



SAFETY – FIRST

ICAO GLOBAL SAFETY UPDATES

NACC/WG/5 Meeting

Port of Spain, Trinidad and Tobago, 22th -26th May 2017

Julio Siu

ICAO NACC Regional Office, Deputy Regional Director





ICAO | UNITING AVIATION

NO COUNTRY LEFT BEHIND



39th

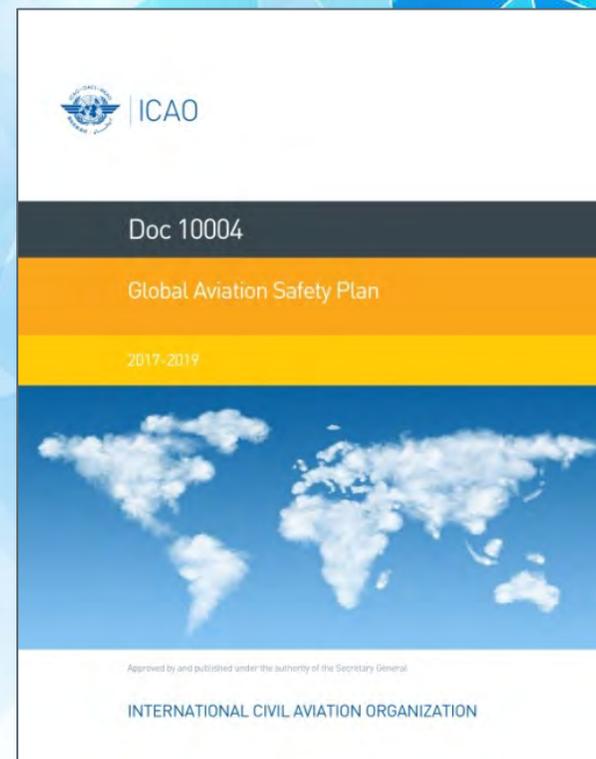
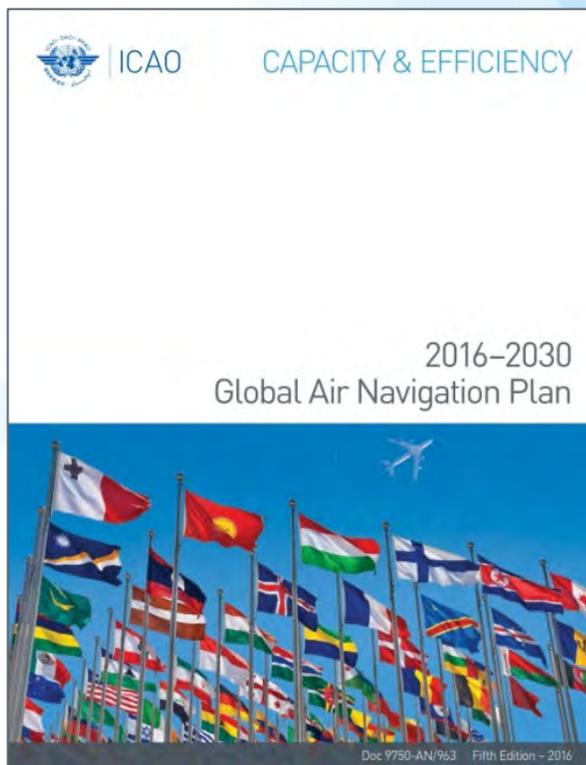
TRIENNIAL ASSEMBLY

ICAO HQ, MONTREAL, 27 SEP-07 OCT 2016



ICAO

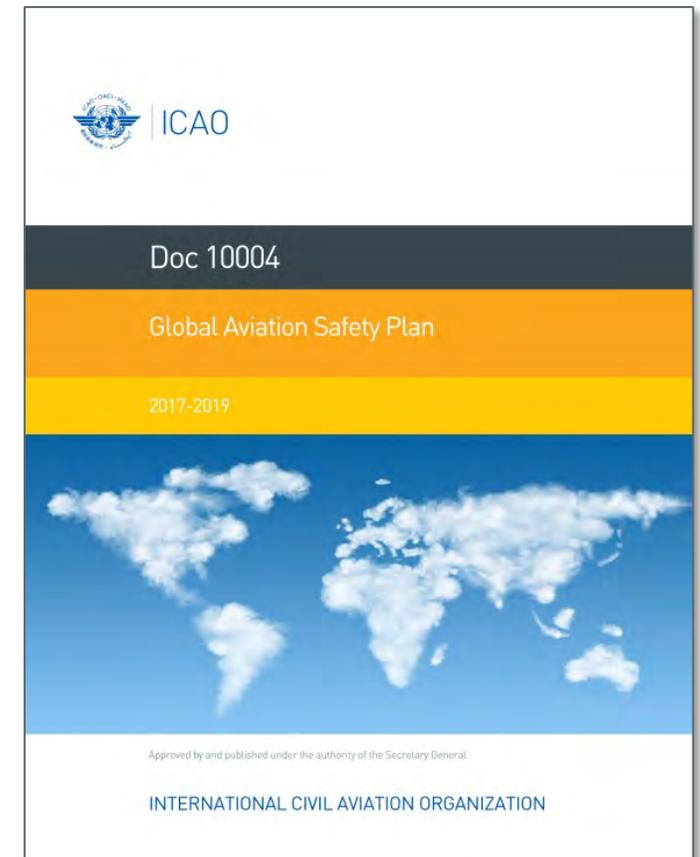
UNITING AVIATION





Endorsed: Global Aviation Safety Plan (GASP)

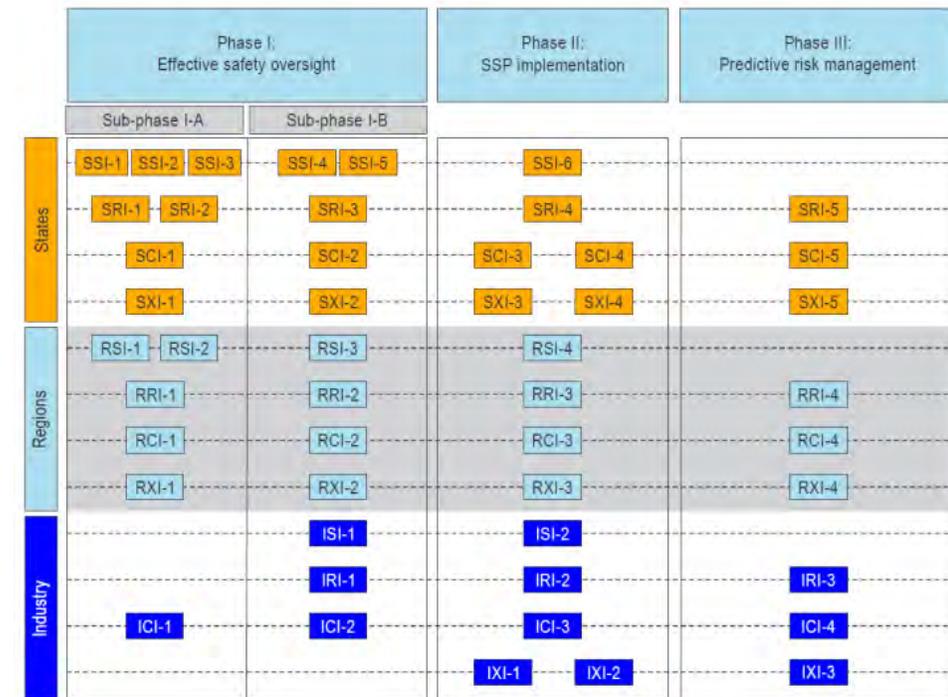
- **2017-2019 Edition**
 - **Maintains** the framework, objectives and safety performance enablers of the 2014-2016 edition
 - New **global aviation safety roadmap** ensures that safety initiatives deliver the intended benefits associated with the GASP objectives through enhanced coordination
 - Reducing inconsistencies and duplication of efforts
- **Cooperative, collaborative, and coordinated approach**
 - Together with all stakeholders and under the leadership of ICAO, the GASP offers a long-term vision in developing a harmonized safety strategy.





New GASP Roadmap

- **Goals:**
 - Ensure that safety initiatives deliver the intended benefits associated with the GASP objectives
 - Reduce inconsistencies and duplication of efforts
- **Specific safety initiatives aimed at States, Regions and Industry**
- **Complements the GANP**
 - Some ASBUs address safety
 - Implementation of ASBUs will require safety assessments prior to implementation





Safety Performance Indicators

- New appendix in the GASP
- Provides guidance regarding safety and level of activity indicators
- First step towards the development and implementation of harmonized global indicators
 - Can be adapted at the regional, sub-regional, and national levels

#	Indicators and metrics	Type	Usage
1.	Effective implementation of State safety oversight system <i>Metrics:</i> <ul style="list-style-type: none"> • USOAP EI Scores overall • USOAP EI Scores by technical area • USOAP EI Scores by critical element 	Predictive	Target
2.	Progress in SSP implementation <i>Metrics:</i> <ul style="list-style-type: none"> • Percentage of completed gap analysis questions • Percentage of implemented gap analysis questions overall • Percentage of implemented gap analysis questions by element 	Predictive	Target
3.	Progress in SMS implementation <i>Metrics:</i> <ul style="list-style-type: none"> • Percentage of completed gap analysis questions by operator • Percentage of implemented gap analysis questions overall by operator • Percentage of implemented gap analysis questions by element and by operator 	Predictive	Target
4.	Frequency and severity of accidents and incidents <i>Metrics:</i> <ul style="list-style-type: none"> • Number and distribution of occurrences by severity level (accident, serious incidents, etc.) and the ICAO Accident/Incident Data Reporting System (ADREP) occurrence category • Number and distribution of fatalities by ADREP occurrence category • Occurrence per number of departures (rate) <p><i>Note.— Occurrences should be limited to specific categories of aircraft and operations, such as aircraft above 5 700 kg operating scheduled commercial flights.</i></p>	Reactive/ proactive	Target



States:

- a) are requested to establish a national safety plan, including priorities and targets consistent with the regional safety plan, in line with the GASP objectives, including the global aviation safety roadmap, and based on their operational safety needs; and
- b) are invited to provide ICAO feedback on the new Global Aviation Safety Roadmap and suggestions for the future 2020 – 2022 Edition of the GASP via email to: GASP@icao.int .



Global Aviation Safety Update

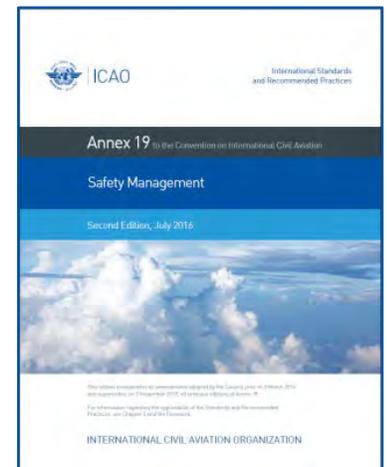
ANNEX 19 - AMENDMENT 1





Amendment 1 to Annex 19

- 1) **Integration** of the State Safety Oversight (**SSO**) system critical elements (**CEs**) with the State Safety Programme (**SSP**) provisions which are **upgraded from the SSP framework in Attachment A**.
- 2) **Enhancement** of safety management system (**SMS**) provisions to support **uniform implementation**, including **the extension of an SMS** to organizations responsible **for the type design and/or manufacture of engines and propellers**
- 3) **Protection** of safety data, safety information and related sources
 - Upgrading **Attachment B** to the status of an **Appendix**
 - A higher level of protection for **voluntary reporting systems** through a **Standard**
 - The protection of **mandatory reporting systems** is reflected in a **Recommendation**
 - New provisions to ensure **no overlap** with the protection provisions in **Annexes 6 and 13**



TIME		2016	2017 - 2019	2020 - 2022
SARPs	A19 SARPs	A19 Amdt 1 Effective <i>11 Jul 2016</i>		A19 Amdt 1 Applicable <i>7 Nov 2019</i>
	A19	SM Course (TRAINAIR+) <i>May 2016</i>		
GUIDANCE & TRAINING	A19	Safety Management Manual (SMM) (Doc 9859) 3 rd Ed (2013)		
	A19 Amdt 1	SM Online Course update (Phase 1) & Promo videos SM Course (TRAINAIR+) update <i>3rd Quarter 2016</i>	SMM 4 th Ed + website SM Online Course (Phase 2) and SSP gap analysis tool update <i>Jul 2017</i>	SM Symposia + Regional Seminars
AUDIT	A19	No audits on the "new PQs on safety management". Only voluntary assessments using these PQs ¹		
	A19 Amdt 1		Doc 9734 Part A Rev <i>Jul 2017</i>	SSP-focused audits on selected ² States using amended SSP PQs <i>Jan 2018</i>
GASP Objectives	A19	All States > 60% EI to implement SSP <i>by end of 2017</i>		All States implement SSP <i>by end of 2022</i>
	A19 Amdt 1		Amended SSP PQs <i>Jul 2017</i>	SSP-focused audits using amended SSP PQs for States meeting maturity criteria ³ <i>Jan 2020+</i>
GASP	A19	GASP 2014-2016		
	A19 Amdt 1	A39 Endorsement GASP 2017-2019 <i>Sep 2016</i>	GASP 2017-2019	A40 Endorsement GASP 2020-2022 <i>Sep 2019</i>
		GASP 2020-2022 <i>NEW TARGETS?</i>		

