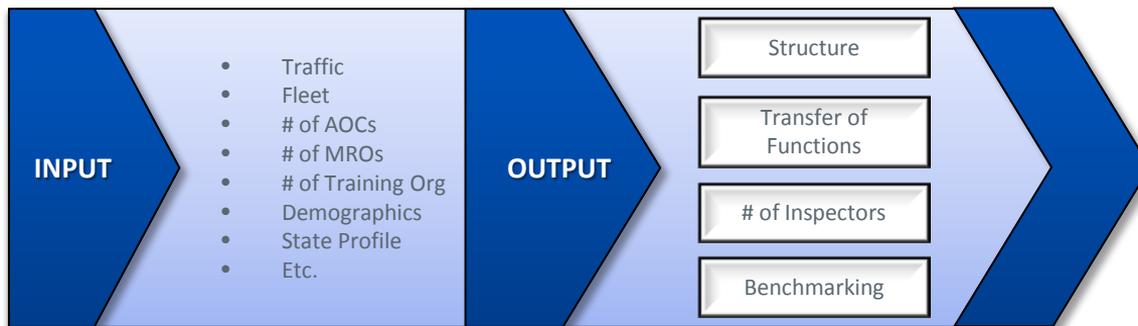
#### Join a Program

List of available programs coming soon...

#### Consult with others

In the Regional Aviation Safety Group (RASG-EUR) of Romania, the following States (30) have solved this question (the States in **bold** have similar traffic than Romania)

Austria, Azerbaijan, Belgium, Bulgaria, Bosnia and Herzegovina, Switzerland, **Czech Republic**, Germany, Denmark, Spain, Finland, France, United Kingdom of Great Britain and Northern Ireland, Georgia, Greece, Ireland, **Israel**, Italy, Luxembourg, Latvia, **Morocco**, Republic of Moldova, Netherlands, Norway, Poland, San Marino, Sweden, Tunisia, Turkey, Uzbekistan



**INITIATIVES:**

RASG PA – CAA Institutional Strength Metric;  
 ECAC – SAFOBENCH;  
 Zurich University – Research;  
 EU – CAA Capacity Study;  
 FAA;  
 EASA;  
 Singapore;  
 Morocco;  
 Etc.

**GUIDANCE and TOOLS**

**Guidance on Inspector Resources**  
 Considerations and factors for determining inspector resources

**Manpower planning tool**  
 Tool that States can use to calculate manpower needs

**Benchmarking tool**  
 For States to get a sense of the number of inspectors, based on benchmark with peers

**Guidance on Organisational Design**  
 Different approaches to safety oversight and sharing of best practices



## Guidance on Inspector Resources

Linked to the use of the Manpower Planning Tool

### General considerations

Legal system, availability of admin support, health of the aviation system, etc.

### Quantitative parameters

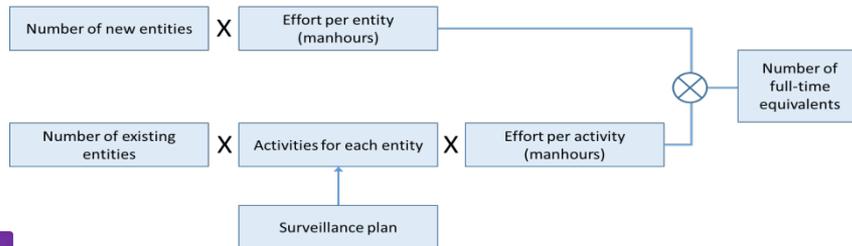
Number of aircraft, number of approved organizations, traffic volume, etc.

### Qualitative parameters

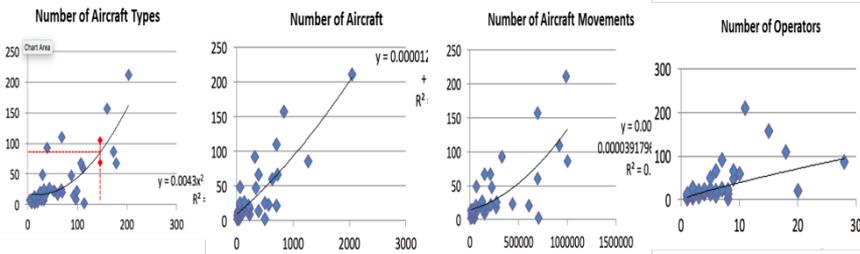
Inspector experience, efficiency of inspectors, sophistication of tools used, etc.



