



Experiencia Europea Safety Analysis

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Head – Safety Analysis and Research,
Executive Directorate
EASA

19 March
Hotel Windsor Guanabara

EASA in Cologne, Germany since 2004

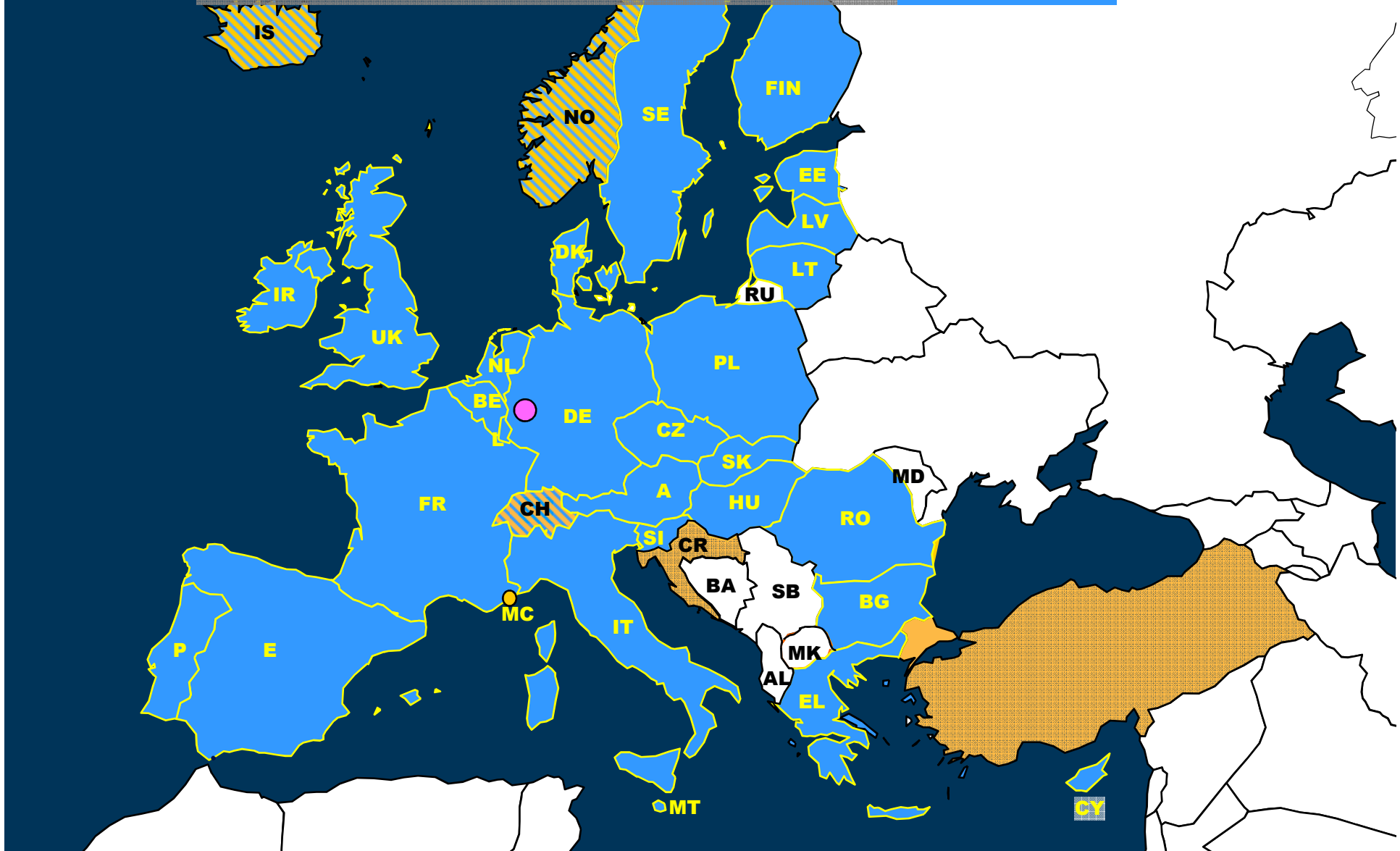
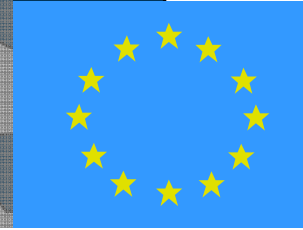


- **Independent legal status**
- **Operational since 28 September 2003**
- **Offices in Cologne since 1st November 2004**



EASA Member States

EU 27 + 4



Why a European Agency?

- **Uniform and legally binding rules**
- **Common safety standards**
- **Type certificates valid across Europe**
- **A strong independent authority**

- **First extension of scope adopted**
- **Second extension – opinion issued**

EASA Remit

- Based on the **Basic Regulation (EC) No 216/2008**
- **Safety regulator, certification authority & advisory body**
- **Mission: to set & maintain the highest common safety & environmental standards**
- **Method: part of the EU system with the EC and in partnership with the NAAs**

EASA Remit

- **The new Basic Regulation**
 - ✦ **Airworthiness amendments**
 - ✦ **Pilot Licensing**
 - ✦ **Operations**
 - ✦ **Third country operators**
 - ✦ **Oversight and enforcement**
 - ✦ **Fines**
- **Ultimately:**
 - ✦ **Aerodromes, ATM and ANS**

Main tasks

- **Rulemaking**
 - **Standardisation inspections**
 - **Type-certification & organisation approvals**
 - **Safety Analysis**
-

Structure



E2 Department – 2009

Head – Safety Analysis & Research

Administrator + 1 (CA)

Safety
Analysis
Manager

4 (TA)
+ 1 (SNE)

Accident
Investigation
Manager

4 + 1 (SNE)

Research
Project
Manager

1 (TA)

Safety Team
Coordinator

+1 (TA)

Human
Factors
Expert
4Q 2009

Safety Risks
Expert
2Q 2009

2009-2013

- **Vision, Values, Mission**
- **Strategic Priorities**
- **Staff Policy Plan**
- **Business Plan (MB 03/2008)**
- **E2 Posts**
 - ★ **22 posts by end of 2013**
- **Planning for 2010-2014 underway**
- **Key Performance Indicators**