1 February 2017

Jul 2016

Sep 2016

Jul 2017

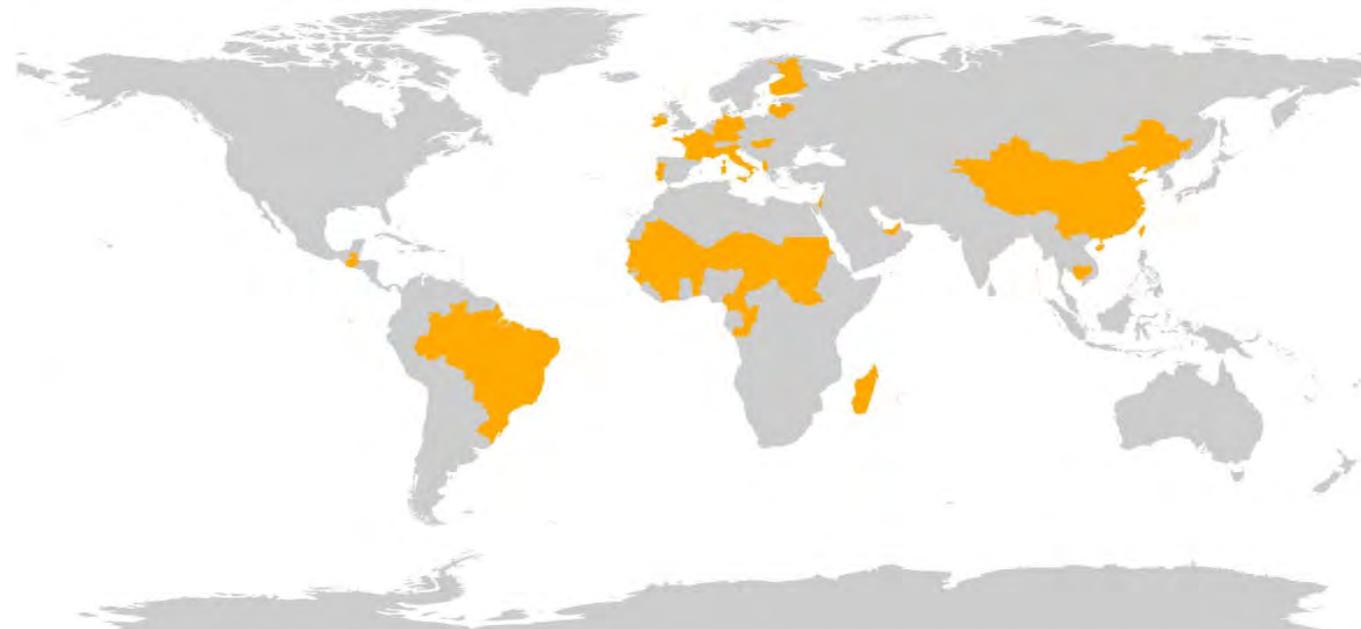
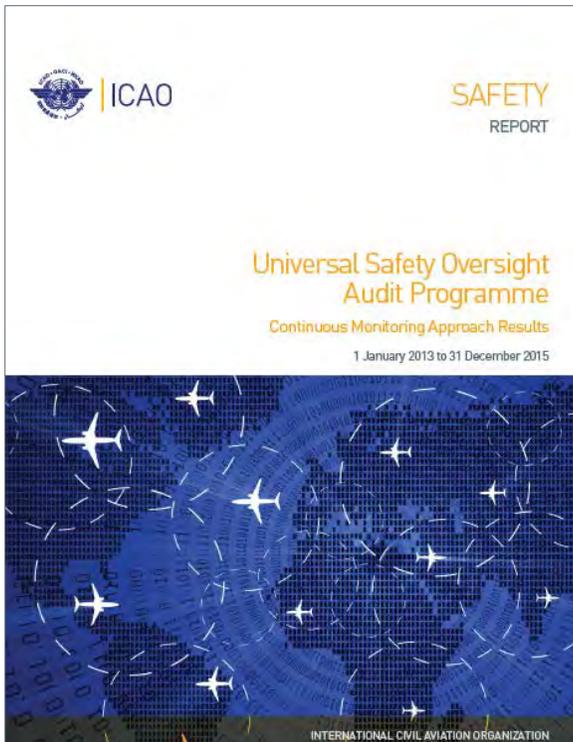
Jan 2018

Nov 2019

¹ Confidential and on a cost-recovery basis
² By mutual agreement - non-confidential audits.
³ Criteria to be established by ICAO in line with GASP



Universal Safety Oversight Audit Programme (USOAP)



USOAP CMA Off-site Validation from 1 January 2013 to 31 December 2015



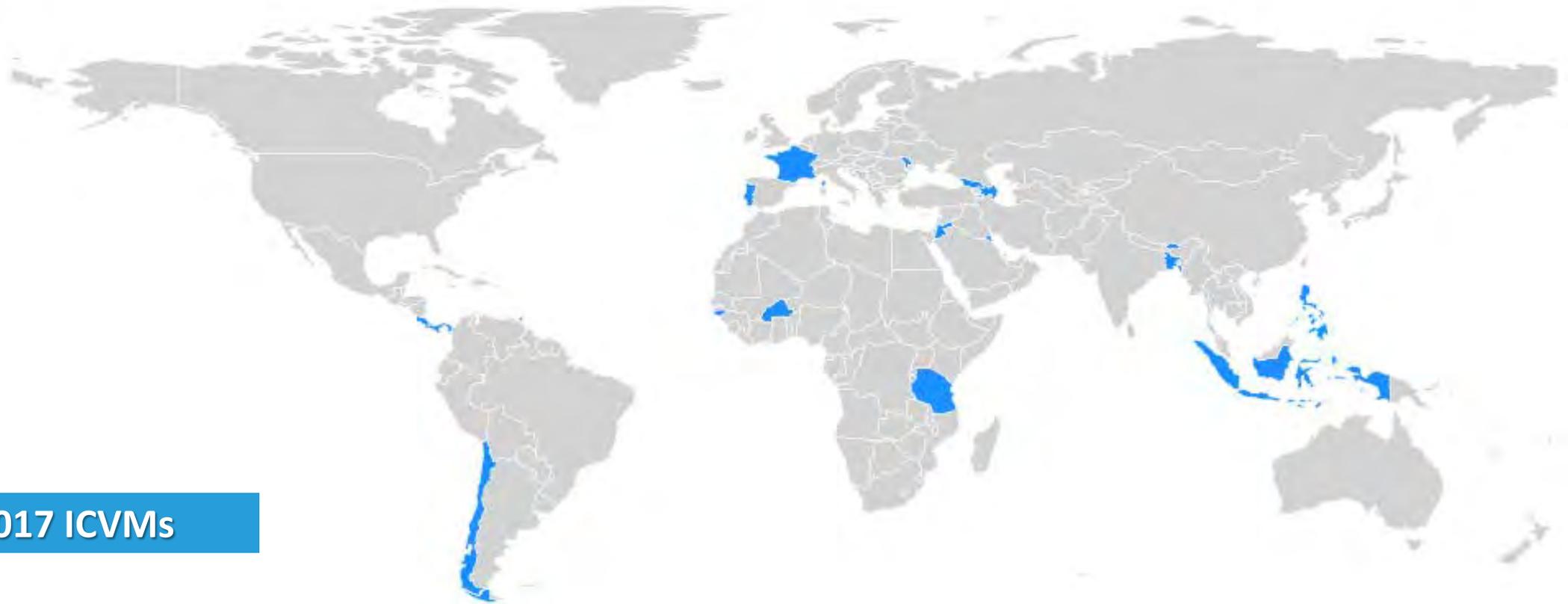
USOAP Activity Plan (EB 2017/2)



2017 Audits



USOAP Activity Plan (EB 2017/2)



2017 ICVMs



States are urged to continue the implementation of SSP and report on progress using the SSP Assessment Tool on iSTARS and completing the USOAP SSP-related PQ self-assessments on the online framework (OLF).

States are urged to fulfil their obligations under the USOAP CMA Memorandum of Understanding (MOU) and to take actions/ NCLB commitment to provide up-to-date information on their safety oversight systems, with particular attention to:

- a) States with an SSC, focusing on implementing sustainable corrective actions to resolve the SSC with a high priority;
- b) updating the content and implementation progress of their CAPs on the OLF;
- c) completing the self-assessment of the PQs on the OLF;
- d) requesting assistance from the ICAO Regional Office, if required; and
- e) informing the ICAO Regional Office once significant updates have been made on the OLF.



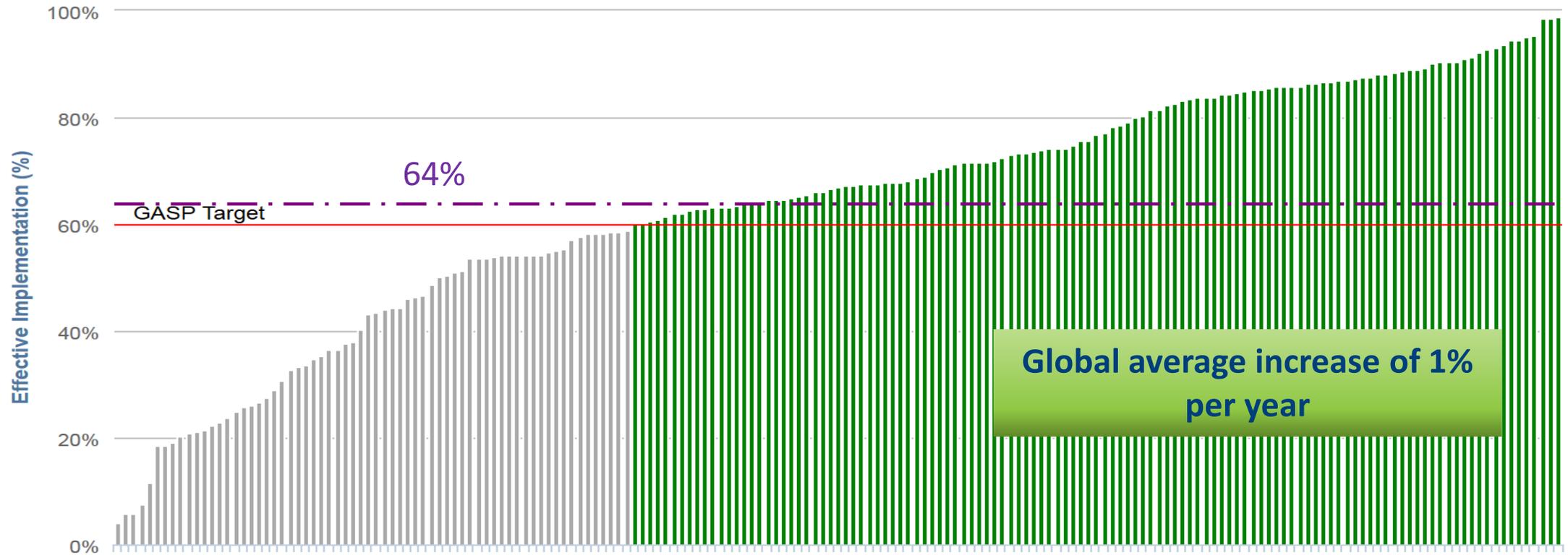
Safety and Air Navigation Updates

GLOBAL STATUS





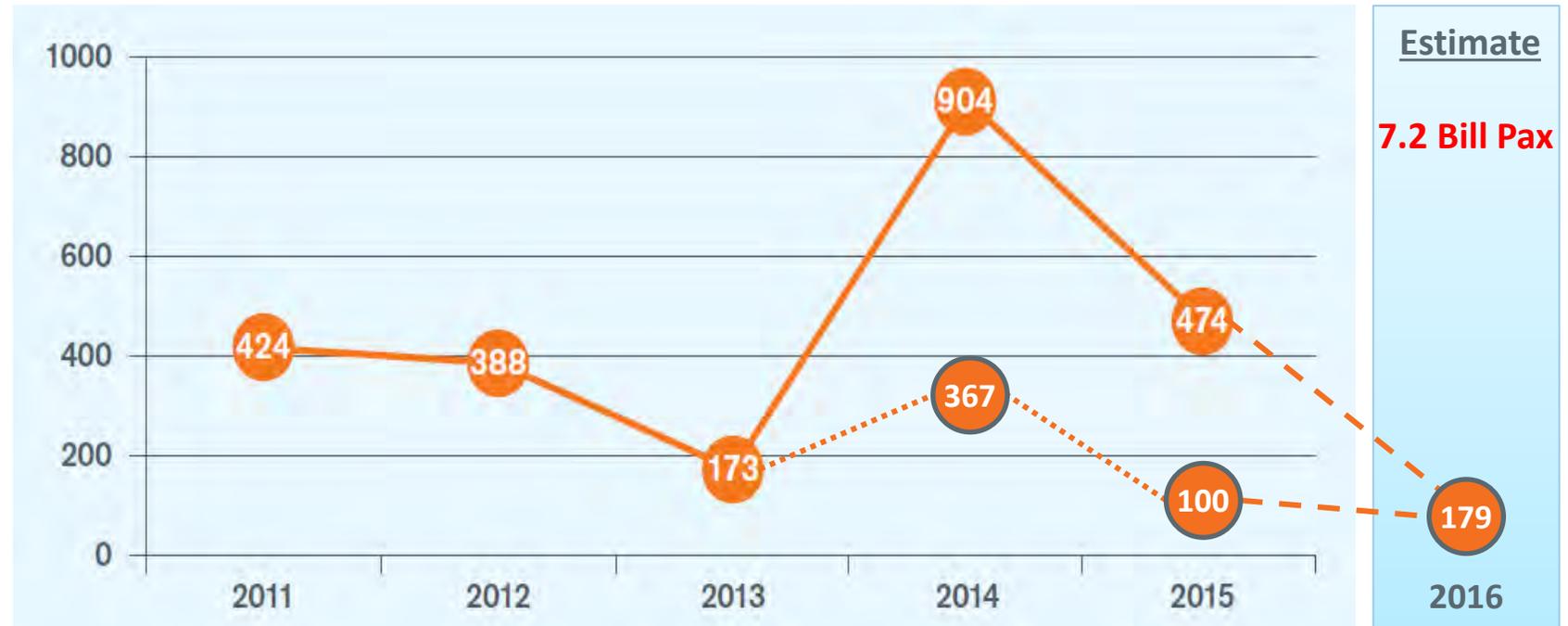
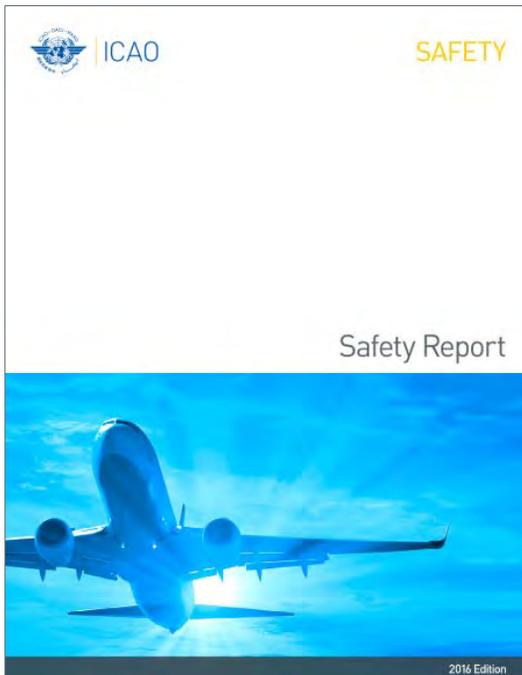
Effective Implementation of State Safety Oversight