## Manpower planning tool



## Benchmarking tool

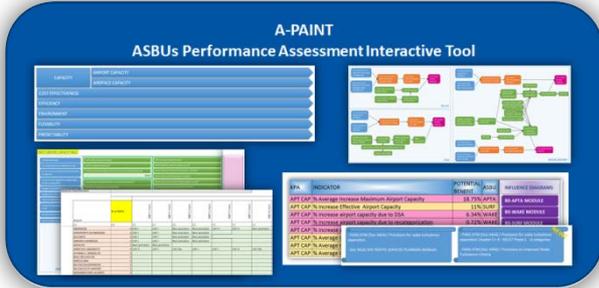


## Guidance on Organizational Design

Factors to consider in designing a CAA and safety oversight system

Options for managing resource load : internal resourcing, designation, delegation, outsourcing, etc.

Case studies of other CAAs and their structures

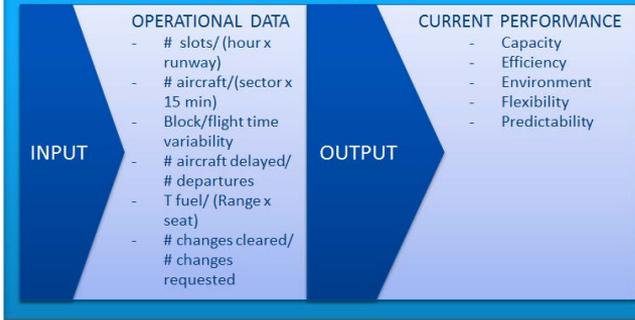


**AIRPORT CAPACITY MODEL  
UNDER VALIDATION**

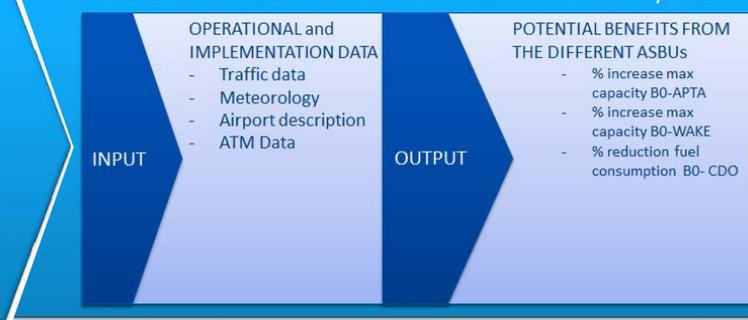


## STATE LEVEL

PERFORMANCE ANALYSIS: Do/Will I have a need?



ASSESTS DEPLOYMENT: Which is the best solution for my need?





- Cost of an aviation professional
- Cost of Training
- Added value to aviation based on State's Profile (ROI)
- Air Navigation-related costs (ASBUs)
- Infrastructure
- Cost of an accident

### COSTS

## COST OF AN ACCIDENT

(Lives, resources, etc.)

