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# GASOS

GLOBAL AVIATION SAFETY OVERSIGHT SYSTEM

ENHANCING SAFETY OVERSIGHT WORLDWIDE



# Global Aviation Safety Oversight System (GASOS)

A General Overview



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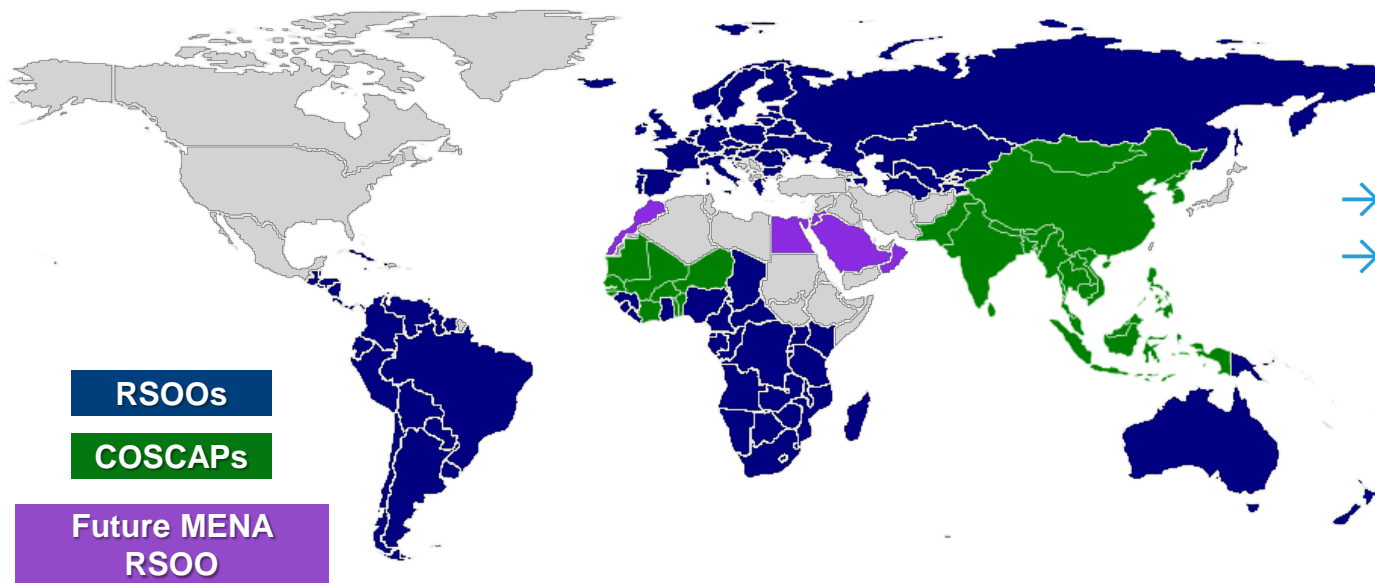
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## Current State of Play

- Many States continue to struggle meeting their safety oversight obligations;
- Effective implementation of SARPs is increasing at a nominal rate;
- States have limited financial and technical resources;
- External assistance (from State and Regional Organizations) is often necessary; and
- Regional solutions are possible options, but they have their own challenges

## Regional Solutions



- ~160 Member States
- 95 % want to participate in GASOS



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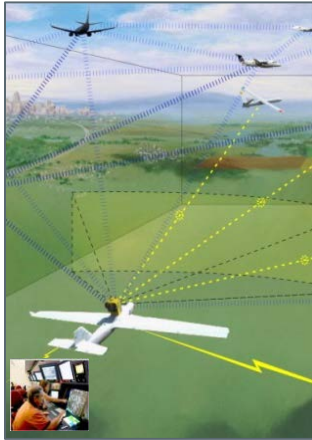
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## Evolving with the Future



