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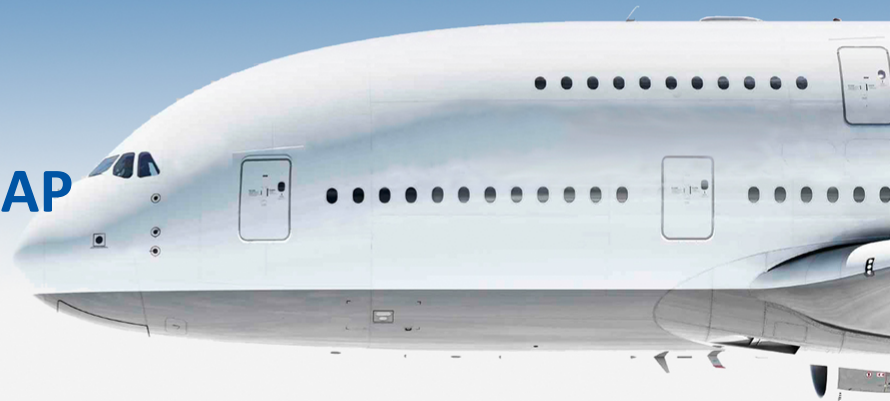


RASG-EUR Accident Investigation and ECCAIRS user Workshop

**Capacity building / Guidance on USOAP
CMA AIG PQs - Introduction**

ICAO EUR/NAT, Paris

8-10 April 2019





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USOAP CMA Audits

- Objective: determine States' **capability** for **safety oversight**
- Verifying the status of the Member States' implementation of:
 - Safety-related ICAO Standards and Recommended Practices (SARPs);
 - Associated procedures; and
 - Guidance material.
- Assessing their effective implementation of the 8 Critical Elements (CE) in 8 audit areas:
 - LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA



Critical Elements (CEs)





CE-1: Primary aviation legislation



- States shall promulgate a comprehensive and effective aviation law, commensurate with the size and complexity of their aviation activity and consistent with the requirements contained in the Convention on International Civil Aviation, to **enable the oversight and management** of civil aviation safety and the **enforcement of regulations through the relevant authorities or agencies** established for that purpose.
- The aviation law shall provide personnel performing safety oversight functions access to the aircraft, operations, facilities, personnel and associated records, as applicable, of individuals and organizations performing an aviation activity.



CE-2: Specific operating regulations



- **Regulations** to address, at a minimum, national requirements emanating from the primary aviation legislation, for standardized operational procedures, products, services, equipment and infrastructures in conformity with the Annexes to the Convention on International Civil Aviation



CE-3: State system and functions



- States shall establish relevant authorities or agencies, as appropriate, supported by **sufficient and qualified personnel** and provided with adequate **financial resources** for the management of safety.
- States authorities or agencies shall have stated safety functions and objectives to fulfill their safety management responsibility.
- States shall ensure that personnel performing safety oversight functions are provided with guidance that addresses ethics, personal conduct and the **avoidance of actual or perceived conflicts of interest** in the performance of official duties.



CE-4: Qualified technical personnel



- States shall establish minimum qualification requirements for the technical personnel performing safety-related functions and provide for appropriate **initial and recurrent training** to maintain and enhance their competence at the desired level
- States shall implement a system for the maintenance of **training records** for technical personnel.



CE-5: Technical guidance, tools and provision of safety-critical information



- States shall provide:
 - appropriate **facilities**, comprehensive and up-to-date technical **guidance material and procedures**, safety-critical information, tools and equipment, and transportation means, as applicable, to the technical personnel to enable them to perform their safety oversight functions effectively and in accordance with established procedures in a standardized manner
 - technical **guidance to the aviation industry** on the implementation of relevant regulations



CE-6: Licensing, certification, authorization and approval obligations



- States shall implement documented surveillance processes and procedures to ensure that individuals and organizations performing an aviation activity meet the established requirements **before they are allowed to exercise the privileges** of a licence, certificate, authorization or approval to conduct the relevant aviation activity
- *Note: no CE-6 PQs for AIG*



