EASA
European Union Aviation Safety Agency

This project is funded by the European Union.

EU-Africa Safety in Aviation (EU-ASA) project
Supporting SSP implementation

Remote Workshop 16th to 20th December 2024
Day 5

Your safety is our mission.

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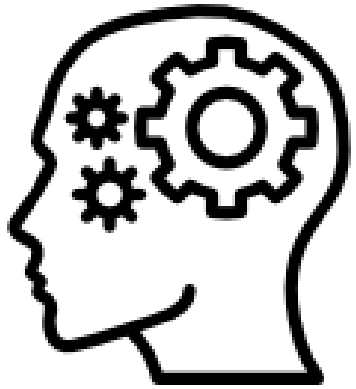
Oversight and Safety Promotion in a Safety Management environment



What in your view does Safety Management change in terms of oversight?

Definitions - ICAO Annex 19

Safety oversight

- → A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations.
- → Related to Critical Elements (CEs) 6, 7 and 8.

Characteristics of ‘traditional’ oversight (1/2)

- Fixed/standard oversight cycles
  - 12 months/24 months
  - within each cycle, one or more audits can be performed as long as all elements are covered

risk based ?

- Strict rules for the approval of changes to the organisation
  - predetermined/fixed scope of changes to the organisation that can be subject to ‘indirect approval’
  - confidence in the organisation considered to grant any ‘indirect approval’ ‘privileges’

risk based ?

- Auditing
  - always entails an element of sampling - never a 100% check
  - Sampling relies on inspector’s expert judgement

risk based ?

Characteristics of ‘traditional’ oversight (2/2)

→ Several explicit ‘risk-based’ elements exist in aviation safety regulations even where there is no requirement (yet) for an SMS.

→ However, the application of these ‘risk elements’ is often not ‘standardised’ and relies on the judgement of the individual inspector.

→ The inspector’s judgement is rarely documented and not always discussed internally.

Changes brought about by SMS/SSP

Safety management

known Risks
event based

high	
medium	☑
low	

Unknown risks
Focus on systems analysis
& risk management capability
=> safety performance

Focus on risk (intrinsic) and capability to manage it (performance of the organisation)

Risk

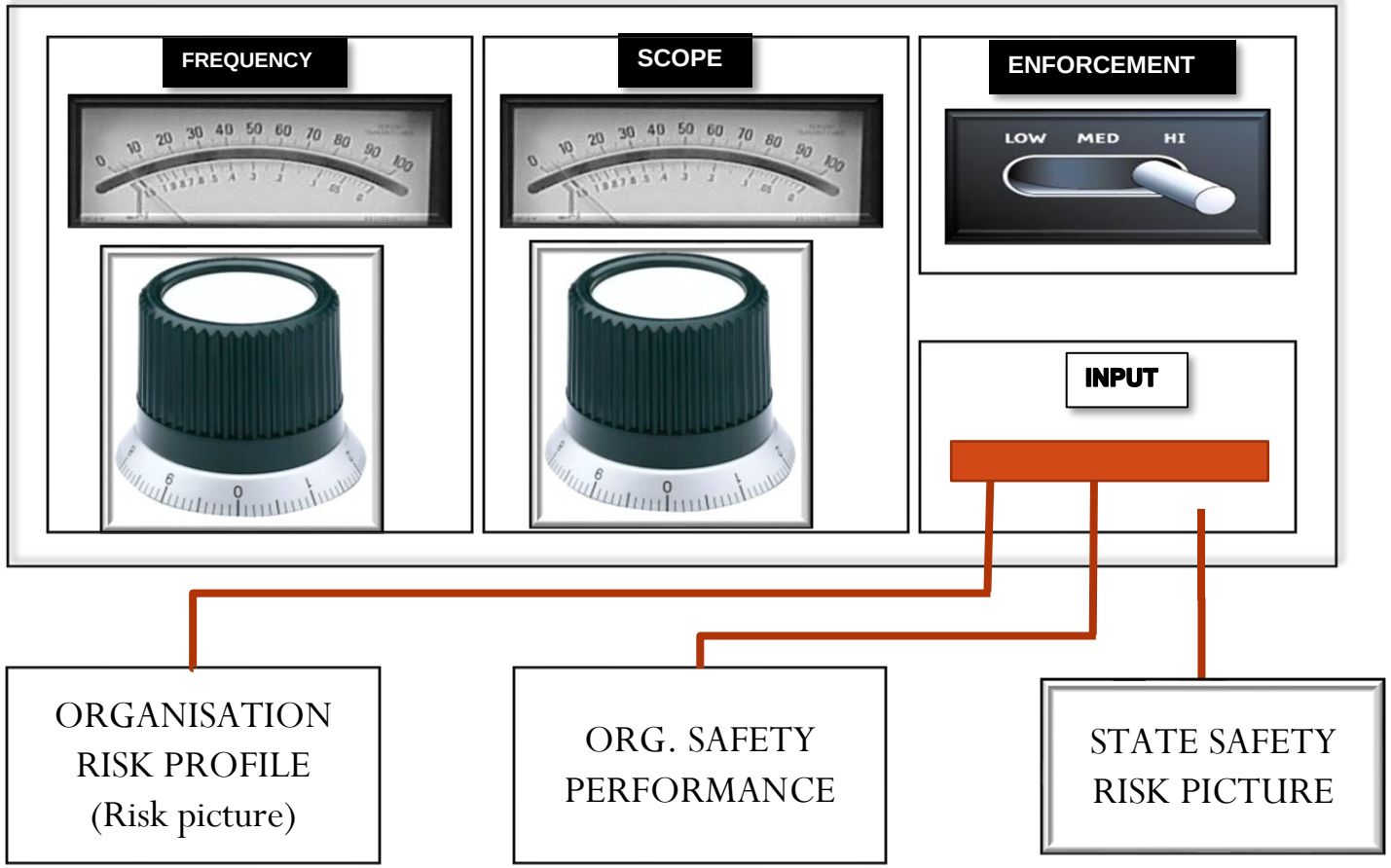
high			
medium			☑
low			
	low	medium	high

Performance: risk management capability

→ Focus on risk management capability of the organisation

- → consideration both of 'intrinsic' risk and capability to manage risk (new source of information)
- → more targeted oversight on areas of greater need and less 'involvement' with mature organisations
- → creates incentives for effective SMS implementation
  - → extended oversight cycle
  - → adapting 'privileges' to the maturity of the organisation

Surveillance (Oversight in EASA terminology)



Oversight – what changes with SMS?

- **SMS will mainly change**
  - Planning of oversight (when, how often)
  - Performance of oversight (how)
  - Policies (enforcement, application of just culture)
  - Privileges of the organisation (management of changes)

Oversight – what changes with SMS?

- **Planning**
  - Less rigid - more risk- and performance based (‘on-condition monitoring’)
- **Performance**
  - SMS assessment requires new competencies (knowledge, skills and attitude)
  - Inspectors need to apply just culture principles
- **Policies**
  - Policies & legislation required on the protection of safety data & information exchanged between organisations and authorities.
  - Enforcement policy needed
- **Privileges - How to manage changes to the organisation?**
  - CAA involvement can be adjusted to the maturity of the organisation, within the limits of the applicable regulations.
    - *For example: EASA Authority and Organisation requirements foresee that ‘changes not requiring prior approval’ can be defined for each organisation (a list of changes always requiring prior approval is provided)*

Holistic approach for SMS oversight

- Encourage **harmonised (ideally standardised)** application and interpretation of SMS/SSP across domains (and related oversight departments), such as flight operations, aerodromes and ATM/ANS.
  - Apply common standards and policies across domains
    - Common oversight policies
    - Exchange of good practices
    - Streamlining approach to SMS assessment, with possibility to have a common pool of SMS assessors
    - Common approach to raising and classifying findings
- Consider creating an **Oversight Review Board**.

- **Be realistic:**
  - Make sure you have the necessary resources & competencies to oversee the implementation.
  - If not, you may have to prioritise the domains to focus on first.

Enforcement policy

→ **3.2.1.2 Recommendation.—** *States should establish an enforcement policy that specifies the conditions and circumstances under which service providers with an SMS are allowed to deal with, and resolve, events involving certain safety issues, internally, within the context of their SMS and to the satisfaction of the appropriate State authority.*

→ SL 23/18 proposal to rename it: Surveillance policy

- → Recognise that some actions may be better managed through the SMS rather than through formal 'legal' processes.
- → Focus on problem solving in addition to problem spotting.

Enforcement policy -> changes proposed with SL 23/018

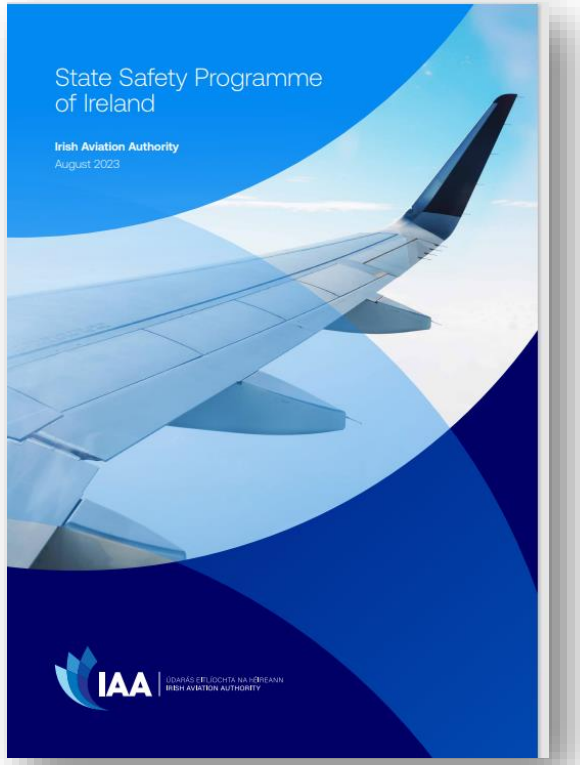
A19 amdt. 2

Moved from 1st to 3rd SSP component -Recommendation upgraded to a Standard

Amended ~~3.2.1.2~~ **3.4.1.4** ~~Recommendation.—~~ States ~~should~~ **shall** establish ~~an enforcement~~ **a surveillance** policy that specifies the conditions and circumstances under which service providers with an SMS are allowed to deal with, and resolve, events involving certain safety issues, internally, within the context of their SMS and to the satisfaction of the appropriate State authority.

Rationale: The service provider must develop the capacity to manage, internally, and, where required, in cooperation with other service providers, the resolution of safety issues, operational safety deficiencies, incl. noncompliance with/non-existence of established standard operating procedures. This capacity is an important feature of an SMS maturity process. These safety issues must be managed and resolved to the satisfaction of the State authority. Conditions and limitations must be established and explained in the surveillance policy.

Enforcement policy Example



IAA State Safety Programme of Ireland

Appendix 1
Enforcement policy

A1.1 Background

The Irish Aviation Authority enforcement policy is aimed at promoting compliance with aviation safety regulations and requirements through enforcement functions in an equitable manner. Specifically, the implementation of safety management systems (SMS) requires the IAA to have an equitable and discretionary enforcement approach in order to support the State Safety Programme.

The IAA enforcement policy and procedures will also allow service providers to deal with, and resolve, certain events involving internal safety deviations within the context of the service provider's SMS, and to the satisfaction of the authority. The enforcement policy also seeks to encourage the reporting of safety events by persons or organisations, with the assurance that the information will only be used for the purposes of improving safety.

Intentional contraventions of the regulations will be investigated and may be subject to conventional enforcement action where appropriate. There are clear provisions in the enforcement framework in order to distinguish between intentional violations and unintentional errors or deviations.

A1.2 Legal Obligations

Chapter 1.3 of the State Safety Programme describes the legislative framework under which the IAA operates.