Effective implementation (%) results through USOAP CMA



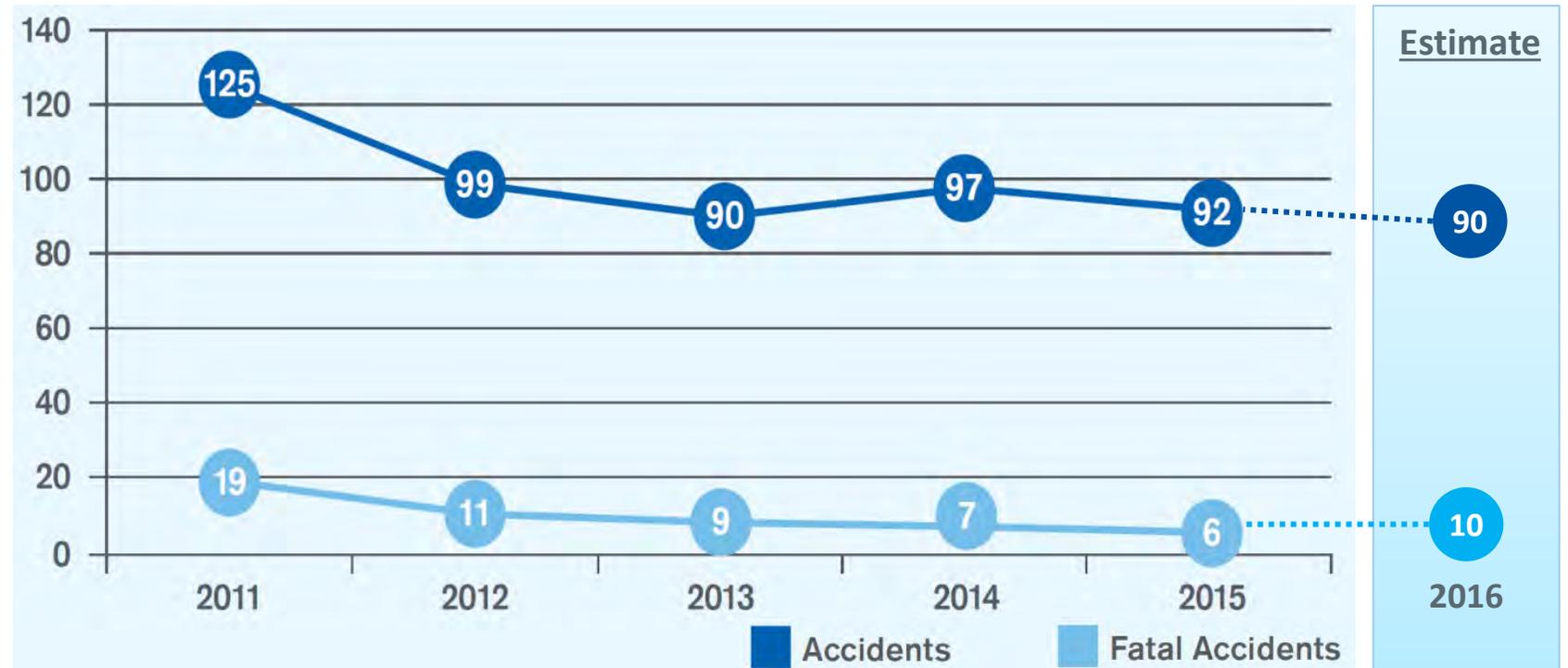
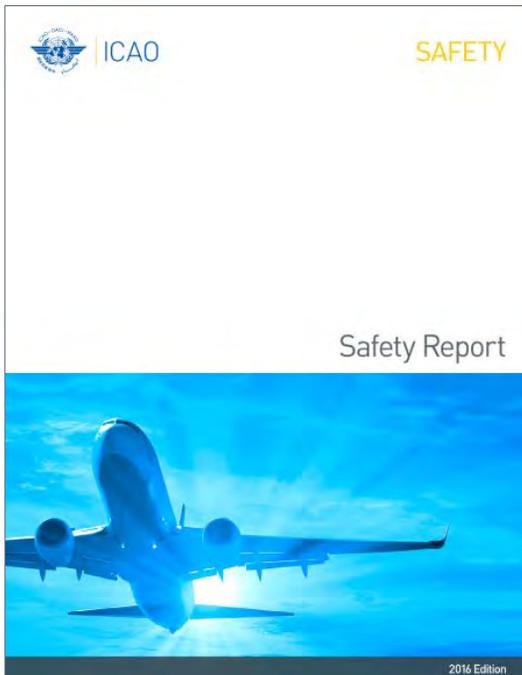
Fatalities Trend for Scheduled Commercial Flights (2011 – 2016)



Fatalities showed a spike during 2014, and then recovered in 2015



Accidents Trend for Scheduled Commercial Flights (2011 – 2016)



Overall, accidents and fatal accidents have been decreasing



We are not that far...

Regional Accident Statistics: 2013

RASG	Estimated Departures (in millions)	Number of accidents	Accident rate (per million departures)	Fatal accidents	Fatalities
AFI	0.7	9	12.9	1	33
APAC	8.6	19	2.2	1	49
EUR	7.9	21			
MID	1.1	2			
PA	13.8	39			
WORLD	32.1	90			

Regional Accident Statistics: 2015

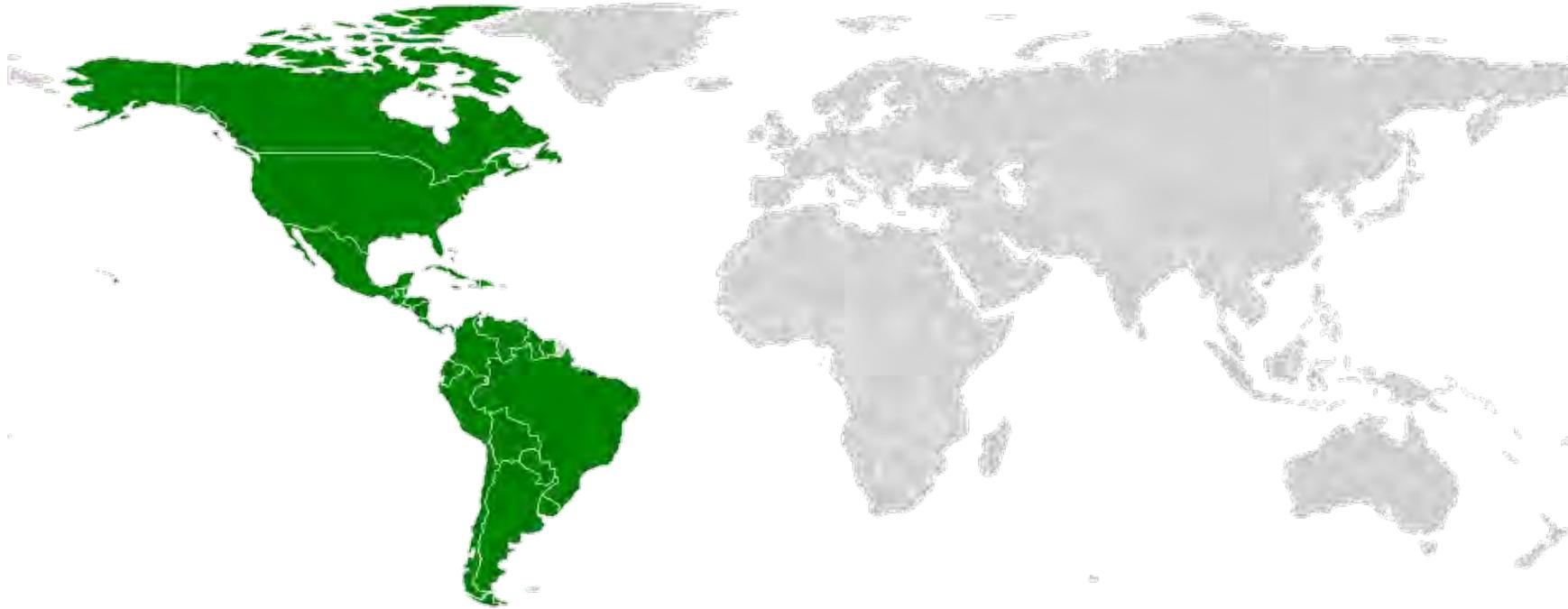
RASG	Estimated Departures (in millions)	Number of accidents	Accident rate (per million departures)	Fatal accidents	Fatalities
AFI	0.8	6	7.3	0	0
APAC	9.8	24	2.5	3	98
			3.0	1	150
			2.5	1	224
			2.6	1	2
			2.8	6	474

For 2016 (non validated results)
 PA (NACC/SAM) and AFI (WACAF/ESAF)
ZERO fatalities

Regional Accident Statistics: 2016

RASG	Estimated Departures (in millions)	Number of accidents	Accident rate (per million departures)	Fatal accidents	Fatalities
AFI	0.7	6			
APAC	10.2	18	1.8	3	449
EUR	8.9	26	2.9	1	298
MID	3.0	7	2.3	2	39
PA	9.9	41	4.1	0	0
WORLD	33	98	3.0	7	904

In the past, some regions have already achieved zero fatalities



Safety and Air Navigation Updates

REGIONAL STATUS (NAM/CAR/SAM)



Source: *ISTARS 3.0 – MAP Builder* (<https://portal.icao.int/space>)



Regional Safety Briefing

ICAO
Regional Safety Briefing
RASG-PA
Automatically Generated by ICAO/IASG 2017-05-01

Indicator	Value
State Safety Oversight - Group Average	71.79%
State Safety Oversight - State Levels	67.65%
Significant Safety Concerns (SSCs)	1
Accident Rate	3.09
IOSA - Airlines	90
IOSA - State Levels	64.71%
EU Safety List	1
FAA IASA	2
PBN Implementation - Runways	82.88%
PBN Implementation - State Levels	38.24%

Dashboard	
Indicator	Value
State Safety Oversight - Group Average <i>Average USQAP Overall EIS (%)</i>	71.79%
State Safety Oversight - State Levels <i>Percentage of States with USQAP Overall EIS above 60%</i>	67.65%
Significant Safety Concerns (SSCs) <i>Number of SSCs</i>	1
Accident Rate <i>Number of accidents per 100 departures over preceding 3 years</i>	3.09
IOSA - Airlines <i>Number of IOSA certified airlines in the region</i>	90
IOSA - State Levels <i>Percentage of States with IOSA certified airlines</i>	64.71%
EU Safety List <i>Number of States with restrictions</i>	1
FAA IASA <i>Number of States rated in Category 2</i>	2
PBN Implementation - Runways <i>Percentage of instrument runways with PBN approaches</i>	82.88%
PBN Implementation - State Levels <i>Percentage of States having PBN approaches on all instrument runways</i>	38.24%



Regional Accident Rates (2015)

RASG	Estimated Departures (in millions)	Number of accidents	Accident rate (per million departures)	Fatal accidents	Fatalities
AFI	0.8	6	7.3	0	0
APAC	9.8	24	2.5	3	98
EUR	8.1	24	3.0	1	150
MID	1.2	3	2.5	1	224
PA	13	34	2.6	1	2
WORLD	33	92	2.8	6	474