CE-7: Surveillance obligations



- States shall implement documented surveillance processes, by defining and planning inspections, audits, and monitoring activities on a continuous basis, to proactively assure that aviation licence, certificate, authorization and approval holders **continue to meet the established requirements**.
- This includes the surveillance of personnel designated by the Authority to perform safety oversight functions on its behalf.
- *Note: no CE-7 PQs for AIG*



CE-8: Resolution of safety issues



- States shall use a documented process to take appropriate actions, up to and including enforcement measures, to **resolve** identified safety issues.
- States shall ensure that identified safety issues are resolved in a timely manner through a system **which monitors and records progress**, including actions taken by individuals and organizations performing an aviation activity in resolving such issues.



Eight CEs of a State safety oversight system

- **Definitions of CEs:** in Annex 19 — Safety Management, Appendix 1 (2nd edition, July 2016)
- **States Guidance for CEs:**
Doc 9734 — Safety Oversight Manual, Part A — The Establishment and Management of a State Safety Oversight System (3rd edition, 2017)
 - *Available on ICAO-Net and CMA Library of the CMA OLF*





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Scope of Audits

Audit area		ICAO's Annexes/PANS	# of PQs (2017 edition)
LEG	Primary aviation legislation and specific operating regulations		23
ORG	Civil aviation organization		14
AIG	Aircraft accident and incident investigation	Annex 13	104
PEL	Personnel licensing and training	Annex 1	99
OPS	Aircraft operations	Annexes 6, 9, 18 and PANS-OPS	146
AIR	Airworthiness of aircraft	Annexes 6, 7, 8 and 16	210
ANS	Air navigation services	Annexes 2, 3, 4, 5, 10, 11, 12, 15 and PANS-ATM	179
AGA	Aerodromes and ground aids	Annex 14 and PANS-AGA	168

Total: 943



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Protocol Questions (PQs)

- Primary tool used to assess States' safety oversight capabilities, for each CE.
- Enable standardization in the conduct of USOAP CMA activities.
- Percentage of “Satisfactory” PQs is reflected in the EI.

$$EI (\%) = \frac{\text{number of satisfactory PQs}}{\text{total number of applicable PQs}} \times 100$$

- Evidence-based approach:
 - Show me.
 - Lack of evidence or lack of sufficient evidence = PQ status becomes or remains N/S.
- N/S PQ generates a finding and since 2014, each finding is PQ-specific.
- GASP target: 60% EI



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PQ asked by
auditor

PQ - Example

ICAO ref.	Protocol question	Reply to protocol question	Guidance for review of protocol question	Status of implementation	SSC
	AIG 0010 - Aircraft accident and incident investigation - Development, completion and release of the final report of aircraft accident and serious incident investigations—Procedures				
STD A13 6.5 6.6 GM Doc 9756 Part IV c 9962 C 10	AIG 6.405 (CE-5) Has the State, as the State conducting the investigation, established and implemented procedures to ensure that the final report is completed as soon as possible and that, if the report is not made available within 12 months, an interim statement is made publicly on each anniversary of the detected inv rais	[Choose Yes/No]	<ul style="list-style-type: none">- Review procedures.- Verify if there is a time frame for the release of the final report.- Verify if target dates are met.- Verify if there is a monitoring system to ensure that target dates are met.- Verify that interim statements are effectively made available when needed.	<div>ProtocolFindingStatuID</div> <div>Choose S/NS/NA</div> <div>Satisfactory</div> <div>Not Satisfactory</div> <div>Not Applicable</div> <div>NA</div>	<input type="checkbox"/>
Description: [Click here to enter text.]					
Evidence: [Click here to enter text.]					

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References

CE number
associated with
PQ

Auditor
assessment

Examples of
evidence to be
presented by State



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Collection of Safety Information

- States provide:
 - State Aviation Activity Questionnaire (SAAQ);
 - Compliance Checklists (CCs) on the Electronic Filing of Differences (EFOD) system;
 - Self-assessment; and
 - Updated Corrective Action Plans (CAPs).



