

Resolving the organizational accident

Future Sky Safety Project P5

Barry Kirwan

EUROCONTROL

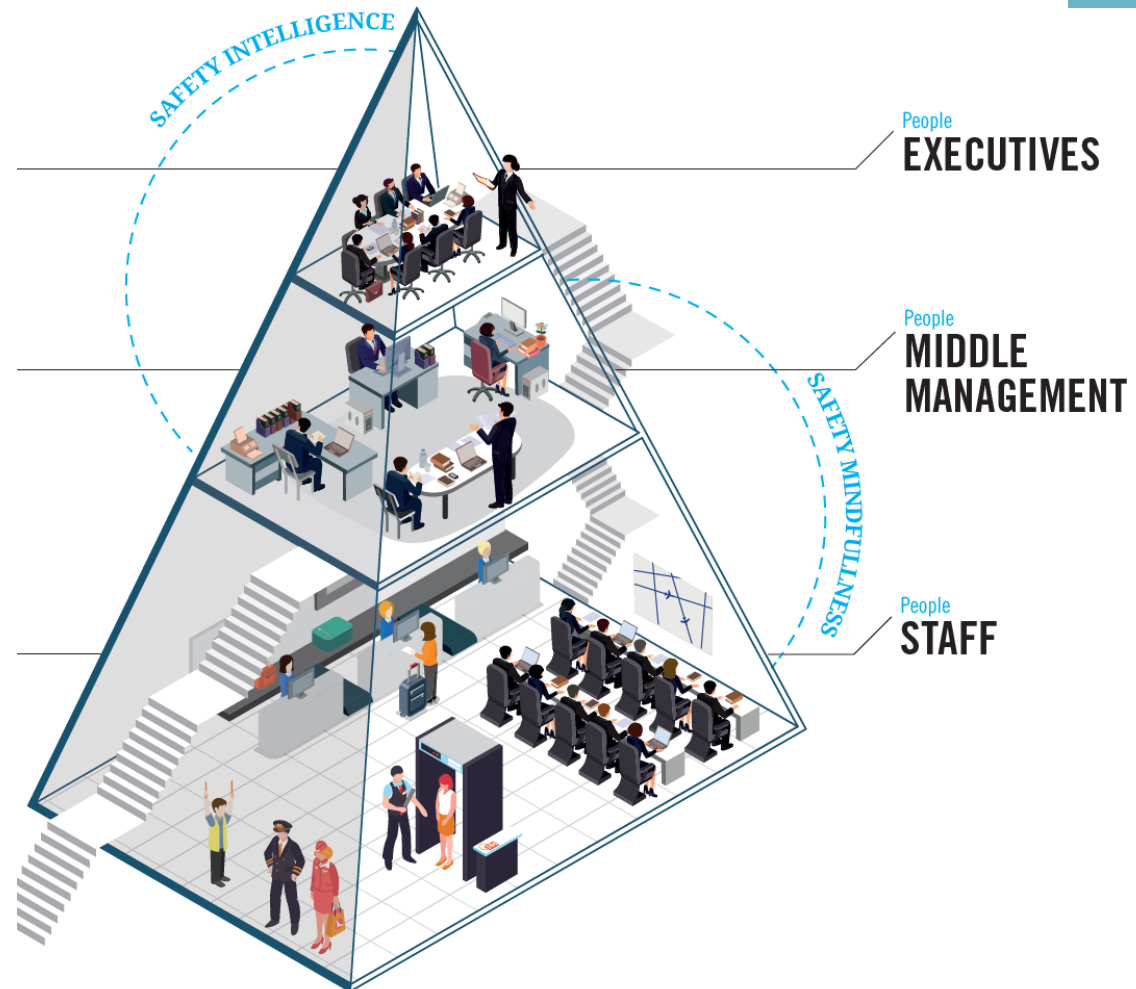


P5

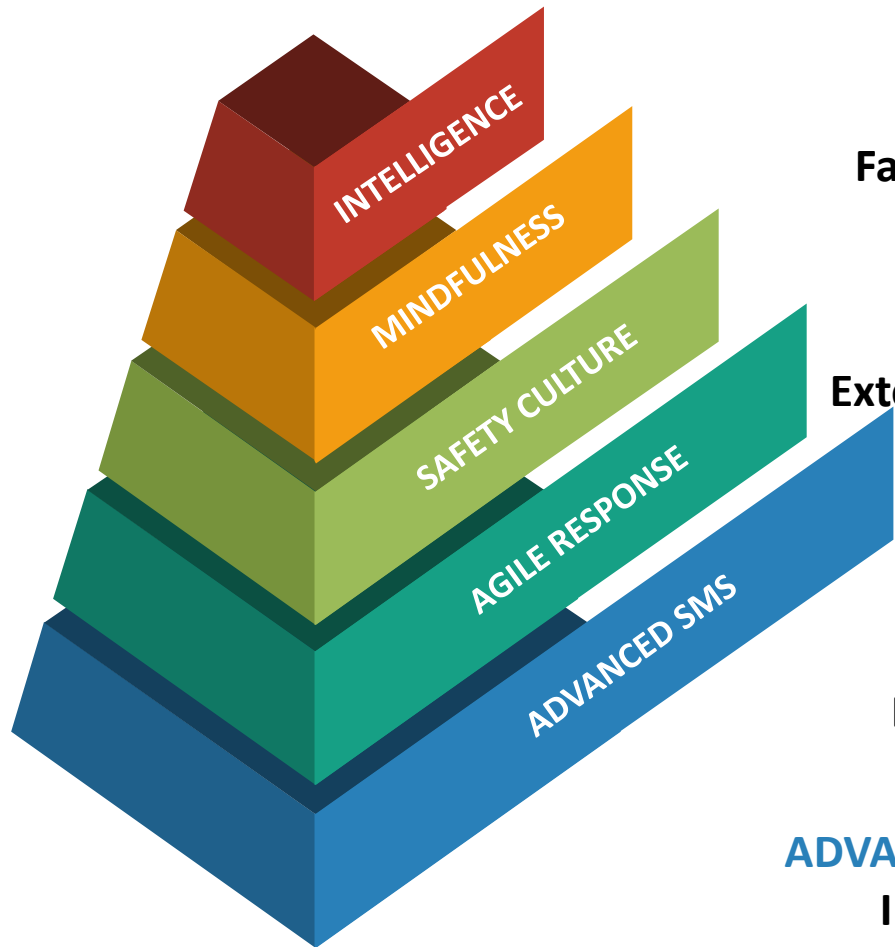
Resolving the organizational accident



- Many accidents in complex systems have their roots in organisational factors.
- With increasing cost pressures, more agile business models, new entrants...
- How do we support aviation organisations in managing this source of risk?