1 fatal accident in the PA region



Global and NAM/CAR/SAM Accident Rates

Scheduled commercial above 5,700kg for 2008 - 2015



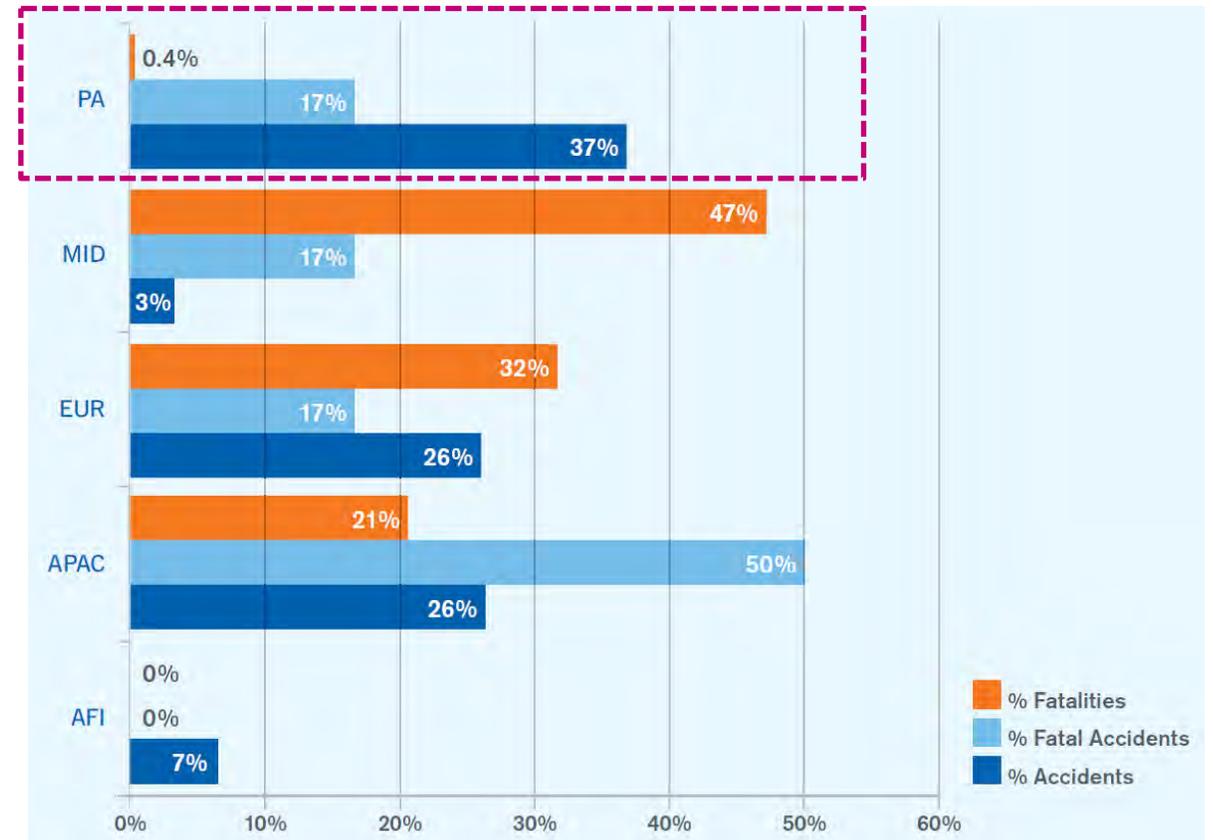
Average accident rate for Pan America is **lower** than the global average

Source: *ISTARS 3.0 – Regional Safety Briefing* (<https://portal.icao.int/space>)



Regional Accidents Overview (2015)

RASP-PA region accounted for 37% of total accidents and 0.4% of fatalities

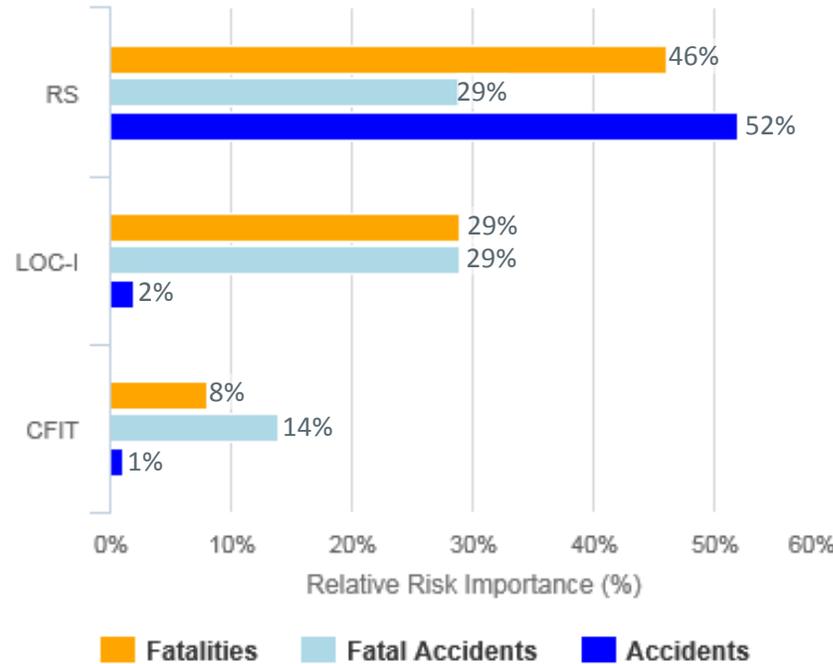




Risk Distribution for the Top 3 Safety Priorities

Scheduled commercial above 5,700kg for 2012 - 2016

**NAM/CAR/
SAM**



Continue focus
on the
Top 3 Safety Priorities
(RS, CFIT, LOCI)

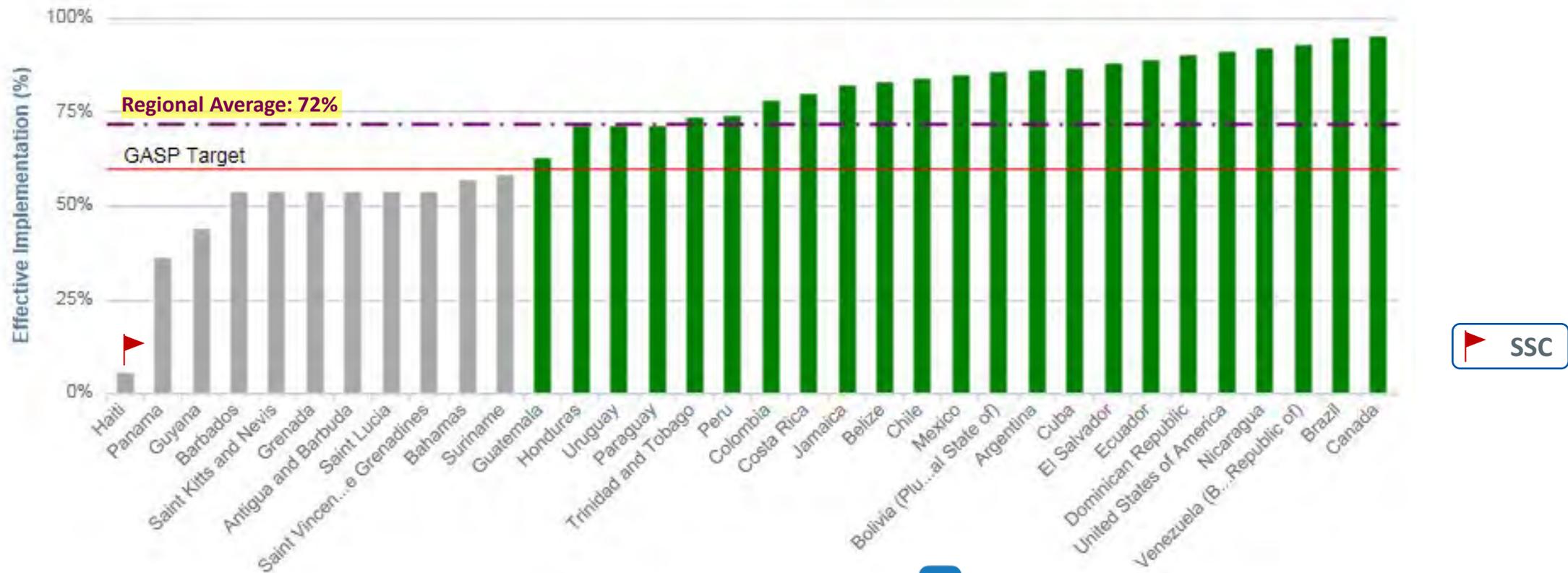


Source: **ISTARS 3.0** – ADREP et al. (<https://portal.icao.int/space>)



ICAO Safety Audit Results for NAM/CAR/SAM

Effective implementation of safety oversight systems by State (global average 64%)

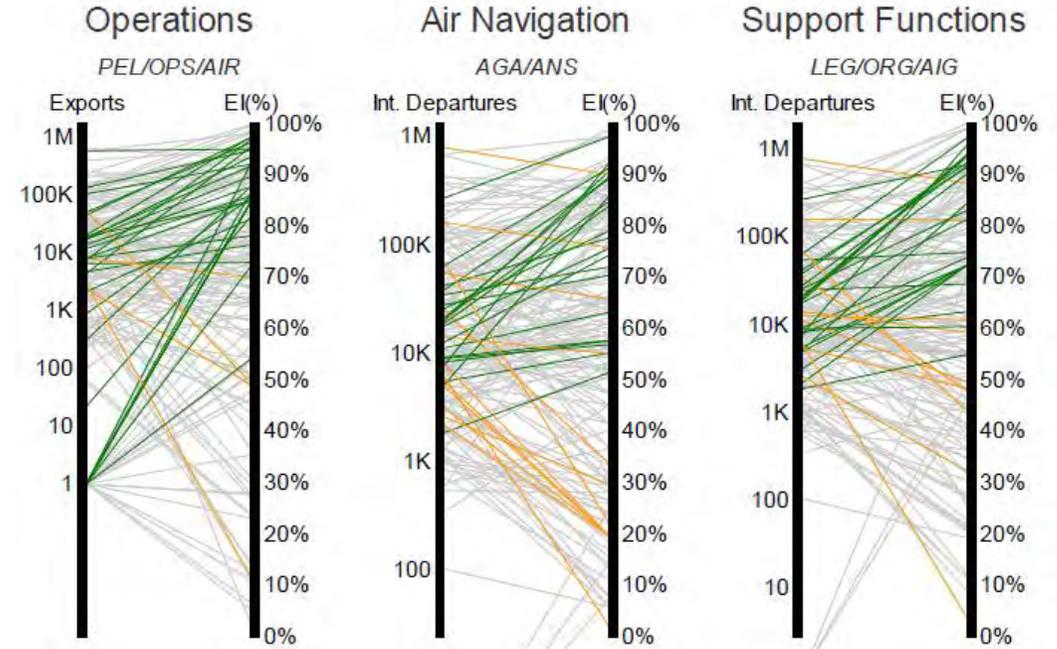


Source: *ISTARS 3.0 – Regional Safety Briefing* (<https://portal.icao.int/space>)



Regional Priorities

- The states are prioritized by considering the level of EI as well as the related activity at risk in operations, air navigation and support functions
- The profile of each State is benchmarked against all other ICAO member States
- Priority is given to the least performing areas in ascending order



Top-5 States in each Priority area

Haiti
Safety margin: -55.64%

Panama
Safety margin: -29.12%

Paraguay
Safety margin: -1.68%

Guatemala
Safety margin: -1.41%

Bahamas
Safety margin: 0.27%

Haiti
Safety margin: -48.59%

Panama
Safety margin: -44.87%

Bahamas
Safety margin: -32.28%

Antigua and Barbuda
Safety margin: -31.3%

Saint Kitts and Nevis
Safety margin: -27.94%

Haiti
Safety margin: -53.37%

Panama
Safety margin: -26.07%

Peru
Safety margin: -25.71%

Guyana
Safety margin: -17.17%

United States of America
Safety margin: -11.02%



Source: *ISTARS 3.0 – Regional Safety Briefing* (<https://portal.icao.int/space>)



Air traffic is predicted to
double by 2030

How can we ensure the
safe realization of this growth?



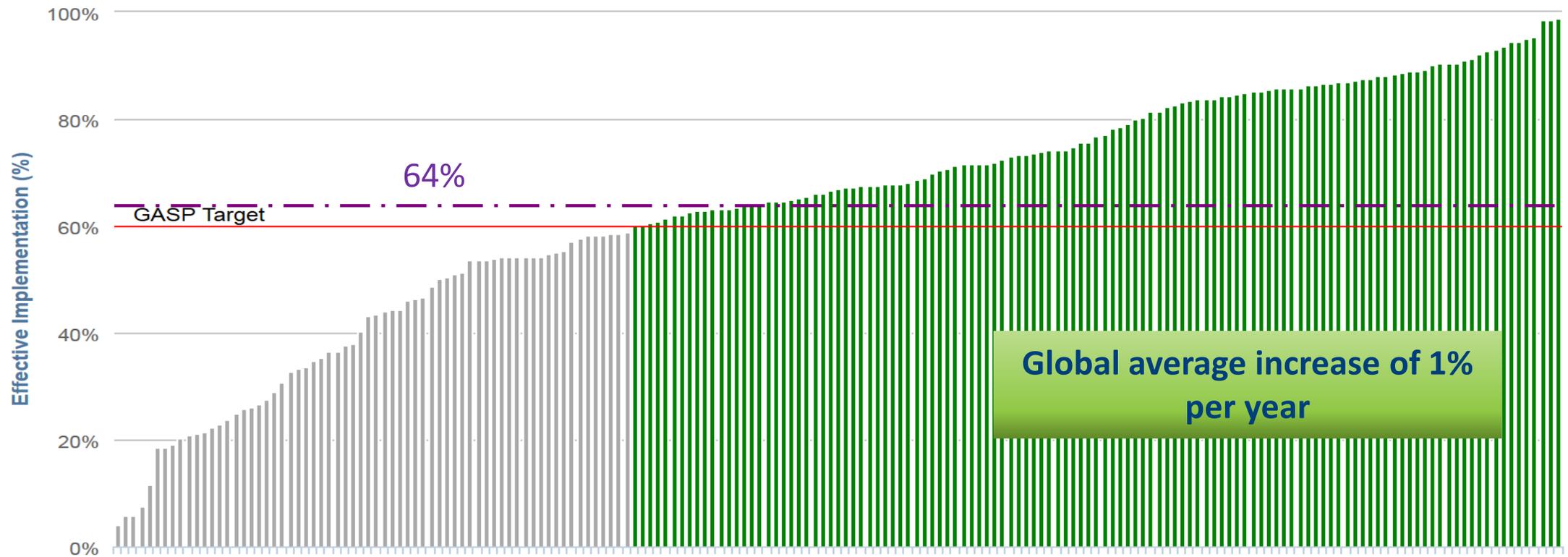
Risks/barriers to achieve our goal

- Effective Implementation of SARPs
- ICAO's Safety priorities:
Operational Risks
- Current and emerging issues