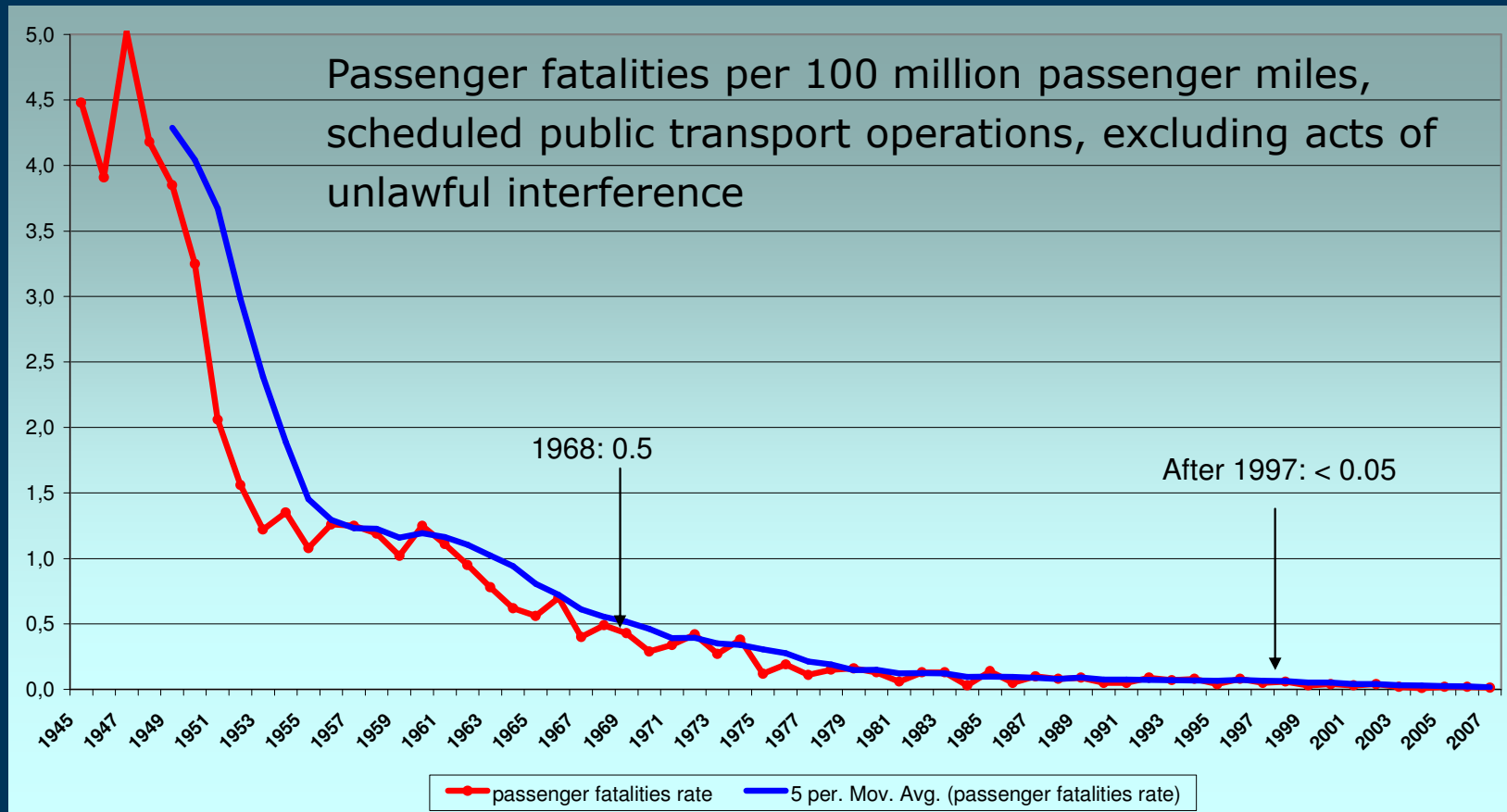
Safety Analysis

- **Safety Analysis:**
Conducts studies and provides reports concerning the safety of European and world-wide aviation
- **Annual Safety Review**
- **Developing safety policy**
- **Building dependable repositories**
- **Supporting a reporting with JRC**