### NEEDS TODAY

**Money**

**Infrastructure**

**People Structure**

### RETURN ON INVESTMENT\*

# 3.4%

of global GDP  
is supported by aviation\*

# 58.1

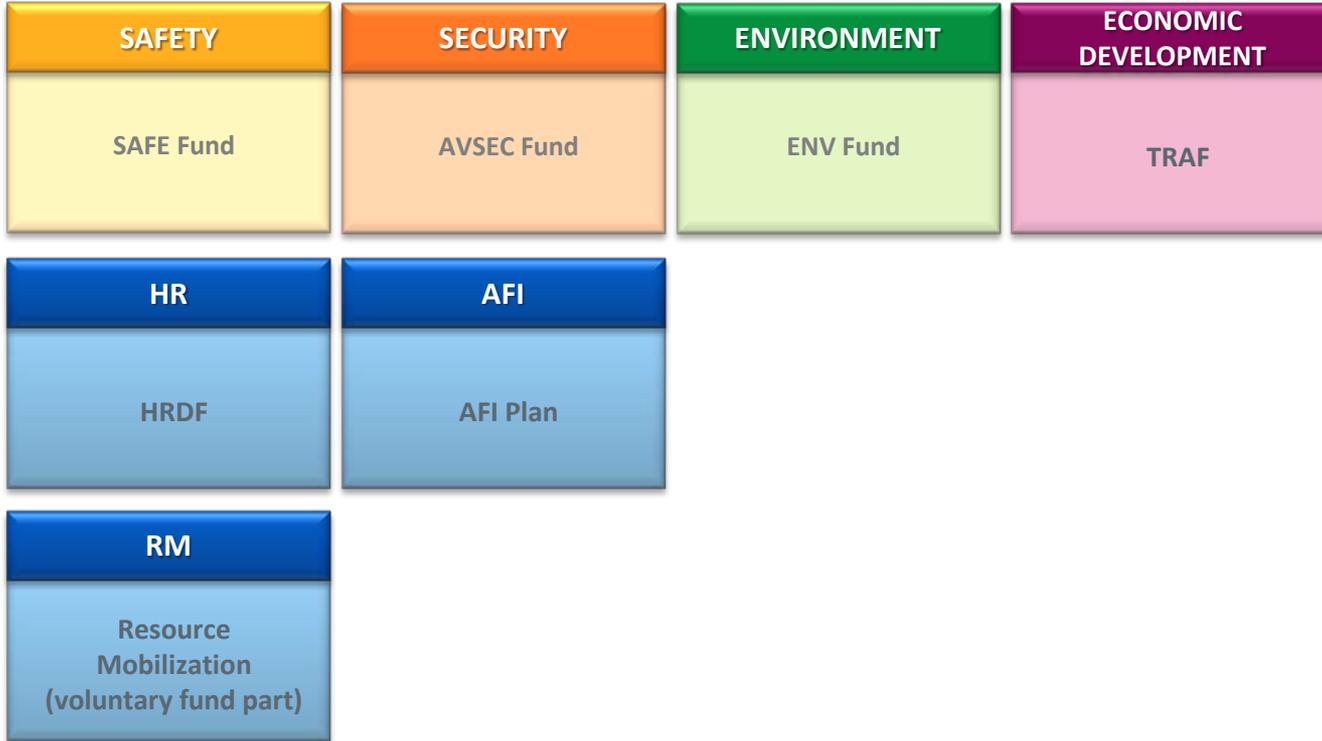
million  
jobs supported by aviation worldwide\*

2012	2032 <sup>m</sup>
2.97 billion passengers	6.63 billion
5.4 trillion passenger kilometres flown	12.2 trillion
20,101 Jet aircraft in service	41,240
58.1 million jobs supported	103.1 million
\$2.4 trillion economic impact	\$5.8 trillion

