



# JUST CULTURE

—MOVING AWAY FROM A CULTURE OF BLAME

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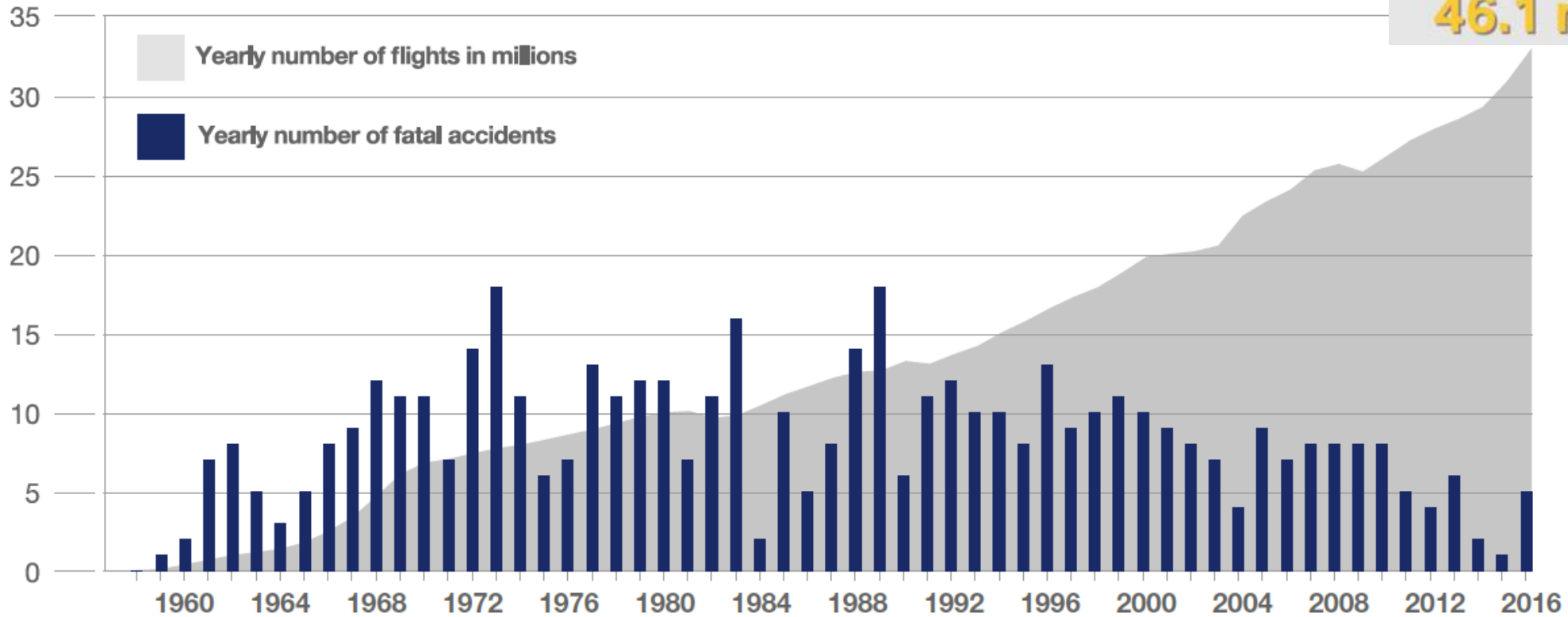
# Evolution of European Aviation