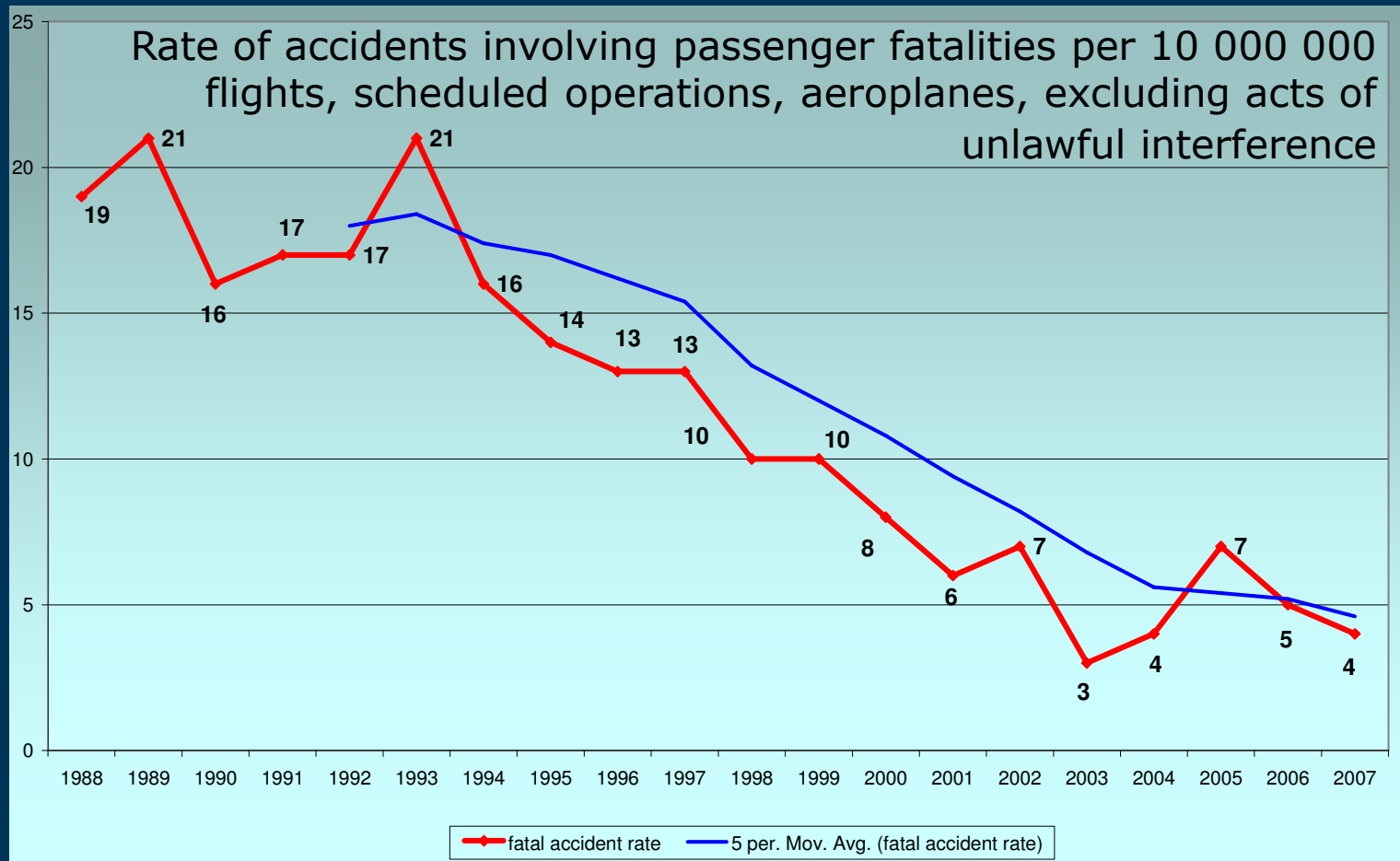
ESSI

Historical development of worldwide safety 1945 - 2007



ESSI

Historical development of worldwide safety 1988 - 2007

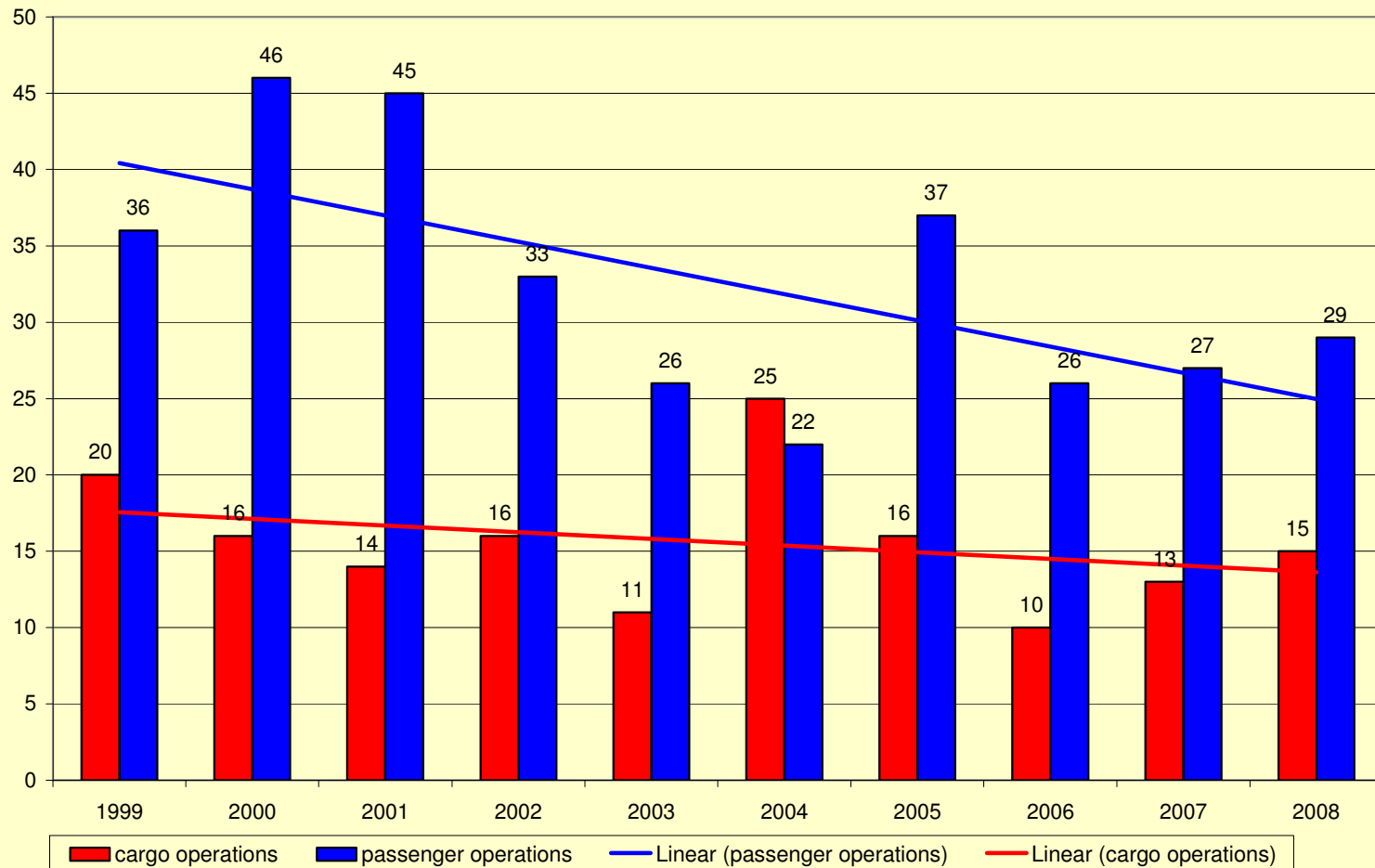


ASR 2007

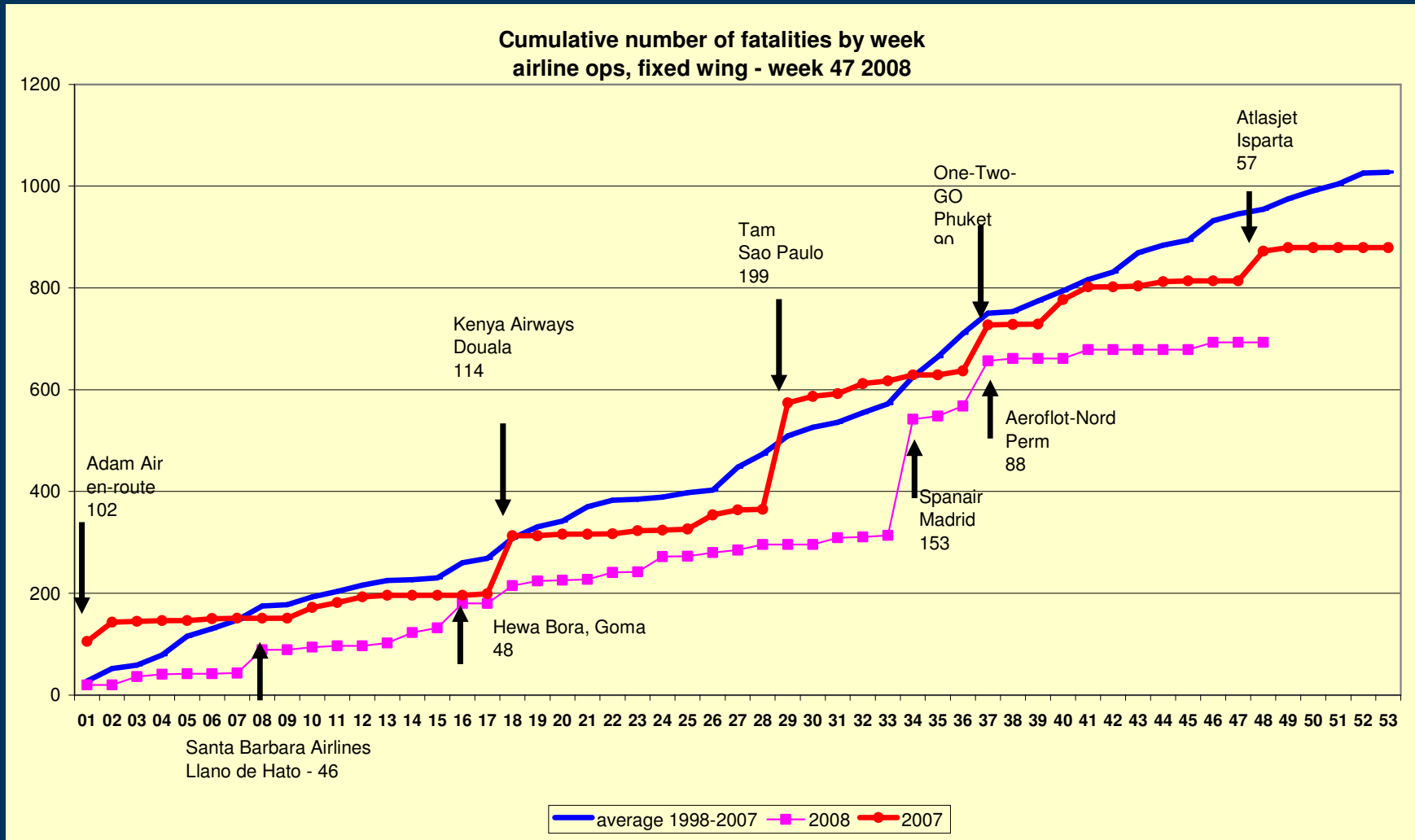
- This document is published by EASA to inform the public of the general safety level in the field of civil aviation. The Agency provides this review on an annual basis as required by Article 15(4) of Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008.
- http://www.easa.europa.eu/ws_prod/g/g_sir_review.php