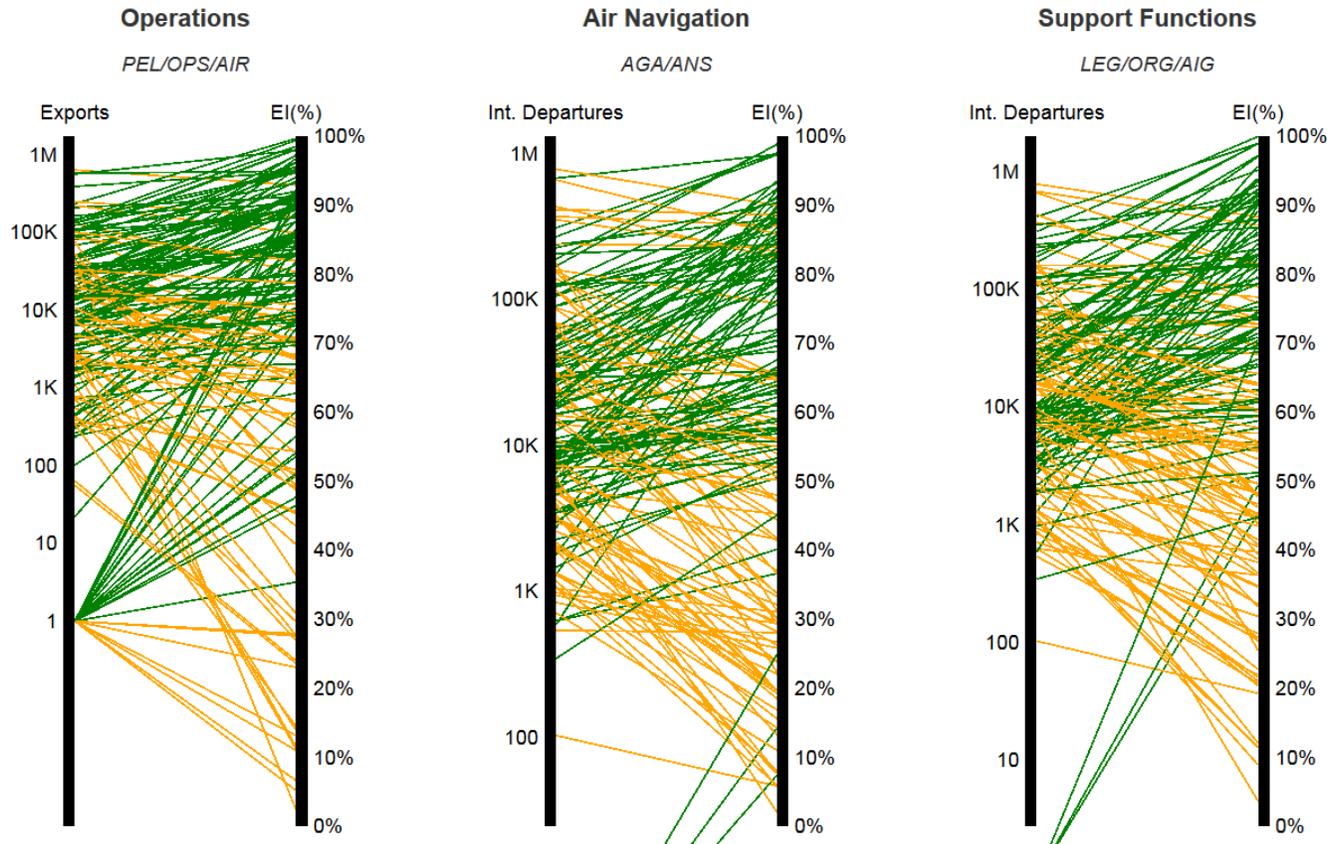
Effective Implementation of State Safety Oversight



Effective implementation (%) results through USOAP CMA



Evolution of Analysis: Safety Margins



Safety Margin

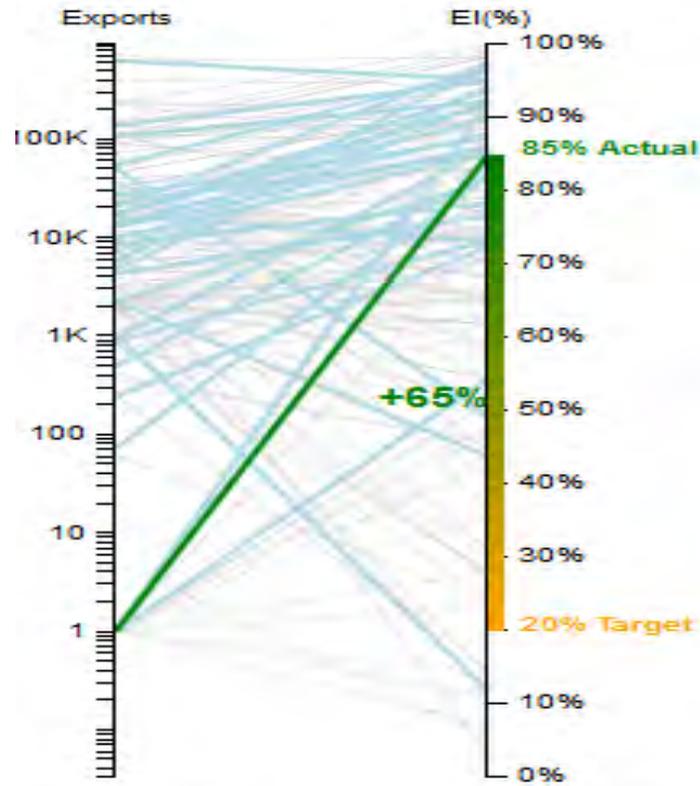
Risk-based prioritization model based on a State's Traffic and the level of Effective Implementation (EI) in the related technical areas at risk (Operations, Air Navigation, Support Functions)



Operations

PEL/OPS/AIR

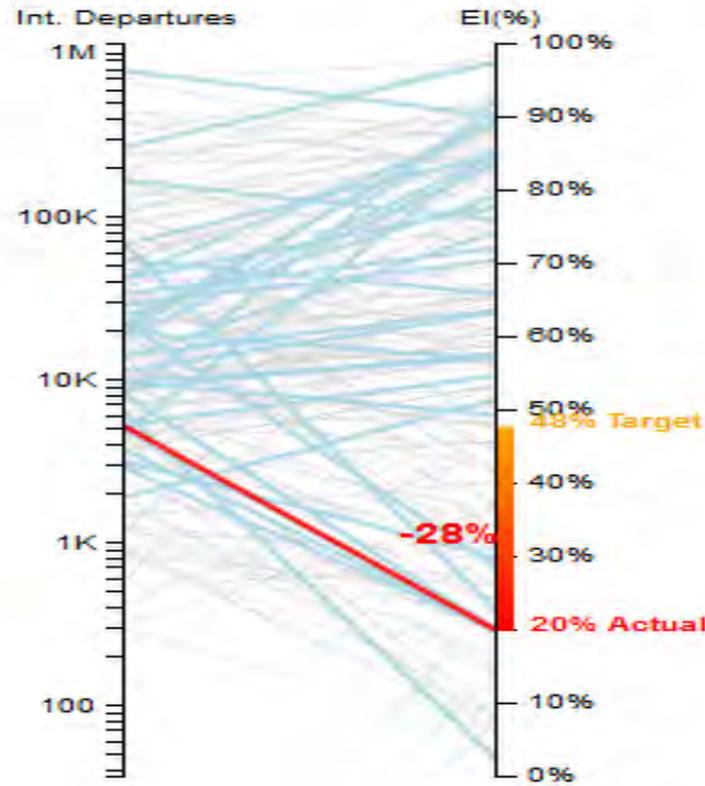
Priority 3



Air Navigation

AGA/ANS

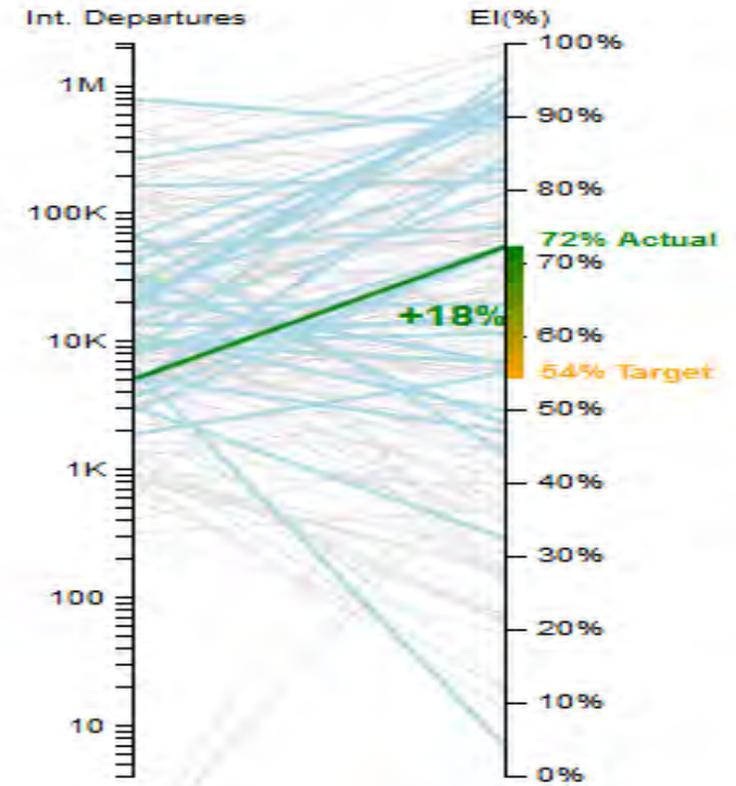
Priority 1



Support Functions

LEG/ORG/AIG

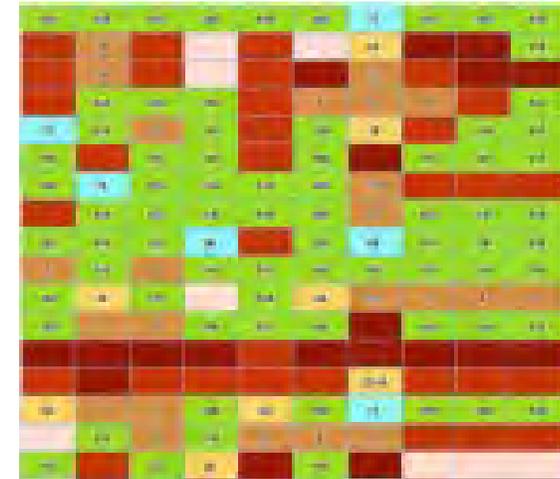
Priority 2





SSP pre-requisites

Identifies pre-requisites to an effective and sustainable SSP implementation



A subset of the approx. 1,096 USOAP PQs with more granularity than the 60% EI threshold;



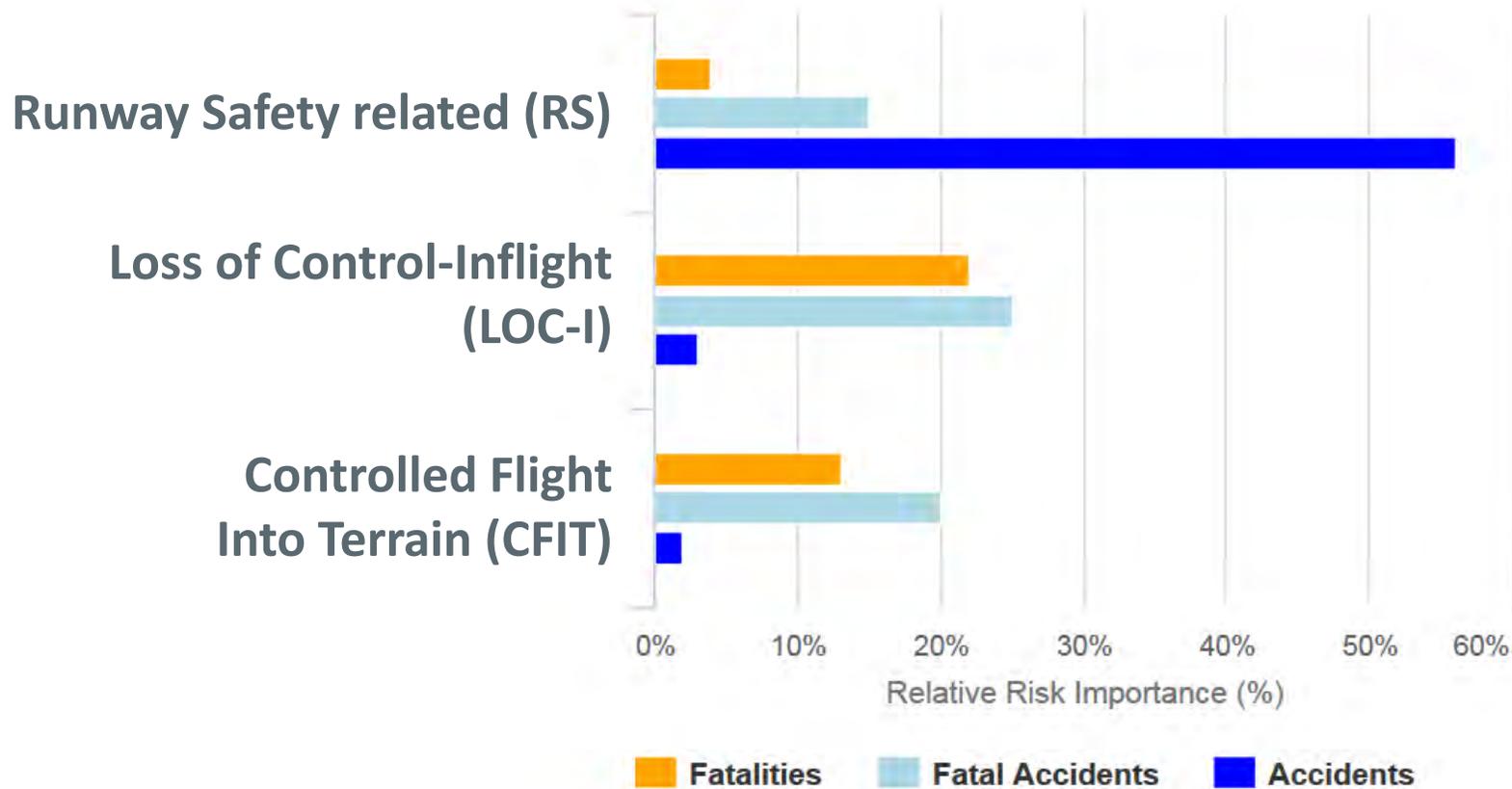
Risks/barriers to achieve our goal

- Effective Implementation of SARPs
- ICAO's Safety priorities:
Operational Risks
- Current and emerging issues