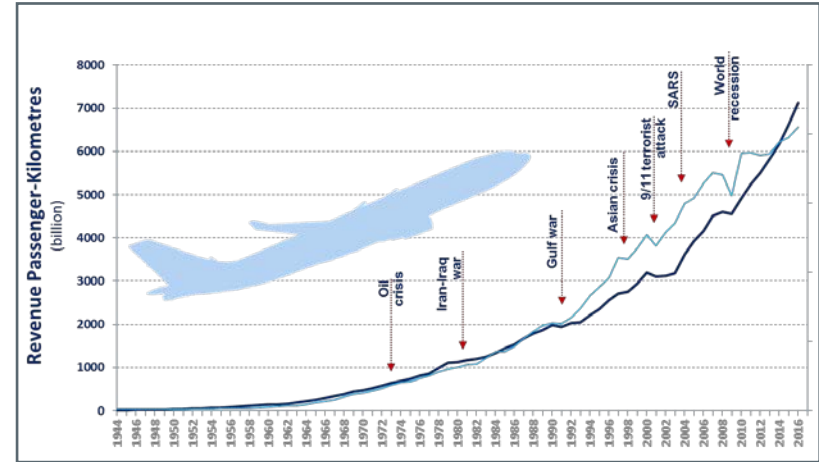
Cyber Safety



RPAS



Space  
Transportation



Growth of Air Transport



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## What is GASOS

- GASOS is a system designed by ICAO to assess, recognize, and continuously monitor the competence of Safety Oversight Organizations (SOOs) and Accident Investigation Organizations (AIOs) to perform safety functions on behalf of States.
- GASOS will provide States with a global range of solutions for delegating safety functions or activities.
- The results will allow for more efficient and effective use of limited resources and greater harmonization worldwide.



