

Safety Management Implementation in daa (Dublin & Cork Airports)

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EASA Offices, Cologne

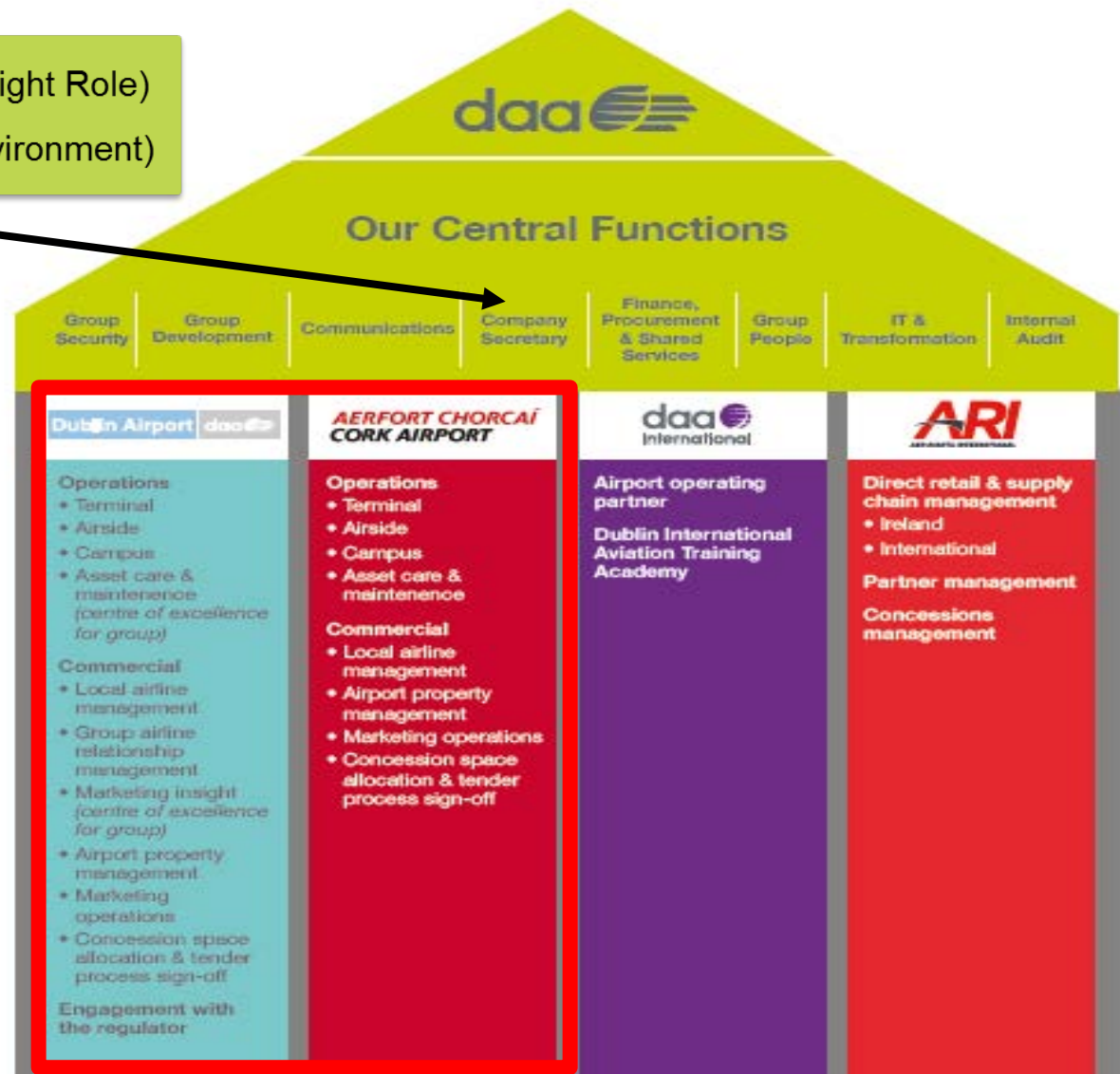


daa Organisational Structure

HSSE Department (Corporate Oversight Role)
(Health & Safety, Sustainability & Environment)

Comprised of four principal sections:

- Aviation Safety;
- Health & Safety (Occupational, General Public, Construction, Fire, etc.);
- Environment & Sustainability;
- Enterprise Risk.



daa Strategy 2018 – 2021

(Plan on a page)



Why is an SMS Important?