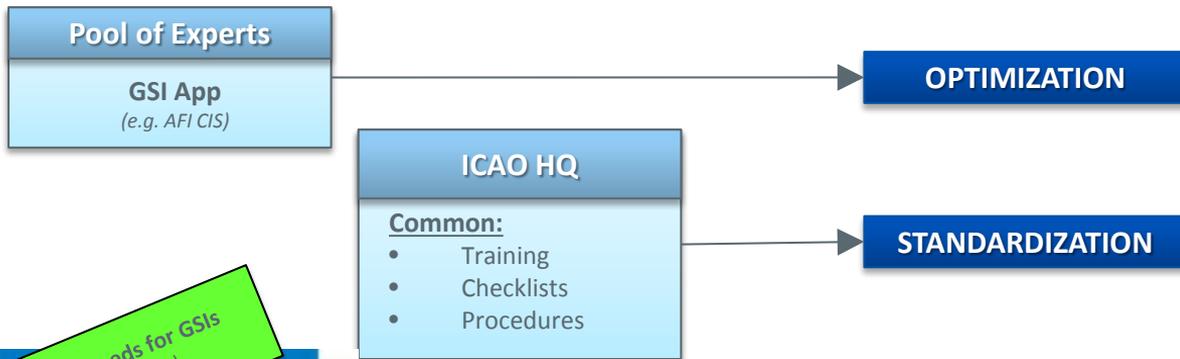


Aviation  
Development  
Network

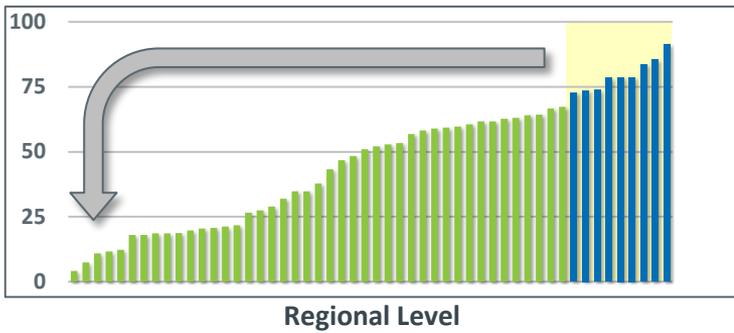
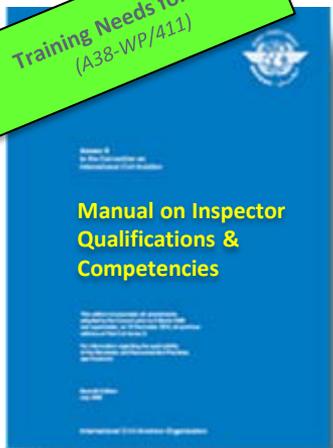




Aviation Development Fund



Training Needs for GSIs (A38-WP/411)



ICAO > Global Aviation Training > GSI

### Government Safety Inspector

**Objectives**  
The Government Safety Inspector (GSI) Training Programme has been developed in order to ensure a high-level of quality and standardization in the training of government safety inspectors globally.

**Description**  
Courses under this programme have been developed to address shortcomings identified in audits conducted under the ICAO Universal Safety Oversight Audit Programme (USOAP) related to the lack of qualified technical personnel to carry out safety oversight responsibilities. Government Safety Inspector (GSI) courses are conducted by ICAO-Endorsed GSI Training Centres and developed using the Model Civil Aviation Regulations (MCARs).

**ICAO Endorsed GSI Training Centres:**  
[A List of ICAO-Endorsed GSI Training Centres around the world](#)

**GSI Courses available:**

- Government Safety Inspector Operations- Air Operator Certification (GSI-Ops), Course 18700
- Government Safety Inspector Airworthiness- Air Operator and Approved Maintenance Organization Certification (GSI-Air), Course 18701
- Government Safety Inspector Personnel- Personnel Licensing (GSI-PEL), Course 18710

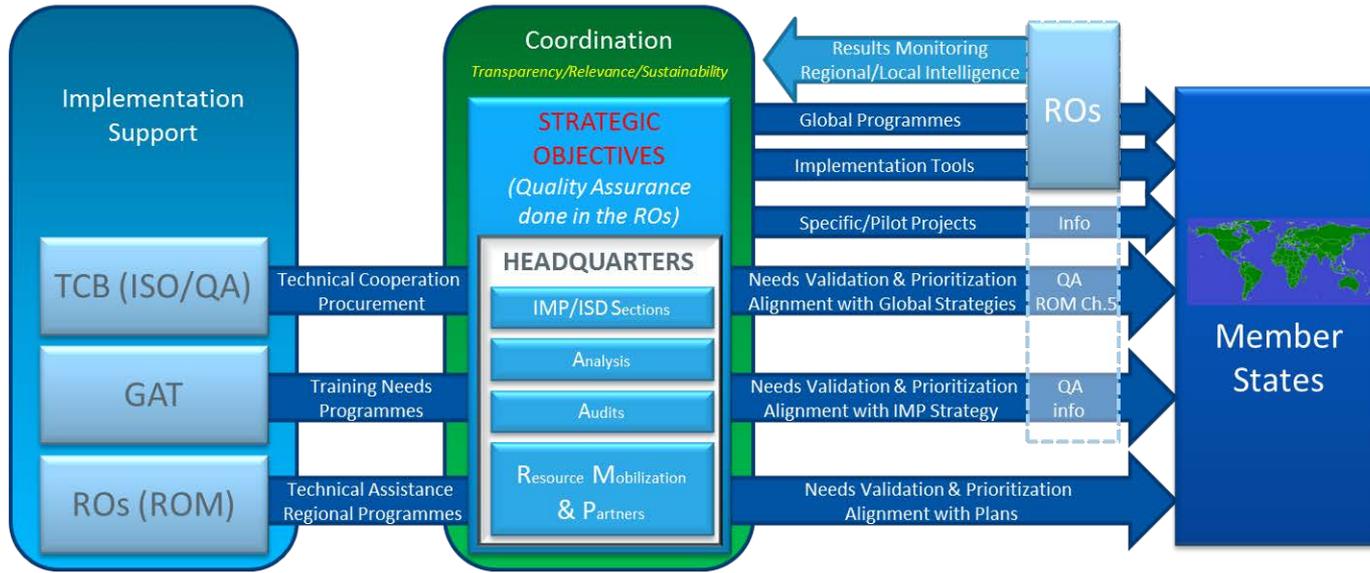
For more information about the course objectives, etc, please [click here](#)  
For upcoming courses in the next 9 months, please [click here](#)

