



# EASA

European Aviation Safety Agency

## Certification Workshop *SMS & DOAs*

*‘Safety by Design’*

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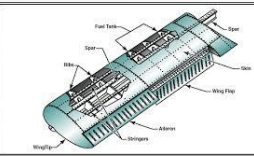
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# Rate of accidents since 1945 & Evolution of safety thinking



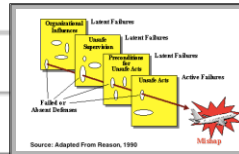
**Technical**

*Better technology*



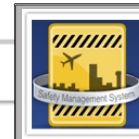
**Human**

*HF management, CRM, FRM etc...*



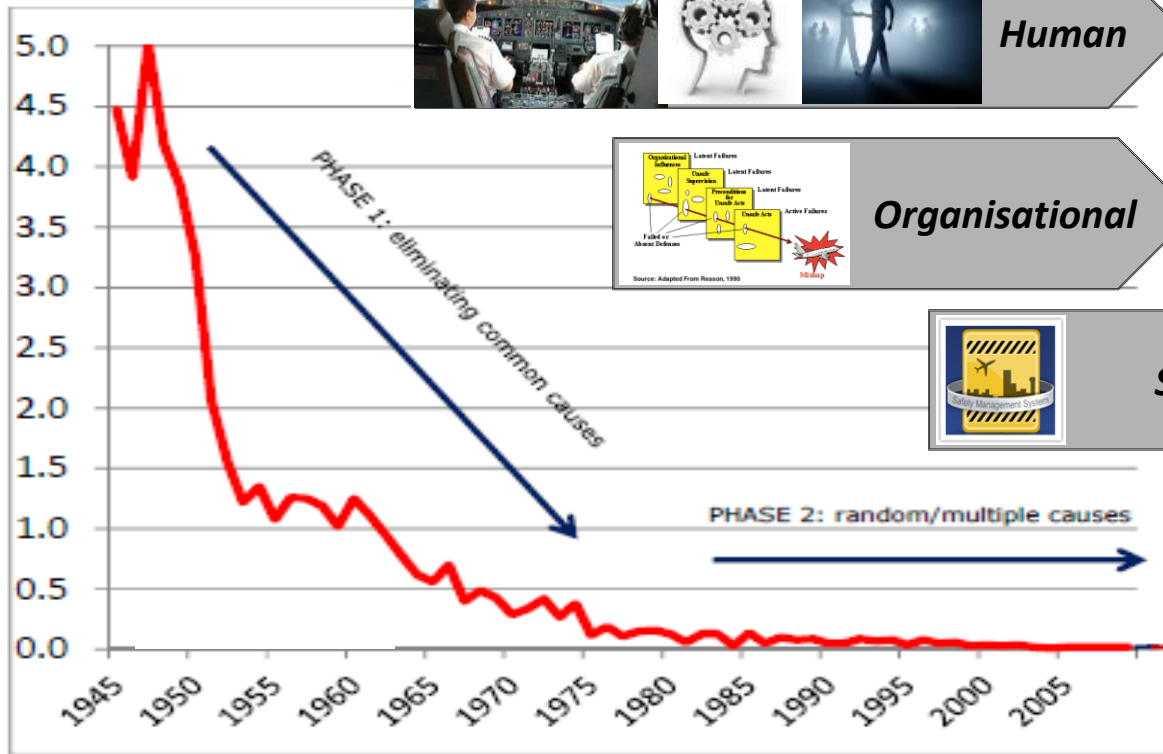
**Organisational**

*Quality Assurance, QMS  
Threat & Error management*



**System safety**

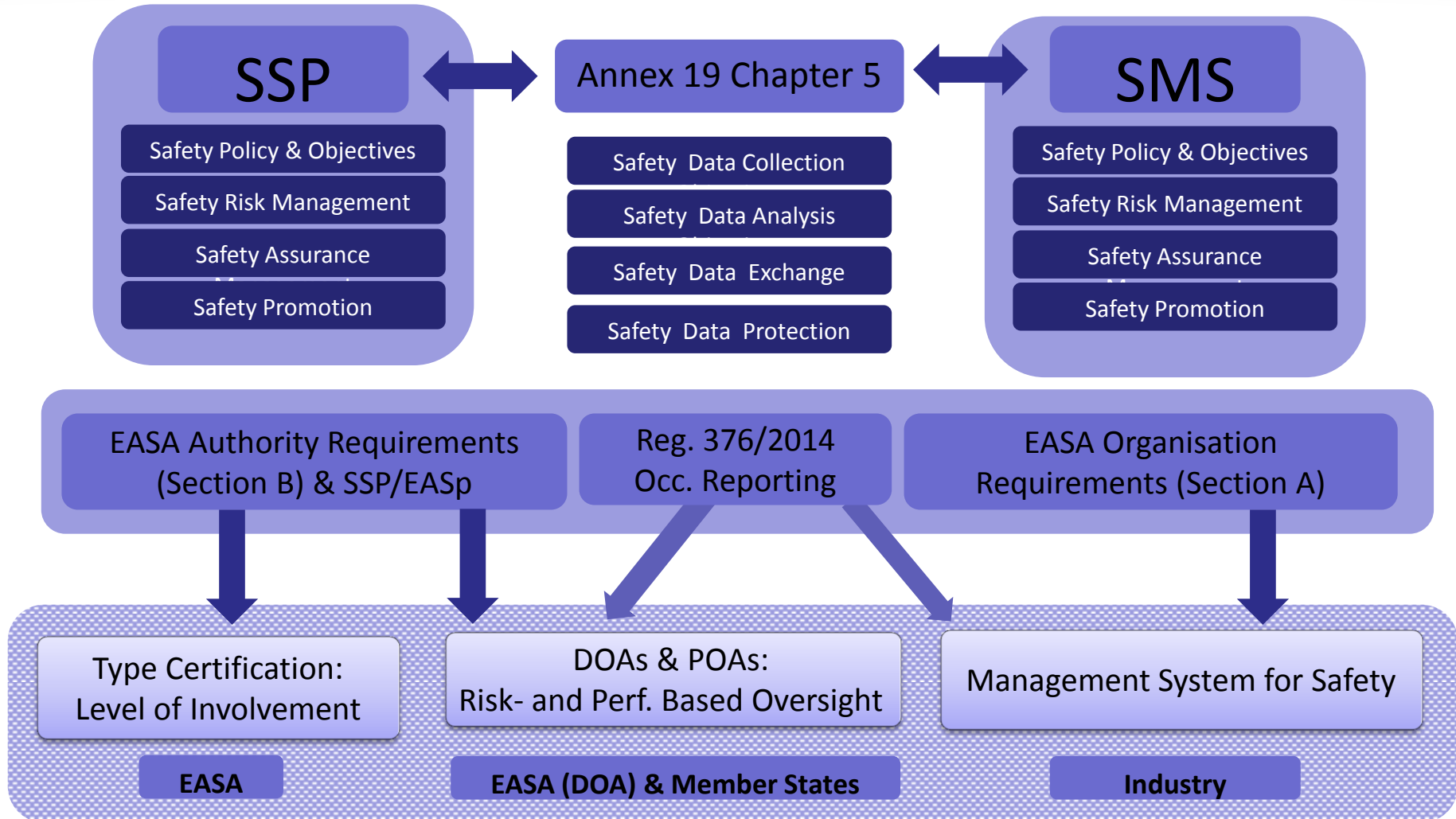
**Safety management**  
**SMS & SSP**  
*addressing all of it :  
better technology  
Human &  
Organisational factors  
compliance  
risks  
etc..*



*Global rate of accidents involving passenger fatalities per 100 million passenger miles, scheduled commercial air transport operations, excluding acts of unlawful interference*