2008 - preview

Fatal accidents - airline cargo/passenger operations, fixed wing

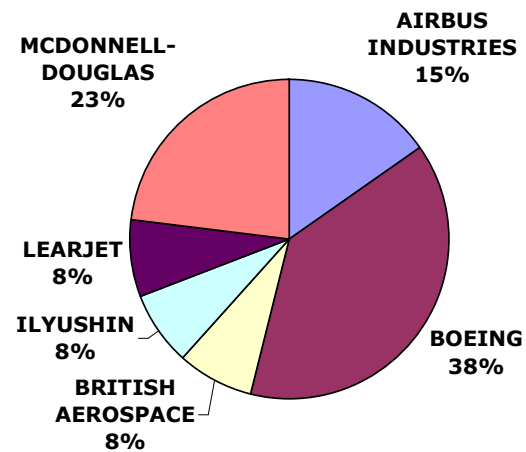


2008 - preview



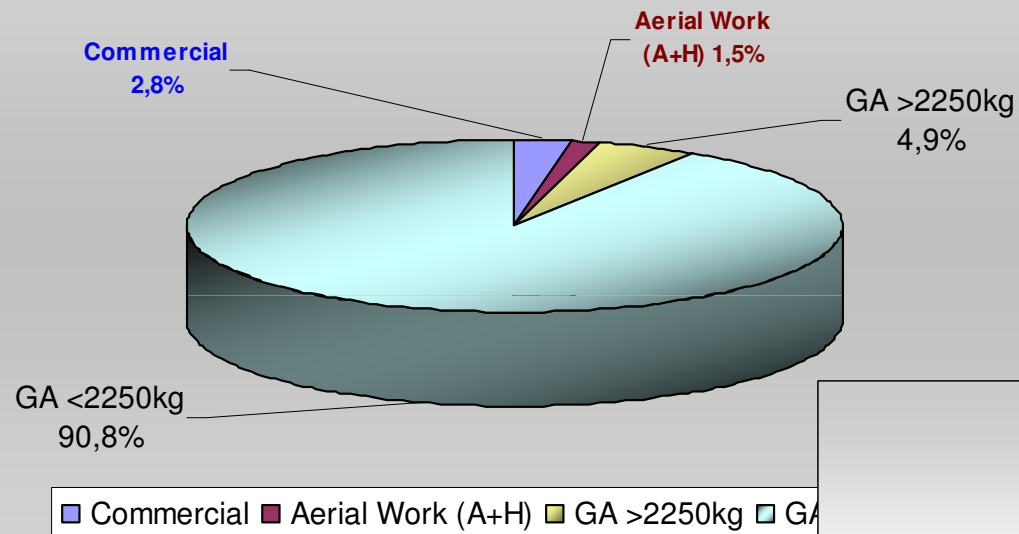
2008 - preview

**Fatal accident - Air Transport ops
jet powered a/c over 5 700 kg
2008**

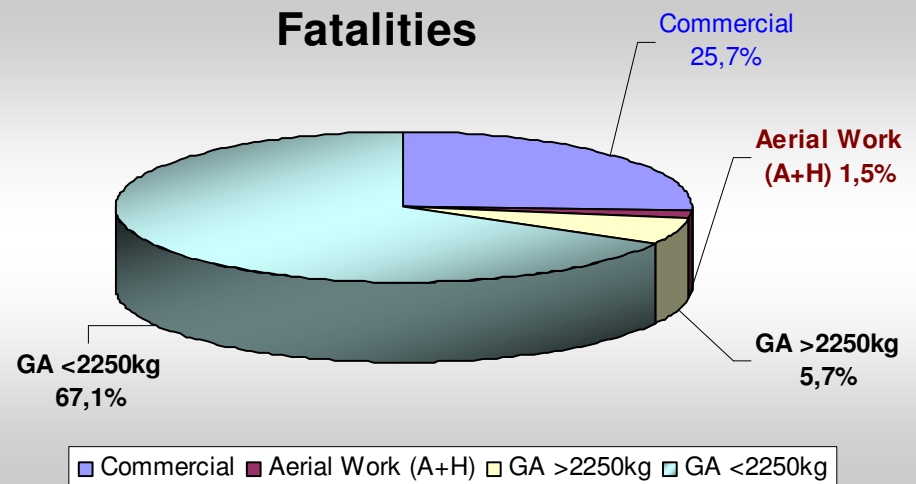


General Aviation Fatal Accidents in Europe

Number of Fatal accidents



Fatalities

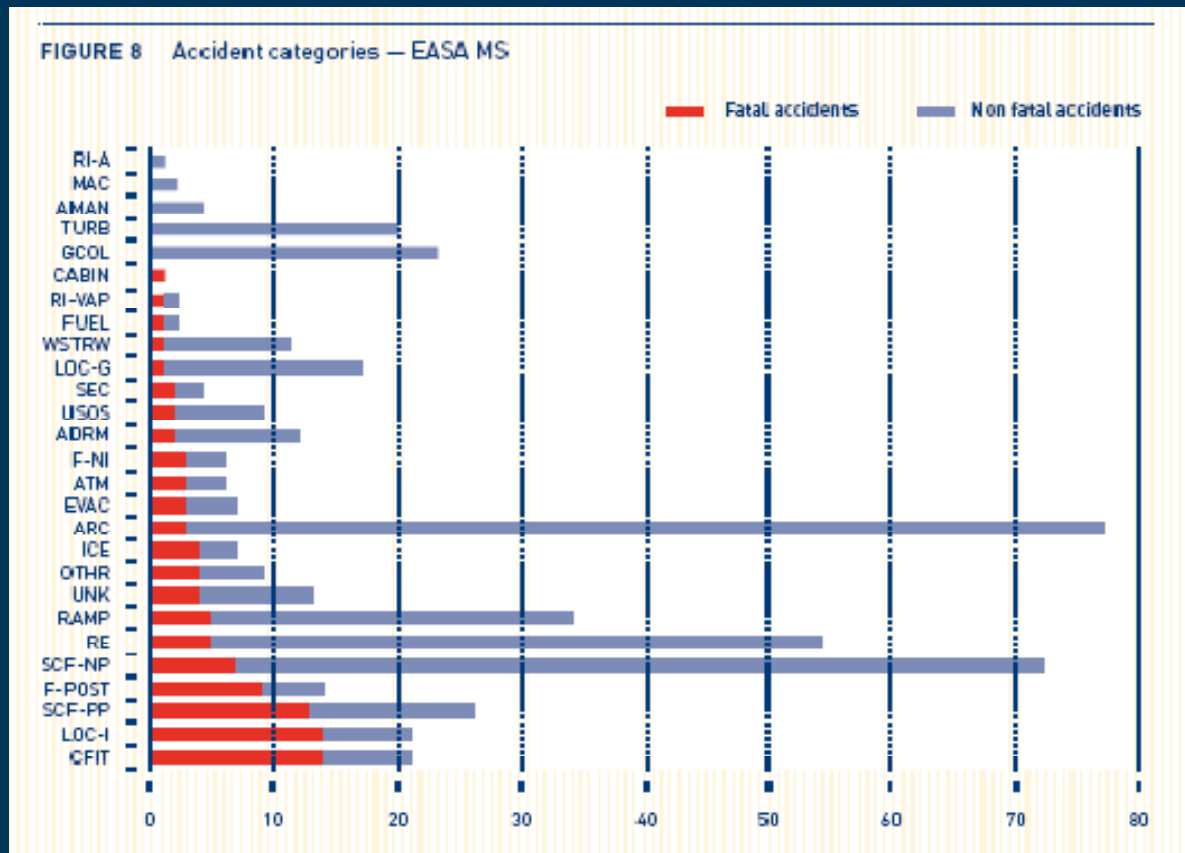


Common Taxonomy

➤ <http://www.intlaviationstandards.org/>



Accident categories



Measuring risk

Examples

Number of:

- Incidents
- Fatal accidents
- Fatalities
- Hull losses

PER

A. Period of time

B. Amount of aviation activity:

B1. Number of movements

- Aircraft
- Passengers

B2. Aggregated time or distance flown:

- Aircraft
- Passengers

Number of:

- Fatal accidents per year
- Passenger fatalities per year

Number of fatal accidents per:

- 10^5 aircraft departures
- 10^7 passenger journeys

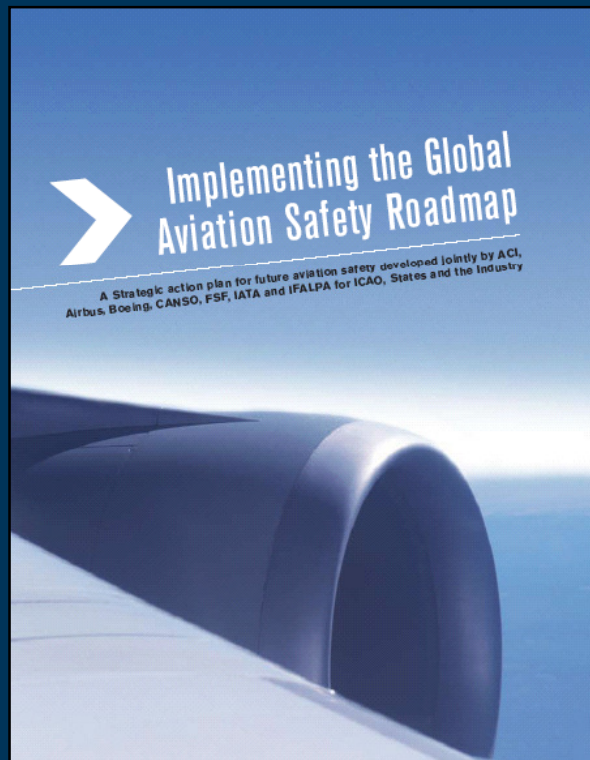
Number of:

- Fatal accidents per 10^7 aircraft flying hours
- Fatalities per 10^8 passenger km
- Incidents per 10^8 aircraft km



Fähre · Ferry · Bac
Koelnmesse
The Bu
www.cros
Tanzbrunnen
Rheinpark
feet
Ergre

Global Aviation Safety Roadmap



➤ ICAO GASRM - 2006

- ✦ Frame of reference for or stakeholders, including States, regulators, airline operators, airports, aircraft manufacturers, pilot associations, safety organisations and air traffic service providers
- ✦ To improve coordination and sharing
- ✦ To minimise duplication

ESSI

The European Strategic Safety Initiative

- 10 year programme (2006-2016) aimed at improving aviation safety in Europe, and for the European citizen worldwide
- Partnership, with more than 150 organisations
- Powered by industry and facilitated by EASA

www.easa.europa.eu/essi



Welcome to the minisite of the European Strategic Safety Initiative!