**Contact info**  
Please contact the training centres directly for information regarding enrollment, costs, etc. For any other questions, you may contact ICAO directly at [AviationTraining@icao.int](mailto:AviationTraining@icao.int)



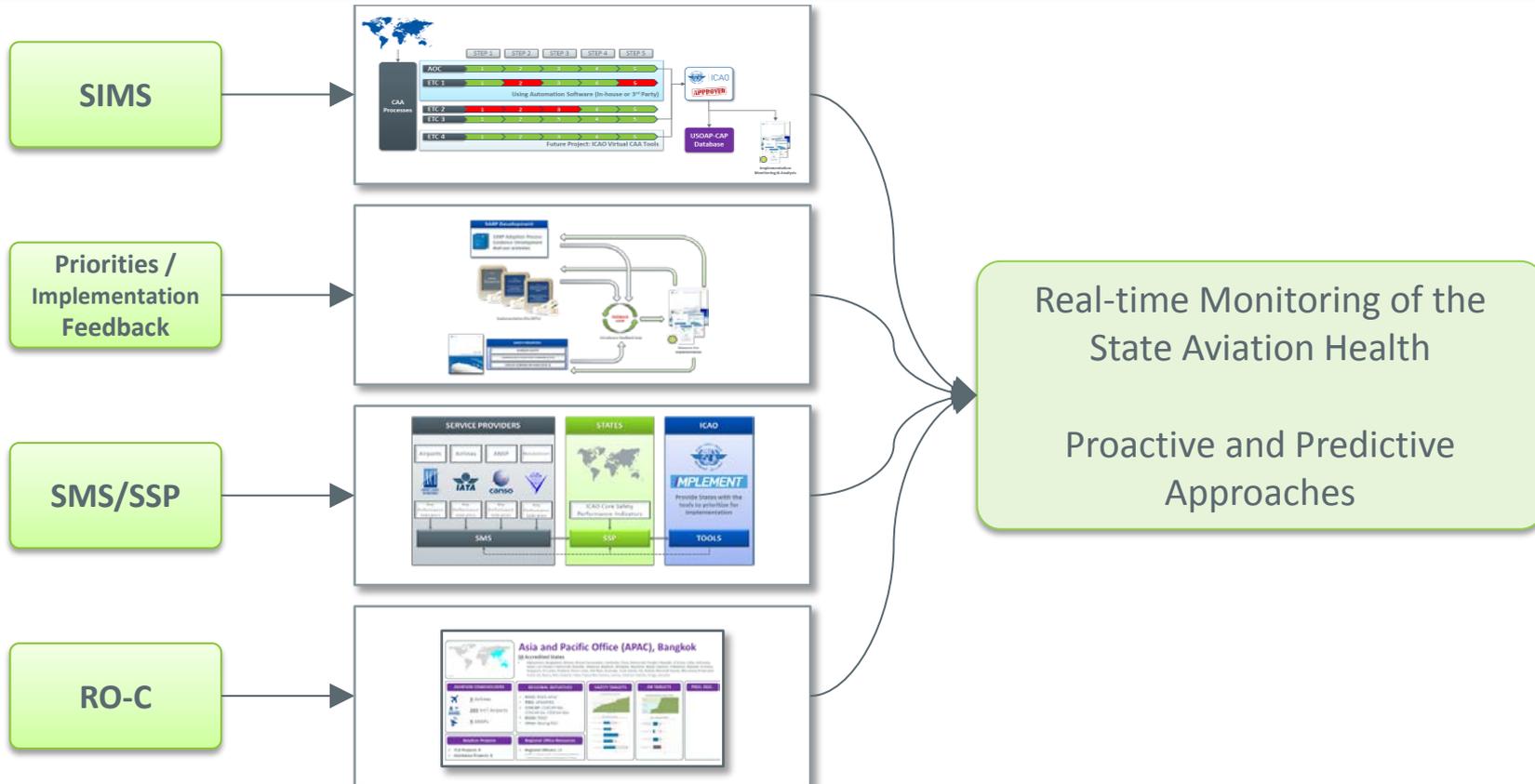
## TECHNICAL COOPERATION AND ASSISTANCE COORDINATION MECHANISM

TCA



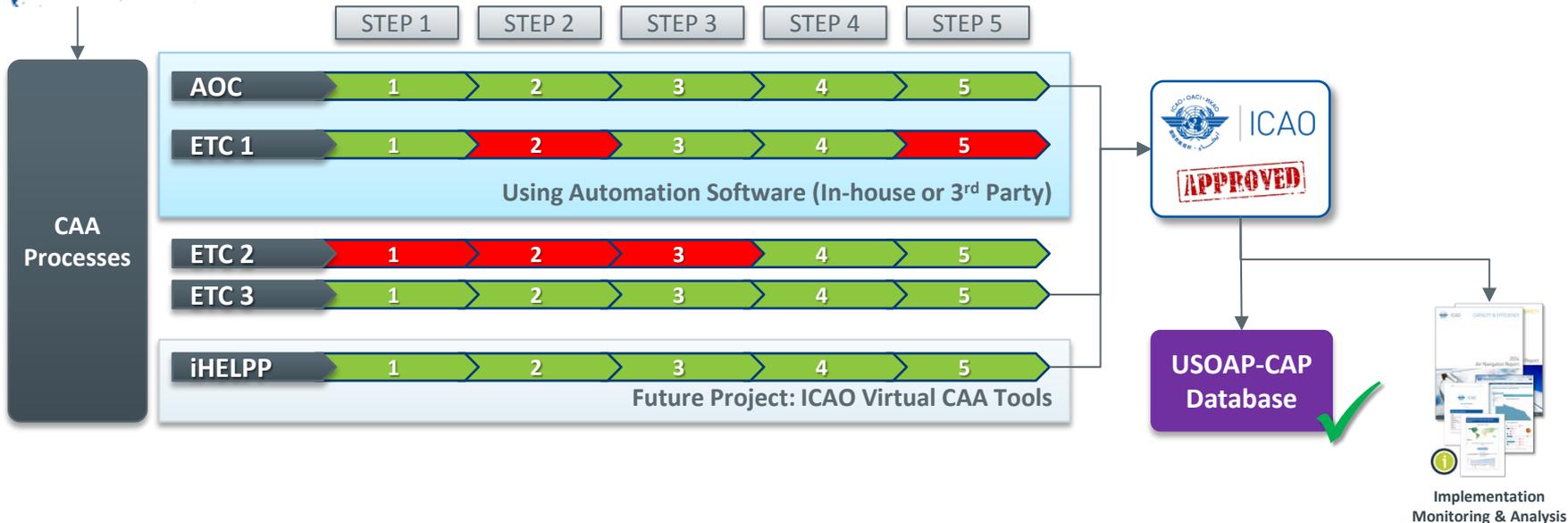


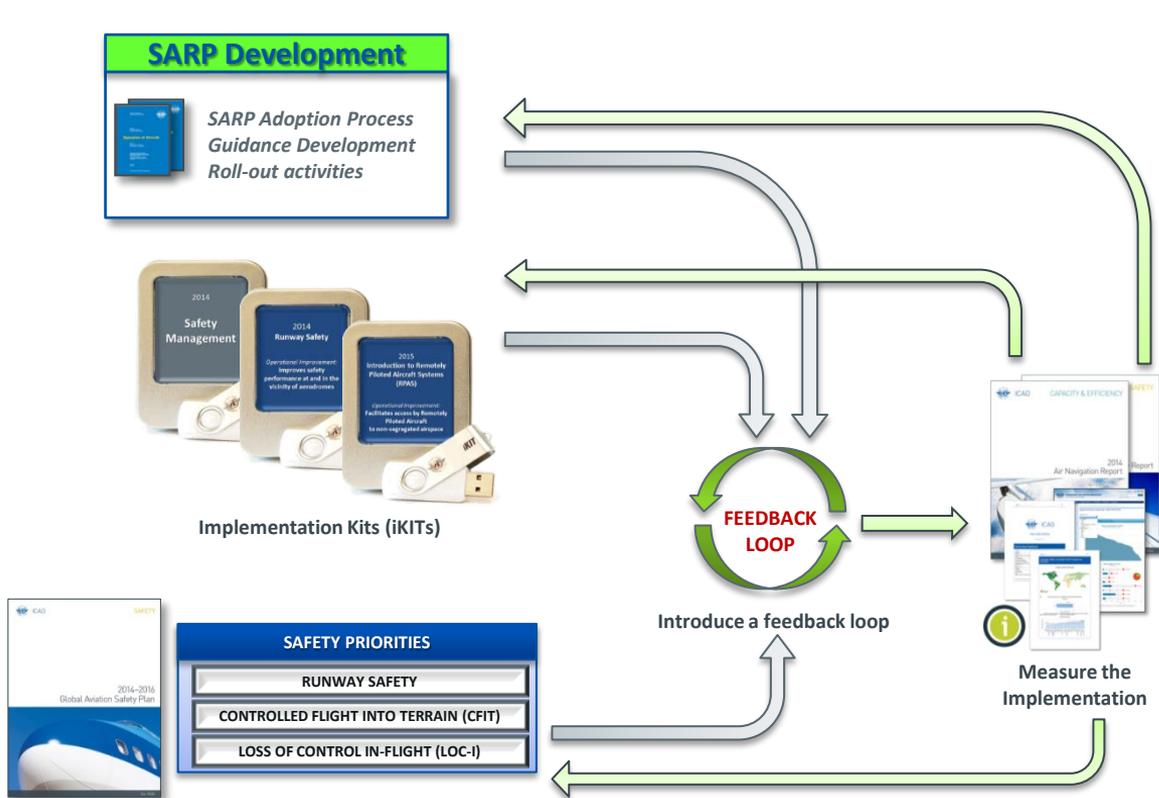
MONITORING





SIMS







### SERVICE PROVIDERS

Airports Airlines ANSP Manufacturers Business Aviation



KPI

KPI

KPI

KPI

KPI

SMS

### STATES

Core Safety Performance Indicators



SPI

SSP

### ICAO

**iMPLEMENT**

Provide States with tools to prioritize implementation

TOOLS



# Regional Office Compendium

RO-C