To ensure

and promote safety of any person who might be affected by the activities of the organisation

To avoid

accidents that can cause harm to persons, damage to property or the environment, or result in disruption of services and damage business reputation

To demonstrate

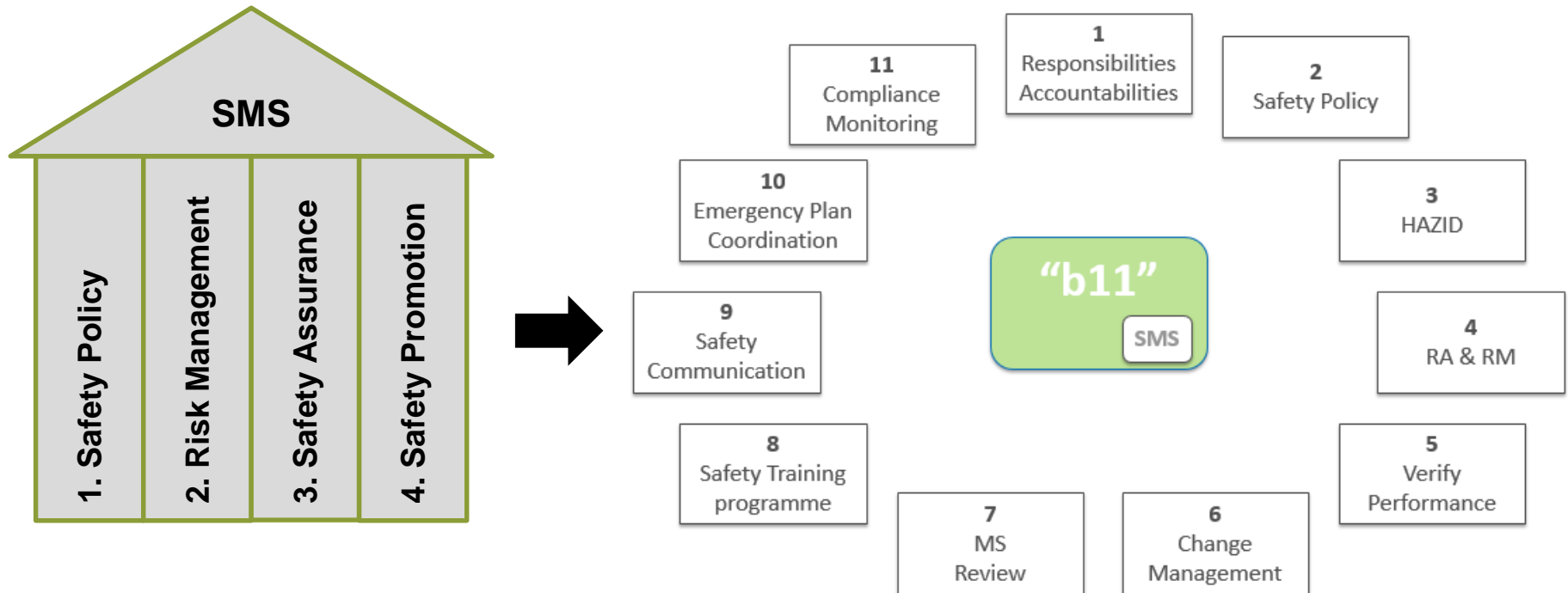
the corporate commitment to safety and define roles, responsibilities and accountabilities at all levels of the organisation

To comply

with Legislative requirements

An effective and compliant SMS is our licence to safe operation and growth.