P5 Resolving the organisational accident



SAFETY INTELLIGENCE AT THE TOP

Ensuring that Executive Board and senior managers lead safety



MINDFULNESS

Fast and effective transmission of safety info at the operational layer



SAFETY CULTURE BEYOND ATM

Extending ATM's successful safety culture approach to the rest of aviation



AGILE RESPONSE TO CRISES

Ensuring we are prepared for pan-European crises affecting the Network

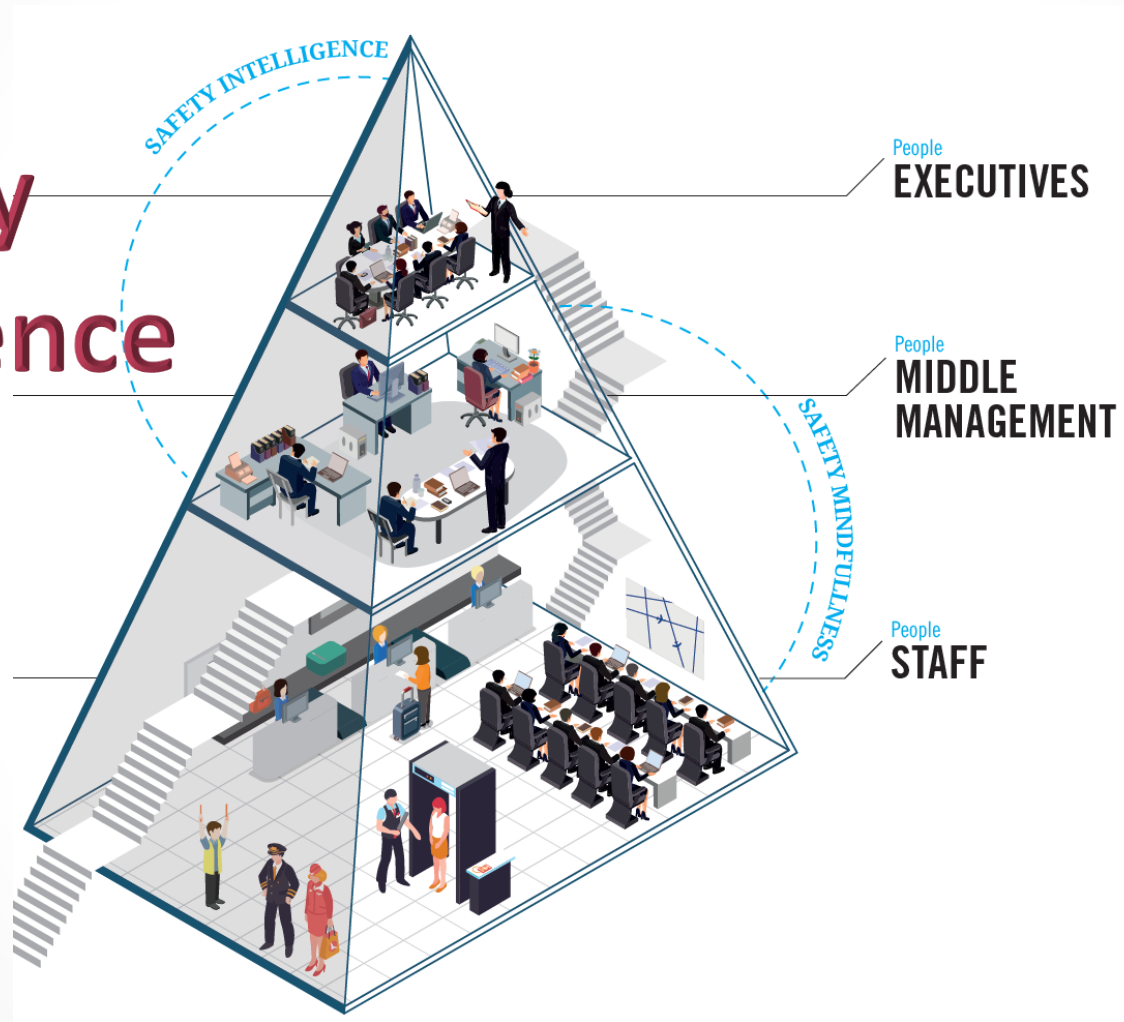


ADVANCED SAFETY MANAGEMENT SYSTEM

Integrating the above into current SMS frameworks



Safety Intelligence



WP1 Safety at the Top

FUTURE SKY SAFETY



Keeping the aviation industry safe
Safety Intelligence and Safety Wisdom

16 aviation industry senior executives reflect on how they run a safe business in a commercial environment