## GASOS Objectives

1. Strengthen State safety oversight capabilities; and
2. Make SOOs and AIOs more effective and efficient.

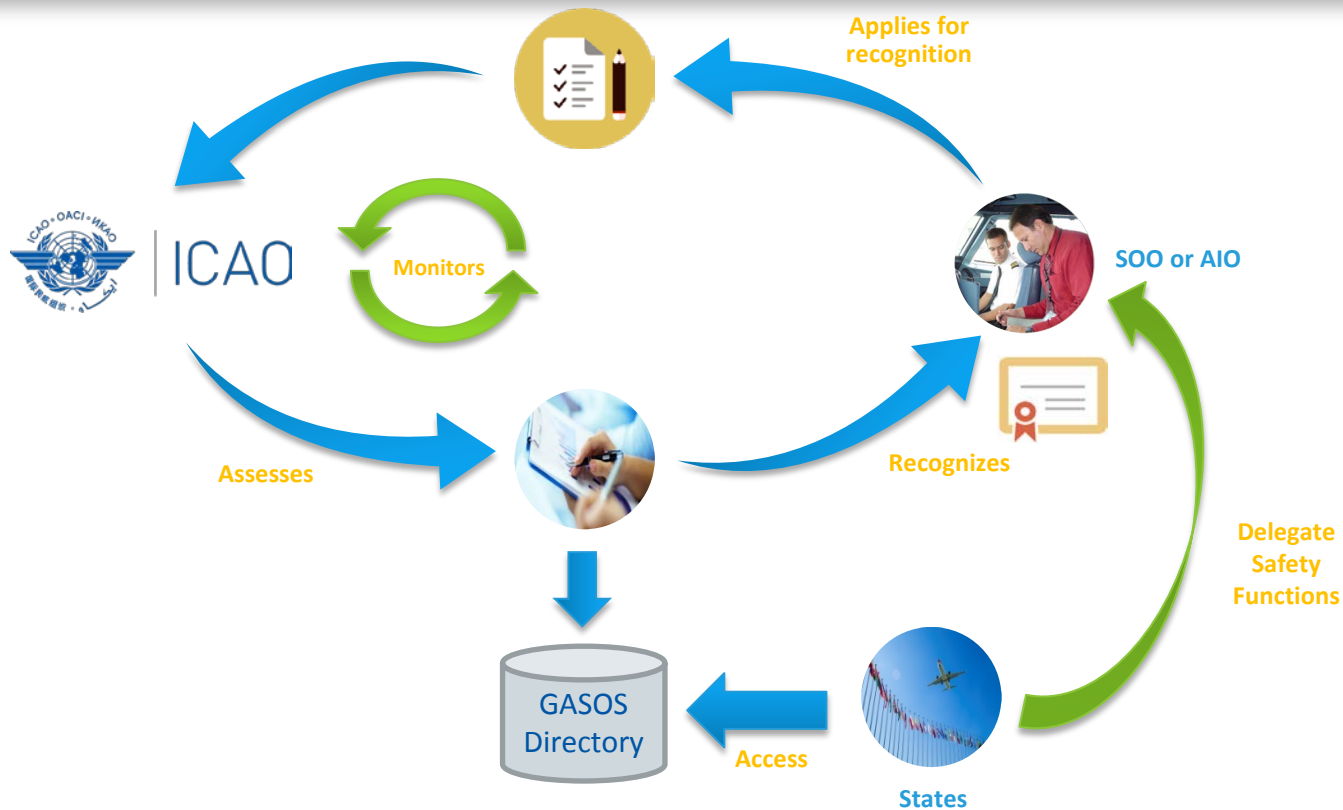


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## GLOBAL AVIATION SAFETY OVERSIGHT SYSTEM

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## Key Concepts

- States keep ultimate **responsibility for Safety Oversight**
- GASOS is a **voluntary** programme
- There are **3 levels of delegation**
- Delegated safety functions are **mapped to USOAP CMA PQs**
- Recognition is granted in respect to the **specific functions and delegation level** carried out by the safety organization





## GASOS Levels of Delegation

### Level 1 – Advice and Coordination

- Developing regulations, manuals, checklists and other guidance material
- Coordination of a pool of inspectors or experts

### Level 2 – Operational Assistance

- Providing training to inspectors
- Performing certification and surveillance tasks such as inspections, audits, or reviews
- Conduct parts of safety investigations (under Annex 13)

### Level 3 – Full Delegation

- Issue, amend, or revoke certificates, licenses, and approvals on behalf of the State
- Conduct full Annex 13 safety investigations, including issuance of the investigation report and associated safety recommendations