Cork & Dublin SMS Structure

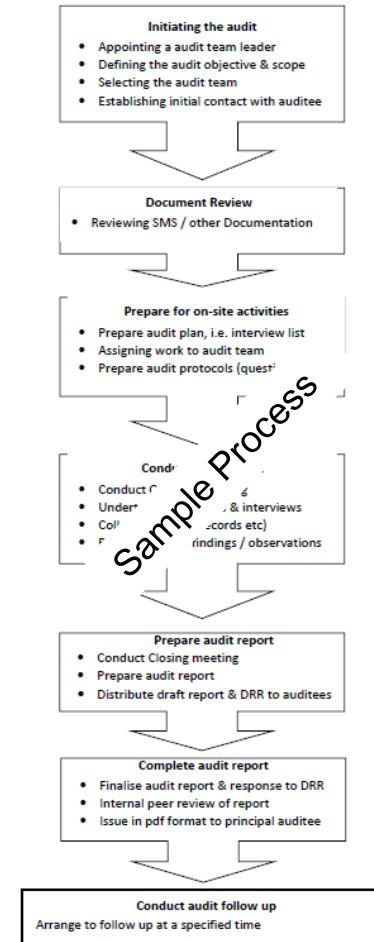


Ref: ADR.OR.D.005

- Both Dublin and Cork have **separate**, but **consistent** Safety Management Systems, Aerodrome Manuals, Operating Procedures.
- Each Management System takes into account the complexities, structures, scales of both airports.

Key principles of implementing an SMS effectively

- Clearly constructed:
 - No Ambiguity / grey areas
 - Compliant
- Accessible:
 - Communicated effectively
 - Cascade of information
 - Published
- Consistent:
 - Consistent models applied within the business as a whole
 - Embedded processes
- Robust Governance
- Engagement



Application of the aforementioned Principles



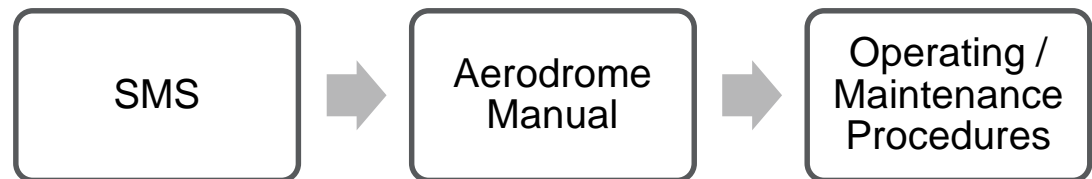
The delivery of an effective SMS in line with the previous principles will face a number of ***challenges***:

- Complex Legal Framework
- Multitude of documentation
- Interpretations
- An ever changing landscape

Stakeholder engagement / consultation (int & ext)



Accessibility, Consistency, Clarity



SMS Governance/Policy/Objectives

Policy and Governance critical to effectiveness of SMS

- Clear safety management structure
- Top down commitment

Well-defined communication processes

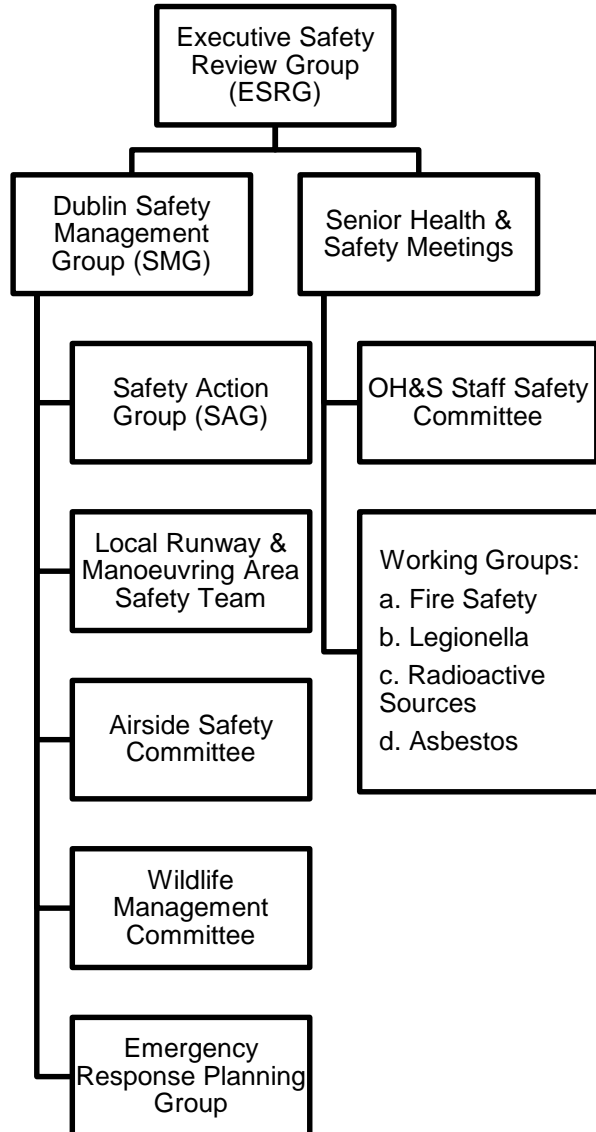
- Effective information flow upwards and downwards
- Interaction of management & stakeholder committees
- Across the aerodrome organisation
To/from other Stakeholders