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Evidence to collect by CE

CE-1	<ul style="list-style-type: none">• Laws, treaties• Bilateral agreements on Article 83 bis of the Chicago Convention	CE-5	<ul style="list-style-type: none">• Manuals, Handbooks• Procedures• Checklists
CE-2	<ul style="list-style-type: none">• Regulations, directives• Procedures for the amendment of regulations;• Procedures for identifying and notifying differences, if any, to ICAO	CE-6	<ul style="list-style-type: none">• Completed check-lists used for licensing/ certification/ approval and/or authorization processes• Issued licences, certificates, approvals and/or authorizations;• Copies of exchange of letters with the industry
CE-3	<ul style="list-style-type: none">• Documents related to nomination, delegation, cooperation, etc. (MOU, letters, etc.);• Organizational charts;• Documents describing functions and responsibilities;• Sample of job descriptions; Sample of credentials;• Budget decisions• Documents on the process to determine staffing needs	CE-7	<ul style="list-style-type: none">• Surveillance policy;• surveillance programme and plans• Copies of inspection or audit reports and/or monitoring activities;
CE-4	<ul style="list-style-type: none">• Document defining the minimum qualification and experience requirements• Training policy, programmes, training plans;• Completed OJT forms, Training records	CE-8	<ul style="list-style-type: none">• Exchange letters with the industry regarding deficiencies and corrective actions• Enforcement procedures• Evidence of actual enforcement actions (imposed fines or restriction/limitations, suspended or revoked licences/certificates/ approvals/authorizations;



- Provide the right level of evidence in accordance with the Critical Element (CE) of the PQ

CE-1

- Laws, treaties
- Bilateral agreements on Article 83 bis of the Chicago Convention



- Provide the right level of evidence in accordance with the Critical Element (CE) of the PQ

CE-2

- Regulations, directives
- Procedures for the amendment of regulations;
- Procedures for identifying and notifying differences, if any, to ICAO



- Provide the right level of evidence in accordance with the Critical Element (CE) of the PQ

CE-3

- Documents related to nomination, delegation, cooperation, etc. (MOU, letters, etc.);
- Organizational charts;
- Documents describing functions and responsibilities;
- Sample of job descriptions; Sample of credentials;
- Budget decisions
- Documents on the process to determine staffing needs



- Provide the right level of evidence in accordance with the Critical Element (CE) of the PQ

CE-4

- Document defining the minimum qualification and experience requirements
- Training policy, programmes, training plans;
- Completed OJT forms, Training records



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- Provide the right level of evidence in accordance with the Critical Element (CE) of the PQ

CE-5

- Manuals, Handbooks
- Procedures
- Checklists

- Procedures should provide sufficient details on WHO does WHAT, HOW, WHEN, and in coordination with WHOM



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Evidence to PQ associated to CE-5

- Procedures should provide sufficient details on WHO does WHAT, HOW, WHEN, and in coordination with WHOM:
 - **WHO:** Define the entities in charge of each task, who has the authority to decide, particularly with respect to enforcement aspects, who has the authority to approve the results, reports, etc. or to sign licences, certificates, etc.
 - **WHAT:** Define each step of the process, indicate the expected result and the template/format to be used; Establish the link with other procedures, if any.
 - **HOW:** Indicate sequence of actions, equipment/tools to used, reference to applicable checklists; Describe the means of traceability of the activity.
 - **WHEN:** If the procedure is part of a process, the step of the process at which the said procedure takes place; indicate the periodicity and the maximum interval between two actions and the deadline for completion of each step.
 - with **WHOM:** Identify external entities participating in the activity, if any.