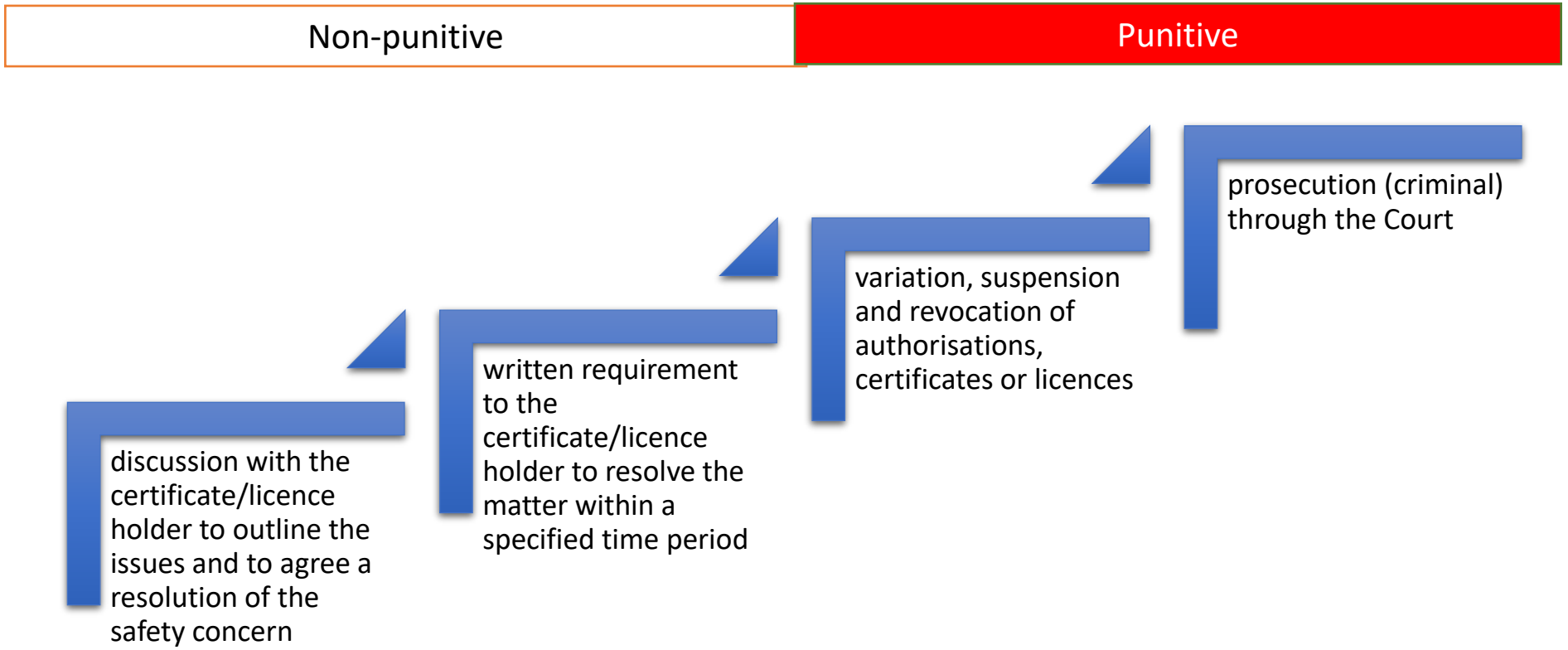
This legislation places responsibility on the IAA to conduct the safety regulation of the civil aviation aspects contained therein, to oversee compliance with the related safety standards and to perform the relevant enforcement actions, including the application of the appropriate sanctions or penalties in case of violations of the regulations.

The oversight tools which the IAA uses include;

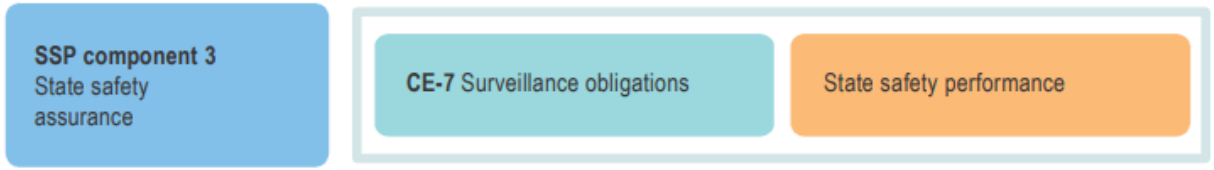
- compliance monitoring through oversight audits, testing, or inspection of the activity, and,
- collection, monitoring and analysis of safety information obtained through oversight of Safety Management Systems and mandatory and voluntary safety occurrence reports.

Enforcement policy included in the Irish SSP document dated August 2023

Possible enforcement actions



Surveillance obligations – other changes proposed with SL 23/18



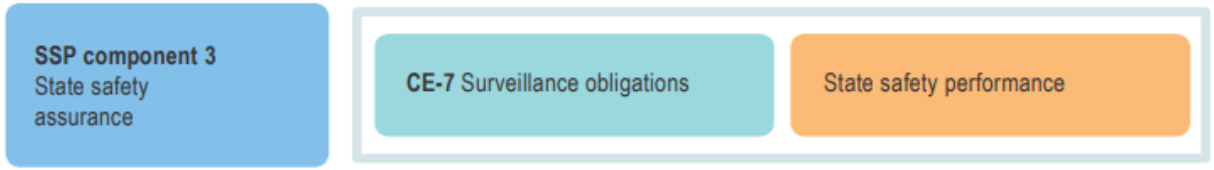
A19 amdt. 2

3.4.1.1 States **shall** meet the surveillance obligations in accordance with section 7 of Appendix 1. **No change**

~~Note.— The surveillance of the service provider takes into consideration the safety performance as well as the size and complexity of its aviation products or services.~~

Rationale: The note is deleted with its elements reincorporated into the updated note to standard 3.4.1.2, which outlines elements for consideration in prioritizing surveillance activities.

Surveillance obligations – other changes proposed with SL 23/18



A19 amdt. 2

Upgraded 3.4.1.2 ~~**Recommendation.**~~ - States ~~should~~ **shall** establish procedures to prioritize surveillance activities towards those areas of greater safety concern or need.

Amended Note - Organizational risk profiles, **including** outcomes of ~~hazard identification and risk assessment, and~~ surveillance **activities** ~~outcomes~~ **SMS assessments and safety performance monitoring** may provide information for the **planning**, prioritization **and preparation of surveillance activities** ~~inspections, audits and surveys.~~

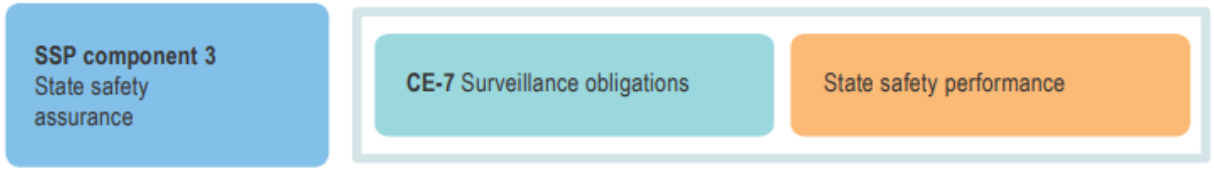
Surveillance obligations – other changes proposed with SL 23/018

Rationale:

States must establish a data-driven, risk-based methodology that allows the prioritization of surveillance activities to those areas that represent higher risk. This will result in a more effective way of allocating resources. The methodology and related procedures consider the principles of risk-based surveillance (RBS). The methodology should be results-oriented rather than focusing on varying the number of inspections, audits and surveys only. This should be a collaborative process involving multiple instances at the CAA level and service providers.

The proposal replaces 'prioritize inspections, audits and surveys' with 'prioritize surveillance activities' which, in accordance with the guidance in the Safety Oversight Manual (Doc 9734), is broader. In addition, the supporting notes make mention not only of the prioritization of the activities themselves, but also their planning and preparation.

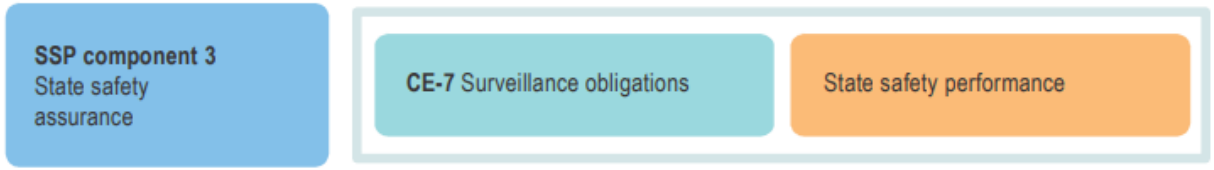
Surveillance obligations – changes following ANC review



A19 amdt. 2

Amended Note - Organizational risk profiles, including outcomes of **hazard identification and safety risk assessment, processes conducted under 3.3.4,** surveillance activities, SMS assessments and safety performance monitoring may provide information for the planning, prioritization and preparation of surveillance activities.

Surveillance obligations – other changes proposed with SL 23/18



Amended ~~*3.4.1.3* ***Recommendation.—*** *States should periodically review the safety performance of an individual service provider*~~.

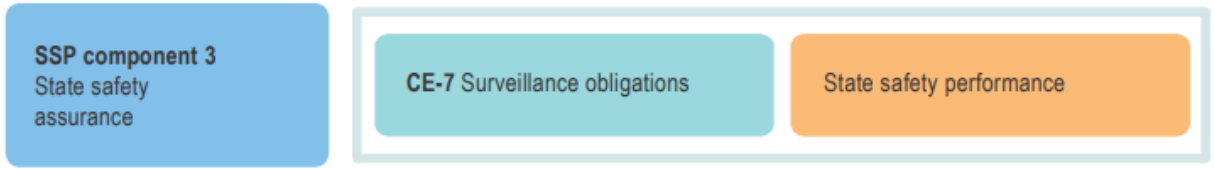
New text 3.4.1.3 States shall implement mechanisms to:

a) periodically assess the SMS of service providers addressed under 3.3.2.1; and

b) monitor the safety performance of service providers addressed under 3.3.2

New Note - Guidance on the periodic assessment of the SMS of service providers is contained in the Safety Management Manual (Doc 9859).

Surveillance obligations – other changes proposed with SL 23/18



Rationale:

The proposed upgrade of RP 3.4.1.3 is intended to address the role of the State in monitoring the SMS of service providers after the initial implementation in the context of State safety assurance, which **should include not only the review of the safety performance but also the periodical assessment of the SMS**.

The bullet a) excludes International General Aviation (IGA) operators with regard to the assessment of an SMS, an activity that would require significant resources on the part of the State, while bullet b) includes IGA operators with regard to the monitoring of service providers' safety performance which would requires less resources, while potentially providing a trigger to analyse adverse trends.