Individual accountabilities and responsibilities

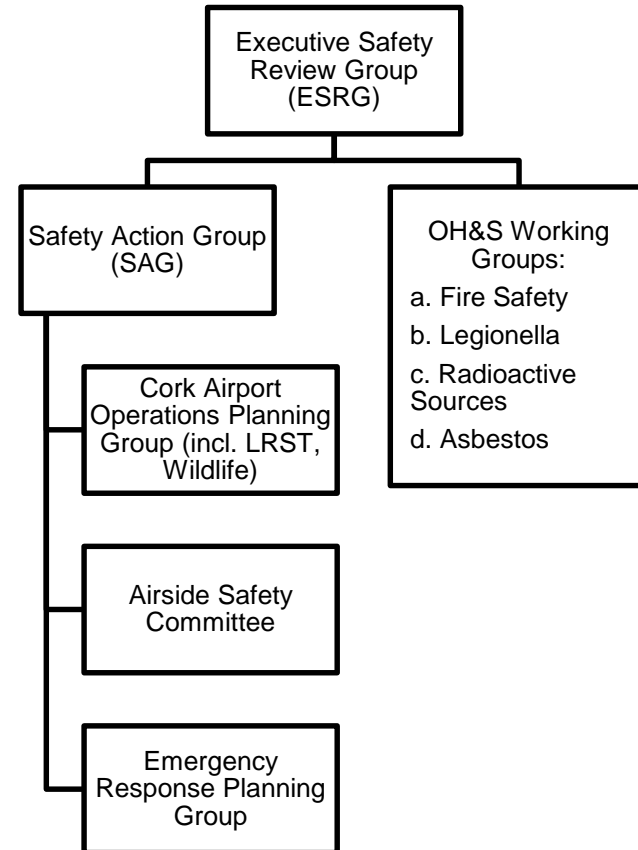


Committee Structures

Dublin Airport



Cork Airport



Committee Structures (Cont.)

Challenges / Lessons Learned:

1. Having the right groups, and more importantly, the right attendees
2. Clear escalation mechanics
3. Avoid committee fatigue
4. Periodicity is key

As part of our annual review, Dublin Airport is reviewing our committee structures to consider if they are sufficient given the large scale infrastructure development on the horizon. As part of this, we need to consider:

1. Are our committees suitable for:
 - Coordination of works;
 - Assessment operational impacts.
2. Membership / secondment?
3. Work programme.

Safety Policy

1.2 – daa: Safety Policy Statement

daa is committed to providing a safe environment and safe facilities, both for those who work at the airports and for all those who visit the airports. It is **our highest organisational priority** and we will ensure that all our activities **uphold the highest levels of safety performance** and meet national and international standards.

At Dublin Airport, our commitment is to:

- Design our facilities to be safe and compliant with legislation and regulations;
- Develop and embed a safety culture in all occupational, operational and aviation related activities;
- Promote a just culture and open reporting of safety incidents;
- Agree, document and communicate everyone's responsibilities in relation to safety;
- Minimise the risks associated with aircraft and aerodrome operations to a point that is as low as reasonably practicable;
- Ensure that any systems and services we procure meet appropriate safety standards;
- Comply with and, wherever possible, exceed legislative and regulatory requirements and standards in relation to safety;
- Provide all necessary resources to actively develop and improve our safety processes to best in class standards;
- Ensure that all staff are provided with adequate and appropriate safety information and training in order to implement our safety strategy and policy;
- Ensure staff consultation and participation takes place;
- Set meaningful and sustainable safety objectives and targets, and measure our performance;
- Continually improve our safety performance through safety audits and inspections and ensure that appropriate action is taken to address issues identified;
- Implement the Safety Programme for both occupational and aviation safety as outlined in the Dublin Airport Safety Management System Manual;
- Prevent injuries and ill health.