The European Strategic Safety Initiative (ESSI) is an aviation safety partnership between EASA, other regulators and the industry. The initiative's objective is to further enhance safety for citizens in Europe and worldwide through safety analysis, implementation of cost effective action plans, and coordination with other safety initiatives worldwide. Participants are drawn from the EASA Member States, the ECAC countries, manufacturers, operators and professional unions, research organisations, the EAA and international organisations such as EUROCONTROL and ICAO.

ESSI was launched by EASA as a ten year programme on 29 June 2006 and has three components:

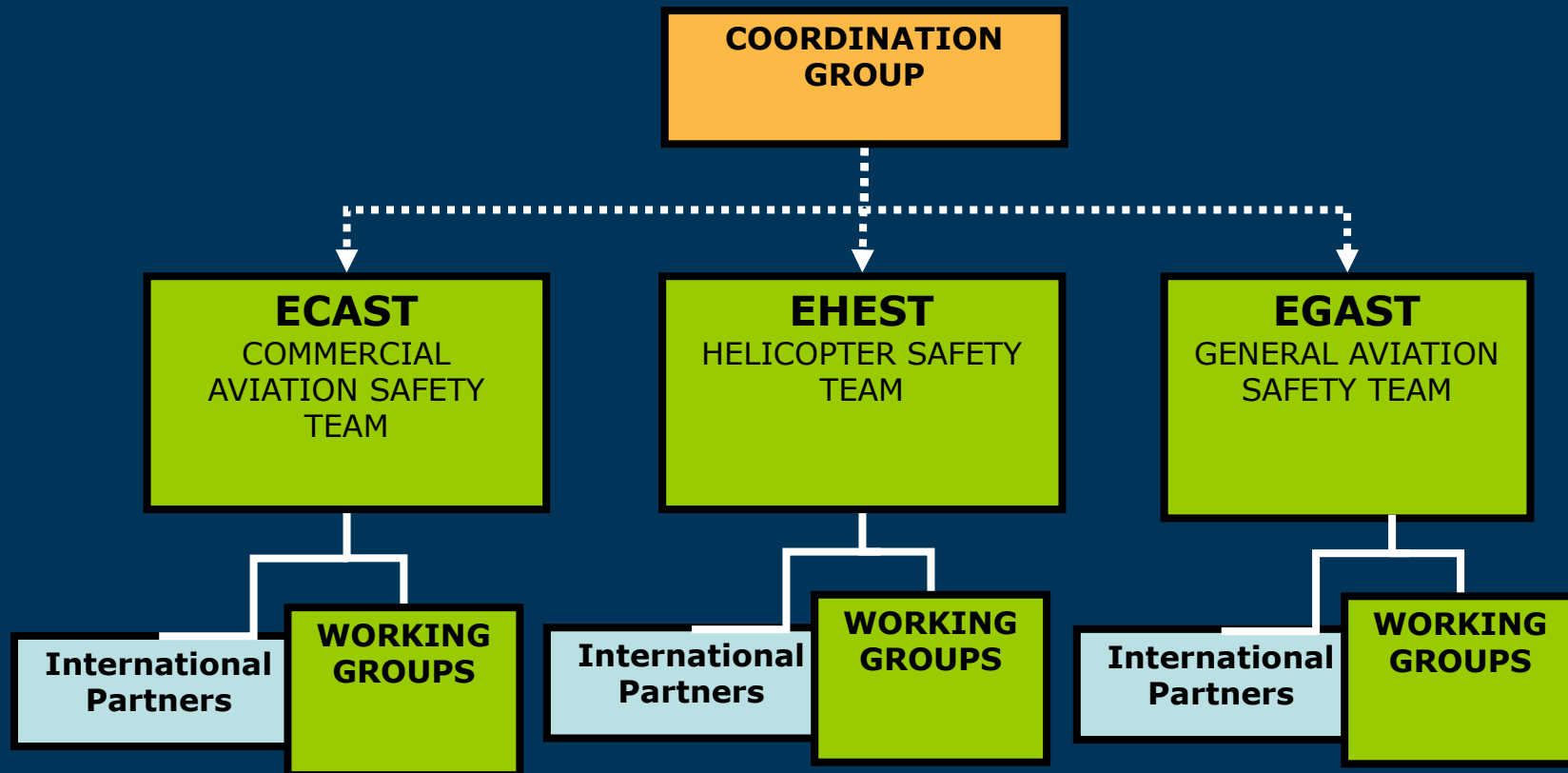
- ECAST: European Commercial Aviation Safety Team
- EHLST: European Helicopter Safety Team
- EGAST: European General Aviation Safety Team

In total, more than one hundred fifty civil and military organisations are participating to date in the ESSI.

More detailed information can be found in the [ESSI presentation](#) attached, and in the [ICAO Information Paper A36-WP/195-TE/59](#) and the [EASA Annual Safety Review 2006](#) published in 2007.

For further information, or if your organisation wishes to join the ESSI, please contact Michel Masson, ESSI Secretary, at the following email address: essi@easa.europa.eu

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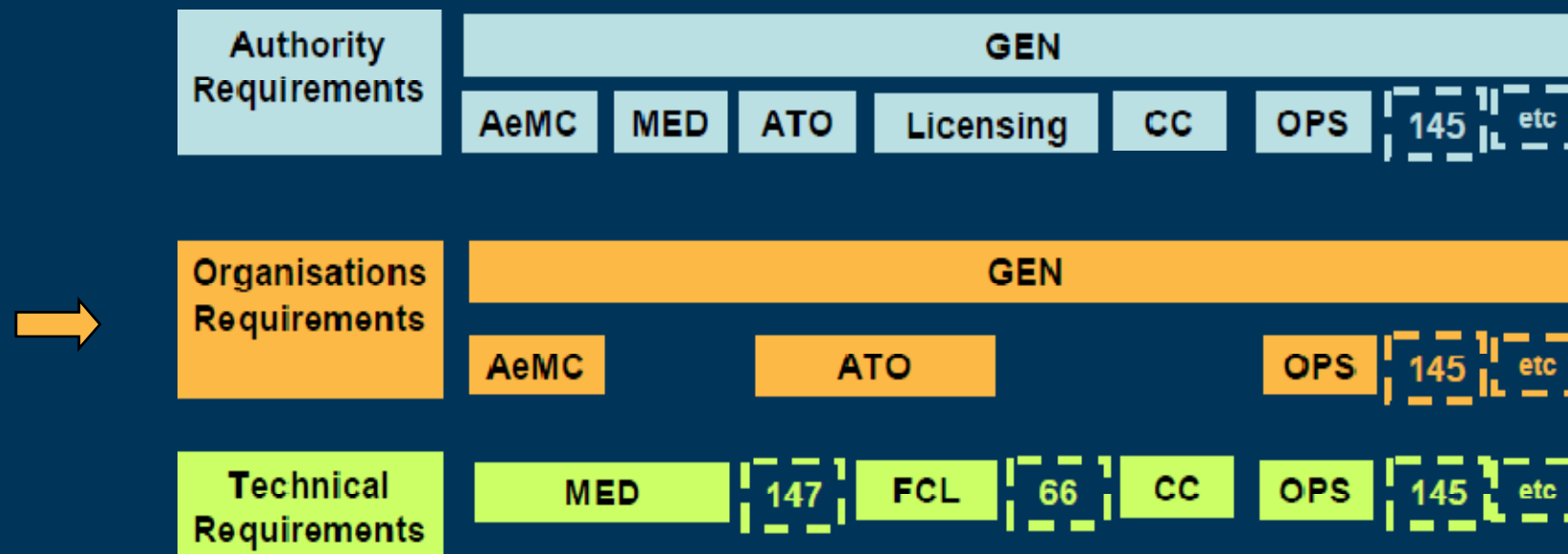