A Future Sky Safety White Paper

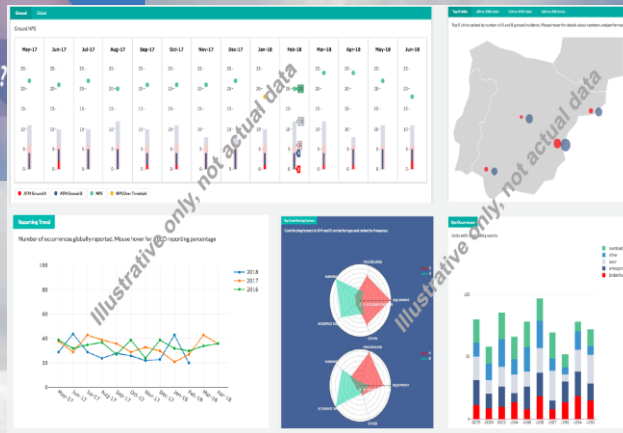
optics

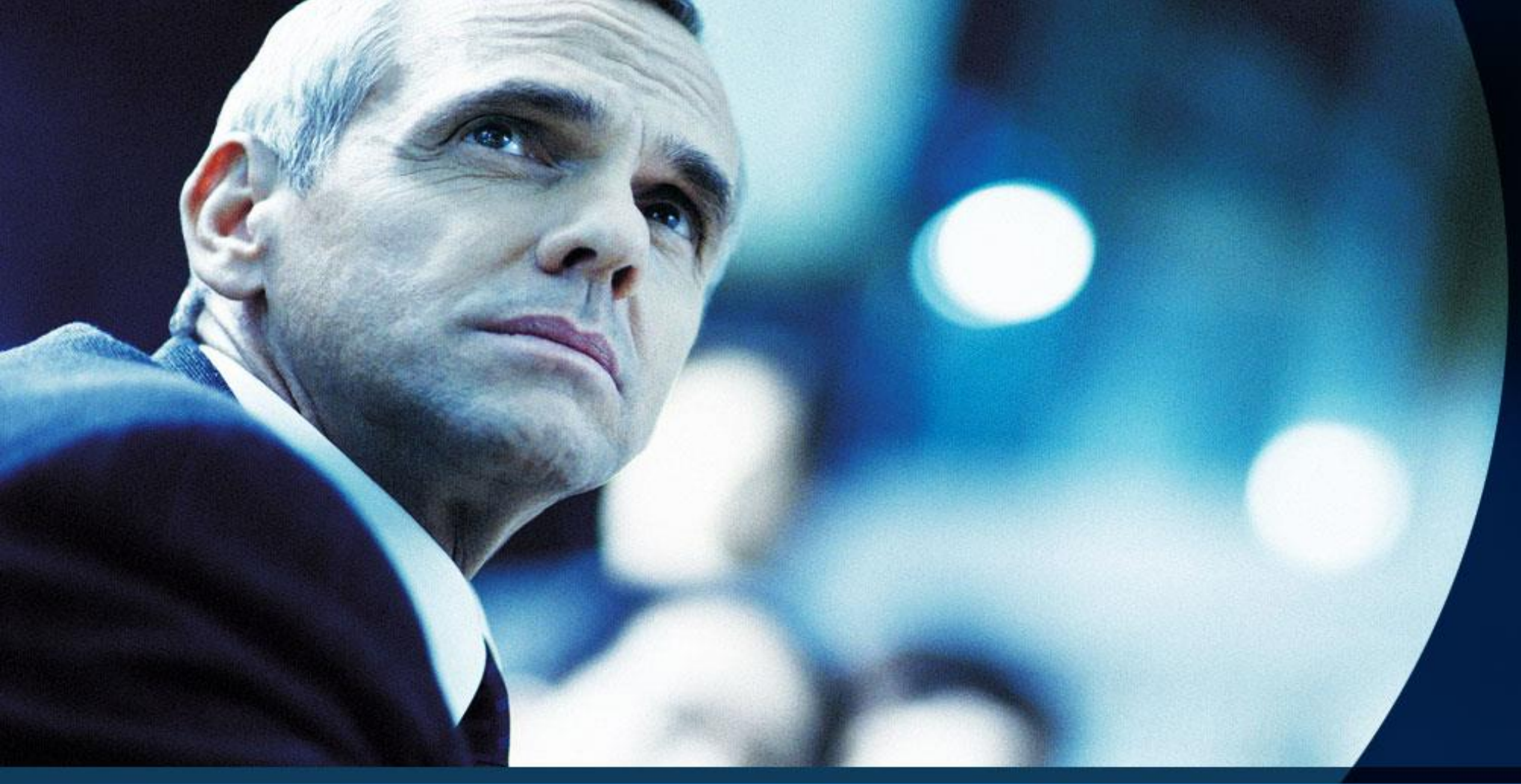


EASA-OPTICS CONFERENCE
on Aviation Safety Research

Do Politics and Safety mix well?