Safety Priorities: Operational Risks



**Other accident priorities?
(i.e. by Region)**

CFIT
Controlled Flight Into Terrain



Risks/barriers to achieve our goal

- Effective Implementation of SARPs
- ICAO's Safety priorities:
Operational Risks
- Current and emerging issues





Current and Emerging Issues



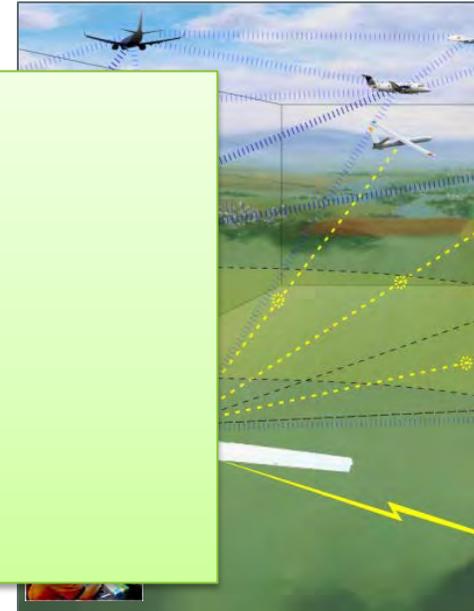
Conflict Zones



Global Tracking



Cyber Safety



RPAS



Space Transportation



ICAO UNITING AVIATION

NO COUNTRY LEFT BEHIND



Forum

On Regional Safety Oversight Organisations (RSOs) For Global Aviation Safety

22 – 24 March 2017, Ezulwini, Swaziland



SAFETY





RSOO Forum

- Forum on Regional Safety Oversight Organisations for Global Aviation Safety
- Co-organised by ICAO and EASA
- 22 to 24 March 2017 in Ezulwini, Swaziland
- 2 days global and technical followed by 1 day regional and Ministerial
- 200 participants from 48 States and 32 international organizations
- 13 Ministers responsible for Civil Aviation from AFI Region States
- <http://www2010.icao.int/ESAF/EASA-ICAO-RSOO-2017/Pages/default.aspx>



RSOO Forum Outcomes

- Global Strategy and Action Plan for the Improvement of Regional Safety Oversight Organizations (RSOOs) and the Establishment of a Global System for the Provision of Safety Oversight
 - Improvement and strengthening of RSOOs
 - Develop and implement an RSOO cooperative platform
 - Develop and implement a global aviation safety oversight system (GASOS)
- Ministerial Declaration on Regional Safety Oversight Organizations in Africa
 - Development of a Strategic Plan for Supporting and Strengthening RSOOs in the AFI Region
 - Action Plan to implement the Declaration by ICAO through the AFI Plan and in collaboration with AFCAC and partners



The Challenges

- ICAO USOAP global average overall EI increased only 2.6% in 4 years
- Aviation growth, lagging CAA development, more SARPs/PQs and more audits could reduce EI
- All States benefit from collaborative support - regional mechanisms and targeted assistance
- RSOOs need to improve including more effective delegation and financial sustainability
- Regional mechanisms need recognition of functions and tasks by ICAO and USOAP to be effective for States – impact & cost



ICAO Recognition

- Recognition would be granted in respect to the specific tasks and functions carried out by the safety oversight provider.
- Each task and function would be mapped to a USOAP CMA Protocol Question (PQ) or set of PQs.
- Provider's tasks and functions would be classified in accordance with the level of empowerment granted by a State or group of States.



ICAO Recognition (Cont'd)

- The following three levels of delegation/empowerment are defined based on the complexity of tasks and functions performed:

Level 1 – advisory and coordinating tasks and functions.

Level 2 – operational assistance tasks and functions.

Level 3 – certifying agency tasks and functions.



ICAO Recognition (Cont'd)

- For Levels 1 and 2 tasks and functions, ICAO recognition would be based on an initial assessment to evaluate the capabilities of the provider.
- For a provider to receive ICAO recognition for Level 3 tasks and functions, it would have to first undergo an activity under the ICAO USOAP CMA.
- For Levels 1 and 2, ICAO recognition would be renewed at a determined frequency, on the basis of a re-assessment.
- For Level 3, ICAO recognition would be dependent on USOAP CMA results.



Global Aviation Safety Oversight System

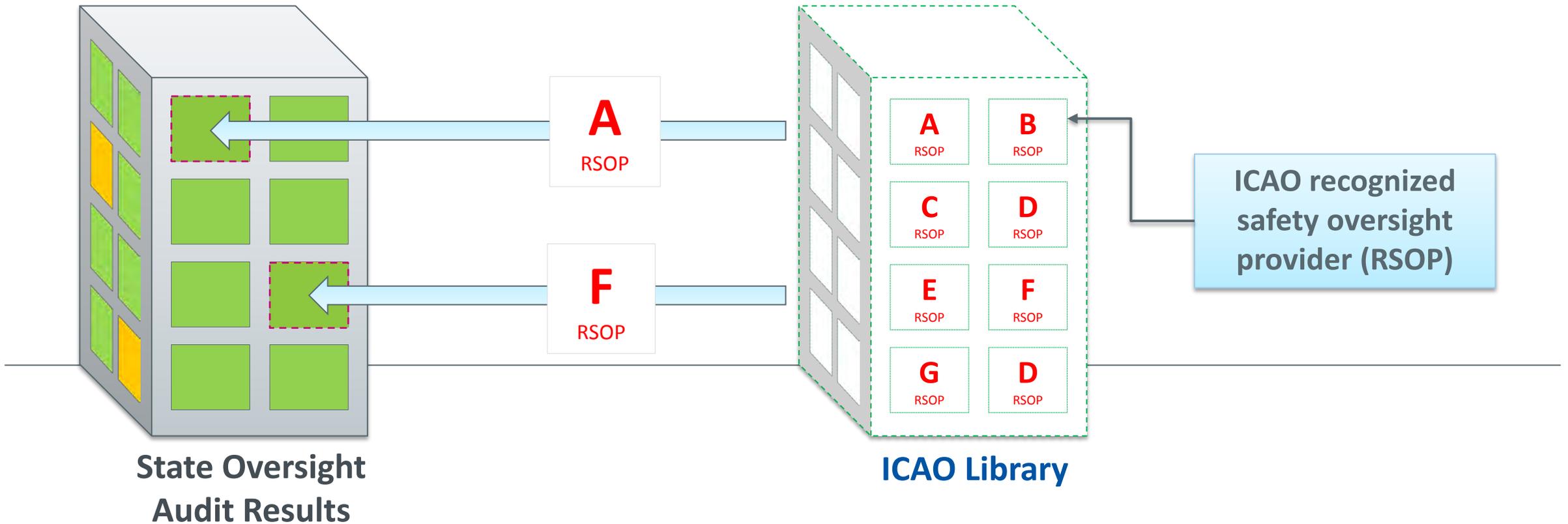
(endorsed during the Global RSOO Forum - Swaziland)



- **Empower and strengthen regional mechanism** (i.e. RSOO, RAIAO, etc.) to form the building blocks of a global safety oversight system
- ICAO responsible for **establishing and maintaining an inventory of competent safety oversight providers** and the tasks and functions that they provide
- Regional mechanisms and safety oversight providers to demonstrate competence in the tasks and functions that they provide to a State, in order to qualify as an **ICAO recognized safety oversight provider**



Global Aviation Safety Oversight System (GASOS)





RSOO Improvements through a GASOS

- RSOOs would be empowered and strengthened to effectively carry out tasks and functions on behalf of States.
- RSOOs would be fully integrated within the safety oversight safety management programmes and activities of their member States.
- RSOOs would be fully aligned with ICAO's regional and global programmes, to include the GASP and the safety management and USOAP CMA programmes.
- Efficiencies would be realized with respect to current regulatory systems and safety oversight audit and recertification programmes.



Benefits to States of the GASOS

- Provides an alternative to having all safety oversight functions in-house with the required staffing.
- Ability to maintain a more cost-efficient and effective CAA
- Flexibility to choose and combine from different safety oversight provider options for the various tasks and functions.
- Access to services beyond the conventional RSOOs, from outside of the State's sub-region to more global best practices.



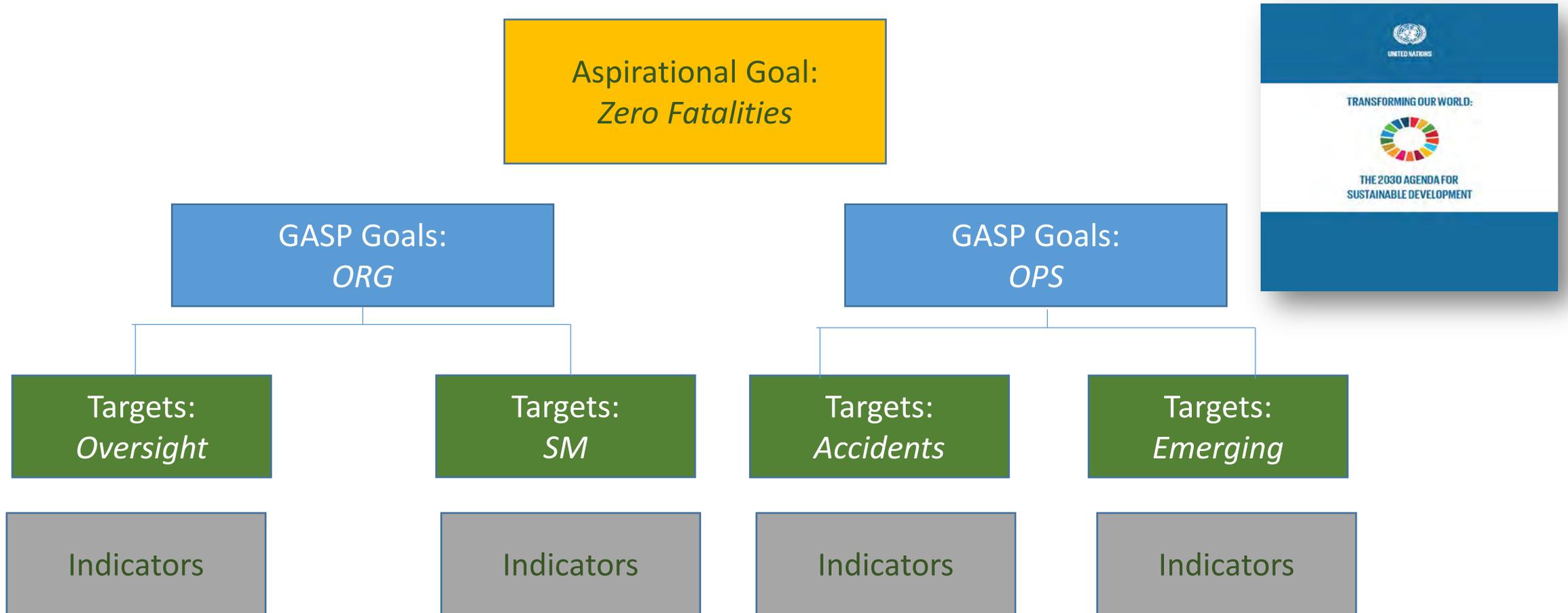
Benefits to States of the GASOS (Cont'd)

- Enhanced compliance by States with international safety requirements and enhanced uniformity in the implementation of safety requirements.
- Industry would no longer be subject to overlapping and duplicate audit and monitoring programmes and certifications.
- Enhanced and sustained compliance with international safety oversight requirements and effective implementation of the ICAO SARPs.
- Economic benefits derived from having safety compliant aviation industry.



States endorse the implementation of the global strategy and action plan to improve RSOOs and the establishment of a global aviation safety oversight system (GASOS).