- **Compilation of aviation-related information for a particular Regional Office**
- **Elements include:**
  - Aviation Stakeholders:
    - Accredited States
    - # of National Airlines
    - # of Airports
    - # of ANSPs
  - Regional Initiatives
    - PIRGs/RASGs
    - COSCAPs/RSOOS
    - Other
  - Aviation Projects
  - Regional Targets and Priorities
  - RO resources
  - Project Management Template



## Asia and Pacific Office (APAC), Bangkok

**38 Accredited States**

- Afghanistan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, India, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Republic of Korea, Singapore, Sri Lanka, Thailand, Timor-Leste, Viet Nam, Australia, Cook Islands, Fiji, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Zealand, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Vanuatu

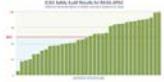
AVIATION STAKEHOLDERS

 **X** Airlines  
 **265** Int'l Airports  
 **X** ANSPs

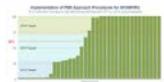
REGIONAL INITIATIVES

- RASG: RASG-APAC
- PIRG: APANPIRG
- COSCAP: COSCAP-NA, COSCAP-SA, COSCAP-SEA
- RSOD: PASO
- Other: Beijing RSO

SAFETY TARGETS



AN TARGETS



PROJ. DOC.



Aviation Projects

- TCB Projects: X
- Assistance Projects: X

Regional Office Resources

- **Regional Officers: 14**  
 (1 MET, 1 Safety, 2 CNS, 1 Security & Facilitation, 1 Aerodromes, 1 Technical Assistance, 7 ATM)

02 March 2016

SAFETY



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



ICAO

North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



THANK YOU

[www.icao.int/implement](http://www.icao.int/implement)