# EVOLUTION OF SAFETY

Yearly number of fatal accidents



**4.3 billion**

passengers flew safely on

**46.1 million flights**

2018

# EVOLUTION OF SAFETY

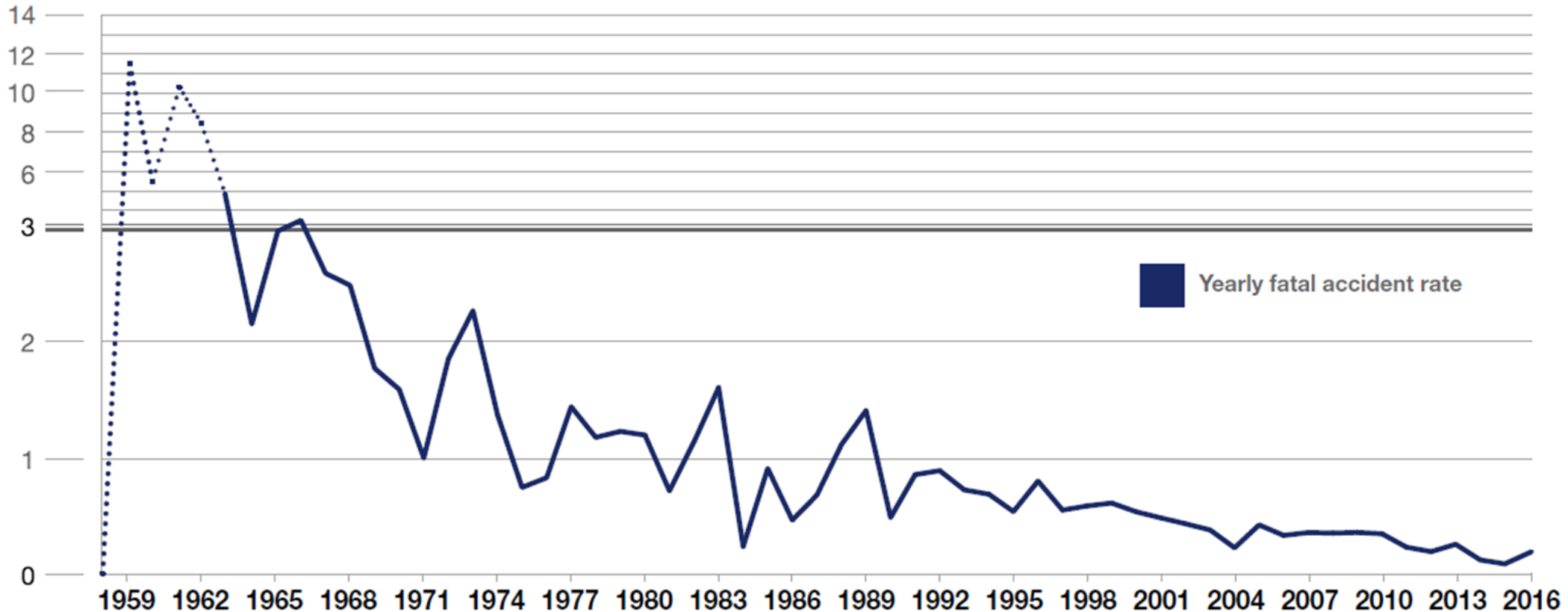


: 0.95 fatal accidents per 1million flights



: <0.2 fatal accidents per 1million flights

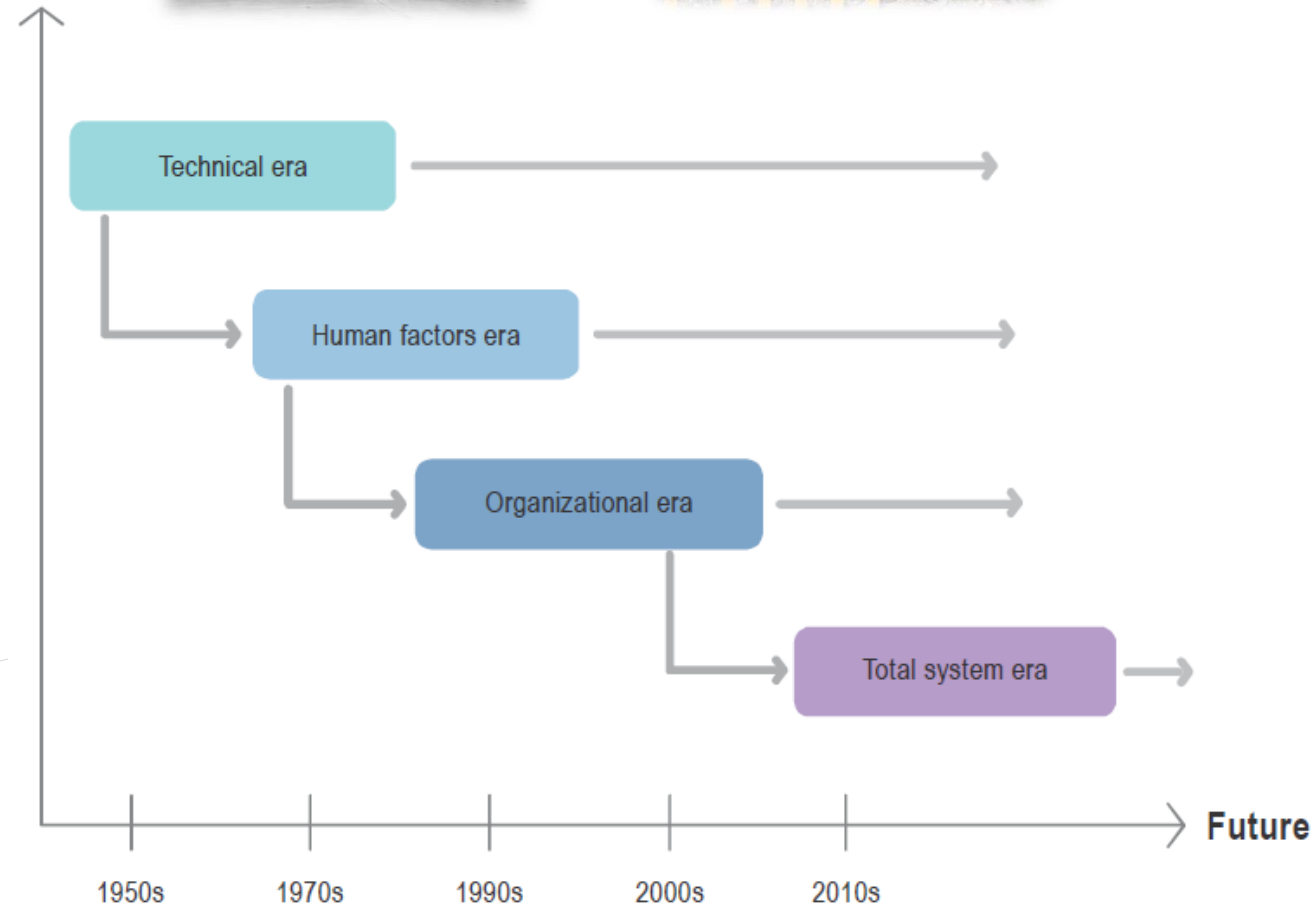
Yearly fatal accident rate per million flights





# SAFETY GAME CHANGERS

- Comet
  - technology
- Tenerife
  - human factors and CRM
- Challenger and Columbia
  - organisational safety
- British Airtours, Manchester
  - Survivability (Cabin Safety)
- AF 447
  - System complexity, HMI, Startle





# CONTRIBUTION OF TECHNOLOGY

1 Early commercial jets

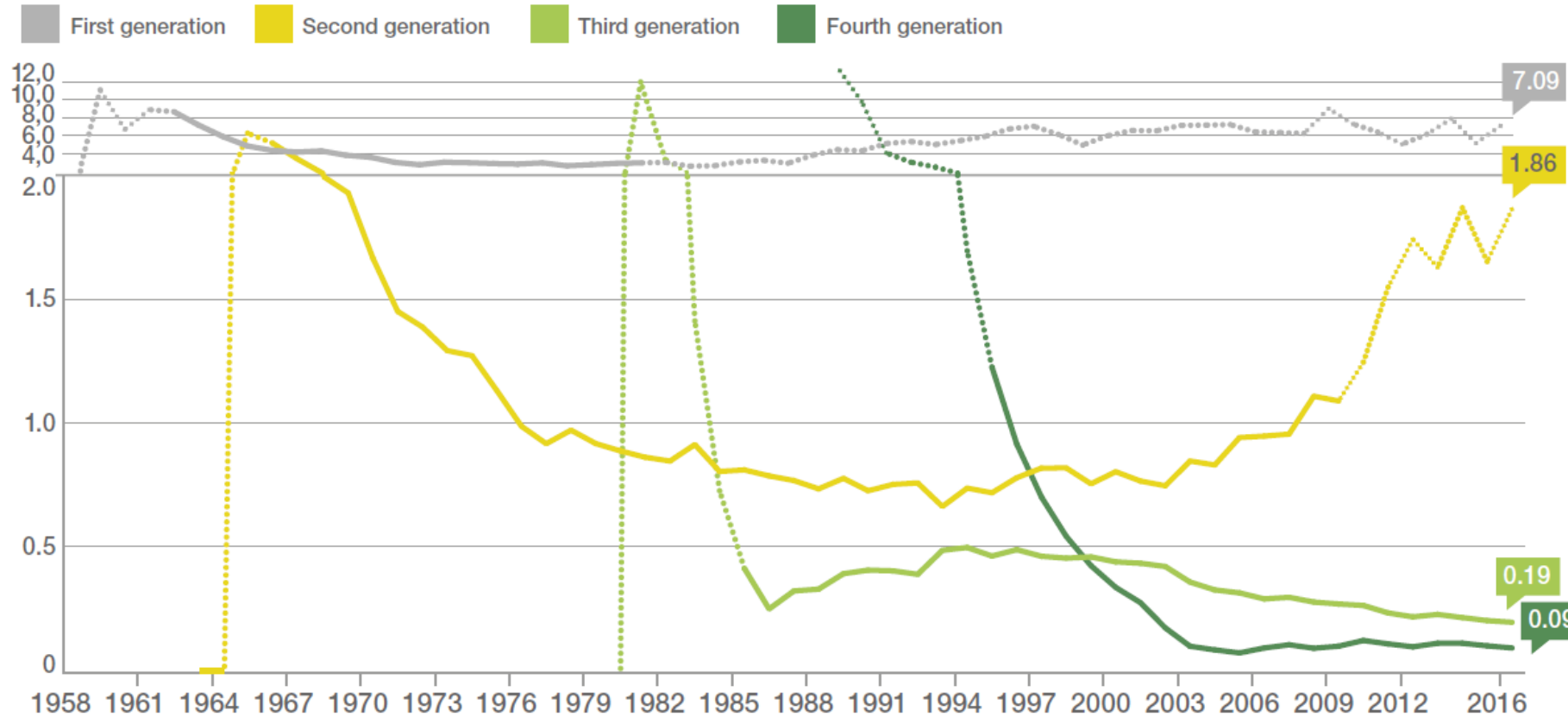
2 More integrated auto-flight

3 Glass cockpits & FMS



10 year moving average fatal accident rate by aircraft generation

Accidents per million flight departures



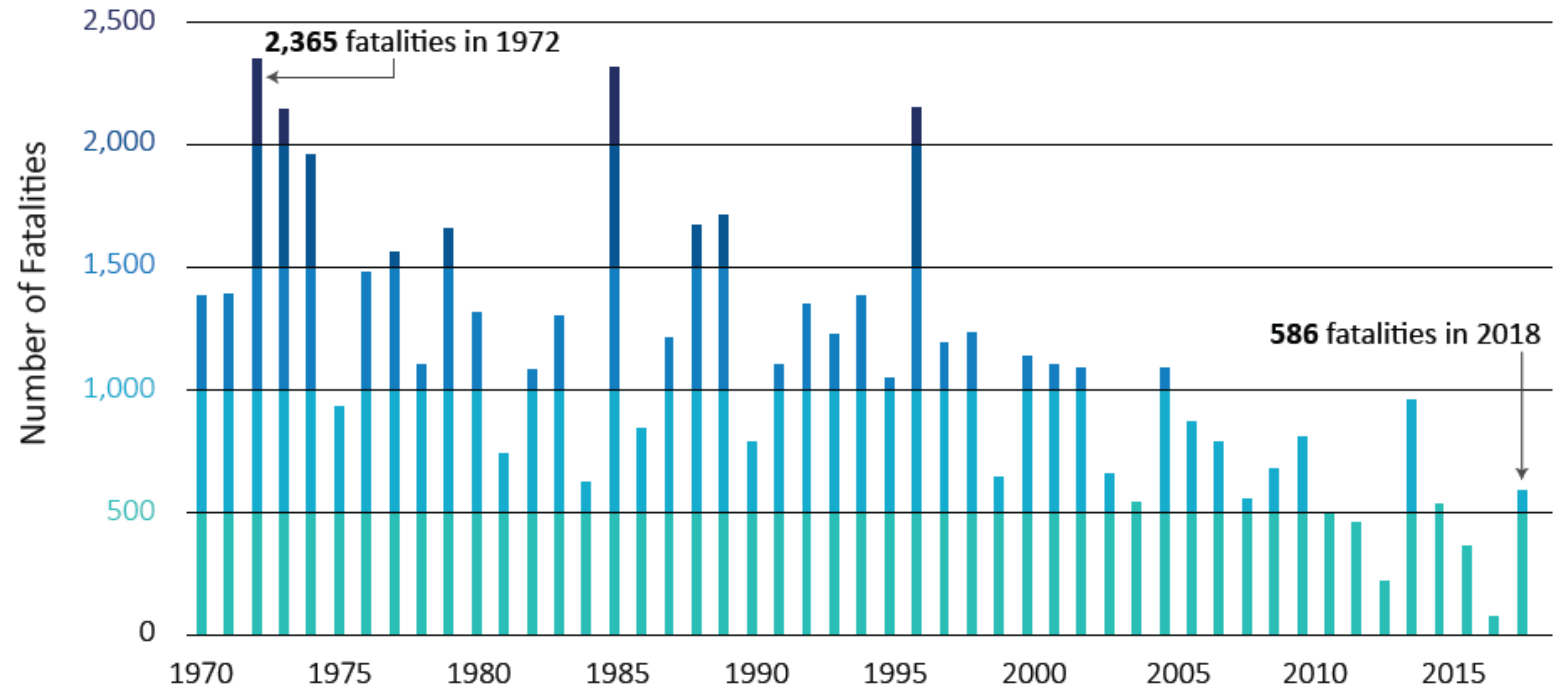
Source: Airbus - A Statistical Analysis of Commercial Aviation Accidents 1958-2016