2020 – 2022 Edition of GASP



Restructuring of GASP Chapters

2017-2019 Edition

Foreword

Chap 1 – Introduction

Chap 2 – Global Safety Strategy

Chap 3 – Focus Areas

Chap 4 – GASP Framework

App A – Roadmap

App B – Implementation & Assistance

App C – Governance

App D – Indicators

App E – Code of Conduct



2020-2022 Edition

Foreword

Chap 1 – Introduction

Chap 2 – Global Safety Strategy

Chap 3 – GASP Goals & Targets

Chap 4 – Roadmap

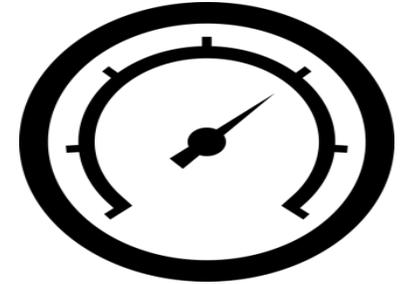
Chap 5 – SPM

App A – ORG Roadmap

App B – OPS Roadmap

App C – GASP Indicators

SPM Sub-group

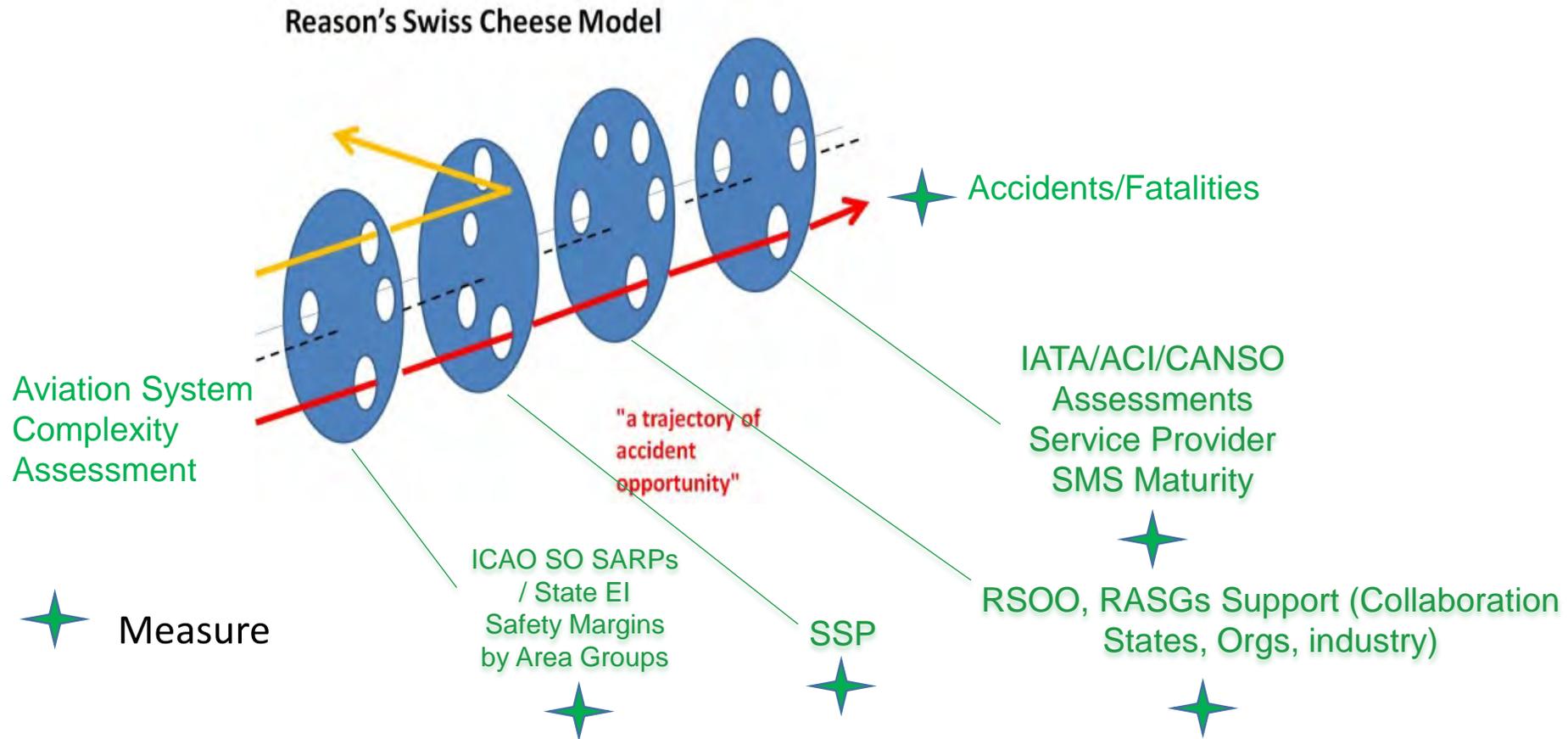


- Focuses on:
 - Safety data
 - Sharing and exchange of safety information
 - Methodology for safety performance measurement
 - including harmonized taxonomies & metrics
- Deliverables:
 - Update metrics used in the GASP (EI score vs safety margins)
 - Review of safety performance indicators (Appendix D)
 - Harmonize existing metrics for sharing and exchange of safety information
 - Map roadmap safety initiatives to protocol questions

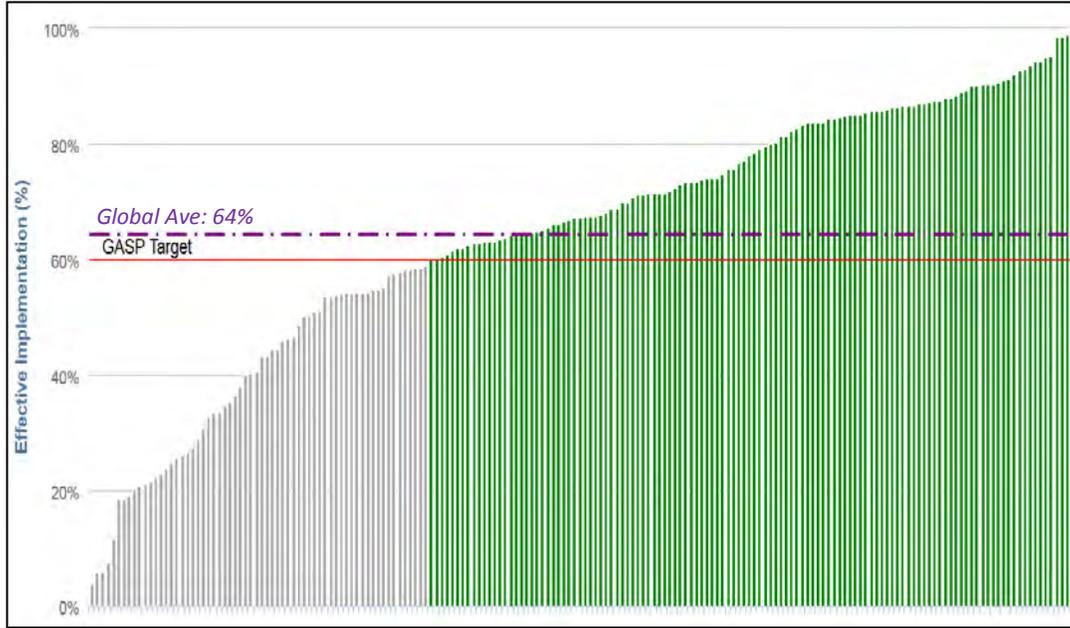
SPM Discussion

- Group discussion on the following points:
 - What metrics should be used in the GASP
 - (EI score vs safety margins)
 - Who would use these metrics and for what?
 - Should we have GASP indicators to support targets?
 - Brainstorm on possibilities
 - What existing metrics for sharing and exchange of safety information can be used?
 - What role will RASGs play in SPM & info exchange?
 - What is our vision of SPM for the GASP?

How do you drive fatality risk reduction? Let us look at this another way...

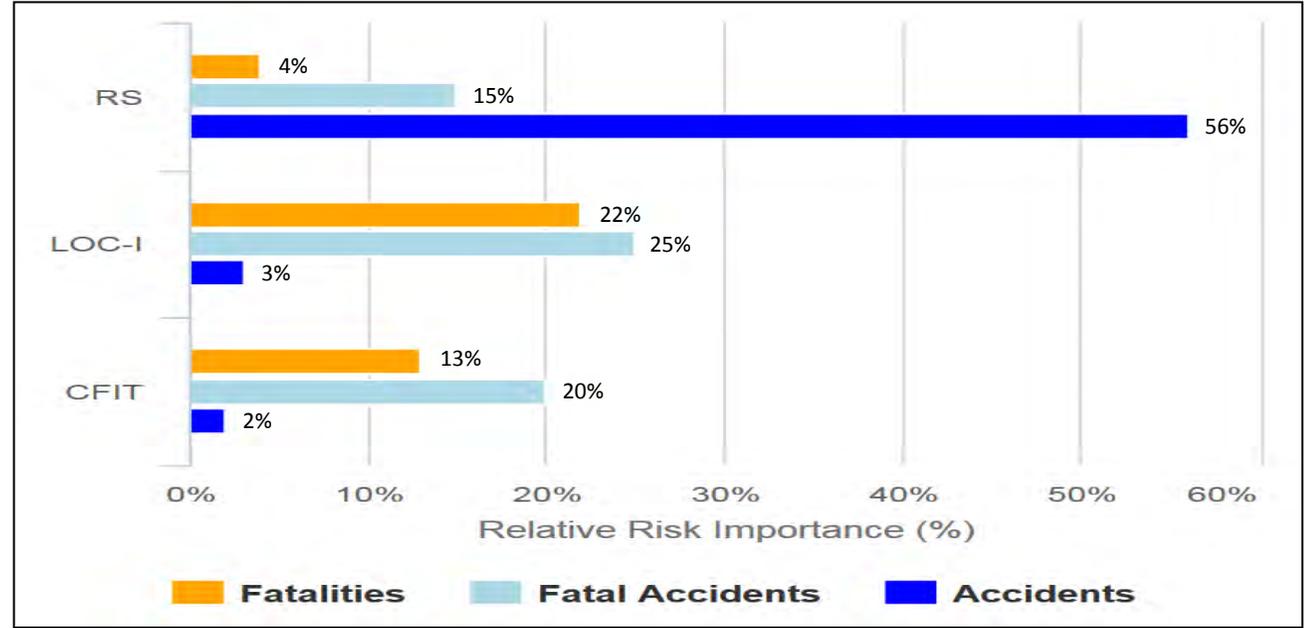


Effective Implementation



USOAP Audit Results

Operational Risk



Scheduled Commercial flights on airplanes above 5.7t 2012-2016

TARGET 2.1	TARGET 4.1	TARGET 3.1	TARGET 3.2	TARGET 2.2
Safety Margin > 10%	Recognized RSOO functions	Sustainable SSP	Effective SSP	EI > 95%
2022	2022	2022	2025	2028

TARGET 1.2	TARGET 5.1	TARGET 4.2	TARGET 4.3	TARGET 5.2	TARGET 1.1
Reduced Accident rate	Harmonized KPIs in SMS	Safety Risk information to RASG	RASG Risk Mgmt. Activities	INDUSTRY Assessment Programmes	Zero Fatal Accidents
Yearly	2020	2022	2022	2022	2030

ICAO Safety Goal: ZERO fatalities

GOAL	TARGET	
GOAL 1: Achieve a continuous reduction of operational safety risks	1.1	By 2030, achieve a consecutive 3-years period without fatalities in aircraft accidents , and maintain thereafter
	1.2	Maintain an annual decreasing trend of global accident rate
GOAL 2: Strengthen States' safety oversight capabilities	2.1	By 2022, all States to reach a positive safety margin of at least 10% , in all areas
	2.2	By 2028, all States to obtain a score of 95% effective implementation of the eight critical elements of a safety oversight system, as appropriate to their aviation system complexity
GOAL 3: Implement State Safety Programmes	3.1	By 2022, all States to implement a Sustainable SSP
	3.2	By 2025, all States to implement an Effective SSP , as appropriate to their aviation system complexity
GOAL 4: Increase collaboration at the regional level to enhance safety performance	4.1	By 2022, States that need support in areas with safety margins below zero, to use a RSOO or other State functions recognised by ICAO
	4.2	By 2022, all States to contribute information on safety risks , including SSP SPIs, to their respective RASGs
	4.3	By 2022, all States with a safety margin of at least 10%, and an Effective SSP, to actively engage in RASGs' safety risk management activities (analysis of safety risks, design and implementation of risk mitigation actions)
GOAL 5: Increase the use of industry standards	5.1	By 2020, all Service Providers to use globally harmonized indicators , as part of their SMS
	5.2	By 2022, increase the number of Service Providers participating in the corresponding industry assessment programmes recognised by ICAO

E17

OPS



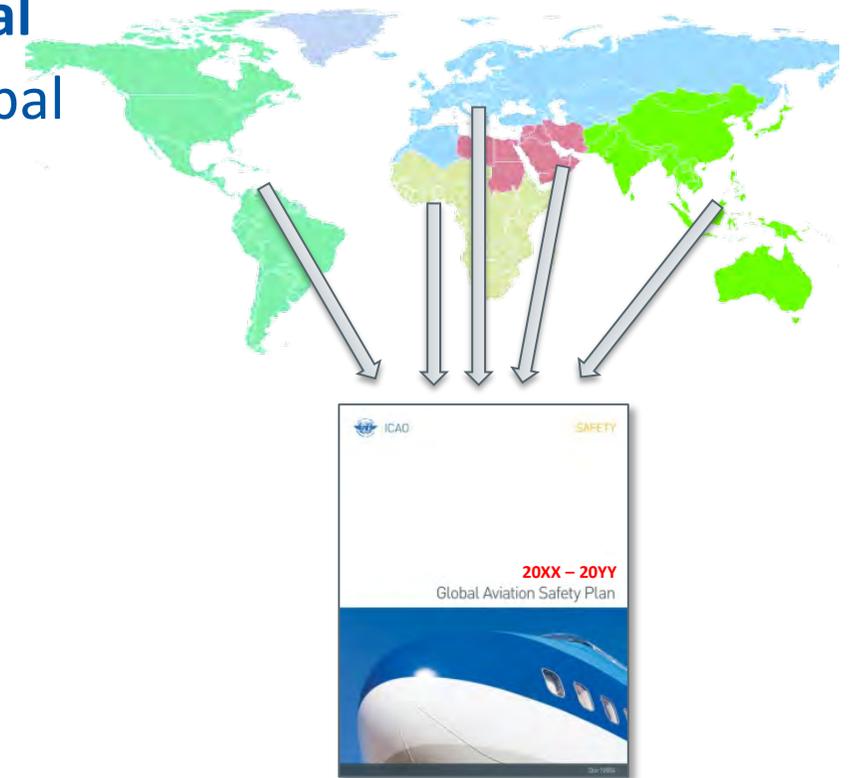
Regional Safety Targets (WP/12)

ICAO NACC/SAM RO and RASG-PA will update the regional safety targets for the NAM/CAR/SAM regions based on the proposed new GASP (2020 – 2022) global safety targets.