Inspector competence for SMS assessment

- SMS assessment is different from compliance auditing
  - ability to recognise different degrees of maturity
  - ability to deal with ‘intangibles’ such as safety culture
  - ability to assess the pertinence of safety risk assessments performed by organisations
  - ability to judge the relevance of safety performance indicators (SPIs) developed by organisations
  - Etc.
- Focus on the functioning of the entire management system rather than the effect of individual non-compliances

SMS assessment - KSA: initial SMS acceptance

K- Demonstrate familiarization with ICAO SMS framework and local regulatory requirements

K- Demonstrate familiarization with SPIs and SPTs at State level

K –Demonstrate familiarization with processes for the issuance of certificates, licenses, approvals and authorizations

K – Characterize management system

S - Assess the service providers SMS documentation, activities and processes to determine their effectiveness

S – Identify appropriate SPIs and SPTs for service providers including links to State level SPIs and SPTs

S - Determine how to incorporate SMS obligations as part of existing licensing, certification, authorization and approval

S – Determine how to address multiple service providers with one SMS

S – Determine how to address service providers with integrated management system

S- Organize activities to provide guidance to the service providers

A -Demonstrate analytical attitude

A- Be collaborative

SMS assessment - KSA: Monitor safety performance

K- Demonstrate familiarization with Safety Performance Indicators (SPIs) and Safety Performance Targets (SPTs)

S- Review safety performance indicators (SPIs) (with emphasis on leading indicators) and safety performance targets

S - Identify critical safety issues within aviation sectors

S -Review service provider processes for responding when safety performance targets are not met

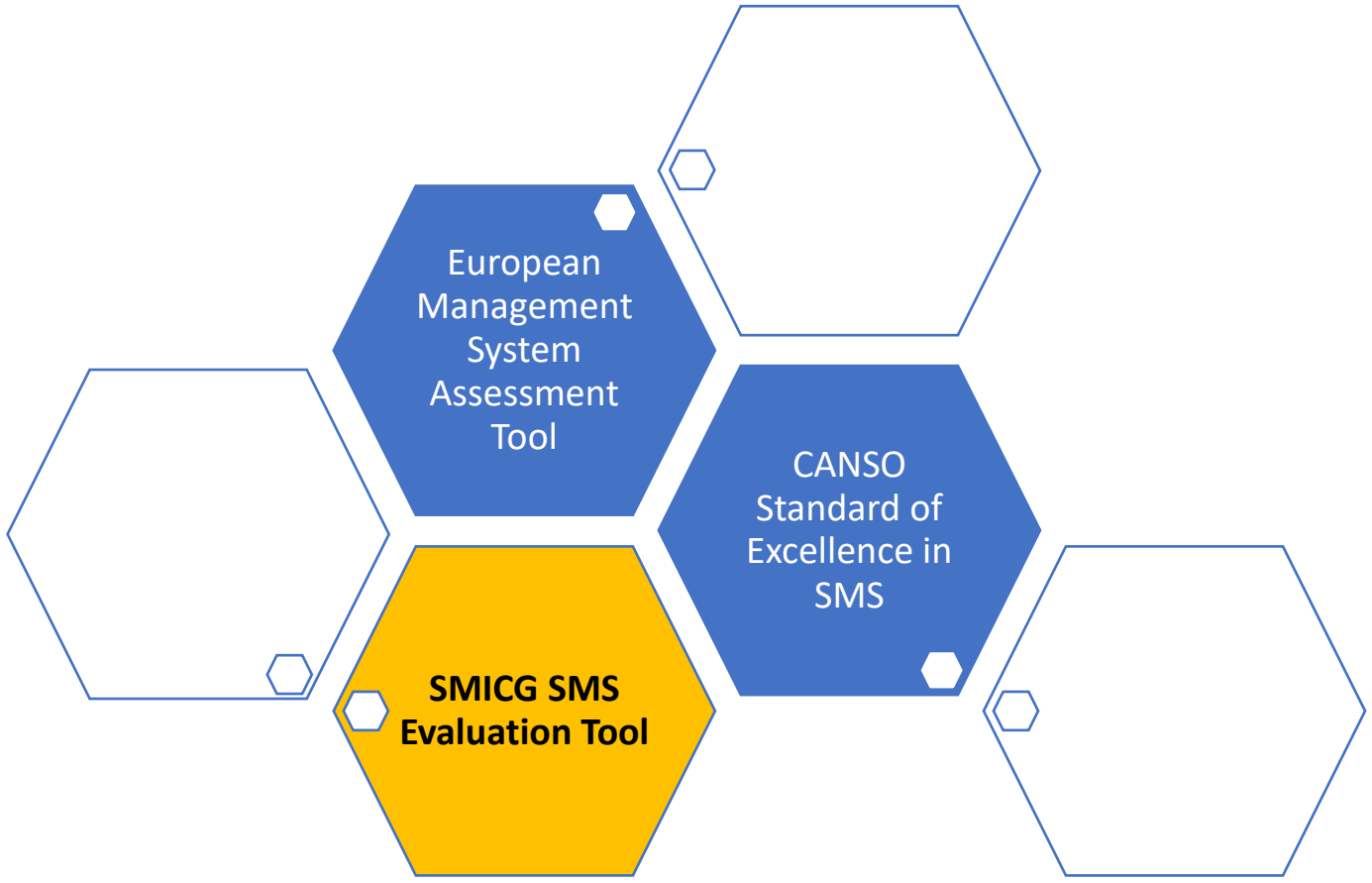
S – Review use of safety triggers for managing service provider safety performance

A - Demonstrate analytical attitude

A - Demonstrate a positive attitude towards benefits of SSP implementation

SMS assessment – available tools

SMS assessment – available tools

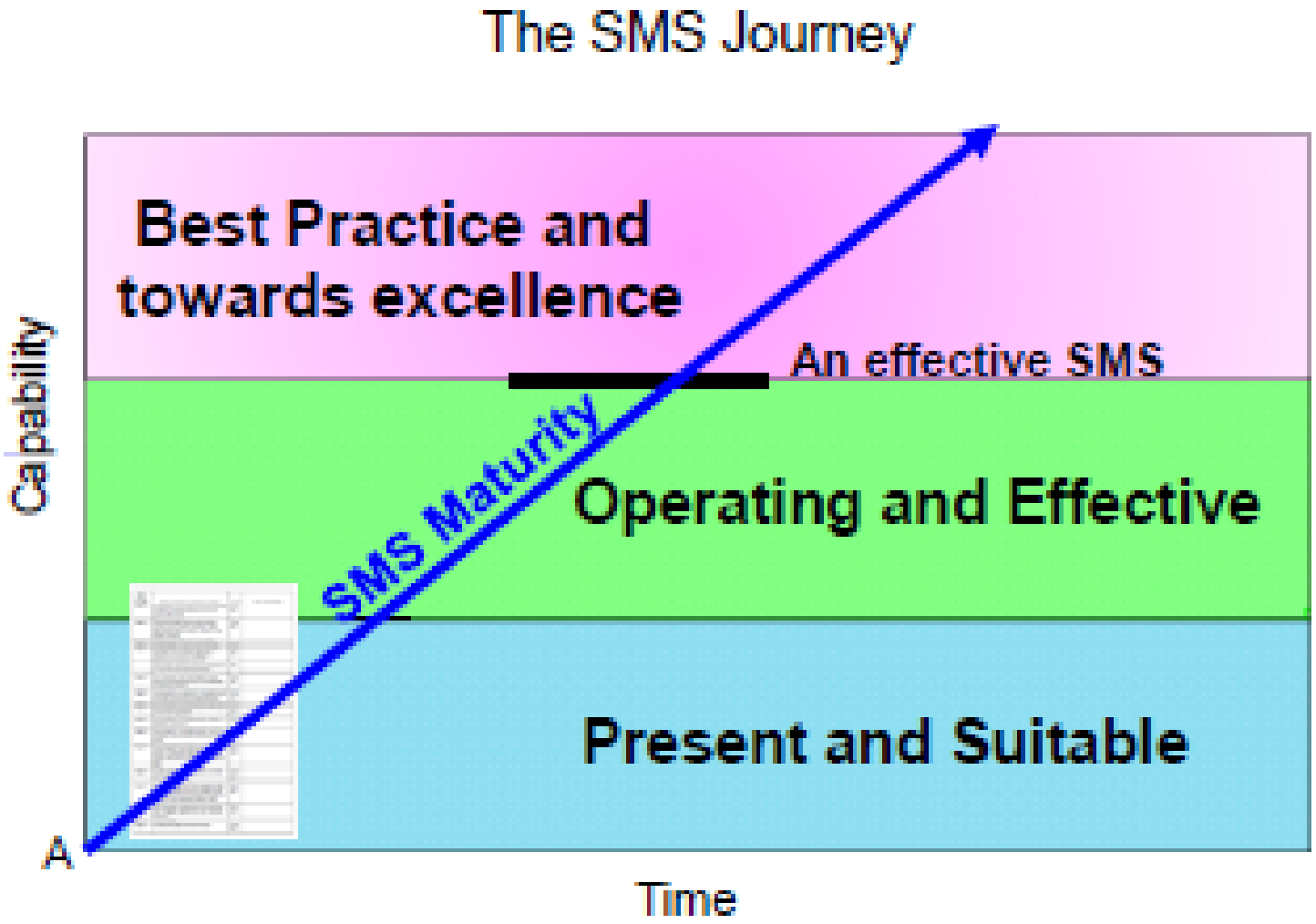


SMICG - SMS Evaluation Tool

- Tool based on various indicators that help the CAA evaluate the effectiveness of an organisation's SMS.
- Requires face to face discussion and interviews with a cross section of people.
- Both compliance and effectiveness of the SMS are addressed.
- The tool can be used for initial assessment or ongoing oversight
- It can be customised and adapted.

SMS Evaluation Tool (PDF)
SMS Evaluation Tool (editable version)

SMICG - SMS Evaluation Tool



SMICG – PSOE model

→ Each indicator should be reviewed to determine whether an SMS feature is

Present:

There is evidence that the feature is clearly visible and is documented within the organisation's SMS Documentation.

Suitable:

The feature is suitable based on the size, nature, complexity of the organisation and the inherent risk in the activity, including consideration of the industry sector.

Operating:

There is evidence that the feature is in use and an output is being produced.

Effective:

There is evidence that the feature is effective and achieving the desired outcome.

Initial Assessment

- → The CAA may use the tool as part of an initial assessment
  - → define the expectations on the individual indicators before an approval is issued:
    - → meet ‘Present & Suitable’ or ‘Present & Suitable & Operating’?

- → The initial assessment could start with a desk top review of the organisation’s documentation (SMS Manual, policies, procedures etc.)
  - → focus on assessing whether the SMS feature is present and considered suitable.

- → This should then be complemented with an on-site visit to
  - → verify that the features are present and suitable,
  - → see if and how they are operating,
  - → identify areas for improvement.

Self-assessment

→ Another approach would be to ask the organisation to

- → partially complete the tool as a self-assessment, including by completing the ‘how it is achieved’ box, and
- → submit this self-assessment to the CAA together with evidence/proof.

→ The CAA would

- → decide whether progress is sufficient to warrant an on-site visit.

where this is the case:

- → perform the on-site visit to verify and validate the organisations self-assessment.

SMICG SMS evaluation tool

Version 2 – April 2019

1 SAFETY RISK MANAGEMENT (Annex 19 component 2)

2 1.1 HAZARD IDENTIFICATION (Annex 19 element 2.1)

		Indicators of compliance and performance	P (4)	S (4)	O (4)	E (4)	How it achieved (5)	Comments (6)
Evaluation (3)	1.1.1	There is a confidential reporting system to captures errors, hazards and near misses that is simple to use and accessible to all staff.						
	1.1.2	There is a confidential reporting system that provides appropriate feedback to the reporter and where appropriate, to the rest of the organisation.						
	1.1.3	Personnel express confidence and trust in the organisations reporting policy.						

Guidance (7)

What to

- Review the reporting system for access and ease of use.
- Check staff trust the reporting system, are familiar with it and know what
- Review how data protection and confidentiality is achieved.
- Evidence of feedback to reporter, the organisation and third parties.
- (7a) Assess volume and quality of reports - including whether personnel are re
- Review report closure rates.
- Check availability to contracted organisations and customers to make rep
- Review how reports in the system are analysed.
- Confirm responsibilities with regards to occurrence analysis, storage and fo
- Check relevant staff are aware of which occurrences should be mandatory.
- Assess how senior management engage with the outputs of the reporting system.