# FATALITIES

## *In the delivery of flights*

The global aviation industry, while transporting 4.3 billion people in 2018, was responsible for the deaths of 586 in aviation accidents



## *In the delivery of medical care?*

Accurate statistics for Ireland?

Table 1 | Studies on US death rates from medical error since the 1999 IOM report and point estimate from pooled results

Study	Dates covered	Source of information	Patient admissions	Adverse event rate (%)	Lethal adverse event rate (%)	% of events deemed preventable	No of deaths due to preventable adverse event	% of admissions with a preventable lethal adverse event	Extrapolation to 2013 US admissions†
Health Grades <sup>11</sup>	2000-02	Medicare patients	37 000 000	3.1	0.7*	NR	389 576	0.71	251 454
Office of Inspector General <sup>12</sup>	2008	Medicare patients	838	13.5	1.4	44	12	0.62	219 579
Classen et al <sup>13</sup>	2004	3 tertiary care hospitals	795	33.2	1.1	100	9	1.13	400 201
Landrigan et al <sup>14</sup>	2002-07	10 hospitals in North Carolina	2341	18.1	0.6	63	14	0.38	134 581
Point estimate from all data	2000-08	—	—	—	—	—	—	0.71	251 454‡



## OUR REALITY

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### **Error / System Failure & Fatalities**

- Sudden - Lack of warning (always available in hindsight)
- Impact – grief, damage and loss
- Victims (Heroes)
- Contributing Human factors (Villains)

### **In the Media –3 principles apply**

- Simplify
  - Personalise
  - Do it Quick
- 





# MEDIA'S CONTRIBUTION TO IMPROVING SAFETY



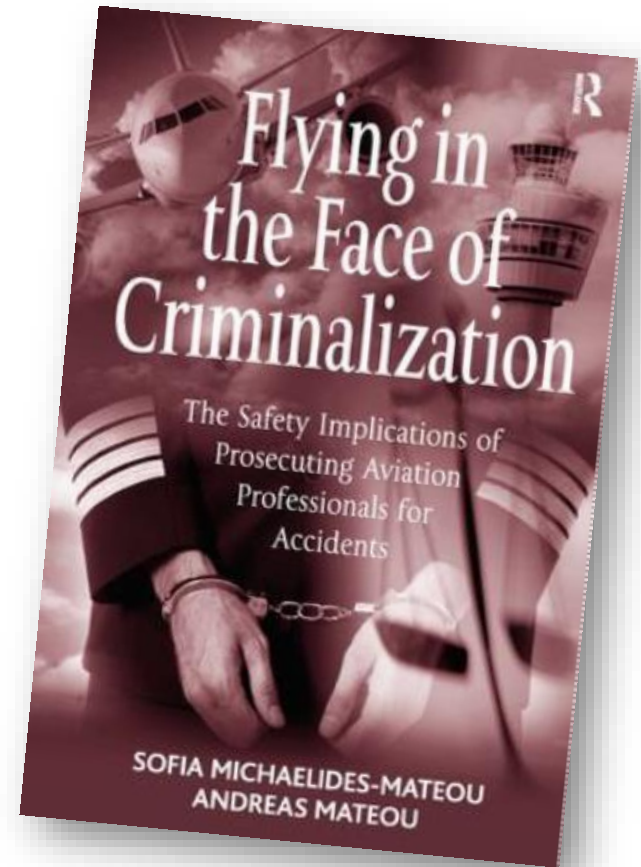


# Criminalisation of Error in Aviation

- Fatal aviation accidents result in criminal charges being taken against either the pilots, engineers, air traffic controllers or management certification authorities or manufacturers.
  - Criminal negligence causing bodily harm and dangerous operation of an aircraft
  - Manslaughter and negligent flying causing death
  - Negligent homicide and negligently disturbing public transport
- Pilots of Aero Trasporti Italiani Flight 460 October 1987 posthumously charged with murder and convicted
- 28 cases from 2000 - 2009

## Concorde's final humiliation: a trial to apportion blame for Paris crash

A decade after the supersonic jet's horrifying demise, a French court will try to establish who was at fault





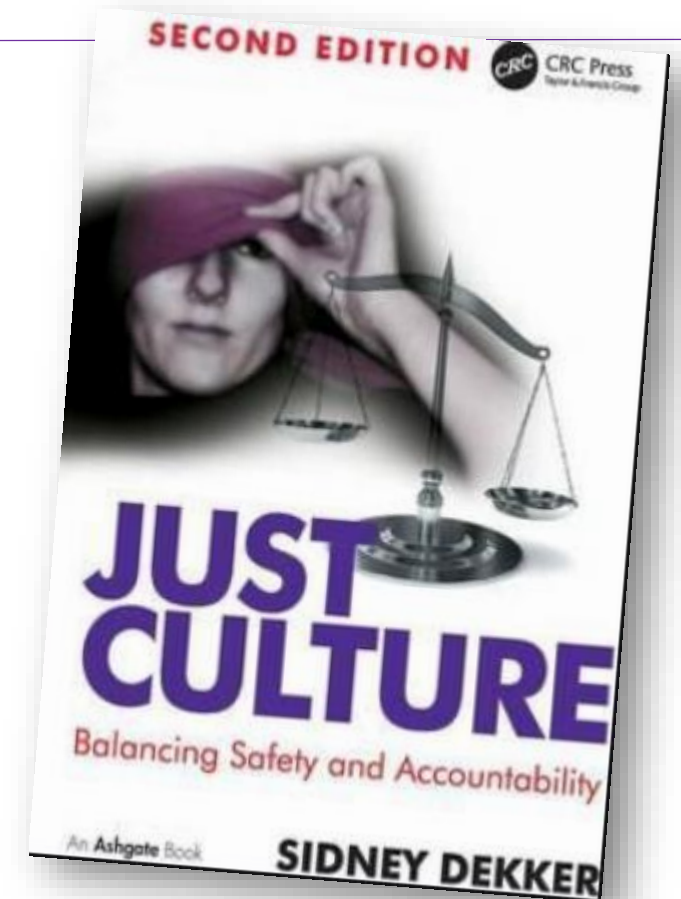
# Justice versus Just Culture?