Signed:



Dalton Philips – Chief Executive Officer

Signed by the daa
CEO i.e. commitment
from the accountable
executive

Common **consistent**
Safety Policy across daa /
Dublin / Cork airports
safety literature

- Safety Management System
- Safety Statement (required by National Law (OH&S))

daa's Passenger Charter (extract)

Our Role

daa's core purpose is to connect Ireland with the world and its vision is to be an airport industry leader that will grow its business with talented people delivering great service and value for airlines, passengers and business partners.

Our Commitments to passengers and those accompanying or meeting them

Safety: Our priority is to deliver a safe and secure airport for all our passengers.

Security: All our security checks will be conducted in a transparent, courteous and friendly manner and we are always happy to explain any of the national and international regulatory obligations we are obliged to follow in a respectful manner.

Facilities: We always aim to deliver clean, well-presented, customer-friendly terminal facilities. work with our airport partners in restaurants, cafes and bars to ensure that all facilities are clear and comfortable and that there is a wide variety of food on offer to meet dietary requirements.

Valuing Feedback: We welcome all feedback from our customers to help improve on the delivery of our passenger experience. All feedback is acknowledged and is responded to quickly and decisively when our service does not meet our customer expectations.

Customer Care: We are committed to training friendly, courteous, presentable and easily identifiable staff who will assist passengers throughout their airport experience. We strive to provide services to all customers in an equal manner and to accommodate their diverse needs.

Risk Management



(Ref: ICAO Annex 19
ICAO Doc 9859)




Risk Probability Table		
<i>Likelihood</i>	<i>Meaning</i>	<i>Value</i>
Frequent	Likely to occur many times (has occurred frequently) i.e. Weekly to Monthly event	5
Occasional	Likely to occur sometimes (has occurred infrequently) i.e. Quarterly	4
Remote	Unlikely to occur, but possible (has occurred rarely) i.e. Annual event	3
Improbable	Very unlikely to occur (not known to have occurred) i.e. 1 in 5 year event	2
Extremely Improbable	Almost inconceivable that the event will occur i.e. 1 in 10 year event	1

Risk Severity Table		
<i>Severity</i>	<i>Meaning</i>	<i>Value</i>
Catastrophic	<ul style="list-style-type: none"> • Equipment destroyed; • Multiple deaths. 	A
Hazardous	<ul style="list-style-type: none"> • A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely; • Serious injury; • Major equipment damage. 	B
Major	<ul style="list-style-type: none"> • A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of an increase in workload or as a result of conditions impairing their efficiency; • Serious incident; • Injury to persons. 	C
Minor	<ul style="list-style-type: none"> • Nuisance; • Operating limitations; • Use of emergency procedures; • Minor incident. 	D
Negligible	<ul style="list-style-type: none"> • Few consequences. 	E

Risk Tolerability

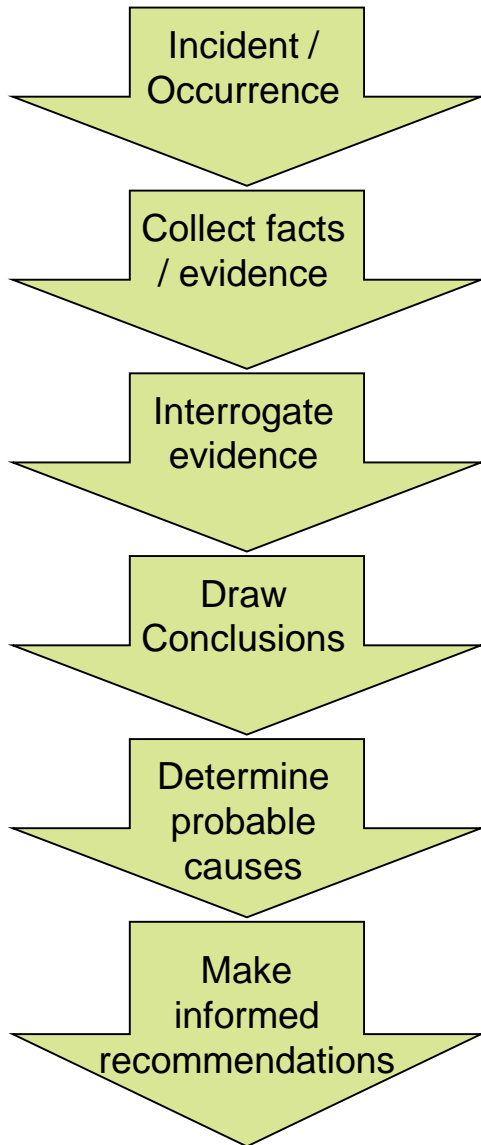
Risk Probability	Risk Severity				
	Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
5 – Frequent	5A	5B	5C	5D	5E
4 – Occasional	4A	4B	4C	4D	4E
3 – Remote	3A	3B	3C	3D	3E
2 – Improbable	2A	2B	2C	2D	
1 – Extremely Improbable	1A	1B	1C	1D	