ECAST SMS WG

Terms of Reference

- **Review reference SMS/Safety Culture materials, and ongoing initiatives**
- **Identify best practices and examples of organisation for safety mgt**
- **Compile / provide guidance materials on Safety Risk Management**
 - ✦ **Hazard identification**
 - ✦ **Risk assessment and analysis**
 - ✦ **Risk mitigation and control**

Draft EASA Requirements For Safety Management



- **Organisation Requirements (NPA 22-2008) will provide legal grounds for Safety Management**

'Golden Rules'

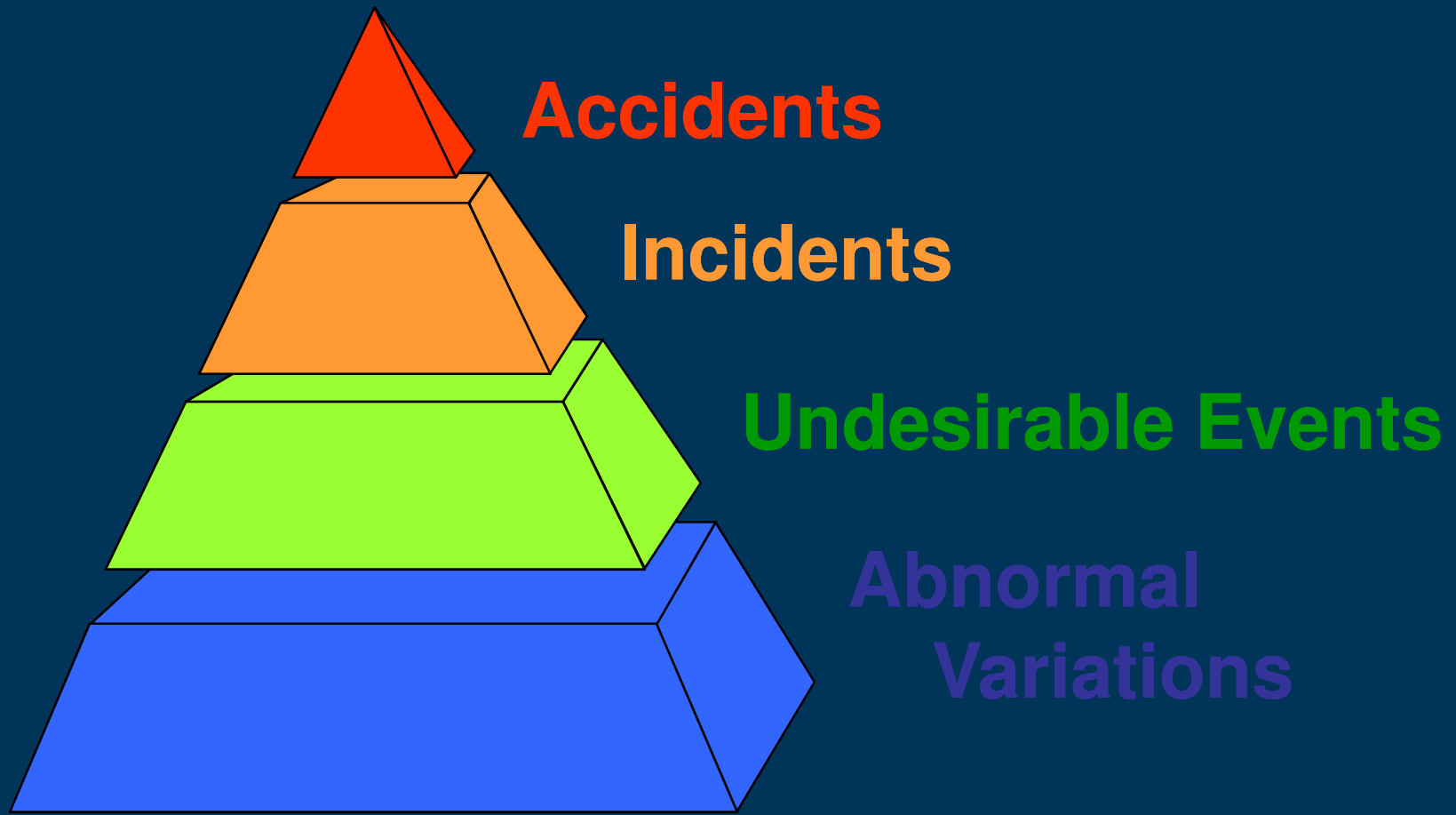
- **1. Full Safety Accountability at the Top**
 - **2. Supported by independent Safety Support Function with full authority from the Top**
 - **3. Individuals within the Safety Support Function should have respect and influence**
 - **4. Formal communications from the Top to the Safety Support Function**
 - **5. Actions necessary to support the SMS should be managed throughout the organisation**
 - **6. Safety accountabilities and responsibilities should be documented and understood by the incumbents**
-

Defining the Community Safety Programme

- **Collaboration between European Commission, EASA and Member States**
- **Authority requirements provide a basis for a CSP**
- **Elements drafted by a small group, to be presented to all Member States**
- **Means to share safety occurrences in place**
- **Trust**

General requirements for competent authorities

- Safety promotion programmes
 - Mutual exchange of information
 - Collective oversight and enforcement
 - Mandatory safety information
 - **Occurrence reporting**
 - Authority management system:
 - ✦ **Policy**
 - ✦ **Staff**
 - ✦ **Compliance monitoring**
-