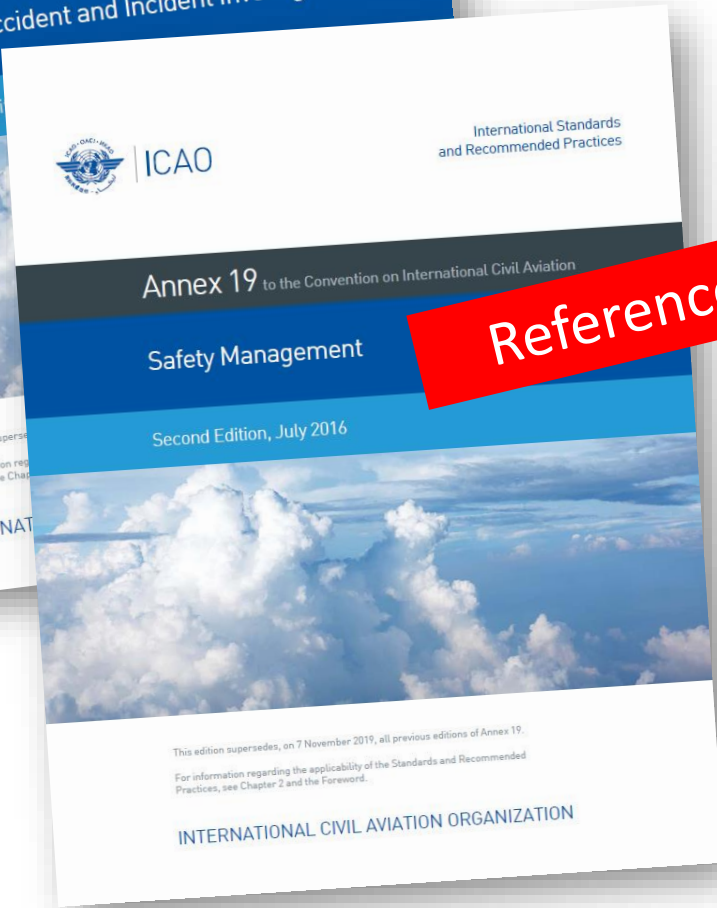
“Is justice something that meets legal criteria (which needs a lawyer) or is justice what takes different perspectives, interests, duties and alternative consequences into evaluation for which an ethicist may be needed?”

“The media and politicians demand to know what went wrong and what is the organisation going to do? There is a clamouring for information on who made a mistake? Who should be held responsible?”

“Justice... is a process not a result and truth is not the only goal of a trial, we want privacy, fairness, equality and finality. Every time we play with the rules to make it easier to convict the guilty we make it easier to convict the innocent.”

Helena Kennedy, *Just Law, The Changing Face of Justice and Why it Matters to Us All*, (London: Vintage, 2004), p. 30.





Reference to Just Culture = 0

This edition supersedes...  
For information regarding the applicability of the Standards and Recommended Practices, see Chapter 2 and the Foreword.

This edition supersedes, on 7 November 2019, all previous editions of Annex 19.  
For information regarding the applicability of the Standards and Recommended Practices, see Chapter 2 and the Foreword.

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Part I - Protection of Accident and Incident Investigation Records  
First Edition, 2016

Approved by and published under the authority of the Secretary General

INTERNATIONAL CIVIL AVIATION ORGANIZATION



## EU DEFINITION OF 'JUST CULTURE'

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“Means a culture in which front line operators or others are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but where gross negligence, willful violations and destructive acts are not tolerated.”



# PUNISHED?

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## By Whom?

### Internal:

- Colleagues / Peers?
- Line Manager?
- Person in hierarchical role (e.g. baggage handler versus pilot)?
- Employer?

### External:

- Oversight Authority?
- Criminal Prosecution Service?
- Media?
- Vigilante(s)?

## Consequences?

- Embarrassment
- Exclusion / alienation
- Denied opportunities
- Fired
- Damaged reputation
- Public/ social media harassment
- Criminal prosecution
- Threat to Life



***Aviation Answer - enhanced protections to safety data and safety information as well as their sources***





# ICAO APPROACH TO PROTECT 'JUST CULTURE' FROM JUSTICE

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## ICAO Annex 13

- *The Balancing Test* - the determination by the competent authority of the impact the disclosure or use of accident and incident investigation records may have on current or future investigations

## ICAO Annex 19

States shall ensure that safety data or safety information is *not* used for:

- disciplinary, civil, administrative and criminal proceedings against employees, operational personnel or organizations;
- disclosure to the public; or
- any purposes other than maintaining or improving safety;
- unless a principle of *exception* applies.



# The Principles of exception

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Exceptions to the protection of safety data, safety information and related sources shall only be granted when the competent authority:

- a) determines that there are facts and circumstances reasonably indicating that the occurrence may have been caused by an act or omission considered, in accordance with national laws, to be conduct constituting gross negligence, wilful misconduct or criminal activity;
- b) after reviewing the safety data or safety information, determines that *its release is necessary for the proper administration of justice, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information*; or
- c) after reviewing the safety data or safety information, determines that its release is necessary for maintaining or improving safety, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information.



# EU Regulation 376/2014 mandates occurrence reporting

- Regulations prescribe:
- **Who** should report (eg pilots, cabin crew, ATC Officers, Engineers etc)
- **To whom** they should report
  - ✓ Airline professionals report to the Airlines SMS; Airlines SMS forward report to IAA.
  - ✓ Private pilots, and others without SMS, report to IAA directly
  - ✓ Airline professionals may elect to by-pass Airline SMS and report directly to IAA
- **What** should be reported
  - ✓ Regulations prescribe types of events that are mandatory to be reported by prescribed persons
  - ✓ Other events may be reported on a voluntary basis (eg by aircraft passengers)
- **Use** of occurrence reports
  - ✓ Cannot be used in order to attribute blame or liability
  - ✓ Cannot be used for any purpose other than the maintenance or improvement of aviation safety



## EU Regulations enhanced protections

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In order to promote occurrence reporting EU regulations prescribe ***strict confidentiality and protection*** requirements that must be met by both the airlines and the IAA

- ***Dis-identification:*** All reports (i.e. to Airlines and IAA) must be dis-identified by removing the names of both the reporter and other persons named in reports
- ***Anonymisation:*** Communication of lessons learned from the analysis of occurrence reports is performed in an aggregated and/or anonymised way, that ensures no persons can be identified (i.e. directly or inferred)
- ***Confidentiality:*** Details of occurrences stored by the IAA are confidential. There is no provision to allow IAA to provide information on occurrence reports stored in the IAA database to third parties (also protected from FOI requests)
- ***Feedback:*** Feedback may be provided to individual reporters (e.g. for more serious events), as long as the confidentiality and protection requirements can be met.



# European Regulation (EC) 376 of 2014 on Occurrence Reporting

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- Article 15(4) of European regulation 376 Of 2014 requires Member States to ensure that their competent authority for the collection, evaluation, processing, analysis and storage of details of occurrences and their competent authorities for the administration of justice cooperate with each other through **advance administrative arrangements**. These advance administrative arrangements shall seek to ensure the correct balance between the need for proper administration of justice, on the one hand, and the necessary continued availability of safety information, on the other.
- Article 16(6) states, without prejudice to applicable national criminal law, **Member States shall refrain from instituting proceedings in respect of unpremeditated or inadvertent infringements of the law** which come to their attention only because they have been reported pursuant to Articles 4 and 5.
- **The regulation recognises that exceptional cases can apply**. Article 16(10) states that the protection afforded shall not apply to any of the following situations:
  - in cases of wilful misconduct;
  - where there has been a manifest, severe and serious disregard of an obvious risk and profound failure of professional responsibility to take such care as is evidently required in the circumstances, causing foreseeable damage to a person or property, or which seriously compromises the level of aviation safety.

# JUST CULTURE AT STATE LEVEL

- *Regulation (EU) 996 of 2010 on the investigation and prevention of accidents and incidents in civil aviation*
- *S.I. No 460 of 2009 Air Navigation (Notification and Investigation of Accidents, Serious Incidents and Incidents) Regulations 2009*
- *Regulation (EU) 376 of 2014 for Occurrence Reporting in Civil Aviation*
- *IAA Act 1993 as amended*

- **Clear accountability**
- **Legal protection of the data**
  - **IAA exempt from FOI**
  - **De-identified in any case**
  - **Only presented in anonymised format**
- **Make ‘Advance Administrative arrangements’**
- **Establish Just Culture Body**