Feedback from staff undertaking risk assessments is that alpha / numeric matrix is confusing & inconsistent.

Risk Tolerability	Risk Assessment Index	Description	Decision Owner
 <p>Intolerable Region</p>	5A, 5B, 5C, 4A, 4B, 3A	Unacceptable under the existing circumstances. Event or associated activities must be cancelled.	Recommendation from risk owner / risk assessment group and approval from HAO and HOS
 <p>Tolerable Region</p>	5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C, 1A	Acceptable based on risk mitigation / It may require management decision / risk assessment required	Recommendation from risk owner / risk assessment group and approval from Airside Safety & Compliance Manager / Airside Operations Manager
 <p>Acceptable Region</p>	3E, 2D, 2E, 1B, 1C, 1D, 1E	Acceptable – No immediate action required	Risk owner / risk assessment group

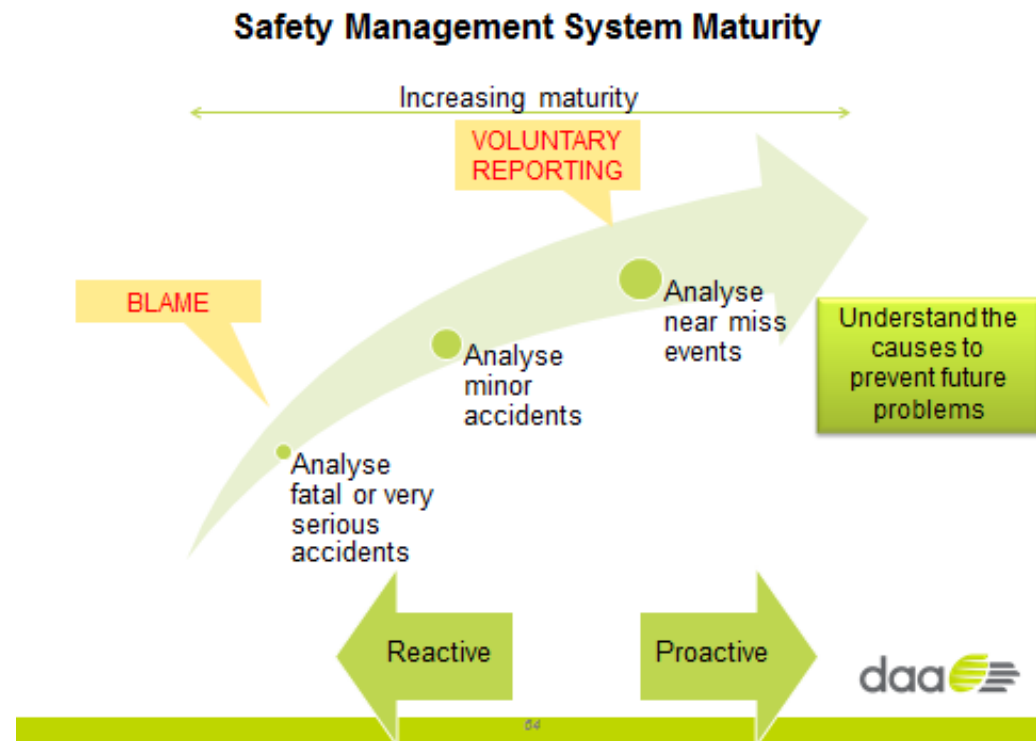
In an ideal scenario, all risk should be controlled to an acceptable level

Occurrence Management



Key to successful Occurrence Management:

1. Monitoring (effective systems)
2. Trending (e.g. indicators)
3. Reporting
4. Just Culture
5. Feedback



Management of Change

Change management control processes are the means by which changes are designed and implemented to ensure that any issues which could have an impact on safety are subject to rigorous risk assessment, and that the expected outcomes are delivered.