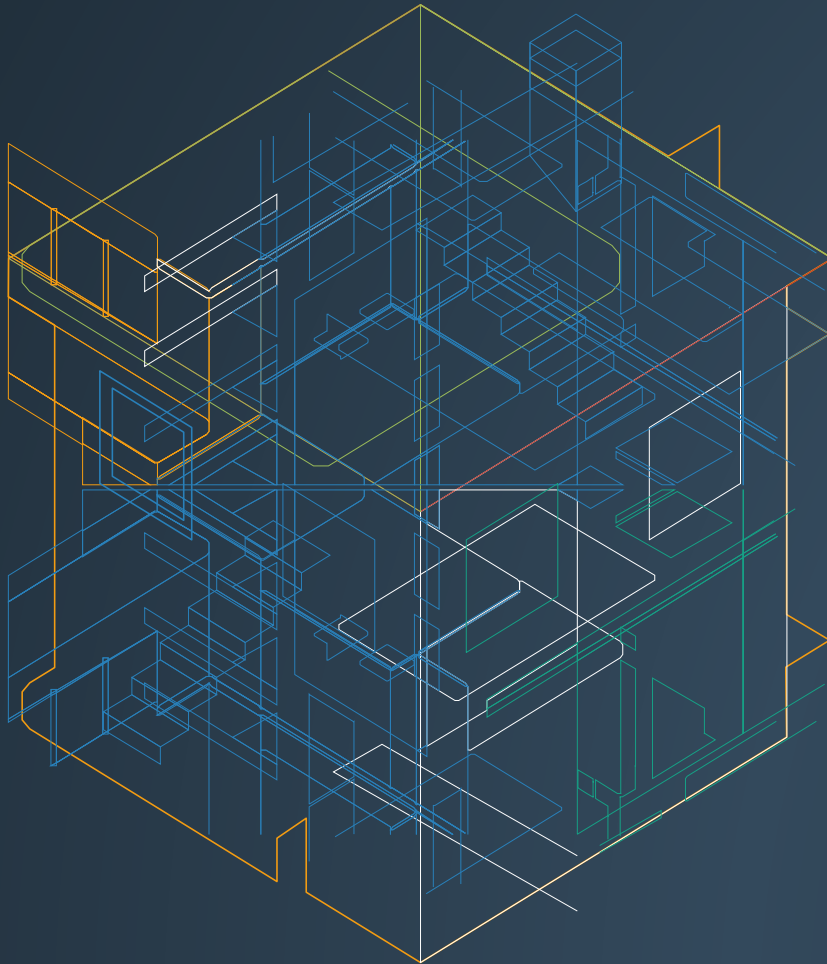
12th-13th April, 2016
Raddisson Blu Hotel | Cologne, Germany





Middle Managers – an unexplored resource
for safety?

How middle managers can take account of safety: A Safety Blueprint



Two hours for safety...

After interviewing 48 middle managers from 10 aviation organisations, a 'training' package has been developed to enable middle managers to reflect on how they take account of safety in their daily activities, and to see how other organisations do so.

The Middle Manager



Mindset

Personal experience & approach to safety



Managing

Managing information, making decisions, influencing others



Working Environment

Organisational focus on safety, support from bosses & peers, procedures/processes