Evolution of RASGs

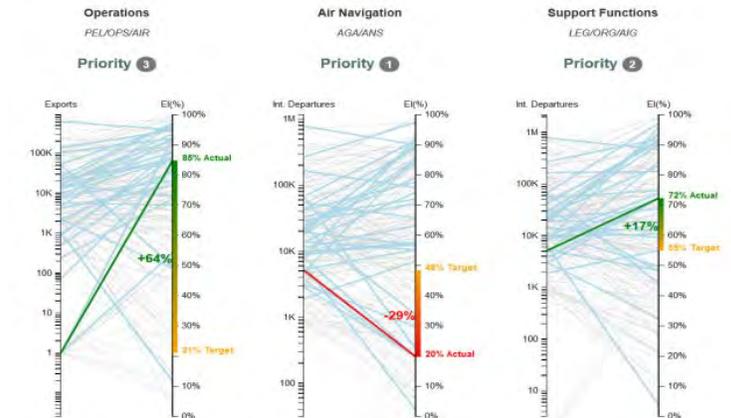
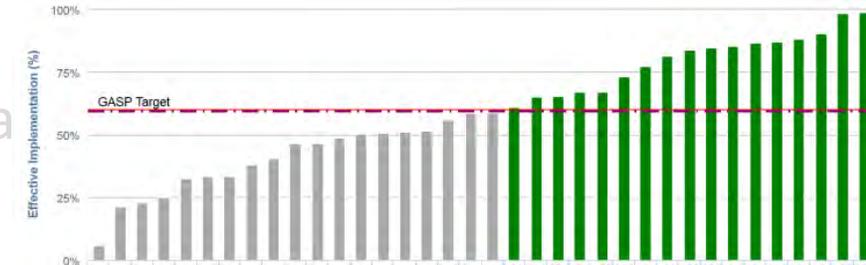
- RASGs as the **leaders for the management of regional operational risk environment**, as reflected in the Global Aviation Safety Plan (GASP)





Evolution of RASGs

- RASGs as the leaders for the management of regional operational risk environment, as reflected in the Global Aviation Safety Plan (GASP)
- RASGs to assist States in identifying hazards and defining their own specific targets
 - From 60% EI to an acceptable Safety Margin for each State
 - Mapping the risk

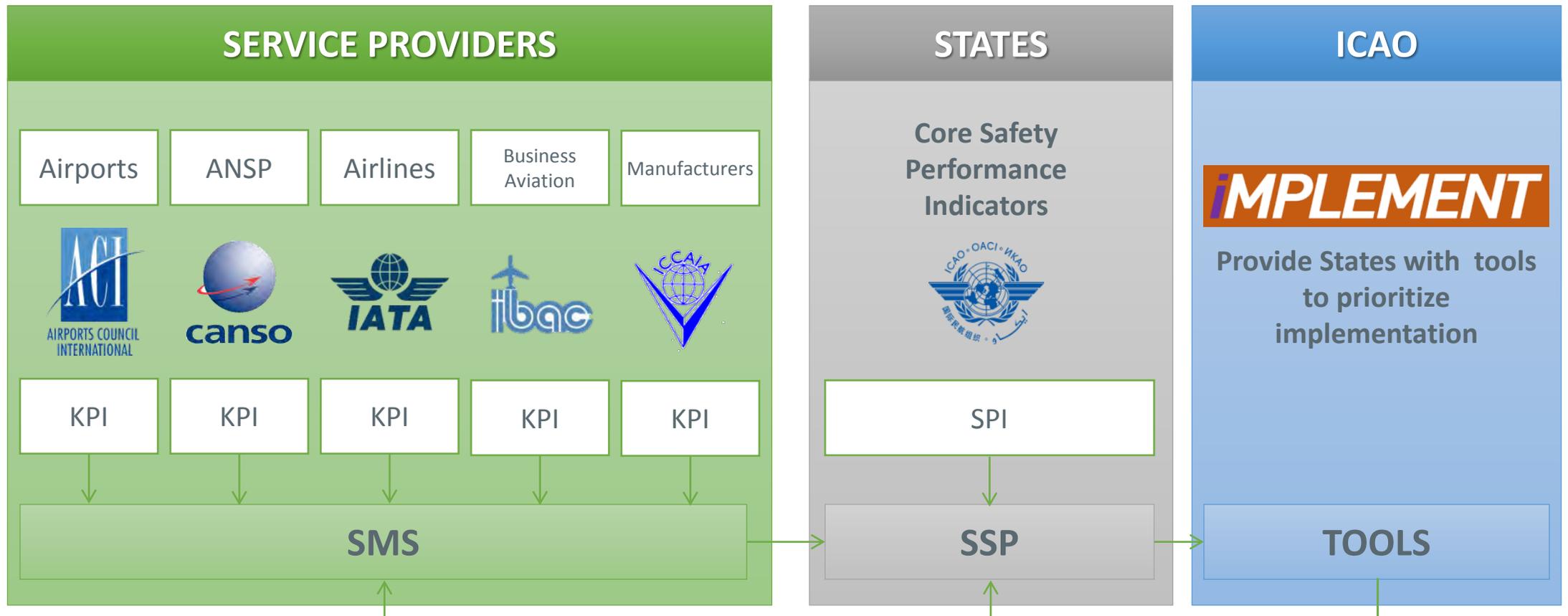


Evolution of RASGs

- RASGs as the **regional leader for defining the global targets** to be reflected in the future Global Aviation Safety Plan (GASP)
- RASGs to assist States in **defining their own specific targets**
 - From 60% EI to an **acceptable safety margin** for each State
- RASGs to **harmonize and avoid overlaps**
 - **Between States**
 - **Between RASGs**



Information Sharing and Exchange

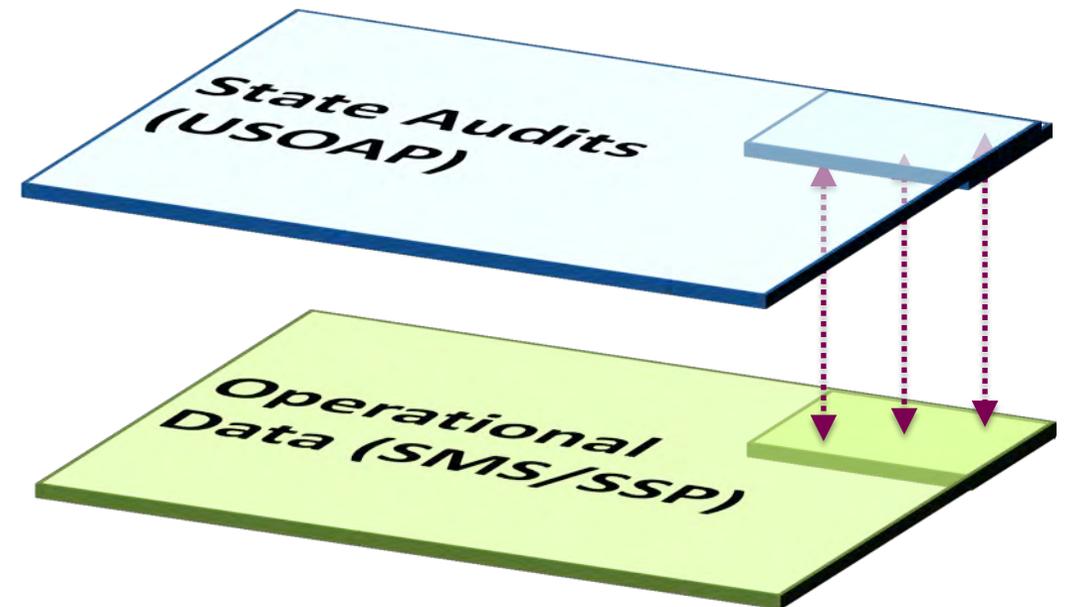




Real-Time Monitoring Aviation's Health

Combining State audits with State/Industry operational data

- Through SMS and SSP
- Protection of information/operational data through Amendment 1 to Annex 19





Safety and Air Navigation Updates

UPCOMING SAFETY EVENTS





2nd RPAS Symposium

19-21 Sep, ICAO HQ

- A forum for participants to **exchange ideas** and **implementation experiences** related to remote pilot training and licensing
- Also highlighting **RPAS operator responsibilities for conducting safe operations** and an understanding of **RPAS in the ATM environment**
 - Annex 1 SARPs and PANS-Training provisions are anticipated for adoption in March 2018; this symposium will provide the first opportunity for **regulators, training facilities, and all aviation professionals to share information on this rapidly evolving new aviation sector**





1st UAS Industry Symposium

22-23 Sep, ICAO HQ

- Response to A39 request for expansion of ICAO's scope to **harmonize domestic regulations for UAS operations**
- Invitation for States, industry and academia to present best solutions to identified problem statement - **Unmanned Aircraft System Traffic Management System (UTM)**



2nd Global Runway Safety Symposium

(20-22 Nov, Lima, Peru)

- Co-organised with the Runway Safety Programme Partners
- Hosted by the Direccion General de Aeronautica Civil de Peru
- Event in English/Spanish, with 300 participants expected
- **Objectives:**
 - provide a global forum to **exchange information on best practices** in improving runway safety through the use of effective and innovative strategies, tools, technology and practices
 - promote improved runway safety worldwide through **global collaboration** and sharing strategies and best practices;
 - promote the ICAO-led collaborative new **Runway Safety Programme Action Plan** for supporting and strengthening runway safety initiatives;
 - promote the **participation of stakeholders in regional initiatives** related to runway safety; and
 - increase the number and improve the effectiveness of **airport Runway Safety Teams (RSTs)** under a risk-based approach in relation to airport safety management systems (SMS).



ICAO

RUNWAY SAFETY PROGRAMME

Working together to resolve a complex problem



Safety Management Regional Symposia

4 Regional Symposia, starting from Q3 2017

- A forum for participants to **exchange ideas** and **implementation experiences** and contribute to the future of safety management.
- The symposia will provide an important information-sharing opportunity for **regulators, service providers, operational personnel and all aviation professionals involved in safety-management activities.**
- To include a **workshop with hands-on exercises**
- **Dates:**
 - **APAC and MID Regions:** Hosted by **Singapore / 12-15 September 2017**
 - **EUR/NAT Region:** Hosted by the EC and Estonian Presidency of the EU, **Tallinn / 16-18 October 2017**
 - **NACC and SAM Regions:** **2018** (exact dates and location to be confirmed)
 - **ESAF and WACAF Regions:** **2018** (exact dates and location to be confirmed)



Global Harmonization: An ICAO Perspective

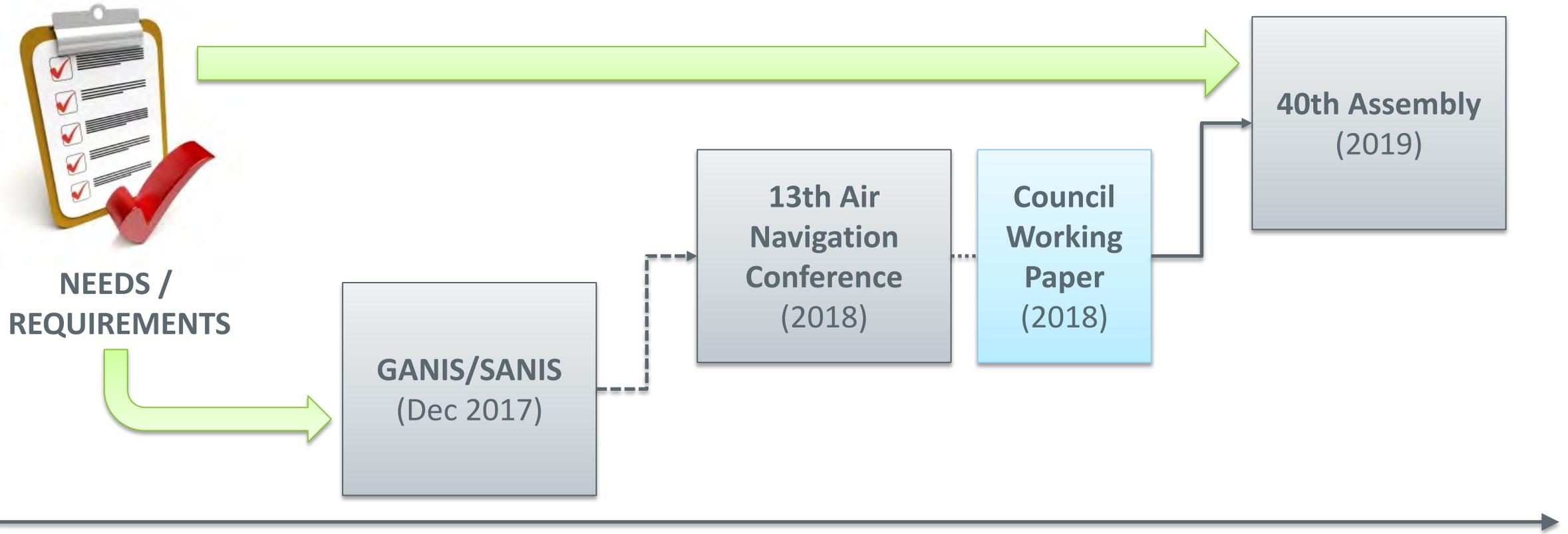
GANIS/SANIS – GLOBAL PLANNING FOR THE 40TH ASSEMBLY





Sustainability and enhancement of safety and air navigation system performance

- **Two back-to-back symposiums from 11 – 15 December 2017 in Montréal, Canada**
 - 2nd **Global Air Navigation Industry Symposium (GANIS)** to discuss issues and chart next steps to achieve a seamless global aviation system
 - 1st **Safety and Air Navigation Implementation Symposium (SANIS)** to offer a performance-based implementation methodology including the first **Global RASG/PIRG Forum**
- **Includes an Industry exhibition of current and emerging technologies**
 - Showcase solutions which will provide a snapshot of the global air navigation industry
 - Provide insight on how all stakeholders can work together to address technical, operational, regulatory and economic challenges
- **A crucial networking and knowledge-sharing opportunity**
 - Presentations from ICAO, international and regional organizations, standards-making organizations and leading industry stakeholders
- **Will lay the foundation for the 13th AN-Conference in 2018**



GANIS/SANIS will facilitate the planning of technical work for AN-Conf/13, and also the budget discussions leading up to A40



**ZERO
FATALITIES**

Our
Aspirational
Safety Goal



THANK YOU!