There are three distinct types of change that change management control process must address:

Organisational Change: changes to an organisation's structure or size, including changes in the distribution of roles and responsibilities, which can introduce risks in the safety management of assets or operations;

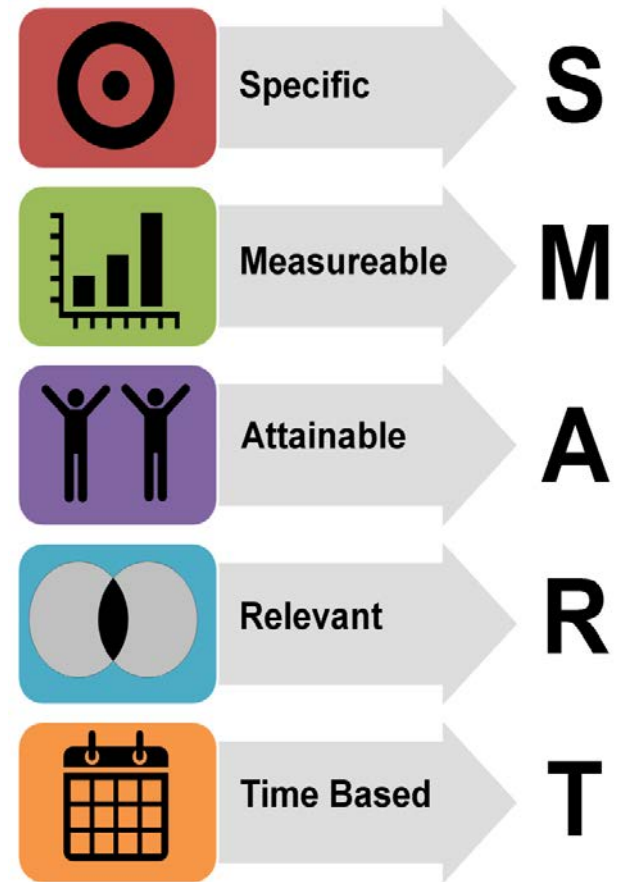
Technical Change: the introduction of new technology or a significant change to existing assets, e.g. new or modified technology, infrastructure, communications systems etc.

Operational Change: implementation of new or altered working practices which, because of the dependence on human-machine interface, present a high probability of risk associated with human performance variation.

Management of Change is challenging from an implementation point of view.

Safety Performance Indicators

- Safety Performance Indicator
 - Quantitative (where possible)
 - Measurable
 - Measured
 - Relevant to your activities (as opposed to the whole aviation system)
- Benchmark data not always readily available
- Often target based on trend over time
- Based on reported incidents (where relevant)
- Set our limits, and alerts
- Capture as part of a robust reporting and escalation process



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Different types of Assurance activities

Reactive

- Accident reporting and investigation
- Mandatory Occurrence reporting (MORs)

Proactive

- Incident/occurrence reporting (near miss)
- Voluntary Occurrence Reporting System
- Inspections

Predictive activities

- Audits
- Safety Assessments
- Investigations
- Management of Change Assessments



Trend and pattern analysis to identify system defects or deficiencies.

Safety Compliance Programme

Features

- ☐ Competent auditors
- ☐ Well defined methodology
- ☐ Reports taken seriously
- ☐ Reporting up and down
- ☐ Action tracking
- ☐ Dynamic
- ☐ External oversight/
assessment

Pre-requisites

- ☐ Training
- ☐ Knowledge
- ☐ Documented Process
- ☐ Management support
- ☐ Governance
- ☐ Clear ownership and
accountability
- ☐ Regular review process