Evidence to PQ associated to CE-5

- The following items are **not** acceptable procedure to be considered as CE-5 evidence material:
 - A regulation without sufficient details on the step-by-step instructions
 - A text only repeating the regulation or the PQ
 - A text specifying only the objectives
 - A text not reflecting the system actually in place
 - A text only copying ICAO documentation or generic guidance material without the necessary customization and/or practical details
 - A checklist or flow chart (in most cases)



- Provide the right level of evidence in accordance with the Critical Element (CE) of the PQ

CE-6

- Completed check-lists used for licensing/ certification/ approval and/or authorization processes
- Issued licences, certificates, approvals and/or authorizations;
- Copies of exchange of letters with the industry

- No CE-6 PQs for AIG



- Provide the right level of evidence in accordance with the Critical Element (CE) of the PQ

CE-7

- Surveillance policy;
- surveillance programme and plans
- Copies of inspection or audit reports and/or monitoring activities;

- No CE-7 PQs for AIG



- Provide the right level of evidence in accordance with the Critical Element (CE) of the PQ

CE-8

- Exchange letters with the industry regarding deficiencies and corrective actions
- Enforcement procedures
- Evidence of actual enforcement actions (imposed fines or restriction/limitations, suspended or revoked licences/certificates/approvals/authorizations;



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Significant Safety Concerns (SSCs)

- An SSC occurs when the audited **State allows** the **holder of an authorization or approval** to exercise the privileges attached to it, although the **minimum requirements** established by the State and by the Standards set forth in the Annexes to the Chicago Convention **are not met**, resulting in an immediate safety risk to international civil aviation.

Reference: EB 2010/7 dated 19 Feb 2010

- *Note: no SSC for AIG*



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Corrective Action Plan

- When the status of a PQ changes to *Not Satisfactory* as a result of a USOAP CMA activity, the State must develop a corrective action plan (CAP)
 - Required by MOU between the State and ICAO
 - State shall develop an acceptable CAP and submit it to the OAS through the USOAP CMA online framework (OLF);