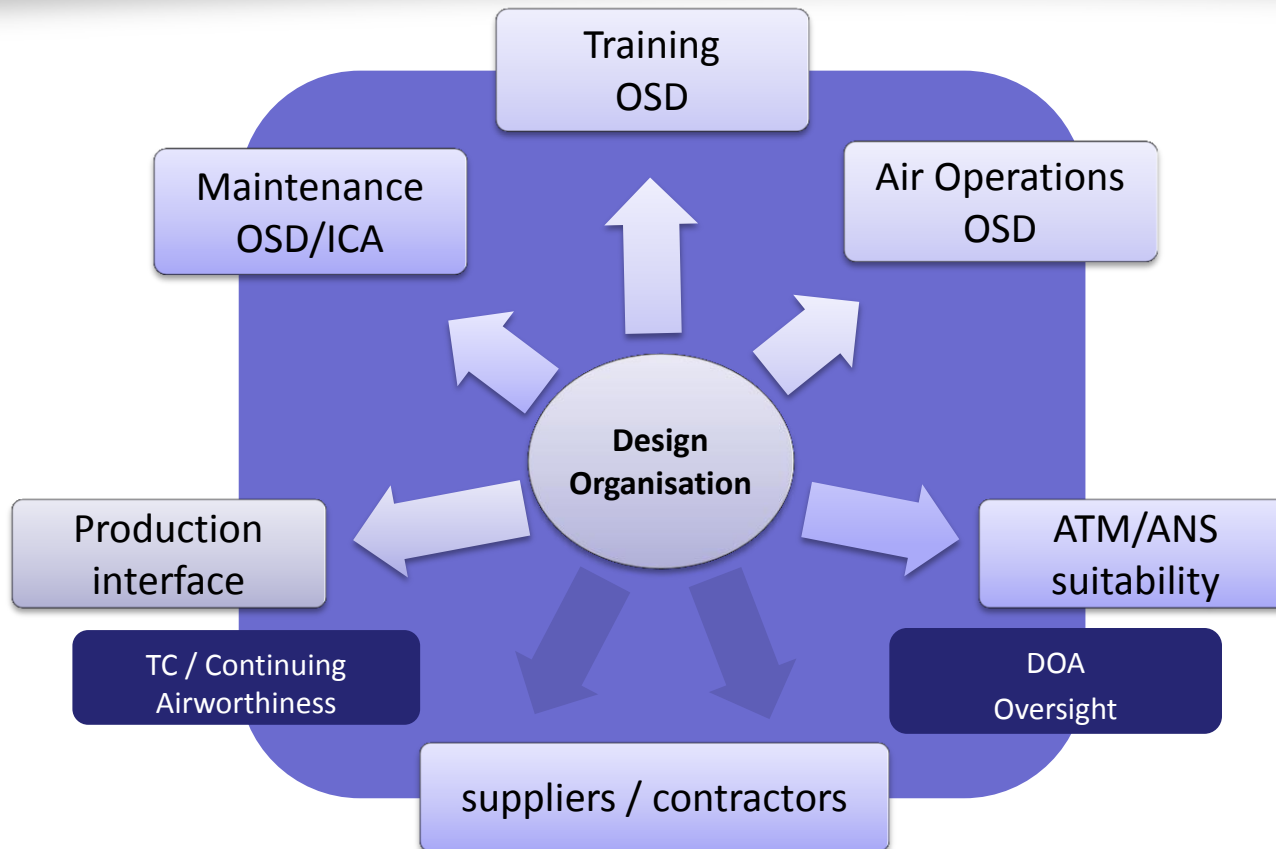


# ICAO Annex 19 promotes Safety management for States and Service Providers





# SMS in design: from product 'safety' to system safety



- Safety is a systems property, it can only be determined for the whole system under consideration.

- Risks need to be managed at all system levels and proper feedback is needed on how well this is being done.

- **SMS** provides the framework for this to happen.