Present (7b)	Suitable (7c)	Operating (7d)	Effective (7e)
There is a confidential reporting system to capture mandatory occurrences and voluntary reports that includes a feedback system and stored on a database. The process identifies how reports are actioned, timescales specified and addressed.	The reporting system is accessible and easy to use by all personnel. Responsibilities, timelines and format for the feedback are meaningful and well defined. Data protection and confidentiality is ensured.	The reporting system is being used by all personnel. There is feedback to the reporter of any actions taken (or not taken) and, where appropriate, to the rest of the organisation. Reports are evaluated, processed, analysed and stored. People are aware and fulfil their responsibilities in respect of the	There is a healthy reporting system based on the volume of reporting and the quality of reports received. Safety reports are acted on in a timely manner Personnel express confidence and trust in the organisations reporting policy and process. The reporting system is being used to make better management decisions

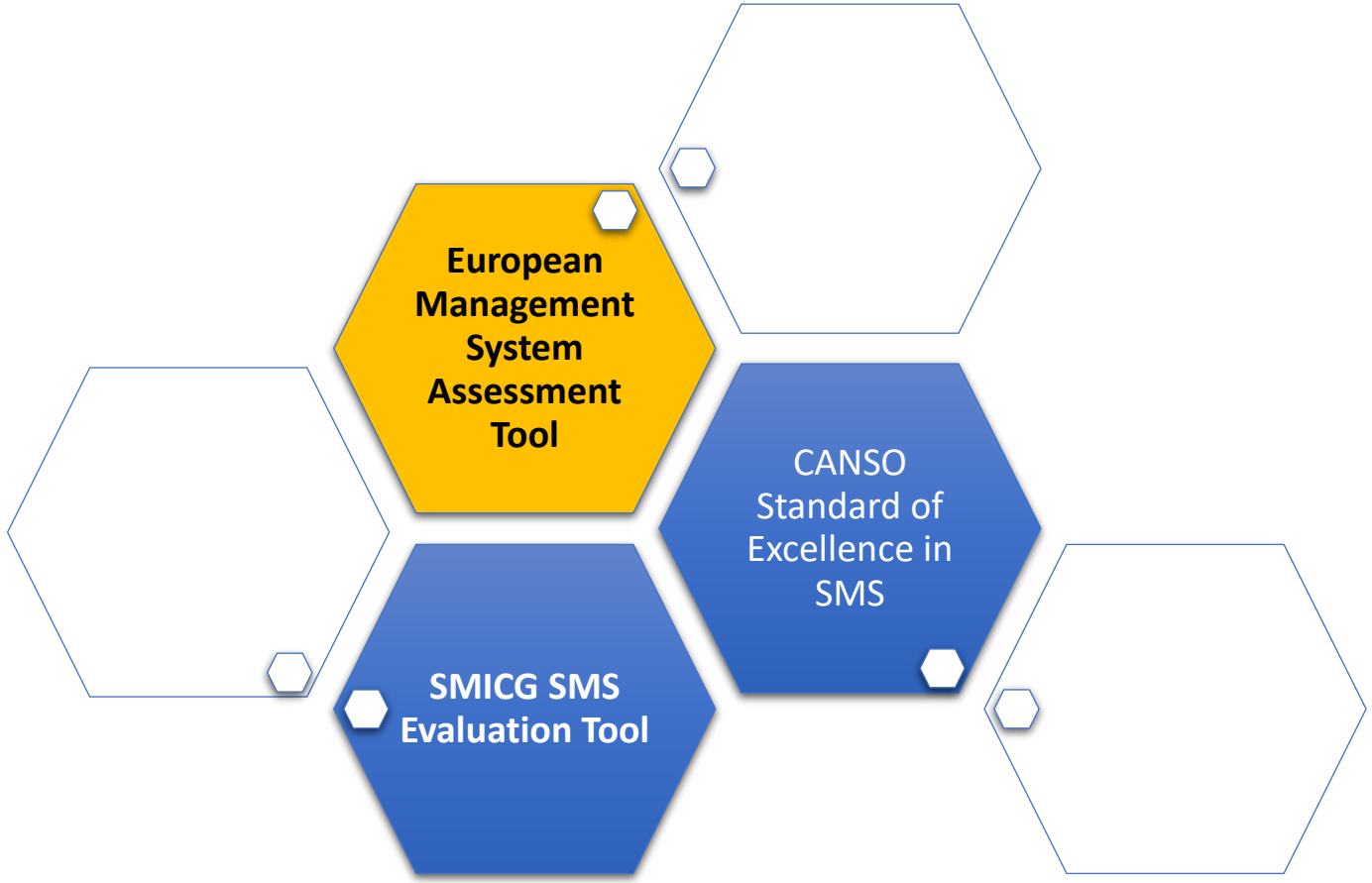
Evaluation Form Legend

1. ICAO Component Name & Reference
2. ICAO Element Name & Reference
3. Evaluation Section
4. (P) Present, (S) Suitable, (O) Operating, (E) Effective
5. Reference/evidence recording (*free-text*)
6. Evaluator comments (*free-text*)
7. Guidance Section
7a. Guidance on what/where to look for evidence
7b-e. Compliance + Performance guidance *word-picture*

Evidence needed to support the assessment

- Evidence includes documentation, reports, records of interviews and discussions
- It will vary for different levels of indicator assessment, for example:
  - for an indicator to be present the evidence is likely to be documented only,
  - for assessing whether it is operating it may involve assessing records as well as face to face discussions with personnel within an organisation.
- ‘How it is achieved’ should include summary statements and any references to documentation and records.
- The ‘Comment’ Column should be for the CAA to record any observations, conversations, records and documents sampled.

SMS assessment – available tools



EASA Management System Assessment Tool

- First published in 2017
- Latest version: Edition 2.0 – September 2023
- Link: Management System Assessment Tool | EASA

  - Based on the SMICG ‘PSOE’ model.
  - Supports the competent authorities in assessing the management systems of organisations during initial certification and continued oversight.
  - Can also be used for self assessment purposes by organisations.

EASA MS Assessment Tool: How it looks like

Annex 19 reference & text

1.1.1 The safety policy shall:

f) be communicated, with visible endorsement, throughout the organisation

See 2.1.2 for c) include safety reporting procedures

Present	Suitable	Operating	Effective
There is a means in place for the communication of the safety policy and its associated objectives. The management commitment to safety is documented within the safety policy.	The safety policy and its associated objectives are clearly visible (or reachable) to all staff (e.g. consider multiple sites, countries). The safety policy is understandable (consider multiple languages).	The safety policy and its associated objectives are communicated to all personnel (including relevant contracted staff and organisations). The Accountable Executive and the senior management team are promoting their commitment to the safety policy through active and visible participation in the safety management system.	People across the organisation are familiar with the safety policy and its associated objectives and can describe their obligations in respect of the safety policy and the internal safety reporting scheme.
Assessment results			

What to look for

Note: The safety policy shall give birth to safety objectives to be part of the assessment (see specific block on 'safety objectives)'.

- Review how the safety policy is communicated.
- Safety policy is clearly visible (or reachable, depending on the structure and size of the organisation) to all staff including relevant contracted staff and third-party organisations.
- Question managers and staff regarding knowledge of the safety policy and its associated objectives.
- All managers are familiar with the key elements of the safety policy and its associated objectives.
- Evidence that senior management involved in safety activities participate to safety meetings, training, conferences, etc.
- Check how a positive safety culture is encouraged and impacts the overall effectiveness, notably for the safety reporting system and the actions thereof.

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EASA MS Assessment Tool: How it looks like (cont'd)

Corresponding EU/EASA regulatory references				
Air Operations	**Aircrew**	**Aerodromes**	**ATM/ANS**	**ATC Training Org**
AMC1 ORO.GEN.200(a)(2) 'Management system' - [complex operators] point (a)(3) Not addressed for non-complex operators	AMC1 ORA.GEN.200(a)(2) 'Management system' - [complex operators] point (a)(3) Not addressed for non-complex organisations	ADR.OR.D. 005 'Management system' point (b)(2) AMC1 ADR.OR. D.005(b)(2) 'Management system' point (a)(4)	ATS.OR.200 'Safety management system' (1)(i) AMC1 ATS.OR.200(1)(i) 'Safety management system' SAFETY POLICY'— [complex ATS providers] AMC1 ATS.OR.200(1); (2); (3) 'Safety management system GENERAL' -GENERAL [non-complex ATS providers]	AMC1 ATCO.OR.C.001(b) 'Management system of training organisations' point (d)
CAM Org.	**Maintenance Org.**	**Production Org.**	**Design Org.**	**Reserved**
AMC1 CAMO.A.200(a)(2) 'Management system' point (a)(5) CAMO.A.200(a)(5) and its GM1 CAMO.A.200(a)(5) CAMO.A.202 'Internal safety reporting scheme' and its AMC1 CAMO.A.202	145.A.200 'Management system' points (a)(2) & (a)(5) AMC 1 145.A.200(a)(2) 'Safety policy and objectives' points (c) and (d)	AMC1 21.A.139 (c)(1) 'Safety policy and objectives' Point (a)1	AMC1 21.A.239 (c)(1) 'Safety policy and objectives' Point (a)1	

How to use the EASA MS Assessment Tool

→ The CAA can use the tool:

- → to verify compliance for initial certification or
- → to verify compliance & assess effectiveness for continuing oversight.

→ Three maturity 'levels' can be distinguished:

Formal compliance	Effective compliance	Performance
• **Present and suitable**	• **Present, suitable and operational**	• **Present, suitable, operational and effective**

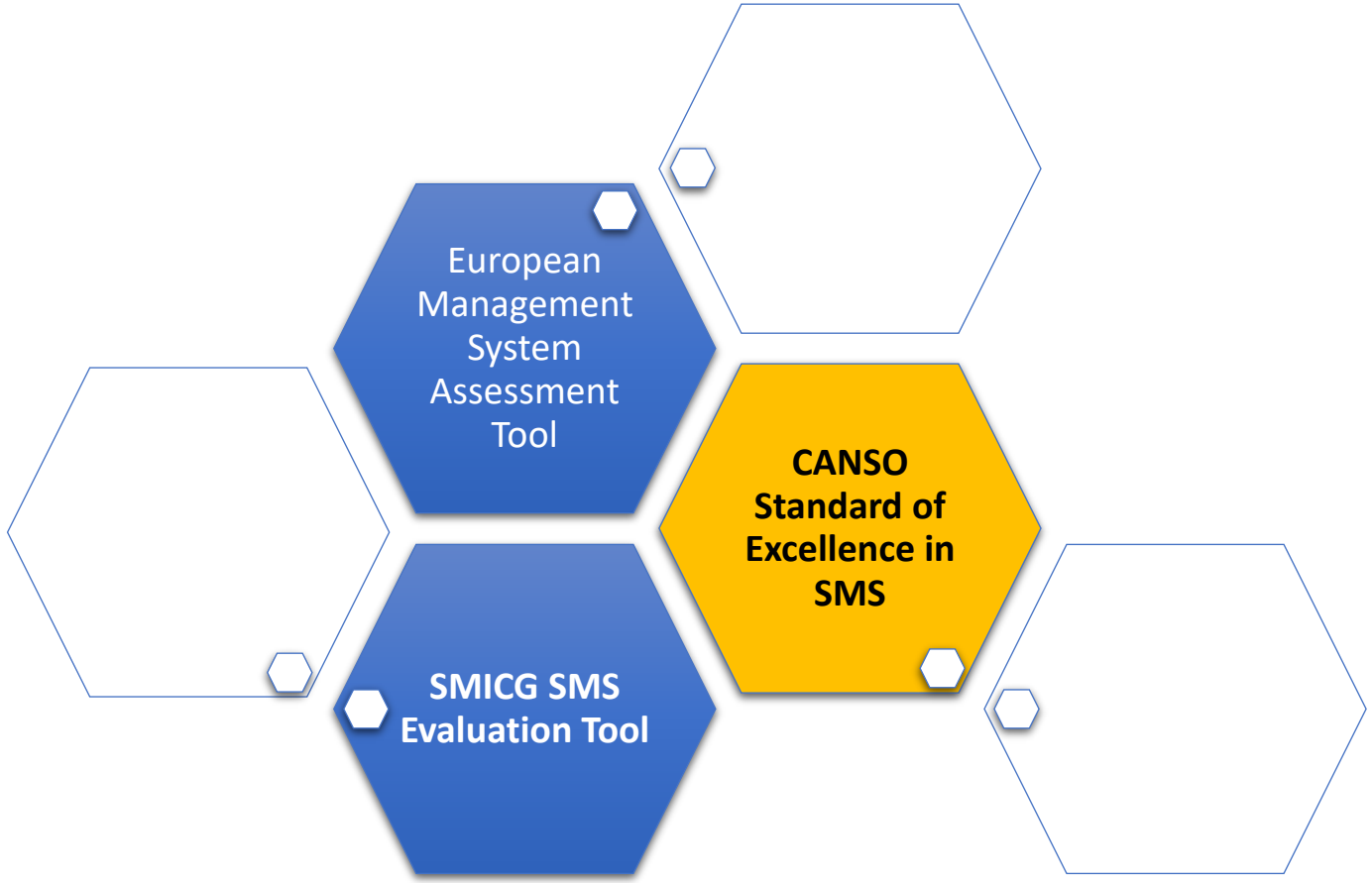
How to use the EASA MS Assessment Tool

- **Initial MS assessment**
  - part of the assessment could be carried out by a **desktop review of relevant documentation.**
  - **on-site assessment** to provide an opportunity for the inspector to advise and guide the organisation on its Management System implementation and support standardised implementation of Management System requirements.