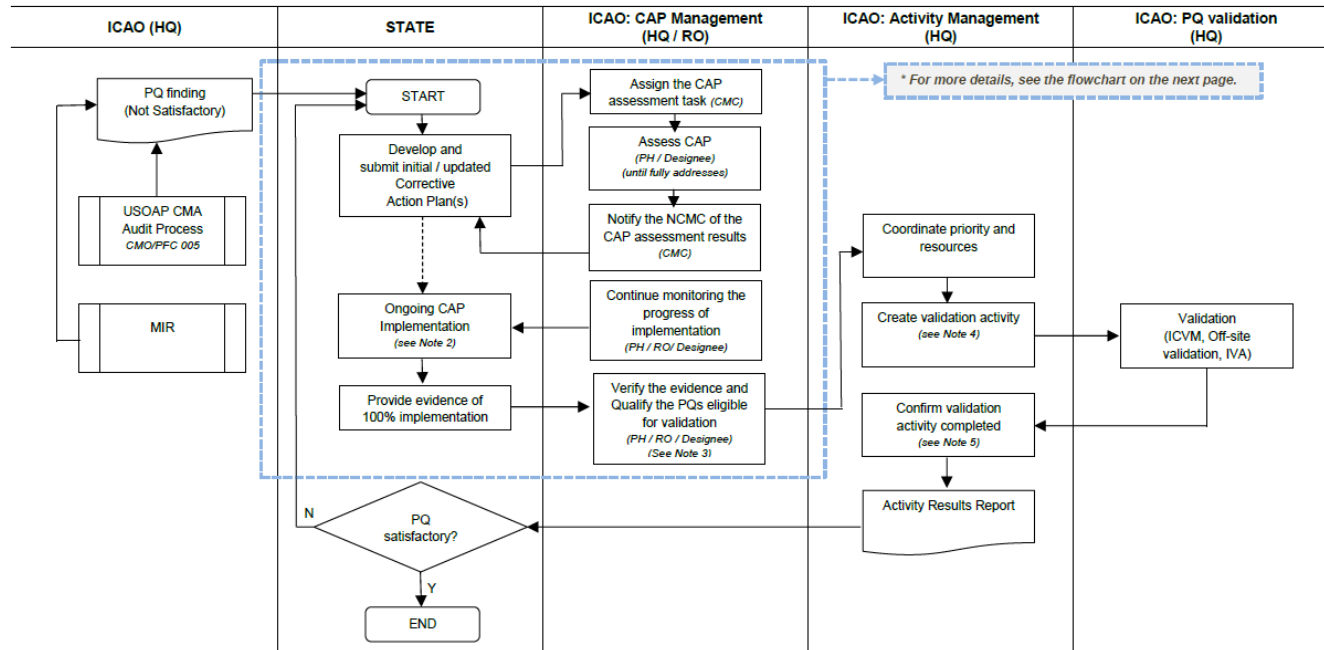


CAP

- Ensure that:
 - All points of PQ findings are addressed, including associated implementation;
 - CAPs include sufficient details to enable effective resolution of PQ findings;
 - Appropriate Action Office is identified in the CAPs; and
 - Realistic Estimated Date of Implementation is provided for all actions (short-, medium- and long-term).
- ICAO will provide State with feedback on the acceptability of any proposed CAP.
- If any proposed corrective actions do not fully address the associated finding the State will be notified accordingly



Simplified Overview of CAP-related Workflow



1. The State shall submit initial / updated CAPs to ICAO within 45 days from the date ICAO sends out the draft report.
2. A State may have started implementation before ICAO has started the CAP assessment.
3. All PQ findings are eligible for ICVM. However, not all PQ findings are eligible for Off-site Validation; most PQs associated with the "Establishment" Critical Elements (CES 1 to 5) are eligible for Off-site Validation. For more details, refer to the list of PQs requiring on site activities in the OLF USOAP Library. The majority of PQs associated with "Implementation" (CES 6 to 8) will require to be validated as part of an on-site USOAP CMA activities, i.e. ICVM or IVA.
4. The CAP and Self-Assessment will be "locked" during the validation activity; the State will not be able to make any changes during the USOAP activity.
5. The State's EI will be recalculated and will reflect the impact of PQ findings which have been changed to satisfactory.

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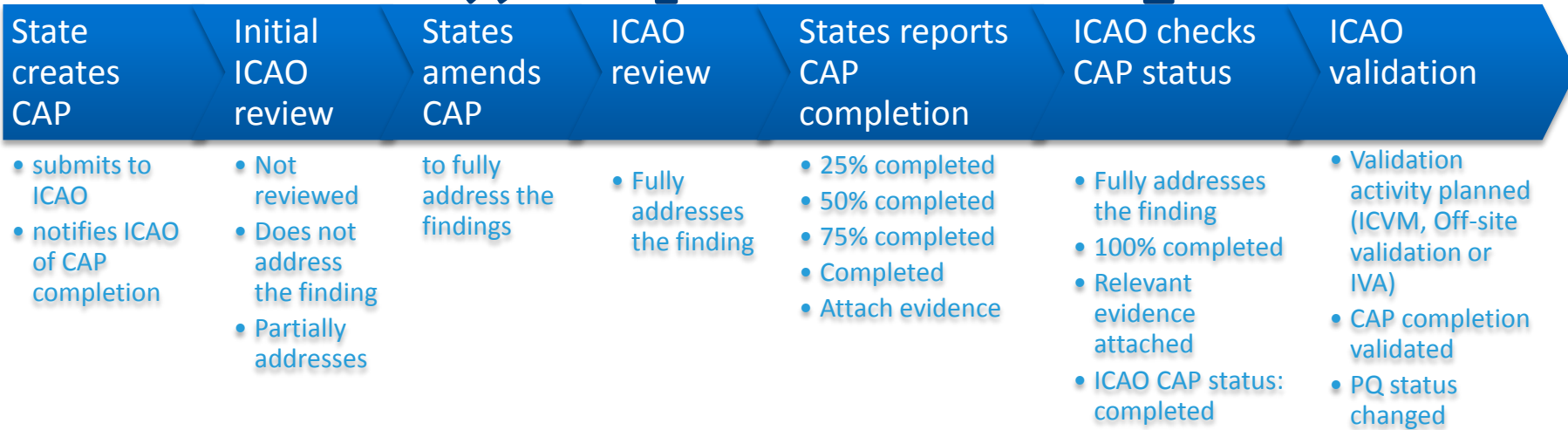
Page 1	Simplified Overview of CAP-related Workflow
Page 2	Corrective Action Plan (CAP)-related Workflow
Page 3	Understanding how the progress made by the State and ICAO is presented
Page 4	CAP Screen Shot: ICAO vs State
Page 5	Monitoring of CAP Submission
Page 6-10	Assessing CAP's Acceptability
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Page 13-16	Qualifying Audit Areas/PQs for Validation



Simplified CAP timeline

Always!!!!