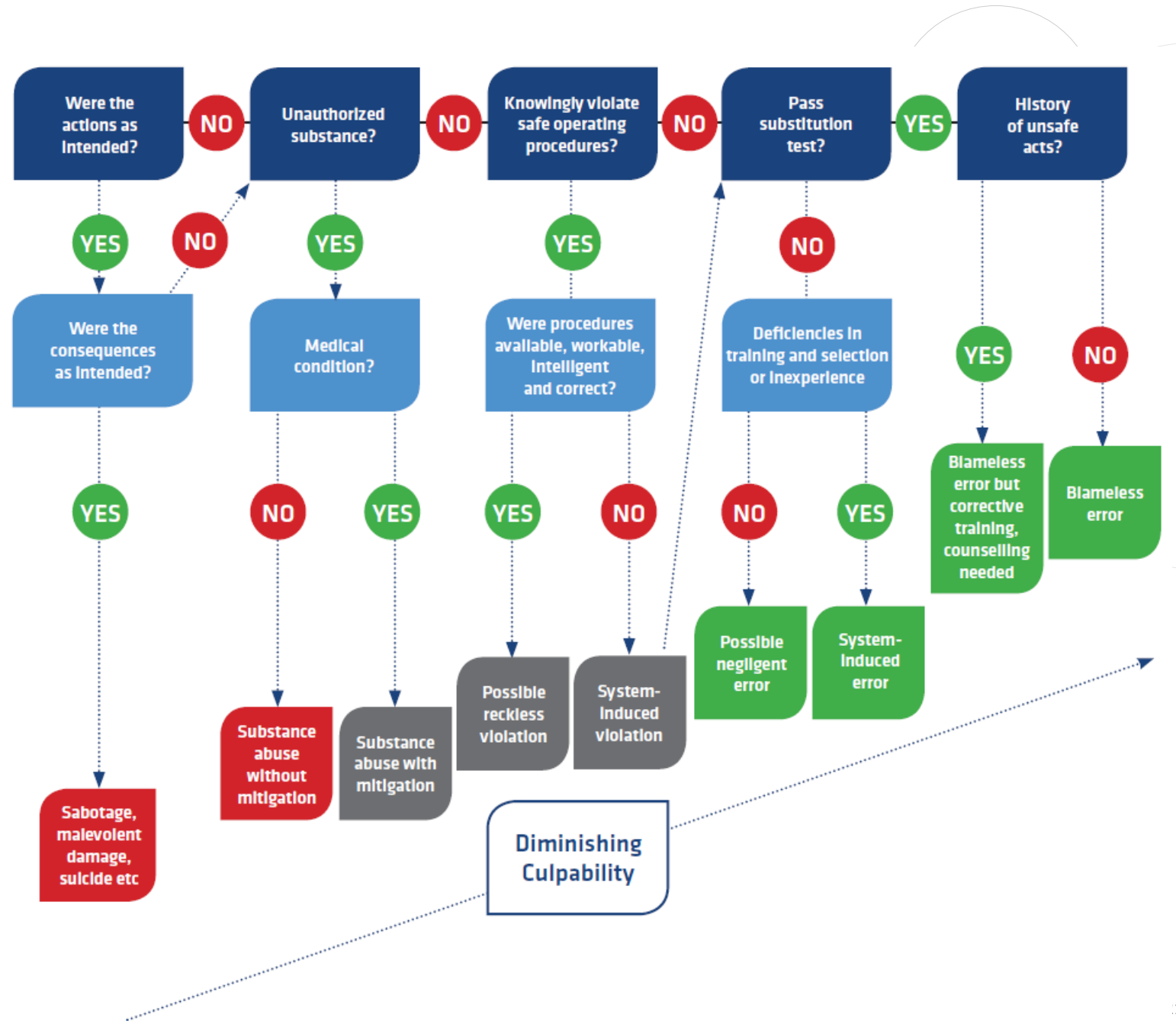




# JUST CULTURE BY REGULATOR

IAA Enforcement Policy has adopted James Reason's diminishing culpability model

*'Managing the Risks of Organisational Accidents' - A decision tree for determining the culpability of unsafe acts' p209, 1997, Ashgate Publications,*





# JUST CULTURE IN AN ORGANISATION

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*‘just culture’ means a culture in which front-line operators or other persons are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but in which gross negligence, wilful violations and destructive acts are not tolerated*

- The handling of the reports shall be done with a view to preventing the use of information for purposes other than safety, and shall appropriately safeguard the confidentiality of the identity of the reporter and of the persons mentioned in occurrence reports, with a view to promoting a ‘just culture’.
- Each organisation established in a Member State ***shall, after consulting its staff representatives, adopt internal rules describing how ‘just culture’ principles,*** in particular the principle referred to in paragraph 9, are guaranteed and implemented within that organisation.
- State shall establish a ***Just Culture Body***

# JUST CULTURE IN HEALTH

## Principles:

- Person Centred
- Fair and Just
- Openness and Transparency
- Responsive
- Improvement Focused
- Learning





# Safety Culture

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“Few phrases occur more frequently in discussion about hazardous technologies than safety culture; few things are so sought after and yet so little understood.” <sup>9/</sup>

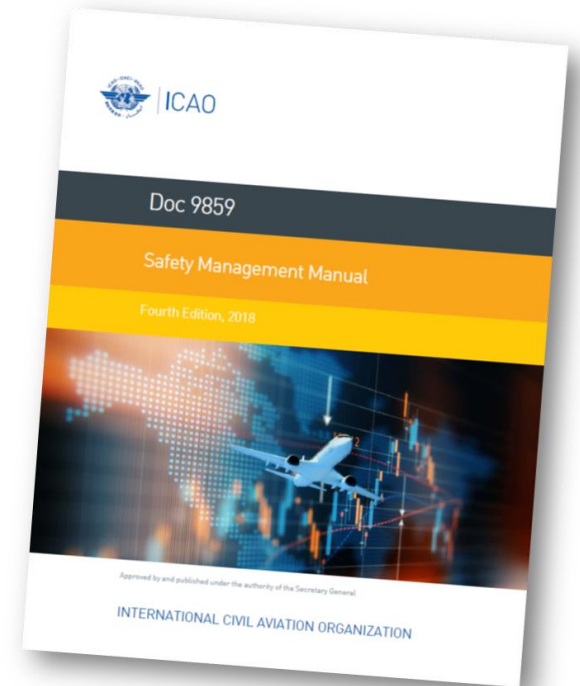
<sup>9/</sup> Reason, *Managing the Risk of Organisational Accidents*, p. 191



# Safety Culture

*How people behave in relation to safety and risk when no one is watching*

- a) aware of the risks and known hazards faced by the organization and its activities;
- b) continuously behaving to preserve and enhance safety;
- c) able to access the resources required for safe operations;
- d) willing and able to adapt when facing safety issues;
- e) willing to communicate safety issues; and
- f) consistently assessing the safety related behaviours throughout the organization.





# Safety Culture

## *A positive safety culture has the following features:*

- a) managers and employees, individually and collectively, want to make decisions and take actions that promote safety;
- b) individuals and groups continually critique their behaviours and processes and welcome the critique of others searching for opportunities to change and improve as their environment changes;
- c) management and staff share a common awareness of the hazards and risks faced by the organization and its activities, and the need to manage risks;
- d) individuals act and make decisions according to a common belief that safety is part of the way they do business;
- e) individuals value being informed, and informing others, about safety;
- f) individuals trust their colleagues and managers with information about their experiences, and the
- g) reporting of errors and mistakes is encouraged to improve how things are done in the future.







# Assessing an Organisations Safety Maturity

## 2.1 HAZARD IDENTIFICATION

### Annex 19 reference & text

2.1.1 The service provider shall develop and maintain a process to identify hazards associated with its aviation products or services.

Hazard identification shall be based on a combination of reactive and proactive methods.

PRESENT	SUITABLE	OPERATIONAL	EFFECTIVE
There is a process that defines how reactive and proactive hazard identification is gathered from multiple sources (internal and external).		The hazards are identified and documented. Human and organisational Factors related hazards are being identified.	The organisation has a register of the hazards that is maintained and reviewed to ensure it remains up to date. It is continuously and proactively identifying hazards related to its activities and operational environment and involves all key personnel and appropriate stakeholders.  Hazards are assessed in a systematic and timely manner

### What to look for

- Review how hazards are identified, analysed and recorded.
- Consider hazards related to;
  - › possible accident scenarios.
  - › Human and organisational factors
  - › business decisions and processes
  - › Third party organisations
- Review what internal and external sources of hazards are considered such as: Safety reports / audits / safety surveys / investigations / inspections / brainstorming / Management of Change activities / Commercial and other external influences etc.
- Investigations of safety occurrences establish causal/contributing factors (why it happened, not just what happened) and identify Human and organisational contributing factors. Hazards identified from occurrences are processed in compliance with Reg. (EU) 376/2014 Article 4 and 5.

**Present:** There is evidence that the feature is documented within the organisation's Management system/SMS Documentation.