- **Continued oversight**
  - combination of on-site assessment and desktop reviews.

- When **significant changes** take place the CAA must determine the need to review the existing (S)MS assessment to ensure it is still appropriate.

SMS assessment – available tools



CANSO Standard of excellence in SMS

- Defined as:
  - *a measure of quality that represents the ANS industry's view on the desired level of maturity and effectiveness which should be reached by all ANSPs in this area of air navigation services.*

- The latest version (February 2023) incorporates recent developments in safety management thinking and practice and aligns with ICAO Annex 19 latest edition.

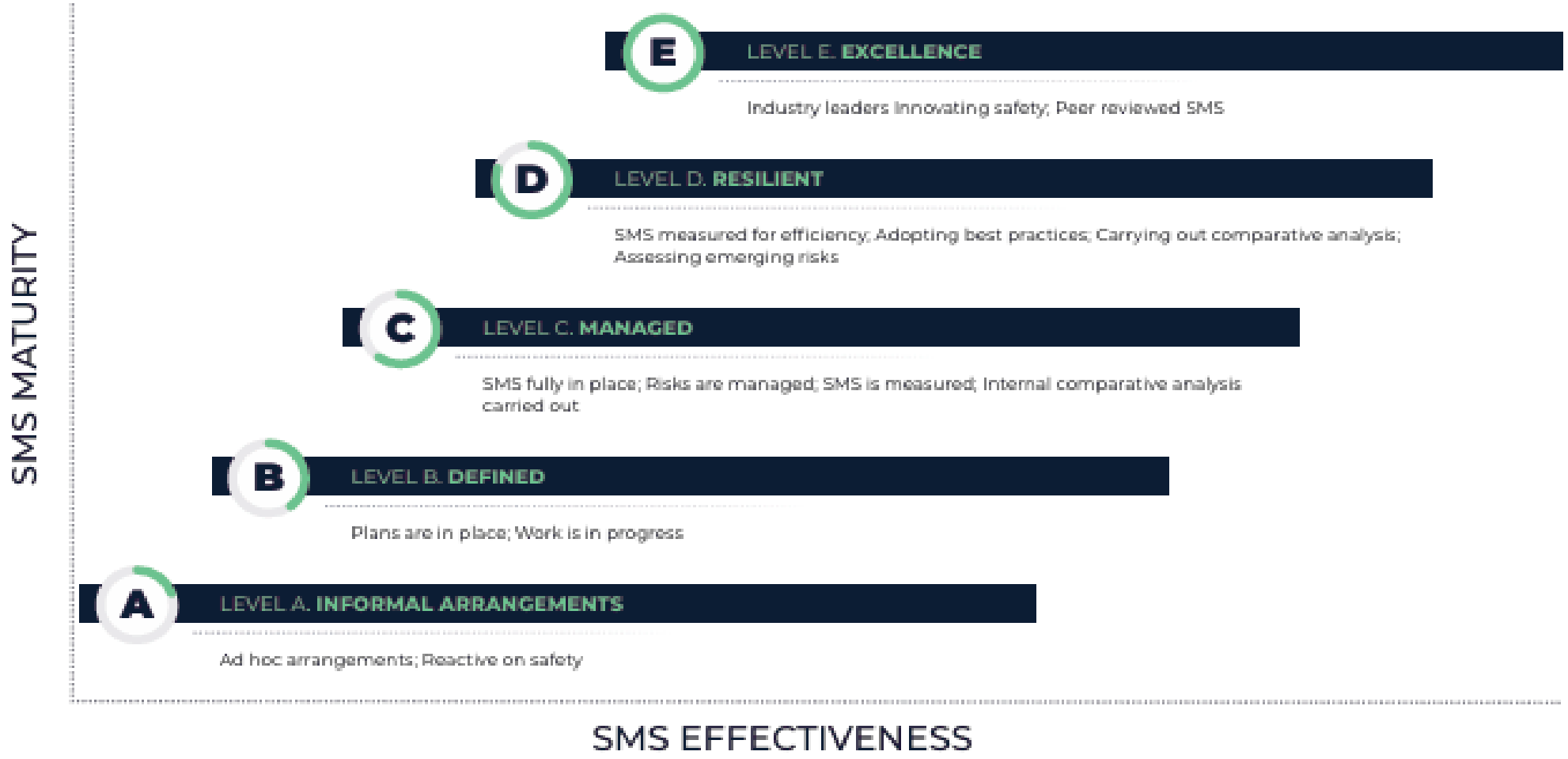
CANSO Standard of excellence in SMS

- The CANSO Standard of Excellence in Safety Management Systems provides ANSPs with the tools to:
  - measure and understand SMS maturity against industry standards
  - make a business case for safety improvements
  - build and develop an SMS that meets their requirements and harmonises global operations
  - demonstrate alignment with regulation, including ICAO's Annex 19
  - **share key learnings and best practice across the industry**

CANSO Standards of excellence in SMS

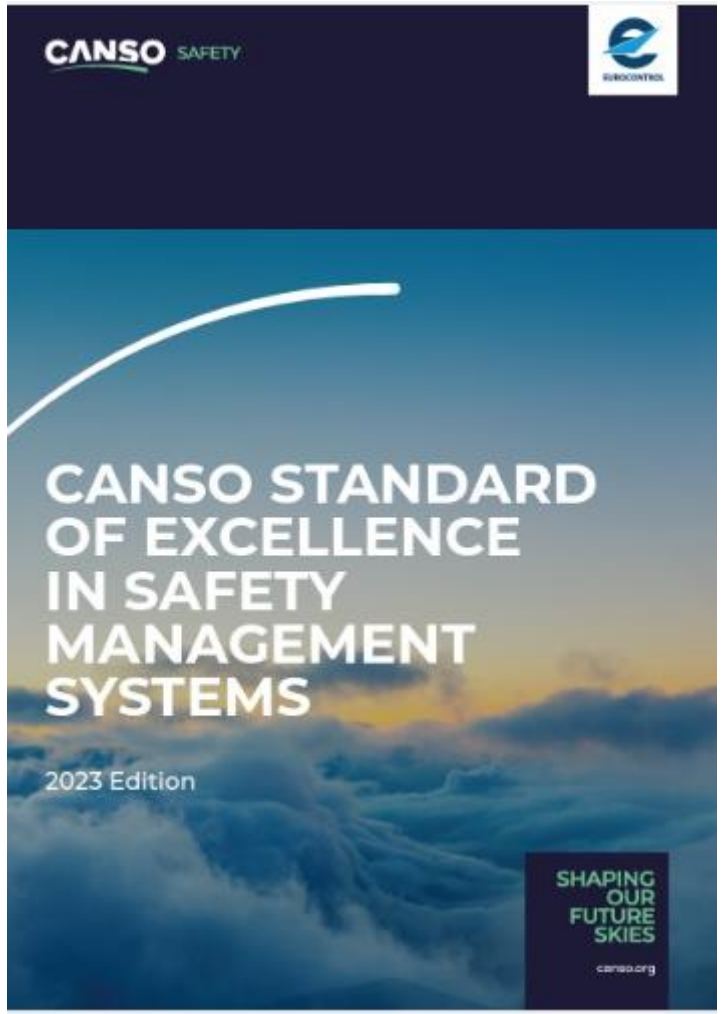
- Maturing an SMS can be challenging and resource intensive.
- ANSPs operate for the most part in isolation, use different technologies from one another and often rely on secondary organisations to provide integral services such as communication links via land lines or satellite.
  - This makes learning from each other more difficult and makes integrating safety management activities more complex.
- Sharing, and where appropriate leveraging, best safety management practices already developed by other ANSPs supports ANSPs to continually improve their SMS despite these challenges.

CANSO SMS maturity pathway



CANSO Standards of excellence in SMS

CANSO Safety Standard Of Excellence Safety Management Systems 2023



SMS oversight challenges

Challenges posed by SMS oversight

- Many aspects of SMS are subjective
- Inspectors need to look beyond the manuals/procedures.
- Inspectors need to develop an ability to judge the safety culture of the organization.
  - **Attitude towards the inspection (operational staff, managers)**
  - **Evidence of the application of just culture.**
- Ensure that sufficient time is given to interviewing the Accountable Manager and Line Managers (post holders)
- Find the right balance between ‘challenging’ the organisation and relying on their Safety Risk Management.
  - **Know when to interfere and when to trust their SRM.**

Typical findings from SMS assessment in Europe (1/3)

- Weaknesses in management commitment
- Unclear safety accountabilities
- Unclear or absence of defined SMS training needs for the different categories of personnel:
- Safety Manager
  - without any SMS training or training does not reflect level of responsibilities
  - 'isolated' in the organisation
- Weaknesses in emergency response planning (ERP):
  - not considering other parties (e.g. airport, line maintenance organisation)
  - not addressing all possible situations where an emergency needs to be managed (e.g. outside normal business hours)

Typical findings from SMS assessment in Europe (2/3)

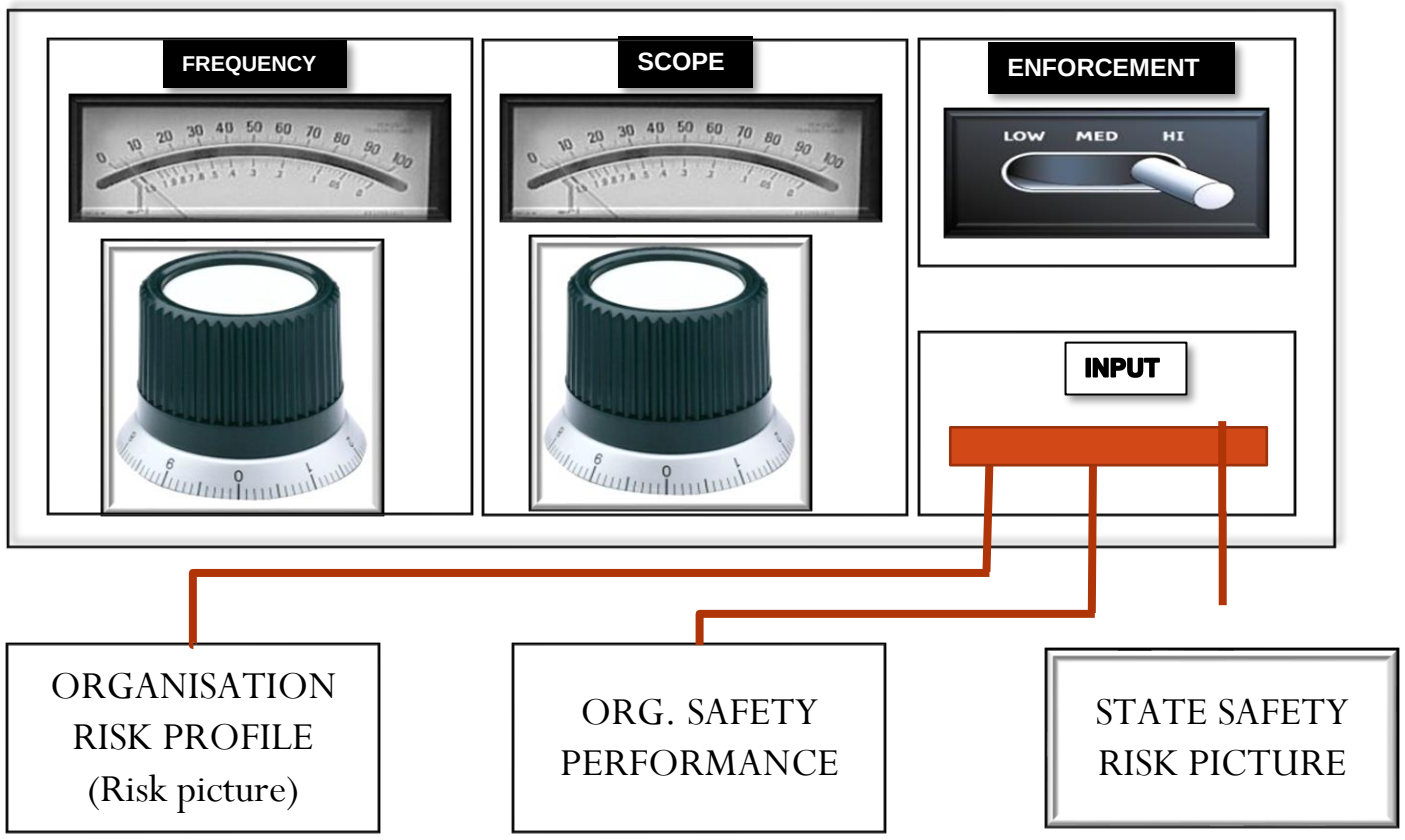
- Safety management manual not a living document:
  - not regularly reviewed – only used for authority oversight
  - not describing the interfaces between different processes
  - not usable by those involved in safety management activities (too high level or conceptual)
  - staff is not familiar with it