Submit to ICAO





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Main Activities under USOAP CMA (1/2)

Activity	On- or Off site	Description	Remarks
CMA audit	On-site	To conduct systematic and objective assessment of a State's safety oversight system	Can be full- or limited scope.
ICVM	On-site	To collect and assess evidence of a State's effective correction of previously identified findings (in one or more audit areas).	Collected evidence is reviewed and validated at ICAO HQ (OAS).



Audit vs. ICVM

Audit



- Collect evidence related to the **status** of the **all** Protocol Questions (PQs), i.e.
 - Satisfactory (S),
 - Not Satisfactory (N/S), and
 - Not Applicable (N/A).
- Evidence-based approach:
 - **Show me**
 - **Lack of evidence = PQ finding**
- Decision **is taken** by auditors on site
- Subject to internal quality control systems outcomes **can vary** in final report

ICVM



- Collect evidence of **progress made** in implementing corrective actions with regards to **N/S PQs only** and mitigating measures to address findings/SSCs.
- Document and evaluate **level of progress** made in implementing corrective actions and verify the aspects related to the implementation.
- Evidence-based approach:
 - **Show me**
 - **Lack of evidence = No progress demonstrated, finding remains**
 - **Evidence should be collected and sent to OAS section in Montreal**
- Auditors **recommend** to change the status of PQ, final verification is done in Montreal, hence outcomes **usually vary** in final report



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Main Activities under USOAP CMA (2/2)

Activity	On- or Off site	Description	Remarks
Off-site validation activity	Off-site	To assess a State's effective corrective actions addressing previously identified findings.	Addresses PQs not requiring on-site activity.
Integrated validation activity (IVA)	Hybrid	<ul style="list-style-type: none">Limited scope, integrated within scheduled mission in a State by ICAO or safety partners*.On-site collection and review of evidence by SMEs.All collected evidence reviewed by ICAO HQ (OAS) as part of an off-site validation activity. <p><i>* Organizations which provide technical support to USOAP CMA activities on basis of formal agreement with ICAO (e.g. EASA).</i></p>	Associated PQs are identified at ICAO HQ (OAS) based on State's CAP performance.



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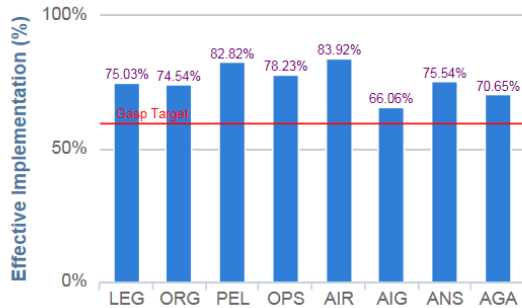
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USOAP Results for RASG-EUR States in AIG