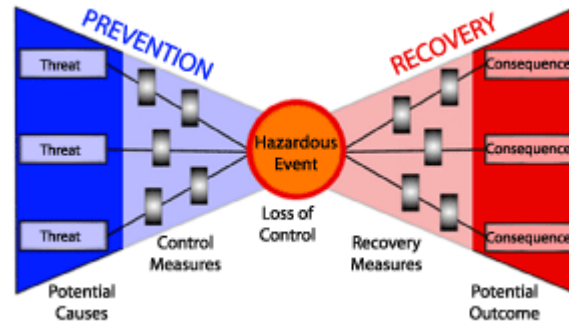
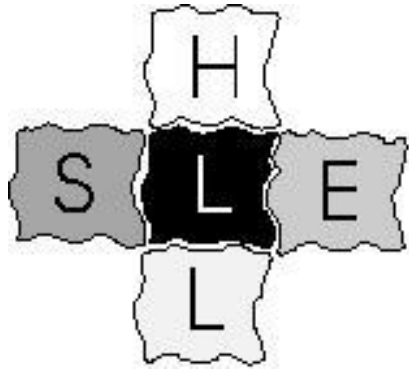
**Suitable:** The feature is suitable based on the size, nature, complexity of the organisation and the inherent risk in the activity.

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

**Effective:** There is evidence that the feature is achieving the desired outcome and has a positive safety impact.



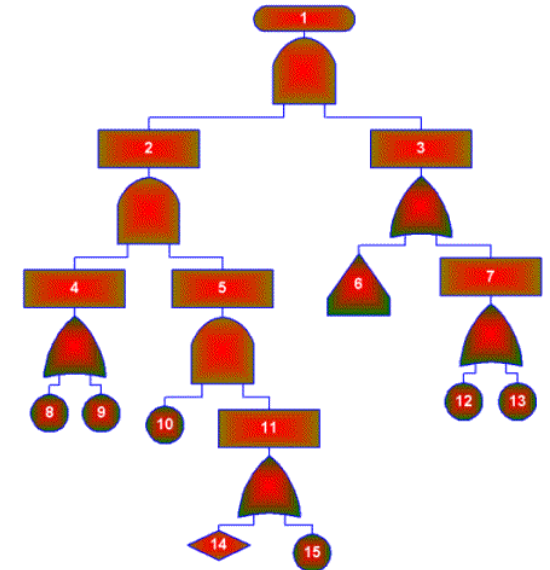
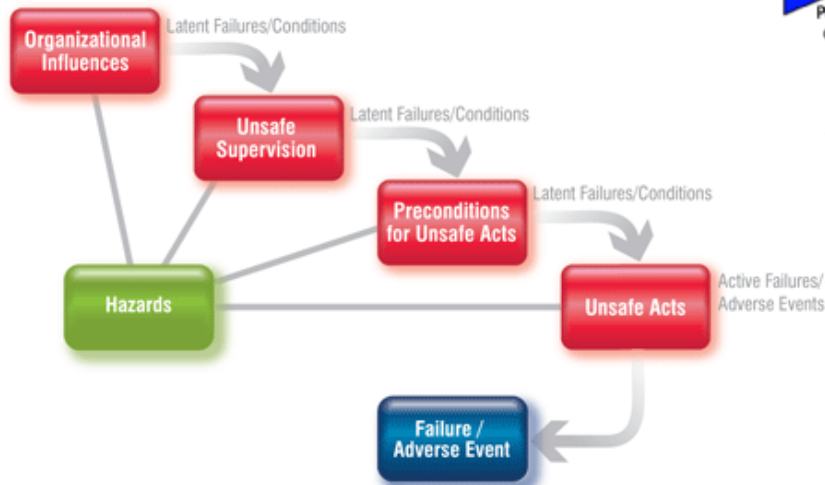
# How Hazards are Assessed



Severity \ Likelihood	No Safety Effect	Minor	Major	Hazardous	Catastrophic
Frequent	Low Risk	Medium Risk	High Risk	High Risk	High Risk
Probable	Low Risk	Medium Risk	High Risk	High Risk	High Risk
Remote	Low Risk	Low Risk	Medium Risk	High Risk	High Risk
Extremely Remote	Low Risk	Low Risk	Low Risk	Medium Risk	High Risk
Extremely Improbable	Low Risk	Low Risk	Low Risk	Low Risk	Medium Risk

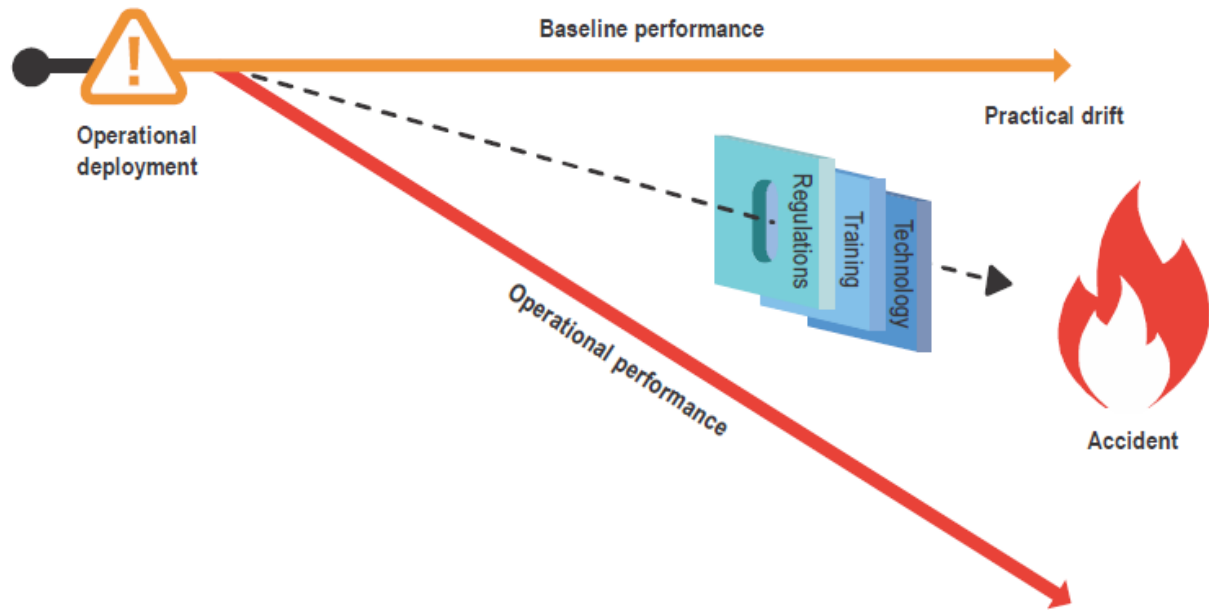
Legend:  
HIGH RISK (Red)  
MEDIUM RISK (Yellow)  
LOW RISK (Green)