- No evidence of functioning safety management processes
  - procedures are defined, but there are no records
  - there is no evidence that decision-making is risk-based

Typical findings from SMS assessment in Europe (3/3)

- SMS focusing primarily on occupational health & safety issues;
- SRM focusing on flight operations only;
- SRM focusing on major changes only and not on subtle changes in day-to-day activities.
- Absence of clear criteria to establish which changes must be risk assessed.
- Inconsistent risk assessments:
  - severity – likelihood determination not substantiated
  - confusion between hazard and risk
  - too much focus on lower level risks
  - not enough focus on organizational risks
- Third party risks (contracted organisations) not considered.
- Absence of meaningful safety performance indicators.

Organisation profiling for Risk- and Performance Based Oversight



Organisation ‘profiling’

- **RISK Profile** based on several aspects:

- ***The elements of risk that are inherent to the nature and the operations of the organisation***
- It includes the ‘intrinsic’ risks:
  - the specific nature of the organisation
  - the volume and complexity of its activities
  - the risks stemming from the activities carried out
  - the exposure of the organisation to the safety issues identified in the State Risk Picture
- ***The sector risk picture (where existing)***
  - Example from Australia: Sector safety risk profiles | Civil Aviation Safety Authority

Organisation ‘profiling’

- **Safety performance profile**
  - **How effectively does a regulated entity mitigate its operational risks – what is their risk management capability?**

- What do we mean here with **‘safety performance’**?
- The demonstrated ability to:
  - comply with the applicable requirements (many of them are ‘regulatory’ risk controls),
  - implement and maintain effective safety management, identify and manage safety risks
  - achieve and maintain safe operations.

- To determine safety performance a methodology is needed to assess the SMS of the organisation.

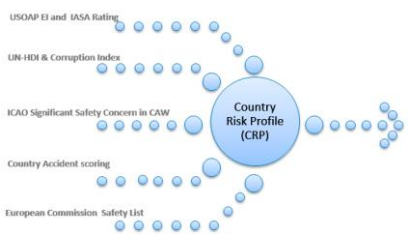
- The results of past oversight also feed into the determination of the safety performance profile.

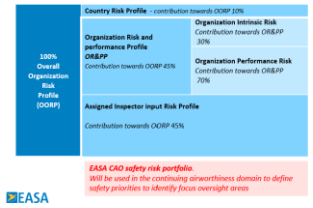
Example of an RBO model

- EASA Risk Based Oversight ‘model’ for foreign Approved Maintenance Organisations (AMOs)
- Designed specifically for EASA foreign approvals, but can be adapted to other needs – EASA is the competent authority for all foreign AMOs approved i.a.w. EASA Part-145 (there are several hundreds of those)
- The model is supported by an **IT Tool** capturing and computing different risk elements that provides meaningful and quick risk indicators
- **It is a decision aid** to adapt surveillance activities to the associated organisation risks & performance.

Risk Based Oversight: Process

Inputs → RBO Model → Dashboard → RBO Committee → Outputs

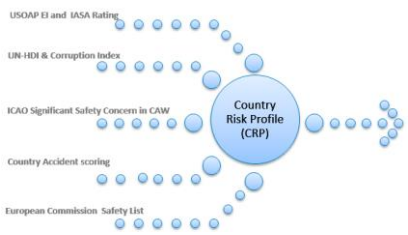


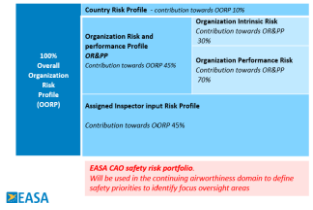


Risk Based Oversight: Process

IT Platform

Inputs → RBO Model → Dashboard → RBO Committee → Outputs





Risk Based Oversight: When

Initial application

Recommendation for initial approval

End of surveillance cycle (i.e. every 24 months)

Major ‘event’

- Reinstatement of the certificate
- Major change
- Limitation
- New safety concern (e.g. discovered through occurrence reporting)

Risk Based Oversight model

Criteria			Inputs
100% Overall Organisation Risk Profile (OORP)	**Country Risk Profile** - *contribution towards OORP 10%*		7 elements
	Organisation Risk and performance Profile *OR&PP* *Contribution towards OORP 45%*	**Organisation Intrinsic Risk Profile** *Contribution towards OR&PP 30%*	23 elements
		Organisation Performance Risk Profile *Contribution towards OR&PP 70%*	18 elements
	Assigned Inspector input Risk Profile *Contribution towards OORP* 45%		7 elements

EASA Airworthiness safety risk portfolio (EPAS Volume III) *used in the continuing airworthiness domain to define* ***safety priorities*** *to identify focus oversight areas*

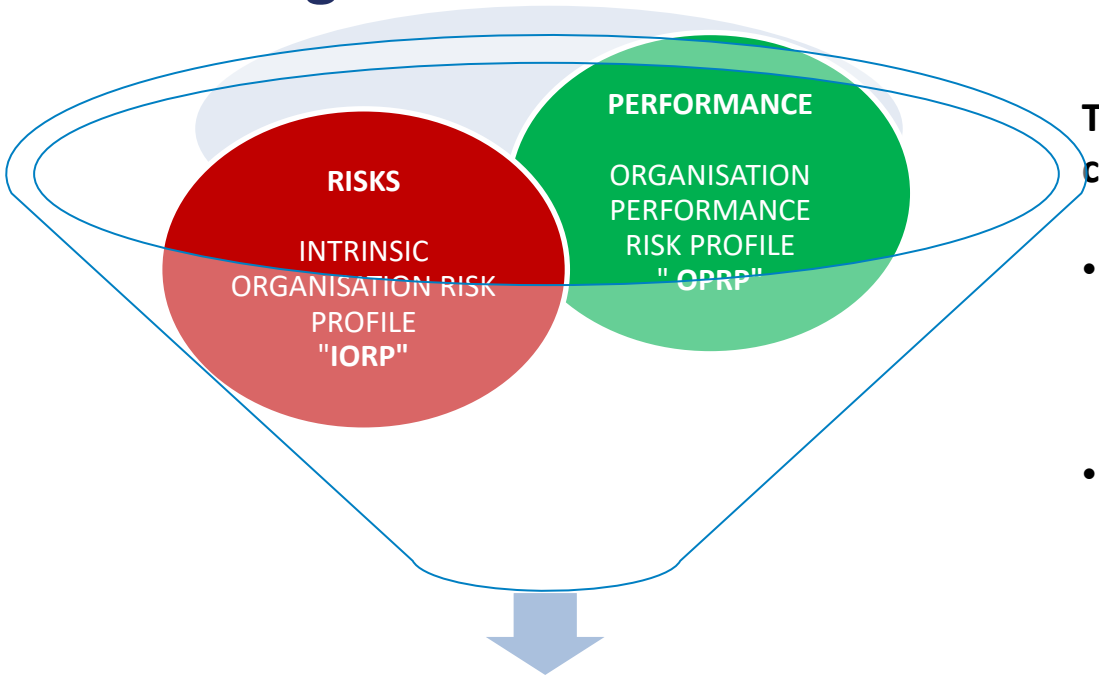
example: Inadequate management of repetitive defects (SI-9001)

Risk Based Oversight: you may decide your own % distribution

Criteria			Inputs
100% Overall Organisation Risk Profile (OORP)	~~**Country Risk Profile** - *contribution towards OORP 10%*~~		
	Organisation Risk and performance Profile *OR&PP* *Contribution towards OORP **50** %*	**Organisation Intrinsic Risk profile** *Contribution towards OR&PP 30%*	23 elements
		Organisation Performance Risk profile *Contribution towards OR&PP 70%*	18 elements
	Assigned Inspector input Risk Profile *Contribution towards OORP **50** %*		7 elements

Risk Profile: Overall organisation risk profile

Organisation Intrinsic & Performance Risk Profile



The organisation intrinsic & performance risk profile (ORPP) is a combination of two elements:

- **Elements of risk that are inherent to the nature of the organisation & the complexity of its activities: "Intrinsic Organisation Risk profile" (IORP) and**
- **Organisation's proficiency to effectively mitigate the risk and ensure compliance: "Organisation performance risk profile" (OPRP).**

(OORGANISATION RISK & PERFORMANCE PROFILE RPF)

ORPF = (IORFx30%) + {OPRFx70%}

IORF = Intrinsic Organisation risk profile factor (IORF is given a weighting factor of 30 %)
OPRF = Organisation Performance Risk Factor (OPRF is given a weighting factor of 70%.)

Risk Profile: Organisation Risk Profile

INTRINSIC ORGANISATION RISK PROFILE (IORF)

Ratings & Limitations

Level of maintenance

Specialised service (NDT …)