External Environment

Cost pressures, stakeholder relations and expectations, regulatory climate



Personal (non-work)
experience concerning safety

Previous job experience /
exposure to safety

Proximity to operations, or
responsibility for safety-critical
operations

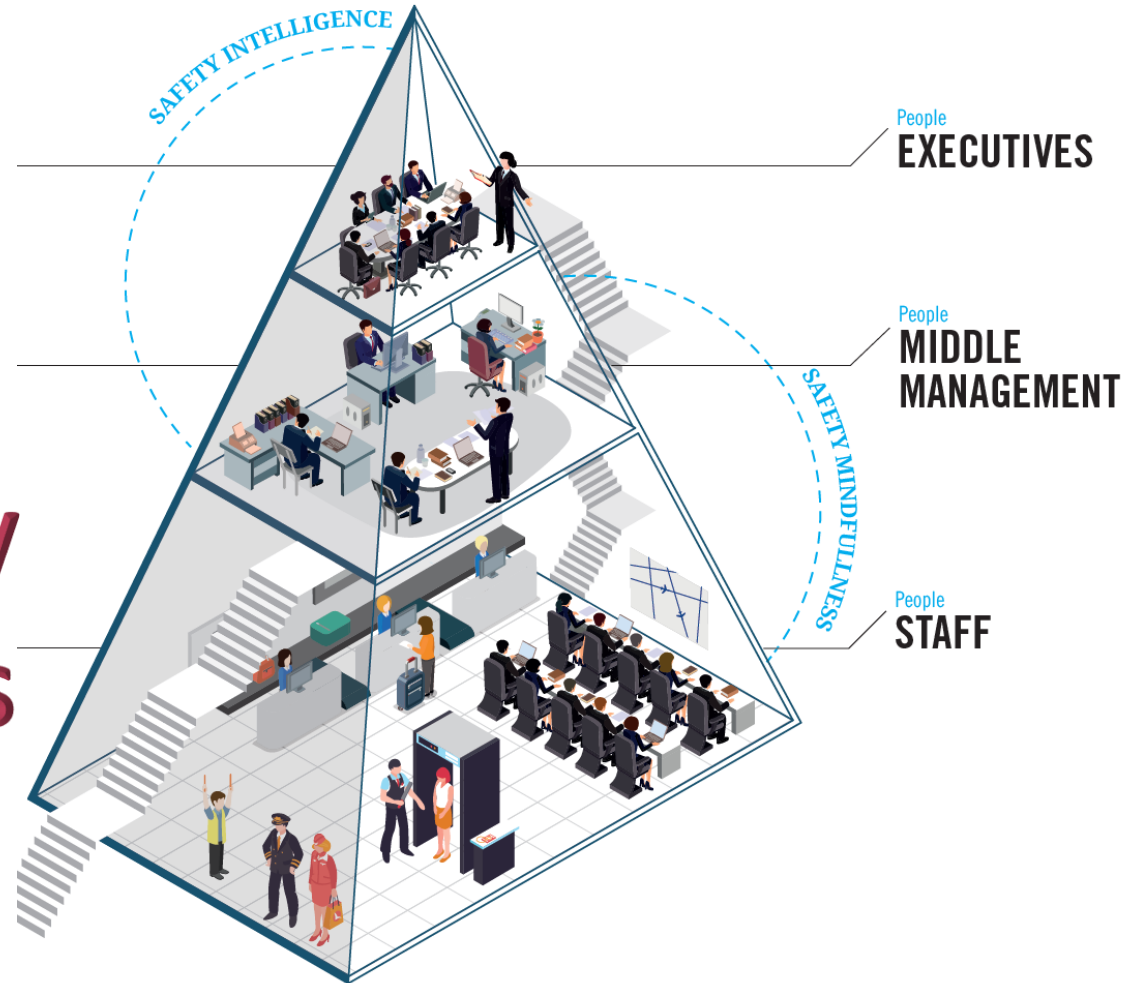
A learning experience – where
you did something wrong...

Your experiences

What makes
safety *real* to you

Something that
has ‘sensitised’
you to safety

Safety Mindfulness



You just saw something
potentially unsafe.

Who do you tell?