Figure 3 - 1. Predictive Risk Matrix





# THE NEED FOR CONTINUING OVERSIGHT - PRACTICAL DRIFT



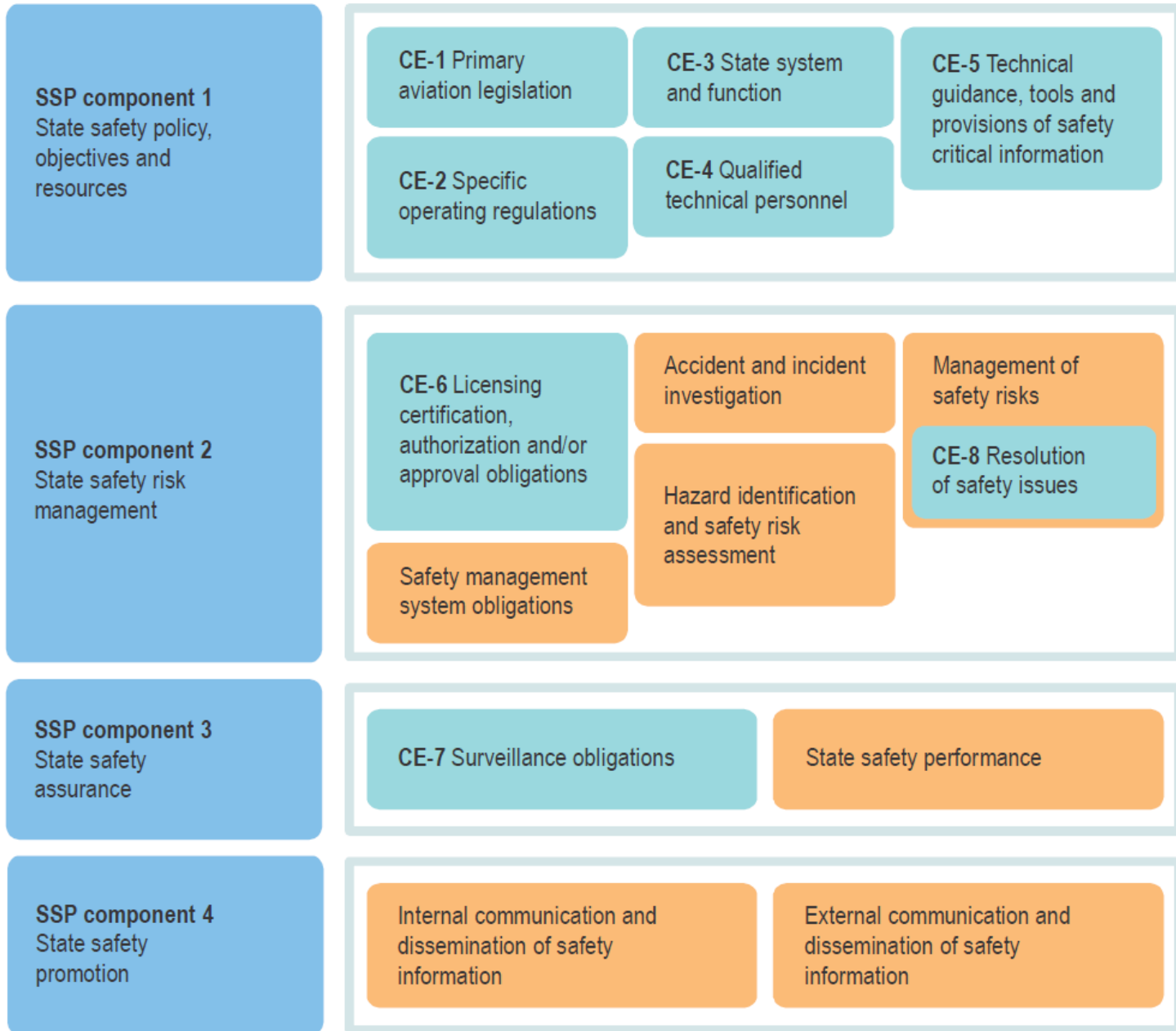
## Reasons for the practical drift include:

- technology that does not operate as predicted;
- procedures that cannot be executed as planned under certain operational conditions;
- changes to the system, including the additional components;
- interactions with other systems;
- safety culture;
- adequacy (or inadequacy) of resources (e.g. support equipment);
- learning from successes and failures to improve operations, and so forth.

# HOLISTIC APPROACH

A Safety Culture environment is only one element of the overall framework for implementing safety in aviation

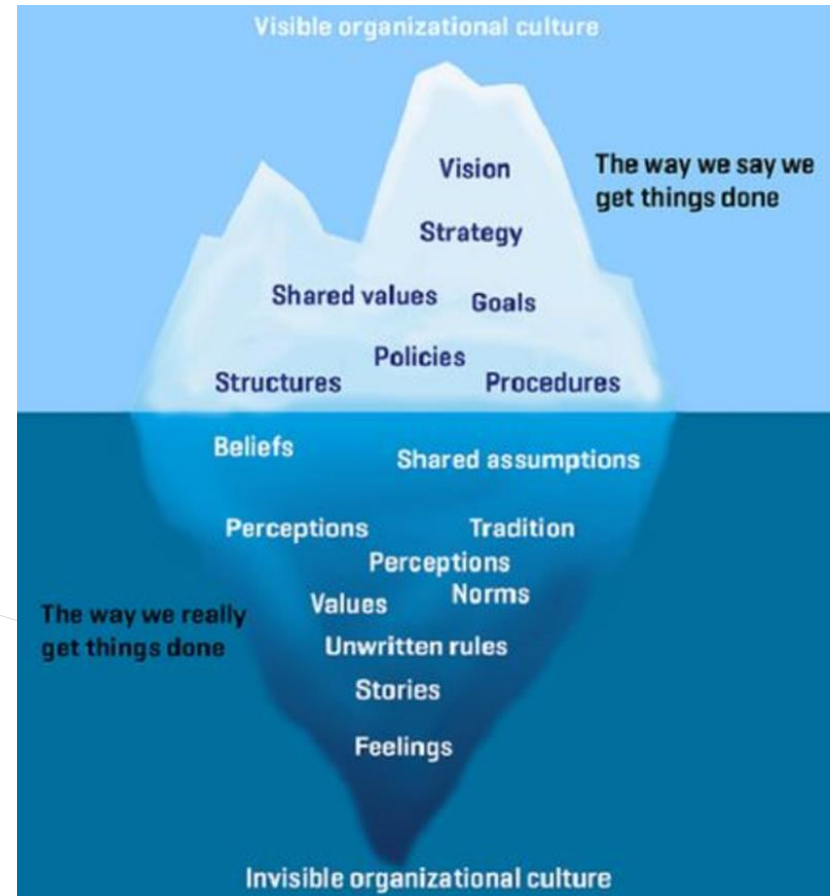
## *State Safety Programme*





# BARRIERS TO EFFECTIVE SAFETY MANAGEMENT SYSTEMS

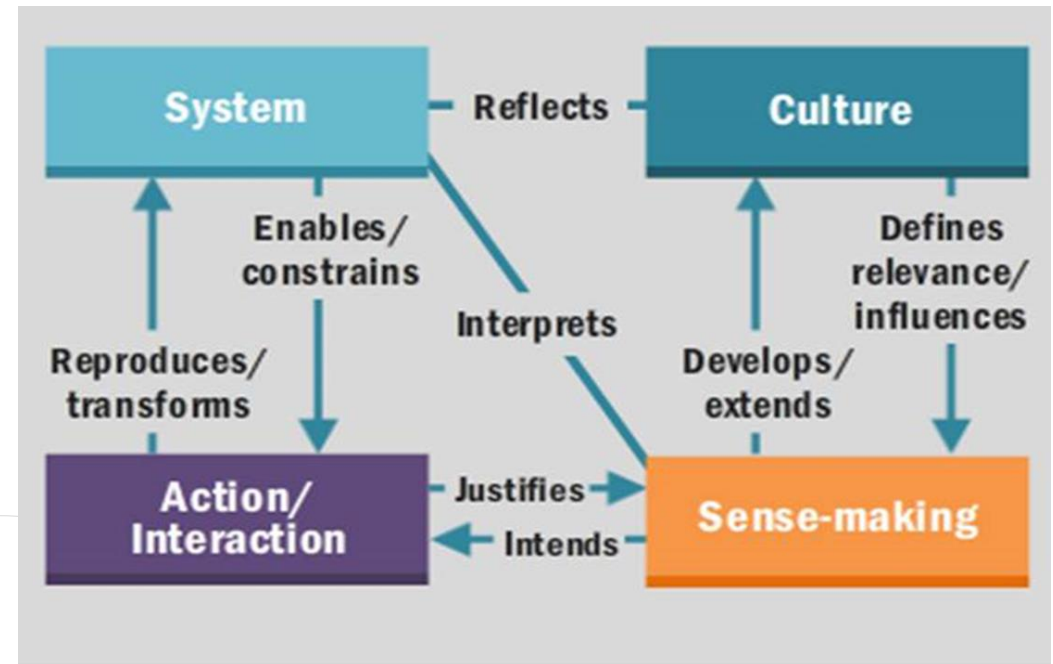
- Undue focus on the immediate event rather than on the root causes
- Latching onto one superficial cause or learning point to the exclusion of more fundamental but sometimes less obvious lessons
- Rigidity of core beliefs, values and assumptions, which may develop over time – learning is resisted if it contradicts these
- Lack of corporate responsibility – it may be difficult, for example, to put into practice solutions which are sufficiently far-reaching
- Ineffective communication and other information difficulties – including failure to disseminate information which is already available
- An incremental approach to issues of risk – attempting to resolve problems through tinkering rather than tackling more fundamental change