Number of staff

Maintenance sites

Scope of Approval

Outsourcing

Non Permanent staff & Part- 66 licensed Engineers

Number of years using the EASA approval

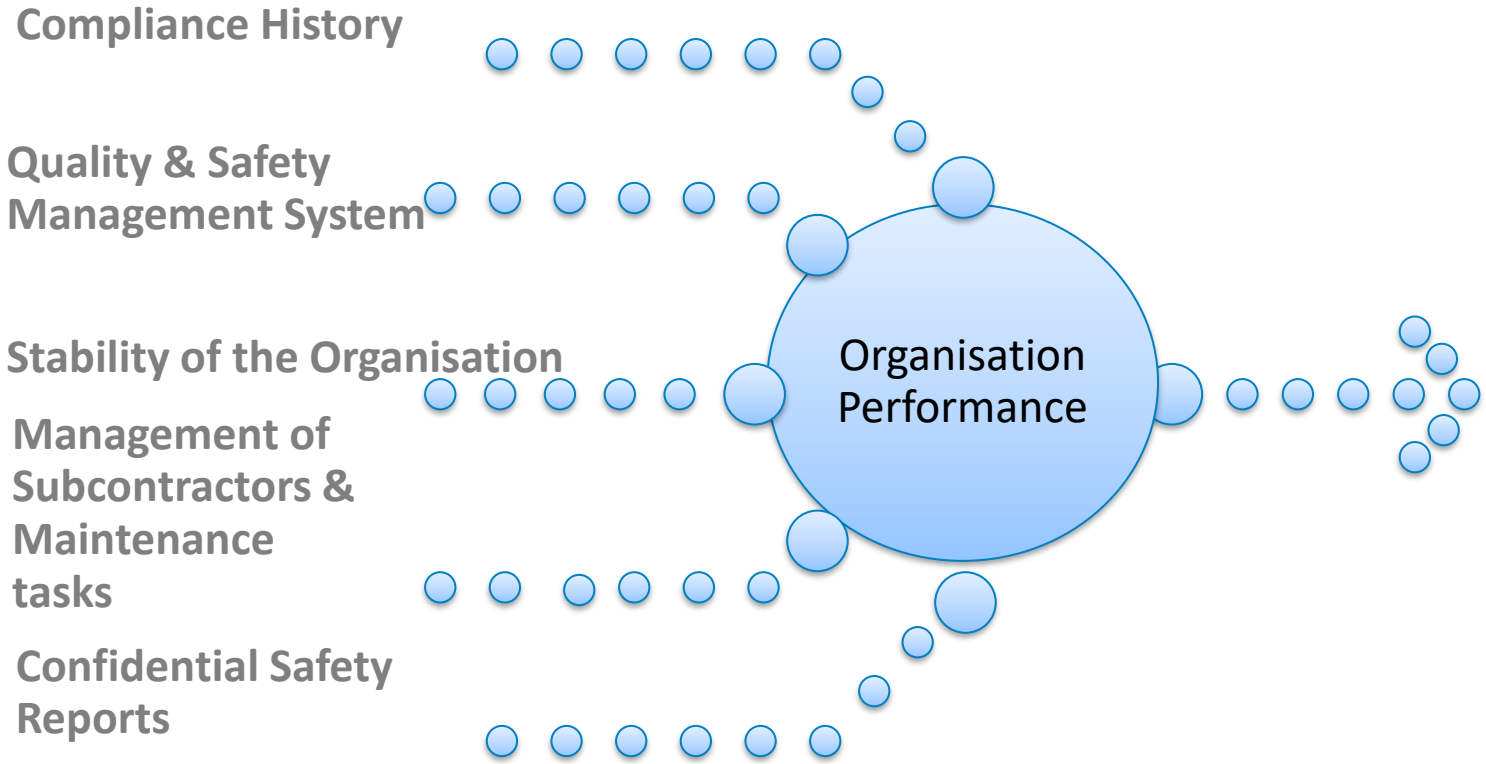
Usage of the approval & Other approval held

Fabrication of parts

Activity

Risk Profile: Organisation Risk Profile

ORGANISATION PERFORMANCE RISK PROFILE (OPRF)

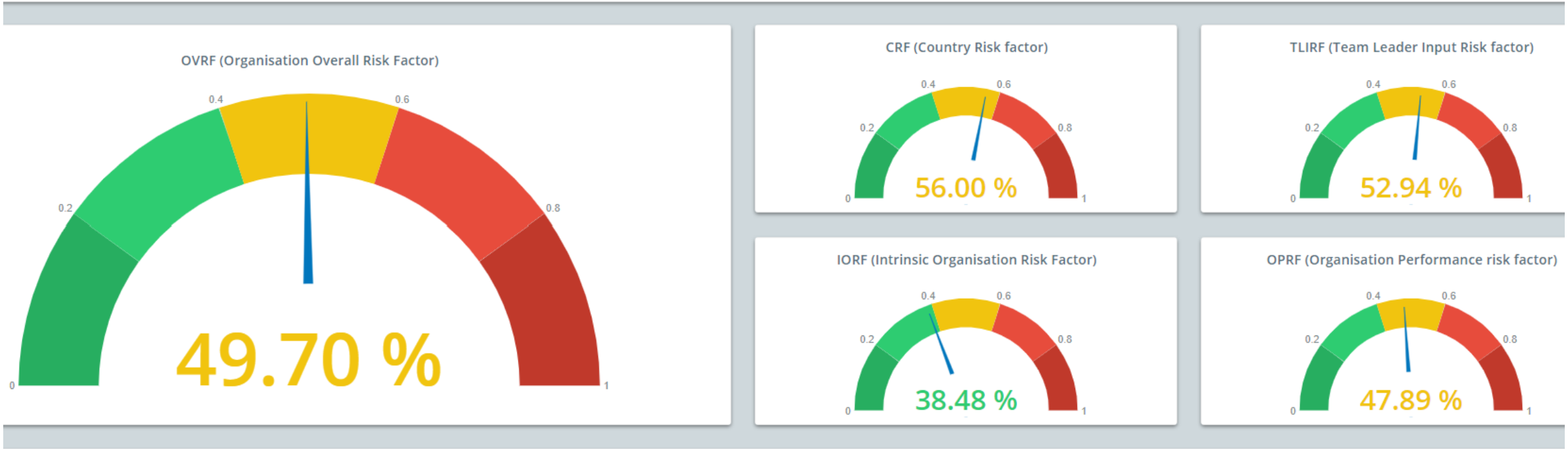


Limitation ?

Suspension ?

Risk Profile: Team Leader (TL) Input

Dashboard


OVRF (Organisation Overall Risk Factor)
0
0.2
0.4
0.6
0.8
1
49.70 %
CRF (Country Risk factor)
56.00 %
TLIRF (Team Leader Input Risk factor)
52.94 %
IORF (Intrinsic Organisation Risk Factor)
38.48 %
OPRF (Organisation Performance risk factor)
47.89 %

How to make it work?

- An excel tool is used to manage the profile data and develop the organisation ‘dashboard’
- Inspection and findings data management platform (IT Tool) will facilitate collection and analysis of oversight data (it is considered part of the SDCPS).
- Dedicated form to be filled in annually by the Team Leader (Inspectors) and the organisation.
- RBO Committee will evaluate/review the results of the risk and performance analysis and determine the impact on the oversight programme in a uniform way.
- Definition of a transition period between the traditional oversight and the new model.

RBO Committee

- The RBO dashboard is quantitative/data-driven.
- The dashboard will be interpreted by a **team of experts** at the Risk Based Oversight committee, at the end of each oversight cycle:
    - Inspector is the ‘Subject Matter Expert’ on the organisation;
    - EASA Coordinators complement the analysis.
- RBO outcome:
    - Actions to improve the oversight programme are defined.
    - Focus areas for the audit/assessment/inspection are identified.

RBO Outcomes

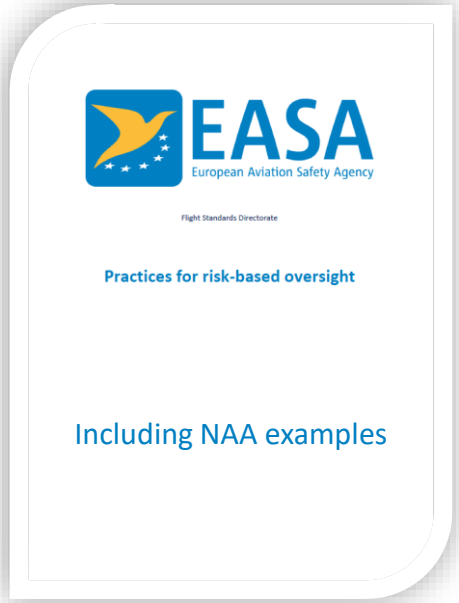
- Standardised output
  - Oversight programme:

    determination of the type & number of audits, number of auditors
  - Surveillance cycle

    6, 12, 24 or 36 months
- Audits to address safety priorities / focus areas.
- RBO output will be considered in the next oversight cycle, where the inspectors produce:
  - oversight planning (surveillance plan)
  - oversight activities (product audits, process audit, assessment, focus areas, desktop audits, etc.)

Further guidance on RBO

EASA – collection of practices for Risk-Based Oversight



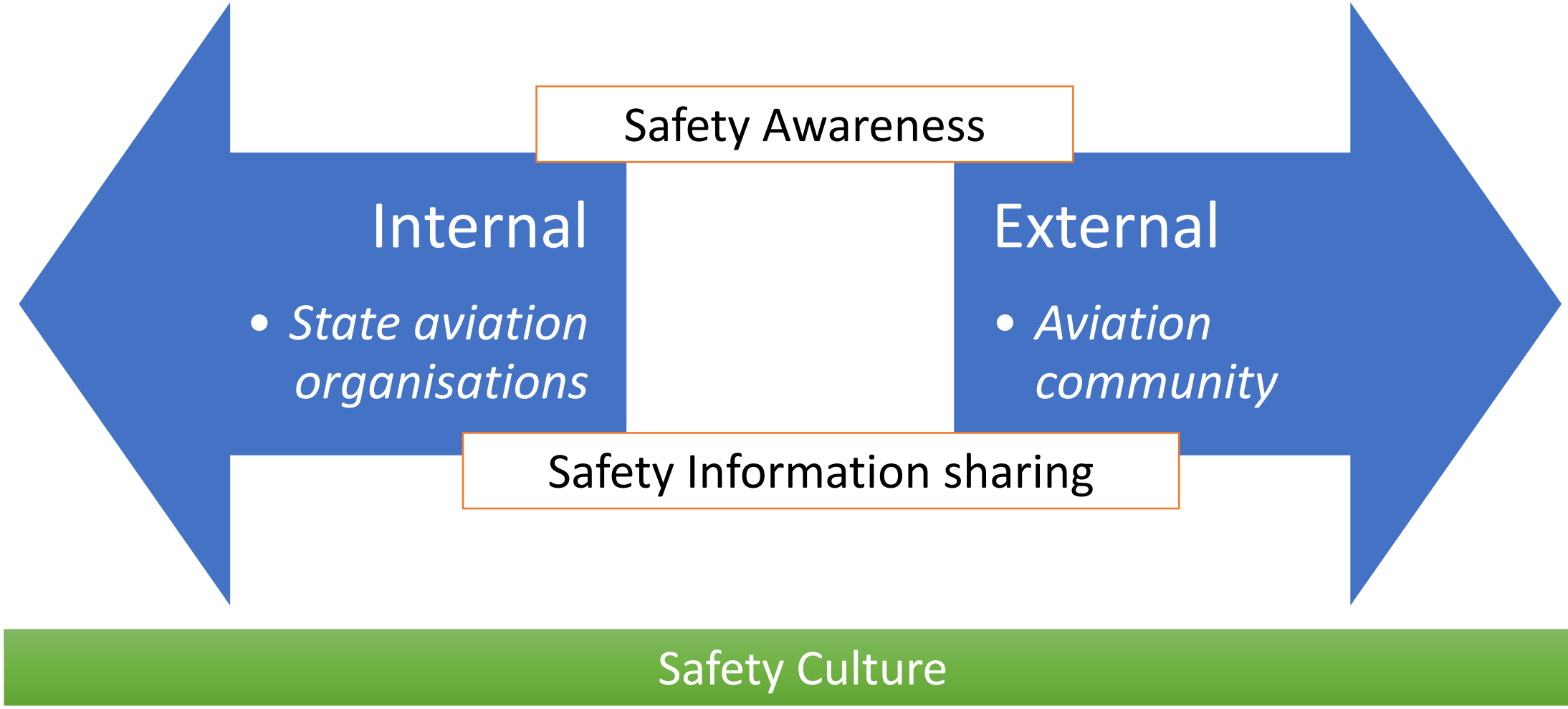
ICAO iSTARS Risk Based Surveillance APP

Risk Based Surveillance

Data-driven inspection schedules for operations

Safety Promotion

Current Annex 19 edition: Safety Promotion



Safety Promotion – changes proposed with SL 23/18

New element 3.5.1 'Safety Awareness' proposed

A19 amdt. 2

Deletion of 3.5.1 Internal communication and dissemination of safety information, its two notes and of **3.5.2** External communication and dissemination of safety information

New 3.5.1.1 States shall communicate the SSP functions, safety policy and safety objectives across their aviation community and with other stakeholders impacting aviation safety.

New 3.5.1.2 States shall establish means to promote safety in support of the achievement of their safety objectives and the development of a positive safety culture across their aviation community and with other stakeholders impacting aviation safety.

New Note - Means for promoting safety may include, but are not limited to: a safety communication plan, stakeholder engagement maps, social media campaigns, annual safety reports, collaborative forums with industry, and targeted initiatives.

Safety Promotion – changes proposed with SL 23/18

New element 3.5.1 'Safety Awareness' proposed

A19 amdt. 2

Rationale:

Safety awareness is an important aspect of promotion activities as it supports the improvement of safety performance and the development of a positive safety culture.