EASA and investigation

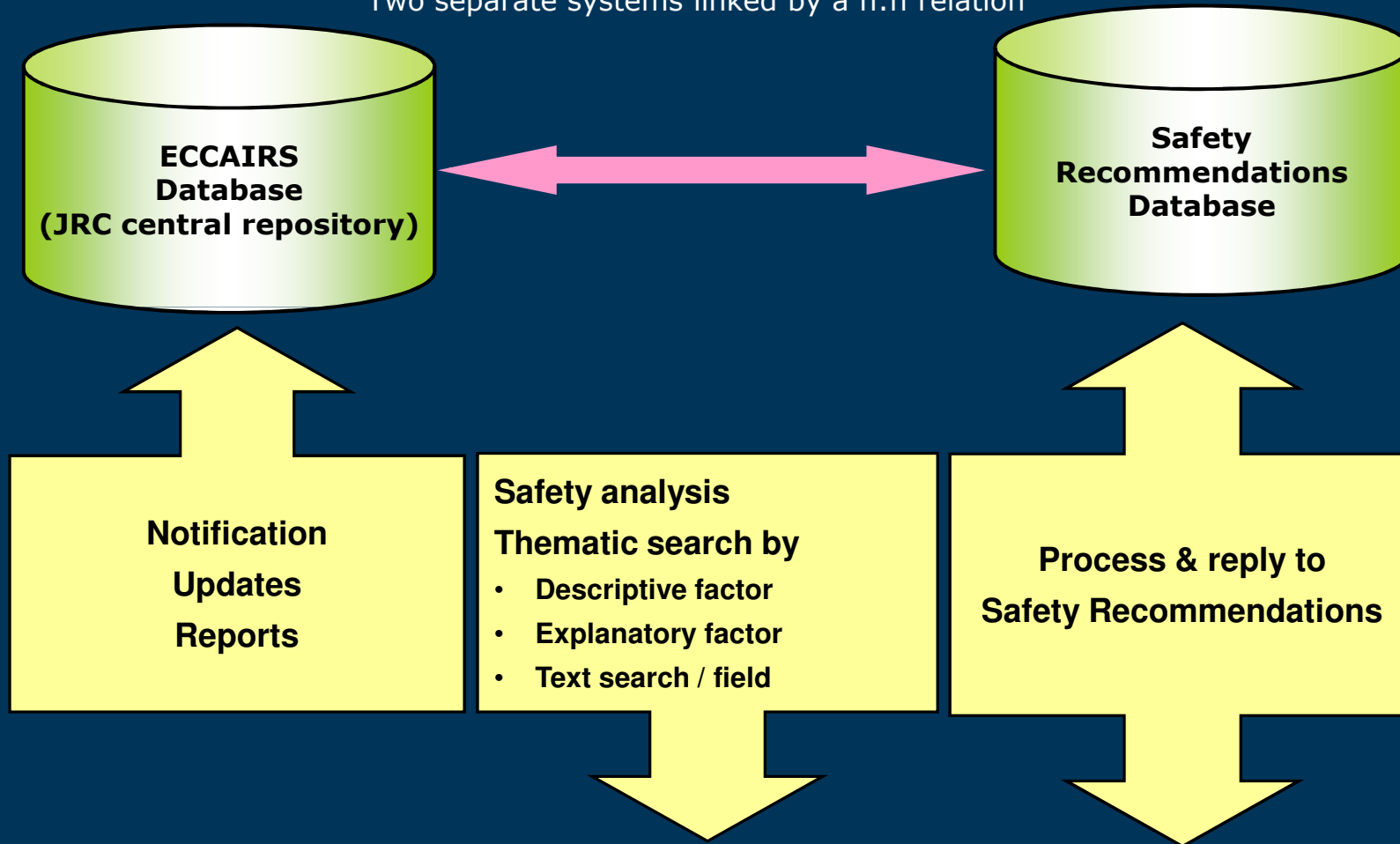
- Has the responsibility to ensure there is a safe European system;
- Participates in AIB investigations, but NOT in the determination of probable cause.
- Determines if any of EASA's responsibilities were involved;
- If needed, initiates corrective action.

EASA and investigation

- Has the responsibility to respond to facts learned in accident investigation with speed commensurate with the risk to continued operational safety;
- We use our Experts to assist in the investigation of accidents, in coordination with the AIB IIC;
- Better training, more standardised participation.

Accident investigation: The European database

Two separate systems linked by a n:n relation



The End



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EASA

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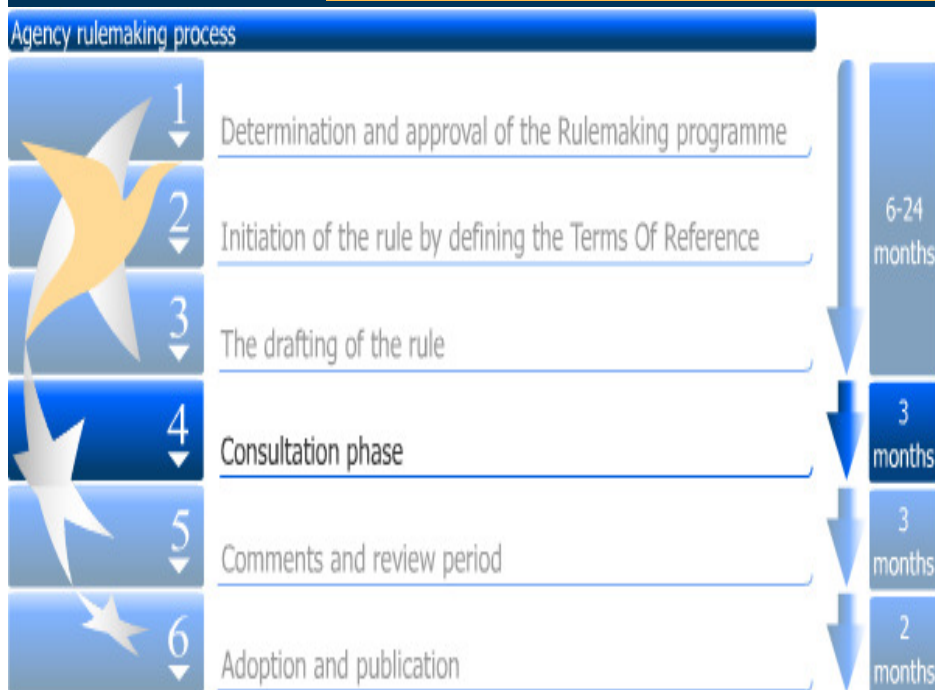
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Annex

EASA / EC Rulemaking planning



**AR/OR
Gen+FCL+MED**

**AR/OR
OPS**

Nov 08-Feb 09	Feb 09-May 09
Mar-May 2009	Jun-Aug 2009
Jun-Jul 2009	Sep-Oct 2009

Then EC Comitology Process (for the Implementing rules)

Publication expected from May 2010

Bow Tie representation