## Benefits

### States

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

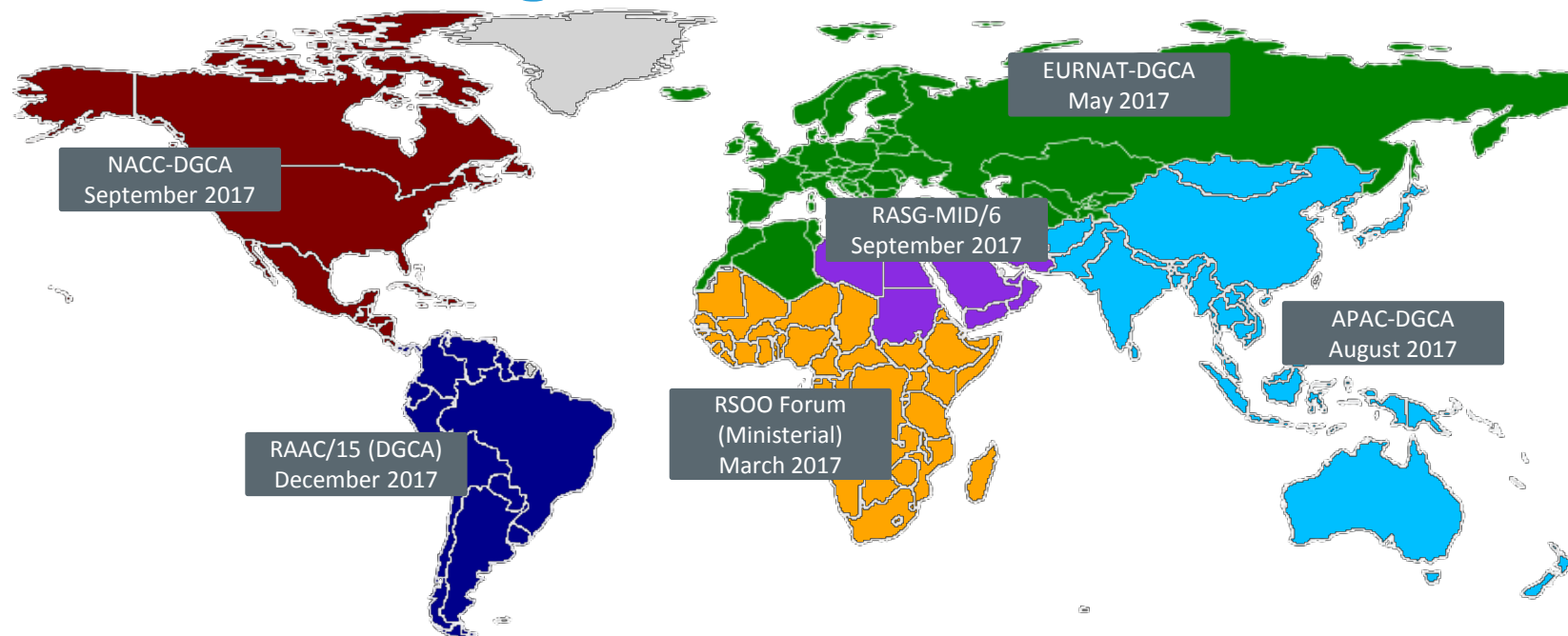
### RSOOs

- RSOOs would be **empowered and strengthened** to effectively carry out functions on behalf of States.
- RSOOs would be **aligned with the ICAO aviation safety strategies in the GASP**.
- **Efficiencies would be realized** with respect to current regulatory systems and safety oversight audit programmes.

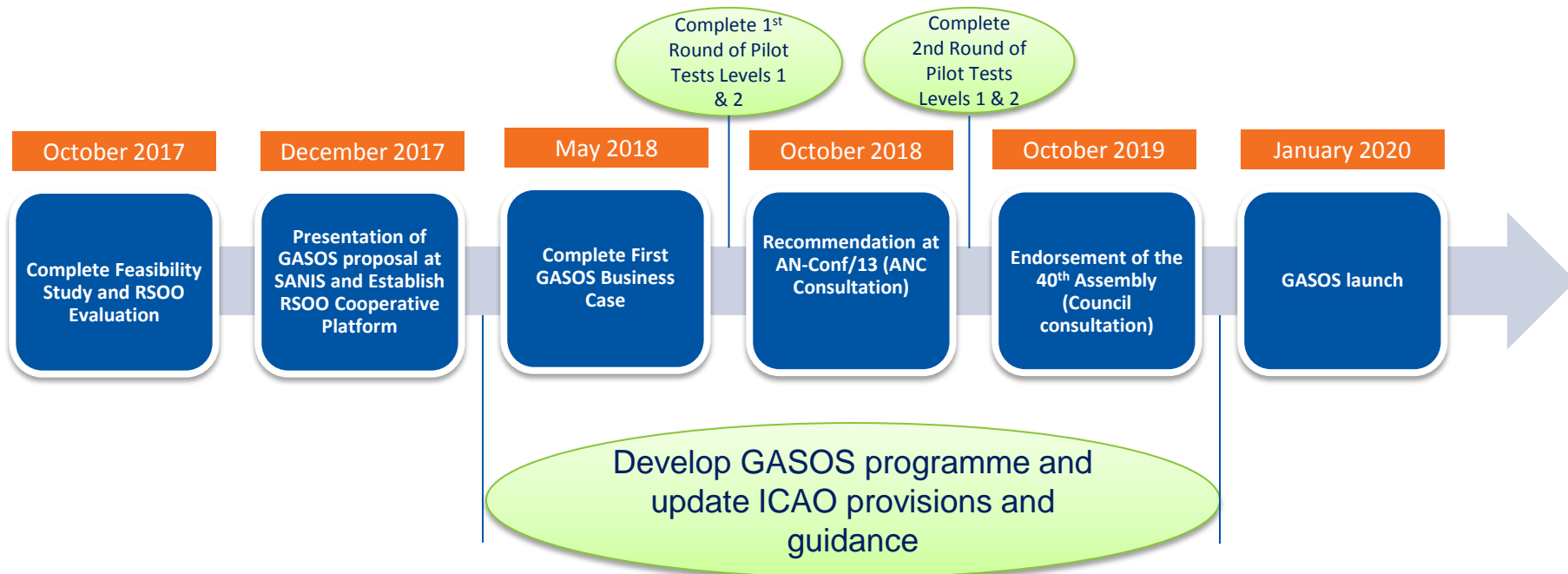
### ICAO

- Apply USOAP CMA to RSOOs and safety oversight organizations for States, resulting in more **efficient and effective use of resources**
- Provide for a **higher and more consistent compliance with the ICAO SARPs**
- **Improve** national and regional safety **oversight capabilities - GASP**
- **Safety enhanced globally**