The current usage of internal and external communication in the titles of 3.5.1 and 3.5.2 poses challenges in understanding who the target audience is when promoting safety. The proposed changes remove the need to distinguish between internal and external communications especially as the Annex does not define this. ***Categorizing communication as internal and external is no longer an accurate reflection of the current aviation system which continues to become increasingly complex and interconnected.***

Safety Promotion – changes proposed with SL 23/018

New element 3.5.1 'Safety Awareness' proposed

A19 amdt. 2

Rationale (continued):

Standard 3.5.1.1 is proposed to reinforce the ***importance of communicating the SSP functions, safety policy and safety objectives*** *as part of addressing State safety promotion (SSP Component 4).*

Proposed Standard 3.5.1.2, aims to provide States with the ***flexibility to determine where safety promotion actions need to be targeted.***

Safety Promotion – changes following ANC review

~~3.5.1 'Safety Awareness'~~

A19 amdt. 2

New 3.5.1.1 now 3.5.1 States shall communicate the SSP functions, safety policy and safety objectives across their aviation community and with other stakeholders impacting aviation safety.

New 3.5.1.2 now 3.5.2 States shall ~~establish~~ **implement** means to promote safety in support of the achievement of their safety objectives and the development of a positive safety culture across their aviation community and with other stakeholders impacting aviation safety.

Safety Promotion (source: EASA)

- Safety Promotion (SP) is a set of means, processes and procedures that are used to develop, sustain and improve aviation safety through **awareness raising and changing behaviours**.
- It is **one key enabler** to reach the ultimate objectives of the EU Safety Management Strategy and contributes to the continuous improvement of the European aviation safety system and worldwide, **together with regulations and oversight.**
- SP is also about **sharing best practices** from the authorities and the industry.
- It can also **contribute to the dissemination of regulatory developments.**
- SP features a **strong dimension of communication and social marketing**.
- It can **contribute to mitigating safety risks** identified.

Safety promotion can come in many ‘shapes and colours’

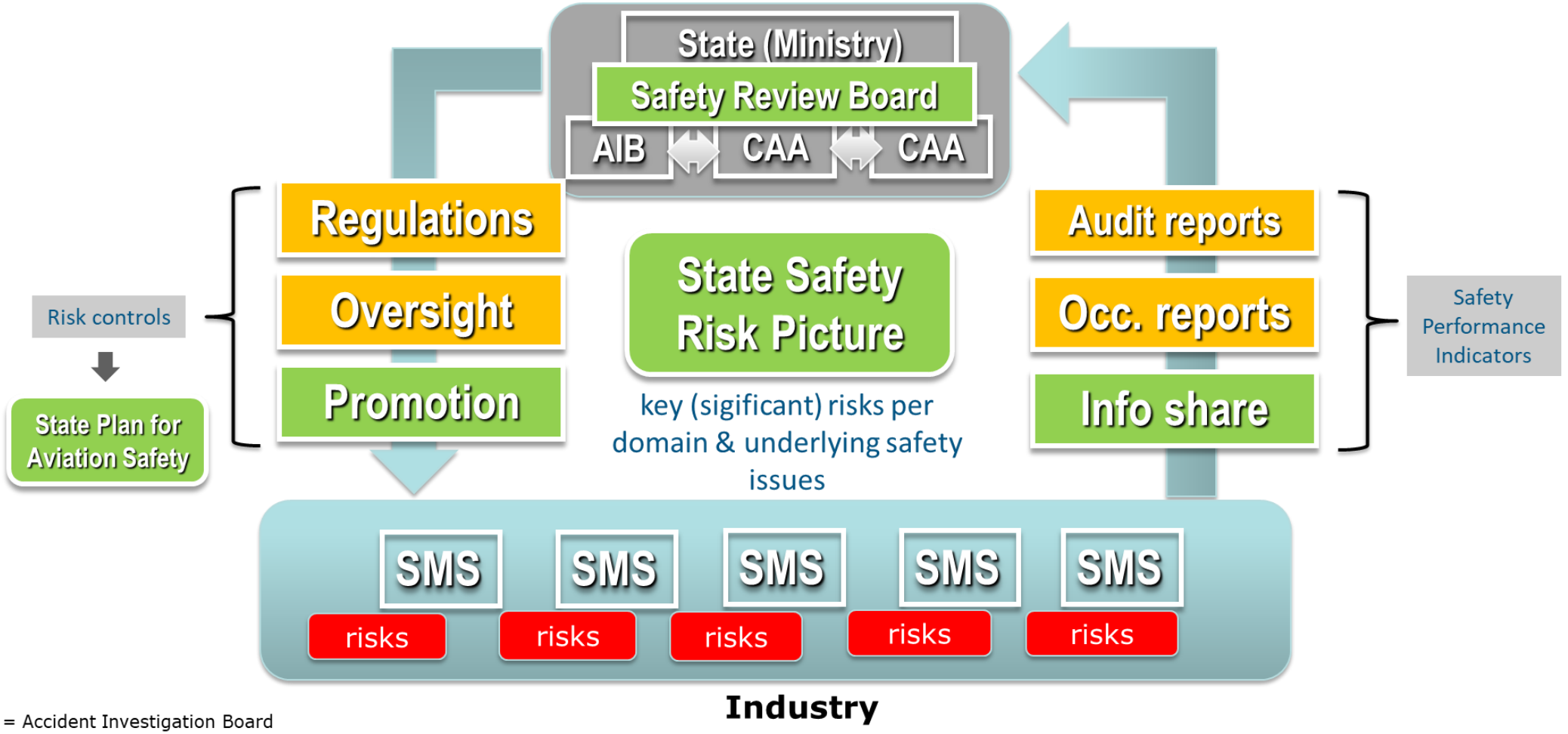
- Comic strips (Sunny Swift)
- Leaflets
- Videos
- Social media posts and forums
- Templates
  - risk assessment template
- Regular events
  - e.g. EASA General Aviation Season opener
- Manuals
  - e.g. on Drone incident management at aerodromes
- Briefings, training courses,etc.

Safety promotion as risk mitigation

- → Decide when it is suitable/sufficient in terms of risk mitigation.
  - → Which stakeholders are better ‘reached’ via safety promotion’?
  - → Where should it be used as a complement to a rule change?
- → Think about how you can assess the effectiveness of safety promotion.
- → Define how to prioritise safety promotion needs.
  - → Link with the State Risk Picture
- → Define which format to use for which audience.
- → Look out for existing contents before creating new ones.
- → Engage with aviation stakeholders / interest groups / federations & associations for jointly delivering SP whenever possible.

Feedback on safety promotion is important!

Does it reach the intended audience? Does it actually help to control the risk?



AIB = Accident Investigation Board

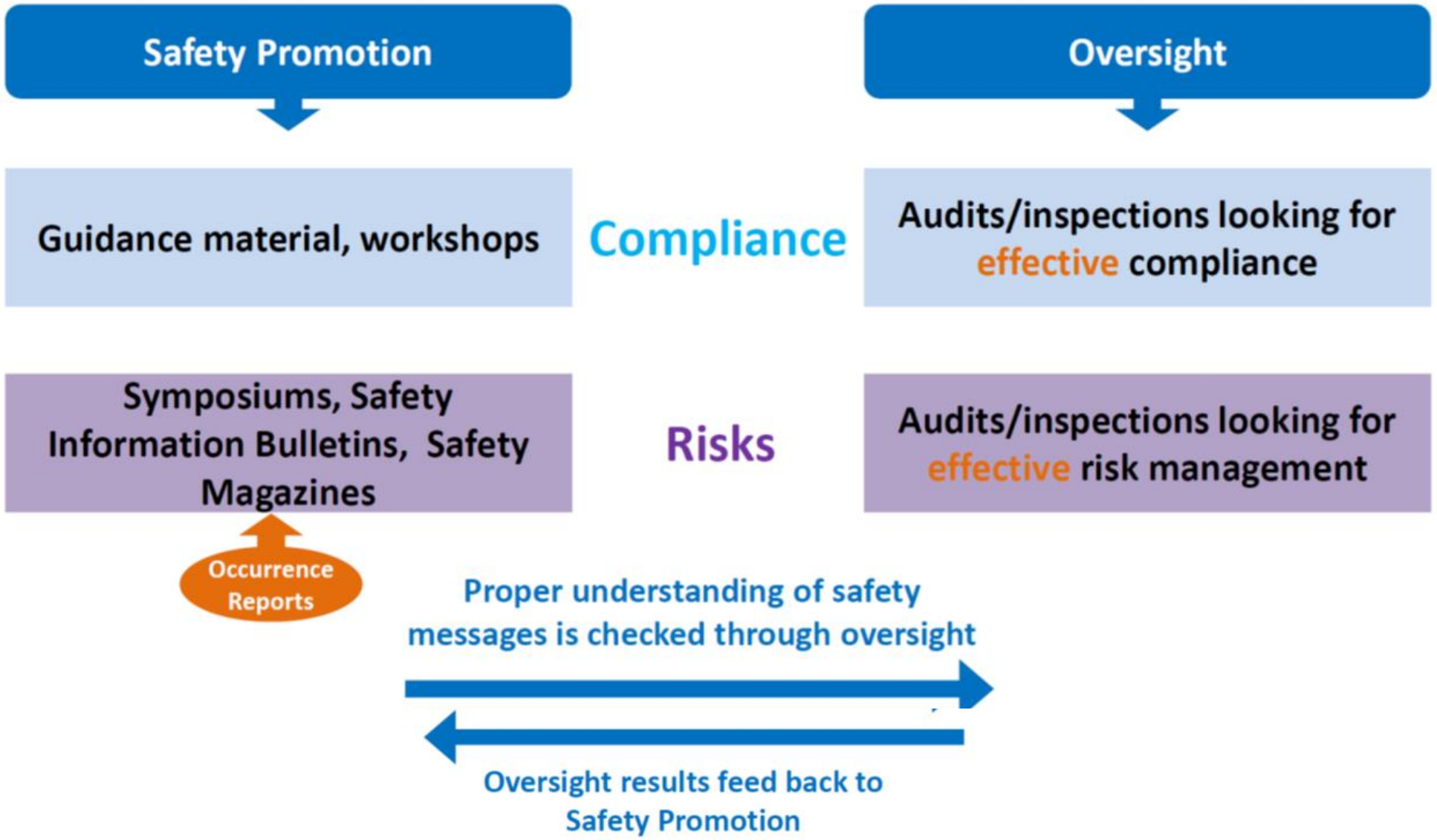
Safety promotion & oversight

SSP component 4
State safety promotion

- Internal communication and dissemination of safety information
- External communication and dissemination of safety information

→ Do you see a link?

Safety promotion & oversight: the ‘backbone’ of your SSP



Safety promotion & oversight: the ‘backbone’ of your SSP

Oversight and Safety Promotion complementing and reinforcing each other in the pursuit of enhanced aviation safety:

Alignment of Objectives:

- Both share the common goal of enhancing safety within the aviation industry.
- While oversight ensures compliance with safety regulations, safety promotion activities aim to instill a safety-conscious mindset and encourage proactive safety behaviors among aviation professionals.

Information Sharing:

- Oversight generates valuable safety-related data and findings through inspections and audits.
- This information can be used by safety promotion initiatives to identify areas of concern, develop targeted safety campaigns, and disseminate best practices to the aviation community.

Safety promotion & oversight: the ‘backbone’ of your SSP

Oversight and Safety Promotion complementing and reinforcing each other in the pursuit of enhanced aviation safety:

Mutual Reinforcement:

- Effective safety promotion activities can complement oversight efforts by fostering a culture of transparency, collaboration, and continuous improvement within the aviation industry.
- Conversely, oversight activities help validate the effectiveness of safety promotion initiatives by ensuring that safety standards are being met and maintained.

Enhanced Safety Culture:

- Together, Oversight and Safety Promotion contribute to the development of a robust safety culture within the aviation industry.
- By promoting open communication, proactive hazard reporting, and shared safety responsibility, they create an environment where safety is prioritized at all levels of the organization.

EASA
European Union Aviation Safety Agency

- end of presentation -

easa.europa.eu/connect

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An agency of the European Union