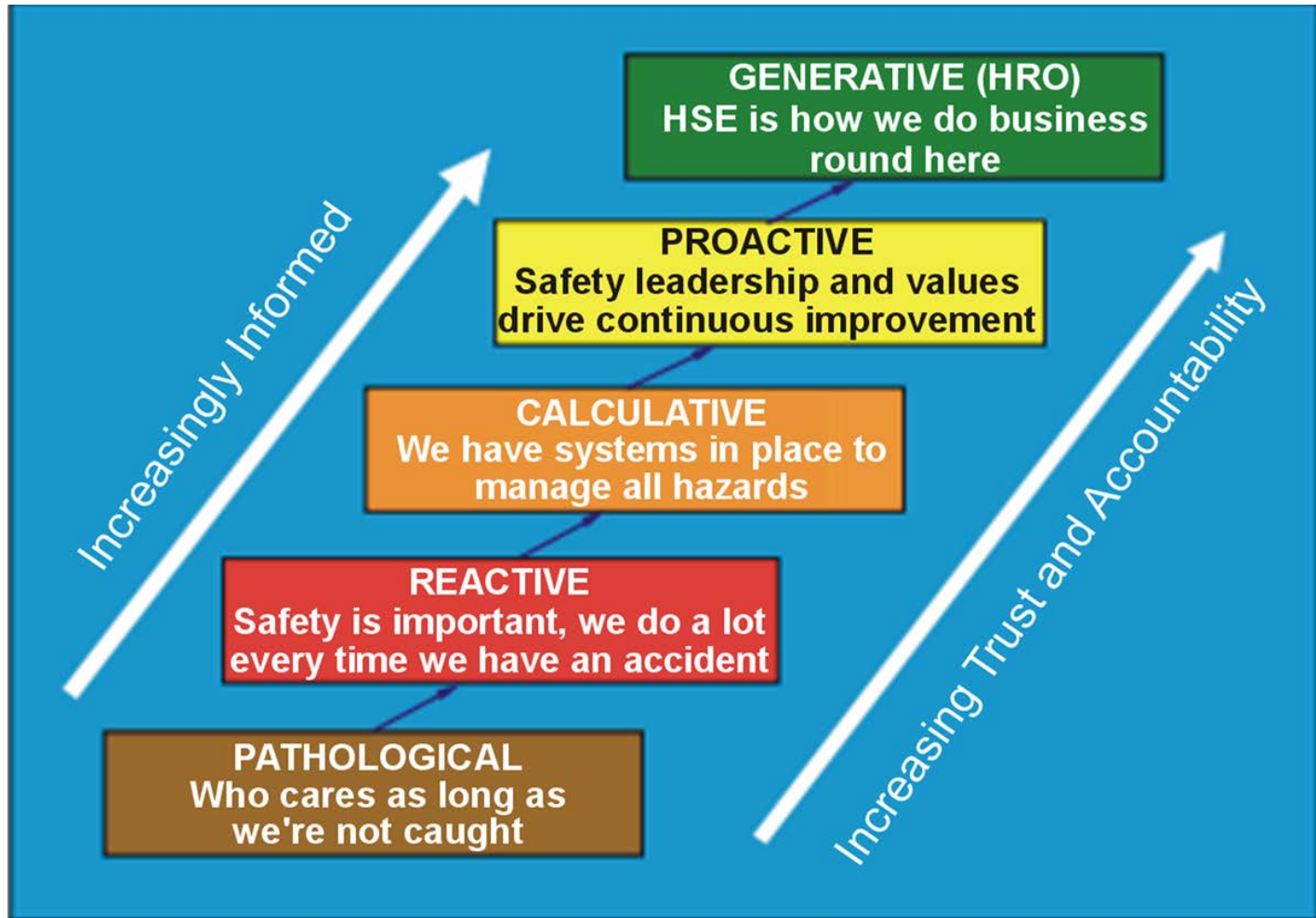
Utilise a risk based approach to identify priorities

In daa, there is a significant benefit in the compliance section sitting outside of the operation – holistic, independent viewpoint.

Challenges to SMS

1. Finite resources to implement continuous improvement
2. Staff turnover in Aerodrome environment
3. Interpretations;
 - Internal & External
4. Post EASA Certification World:
 - Regulatory Updates e.g. CS Issue 4
 - Cost implications v safety benefits
 - EASA assurance activity v traditional Competent Authority assurance activity

Evolutionary Model of Safety Culture



Prof. Patrick Hudson: "Safety Management and Safety Culture - The Long, Hard and Winding Road"

Questions?



[title]
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