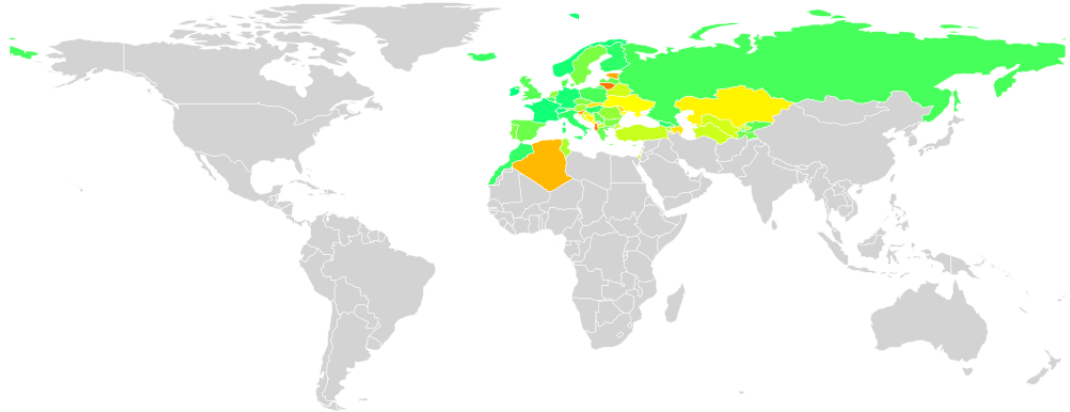
EI by Area



RASG-EUR

Effective Implementation score (%) in the area of accident investigation

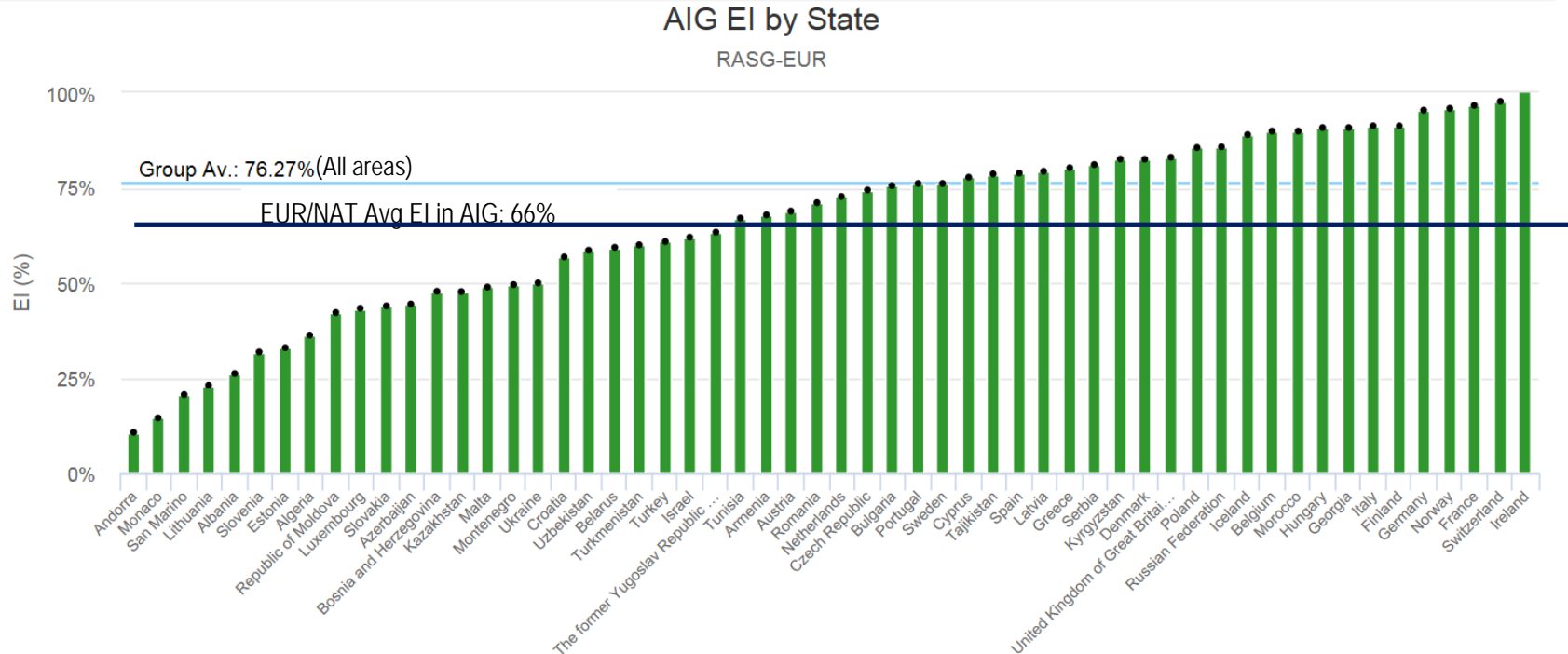
Average: 66.2%



Effective Implementation score (%) in the area of accident investigation
0% 50% 100%



USOAP Results for RASG-EUR States in AIG





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Thank you you for your attention
Спасибо за внимание.