## Regional Endorsement



## Schedule and Milestones



## Recent Key Developments

- Completion of two Pilot Assessments – ACSA & TCCA
- Recommendation by the AN-Conf/13 to move forward to the 40th Assembly
- Review of the first draft of the GASOS Manual by the GASOS Study Group
- Establishment of an Ad Hoc Legal Advisory Group on GASOS
- Completion of a GASOS market survey
- Updated assessment criteria (AGA, AIG, AIR, ANS, OPS, PEL and GEN)

## GASOS Concept of Operations (CONOPS)

- The CONOPS serves as a reference for the development of GASOS:
  - Outlines what GASOS is expected to be, its primary objectives and main underlying principles
  - Describes the responsibilities, processes, boundaries and interfaces associated with GASOS
- Regarding accident investigation, the CONOPS highlights the responsibility of the State for ensuring that their accident investigations are conducted by an AIO that is independent from SOOs (*Ch. 3.4.3*)



## GASOS Manual

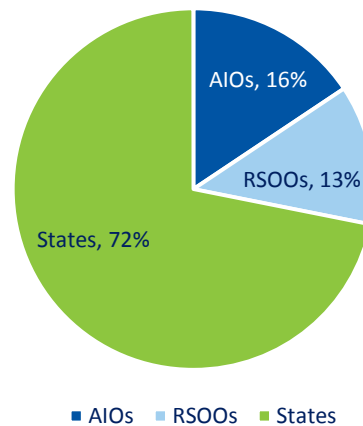
- Provide guidance to:
  - SOOs/AIOs for recognition
  - ICAO Contracting States enabling them to take informed decisions on possible delegation of safety functions
  - Team Leaders (TLs), Team Members (TMs), Subject Matter Experts (SMEs) and support staff involved in GASOS
- Content: GASOS processes, list of safety functions, Delegation Levels (DLs), assessment criteria, tasks and responsibilities of ICAO and SOO/AIOs

# GASOS Market Survey

- Completed November 2018

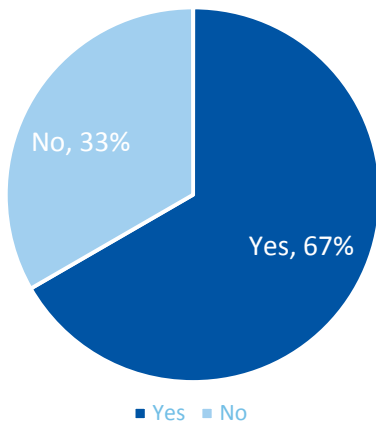
## Survey Responses by Category:

<i>Category</i>	<i>Number</i>
AIOs	10
RSOOs	8
States	46
<b>Grand Total</b>	<b>64</b>
<i>States in RSOOs</i>	<i>34</i>

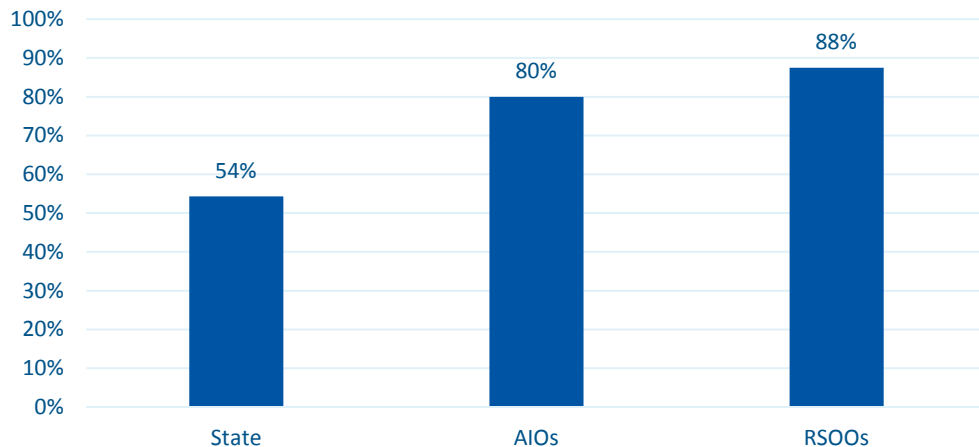


## Interest in being Recognized as an SOO or AIO

- 67% responded that they would be interested in being assessed and recognized under GASOS. (Q25)