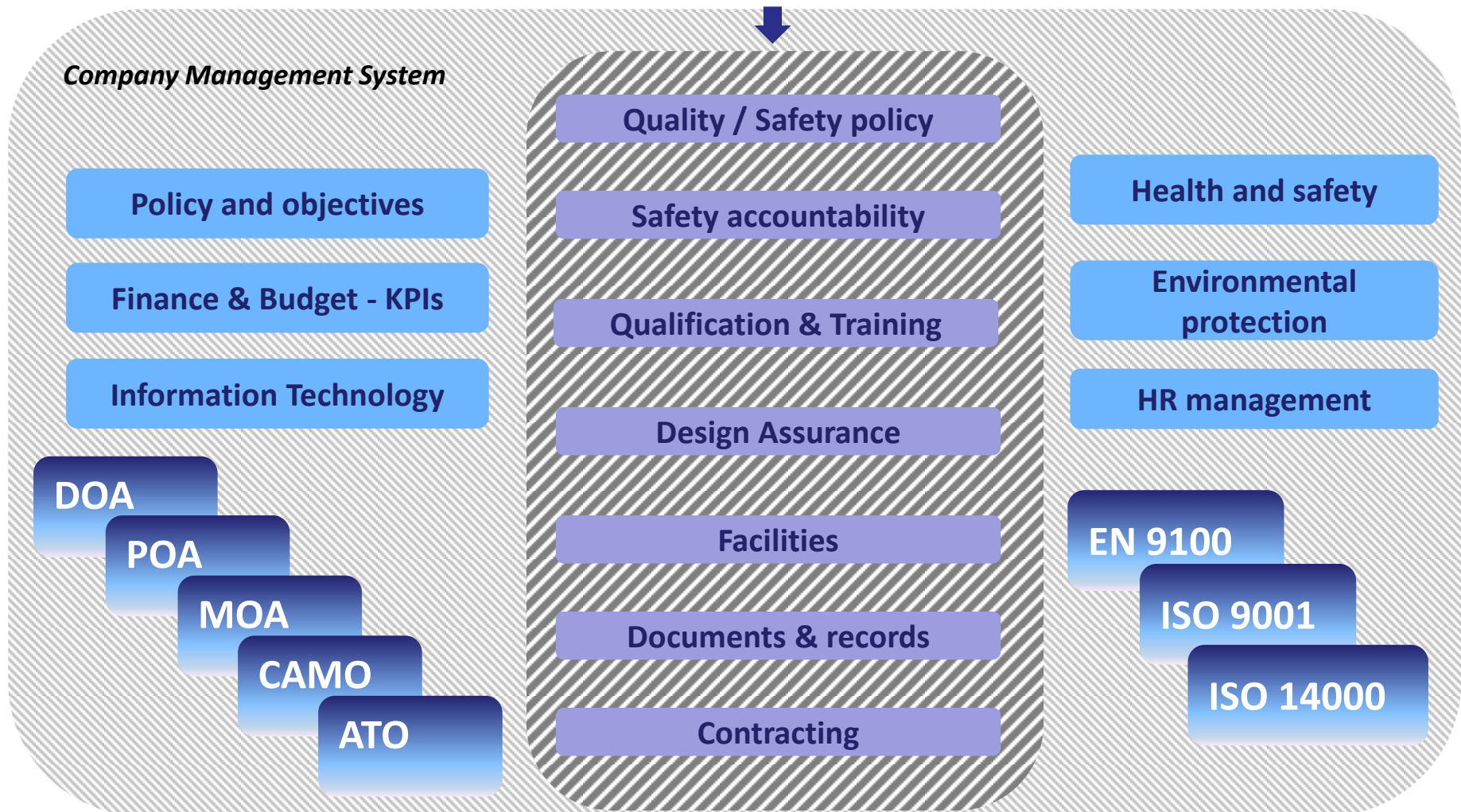
- *ICAO defines SMS as :*

- A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures



# EASA promotes an integrated approach to safety management

## *Scope of EASA IRs on Quality System*





# EASA promotes an integrated approach to safety management

## Scope of EASA IRs on (S)MS

existing elements

new elements/elements to be reviewed

Quality and Safety policy

Safety accountability

Safety risk management

Safety performance

Safety promotion

Qualification & Training





Design Assurance

Facilities





Documents & records

Contracting




### **BENEFITS:**

-  *better resource allocation*
-  *more 'privileges'*
-  *better oversight*
-  *safer systems*

### **build upon design assurance system**

-  integrate safety management processes within the organisation's existing processes
-  identify and address any gaps
-  enhance the organisation's capability to meet standards (not product related only)
-  develop existing mechanisms for safety decision-making (more channels, better data to support intelligence)

### **improve risk management capability at the interfaces:**

-  contractors & suppliers
-  Design - Manufacture
-  Design - Operations - Training - Maintenance ....



# SMS implementation support programme needed !

- **MDM.060 Pilot projects** will help EASA define:
  - Design & Manufacture specific SMS implementation guidance material
  - Design & Manufacture specific SMS safety performance indicators
- **Need one acceptable SMS standard for authorities**
  - promote overall international regulatory harmonisation through ICAO SMP and SMICG
  - foster mutual understanding of the elements of technical equivalence
  - minimise impact on bilateral agreements
- **EASA and Member States to prepare for SMS oversight**
  - from compliance checking to performance assessment – training of staff is essential
  - common baseline for assessing SMS maturity / effectiveness (SMICG tool and RAG group 'cross-domain SMS assessment')
- **Safety promotion**
  - address the needs of design, manufacture and maintenance organisations
  - share best practice



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European Aviation Safety Agency

**Thank you for your attention!**

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