# BARRIERS TO EFFECTIVE SAFETY MANAGEMENT SYSTEMS

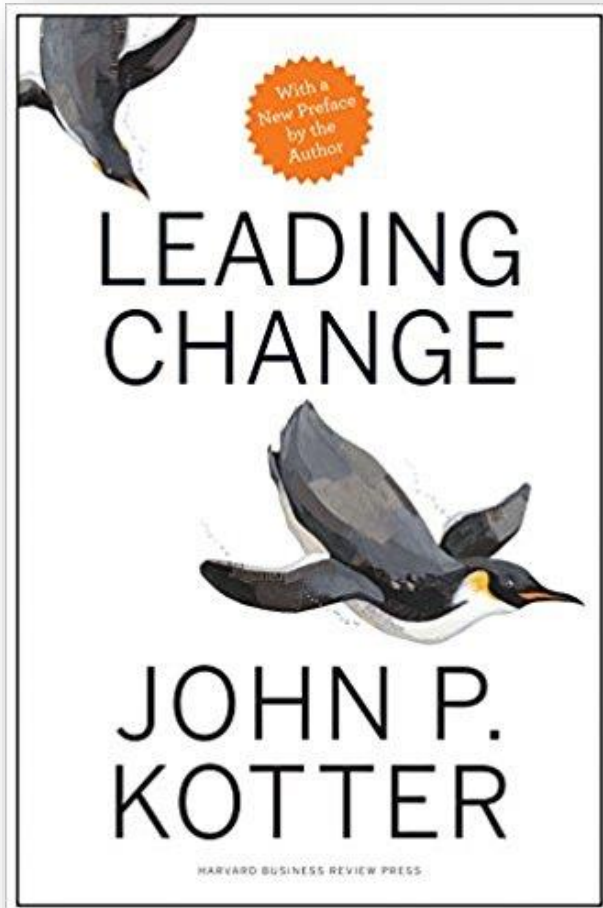
- Pride in individual and organisational expertise can lead to denial and to a disregard of external sources of warning – particularly if a bearer of bad news lacks legitimacy in the eyes of the individuals, teams or organisations in question
- A tendency towards scapegoating and finding individuals to blame – rather than acknowledging and addressing deep-rooted organisational problems
- The difficulties faced by people in “making sense” of complex events is compounded by changes among key personnel within organisations and teams







# Reasons Why Organisation Change Fails?



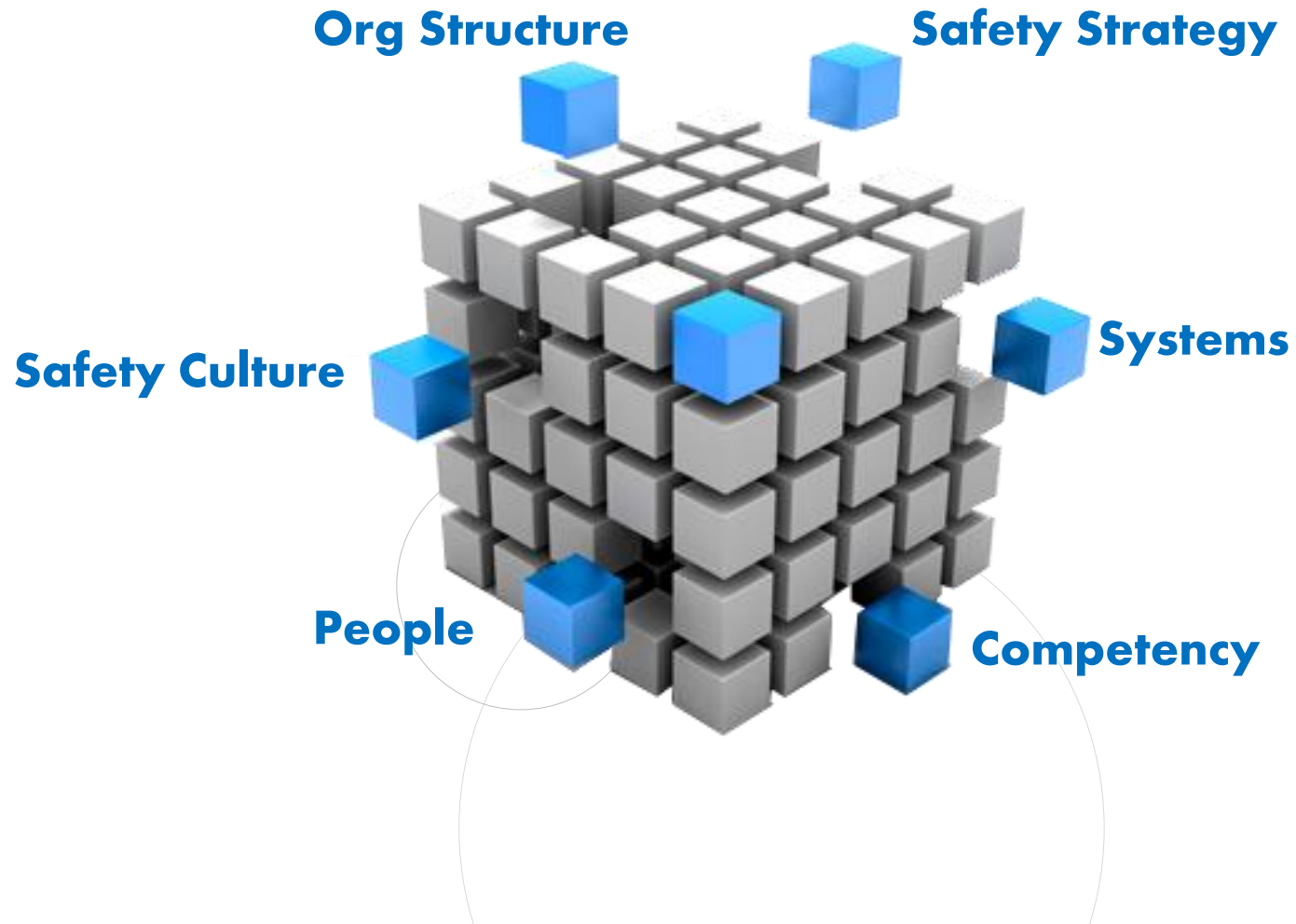
## EIGHT STEPS TO TRANSFORMING YOUR ORGANIZATION

- 1** Establishing a Sense of Urgency
  - Examining market and competitive realities
  - Identifying and discussing crises, potential crises, or major opportunities
- 2** Forming a Powerful Guiding Coalition
  - Assembling a group with enough power to lead the change effort
  - Encouraging the group to work together as a team
- 3** Creating a Vision
  - Creating a vision to help direct the change effort
  - Developing strategies for achieving that vision
- 4** Communicating the Vision
  - Using every vehicle possible to communicate the new vision and strategies
  - Teaching new behaviors by the example of the guiding coalition
- 5** Empowering Others to Act on the Vision
  - Getting rid of obstacles to change
  - Changing systems or structures that seriously undermine the vision
  - Encouraging risk taking and nontraditional ideas, activities, and actions
- 6** Planning for and Creating Short-Term Wins
  - Planning for visible performance improvements
  - Creating those improvements
  - Recognizing and rewarding employees involved in the improvements
- 7** Consolidating Improvements and Producing Still More Change
  - Using increased credibility to change systems, structures, and policies that don't fit the vision
  - Hiring, promoting, and developing employees who can implement the vision
  - Reinvigorating the process with new projects, themes, and change agents
- 8** Institutionalizing New Approaches
  - Articulating the connections between the new behaviors and corporate success
  - Developing the means to ensure leadership development and succession



# Aviation Safety in Summary

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## SOME AVIATION TENETS

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- *Regulations are written in the blood of others – Igor Sikorsky*
- *There is nothing dangerous in flying except complacency – Orville Wright*
- *Better to light one candle than to curse the darkness – Chinese proverb*



# "The Dirty Dozen"

1. Lack of Communication
2. Complacency
3. Lack of Knowledge
4. **Distraction**
5. Lack of Teamwork
6. Fatigue
7. Lack of Resources
8. Pressure
9. Lack of Assertiveness
10. Stress
11. Lack of Awareness
12. Norms



## Distraction Safety Nets

- Always finish the job or unfasten the connection.
- Mark the uncompleted work.
- Lockwire where possible or use Torqueseal.
- Double inspect by another or self.
- When you return to the job always go back three steps.
- Use a detailed check sheet.

In the interest of Aviation Safety, the following have generously provided funding to make these posters possible:



# THANK YOU



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[https://www.skybrary.aero/index.php/Just\\_Culture](https://www.skybrary.aero/index.php/Just_Culture)