Organization Interested in recognition in Percentage

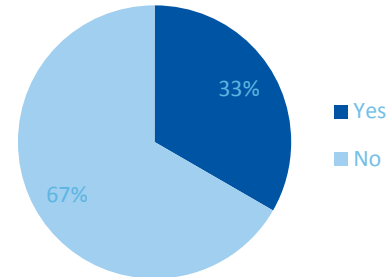




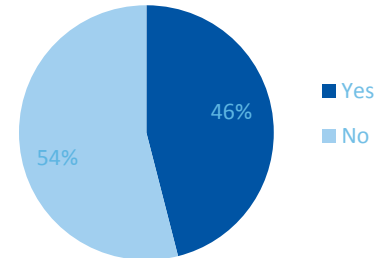
## Delegating Safety Functions

- 33% responded that they are already delegating safety functions outside of their organizations.(Q10)
- 46% responded that they would be willing to delegate safety functions or more safety functions to ICAO recognized SOOs/AIOs in the future.(Q18)

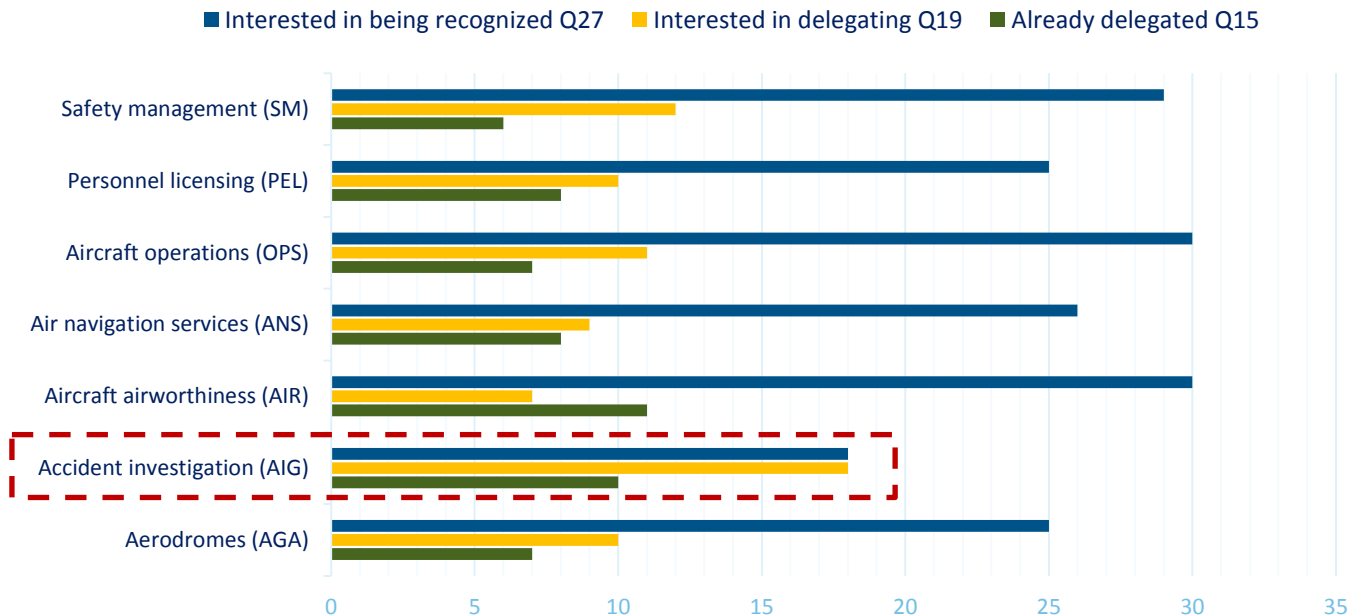
Q10



Q18



## Market Survey – Technical Areas for Delegation and Recognition



## Key Takeaways

- States keep ultimate **responsibility for Safety Oversight**
- GASOS is a **voluntary** programme
- There are **3 levels of delegation**
- Delegated functions and activities are **mapped to USOAP CMA PQs**
- Recognition is granted in respect to the **specific functions and delegation level** carried out by the safety organization
- Everyone **benefits** while aviation **safety is enhanced** globally







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## Questions ?

[www.icao.int/safety/gasos](http://www.icao.int/safety/gasos)