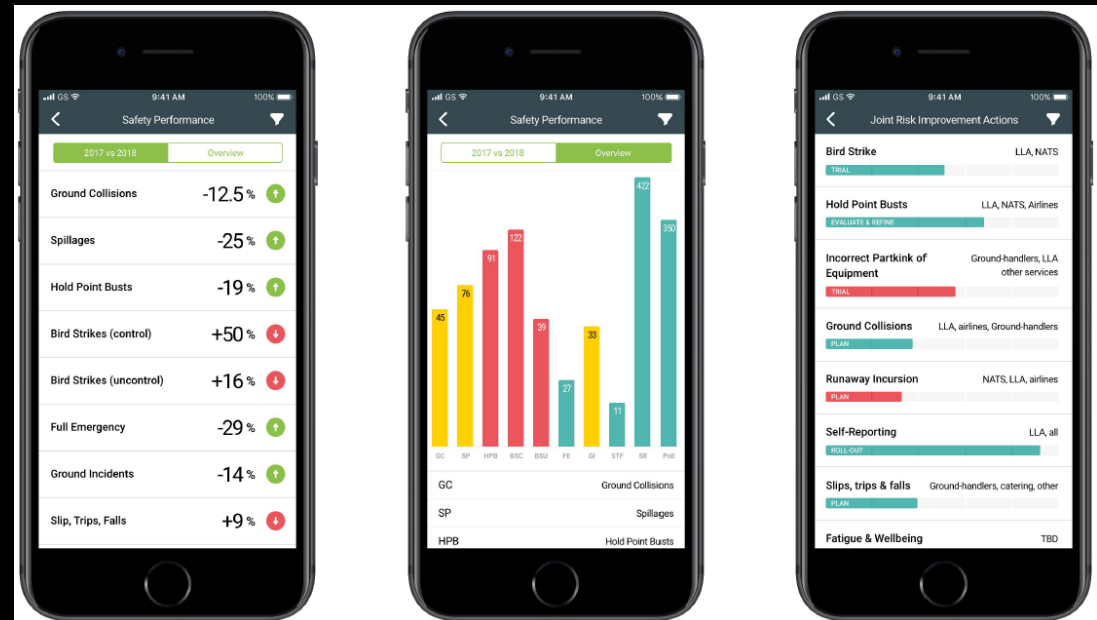


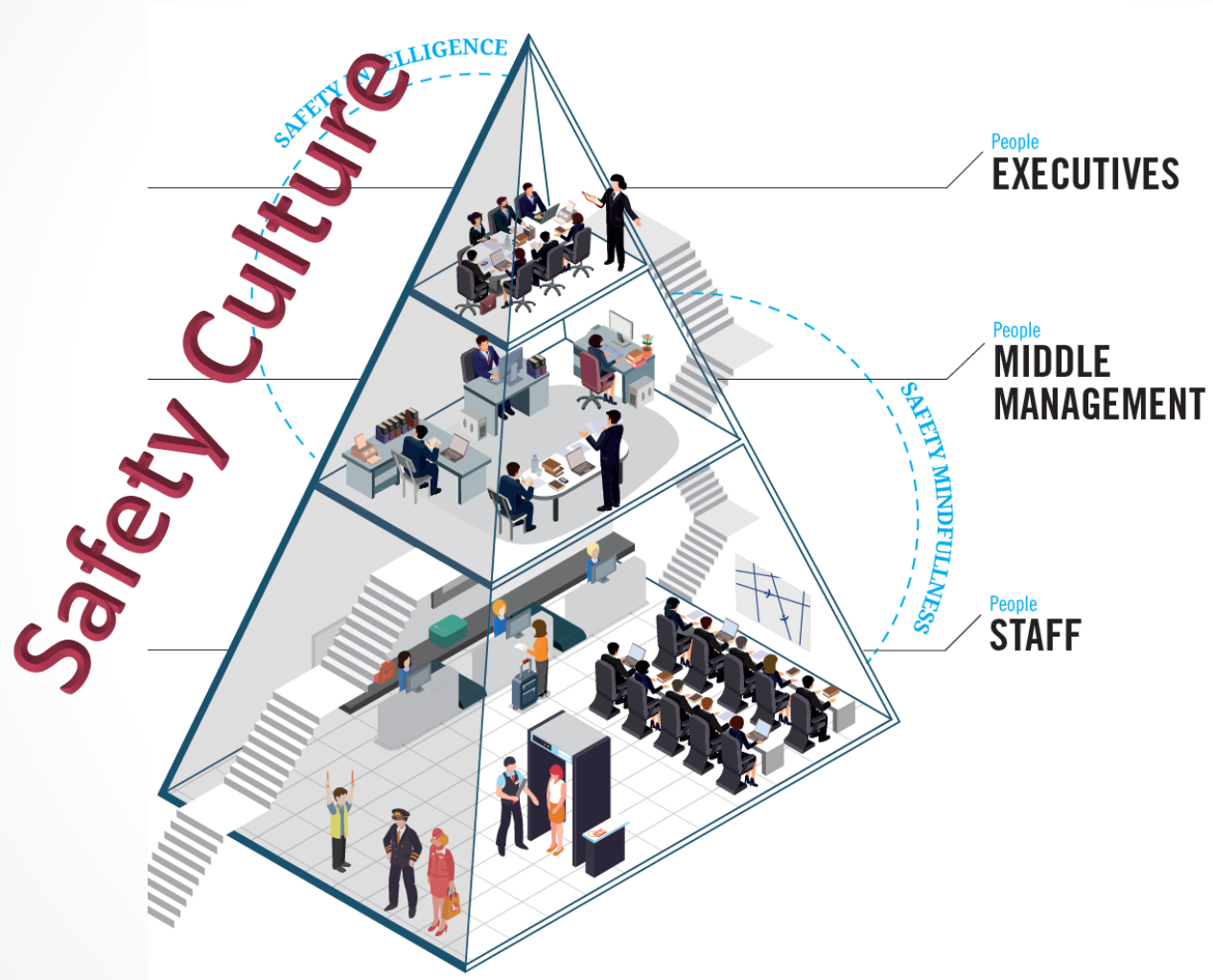
Safety Mindfulness

A safety mindfulness 'app'



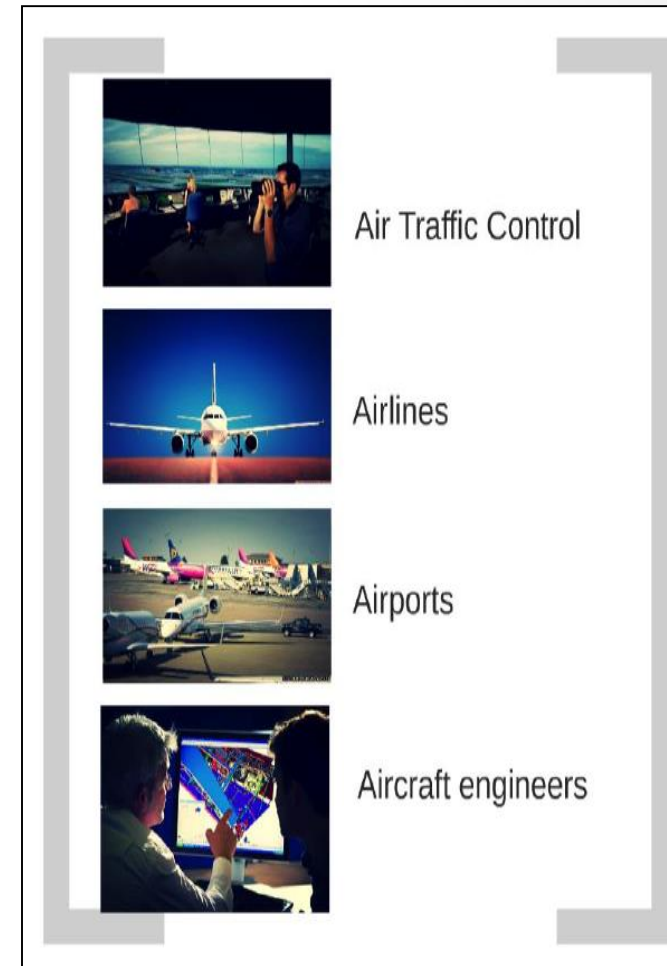
- Working with ALITALIA and MUAC
- An App has been designed, enabling ATCOs to post, update, and retrieve safety-related information useful to help them perform their daily tasks and activities safely.
- LTN also developing an APP





Migrating the safety culture approach from ATM to other aviation segments

- European survey – 7200 pilots
- EasyJet (LTN)
- KLM (Global)
- Airbus design
- Boeing research & technology
- Luton airport (6 organisations)
- Luton Safety Stack: 15 organisations with an ongoing safety improvement programme



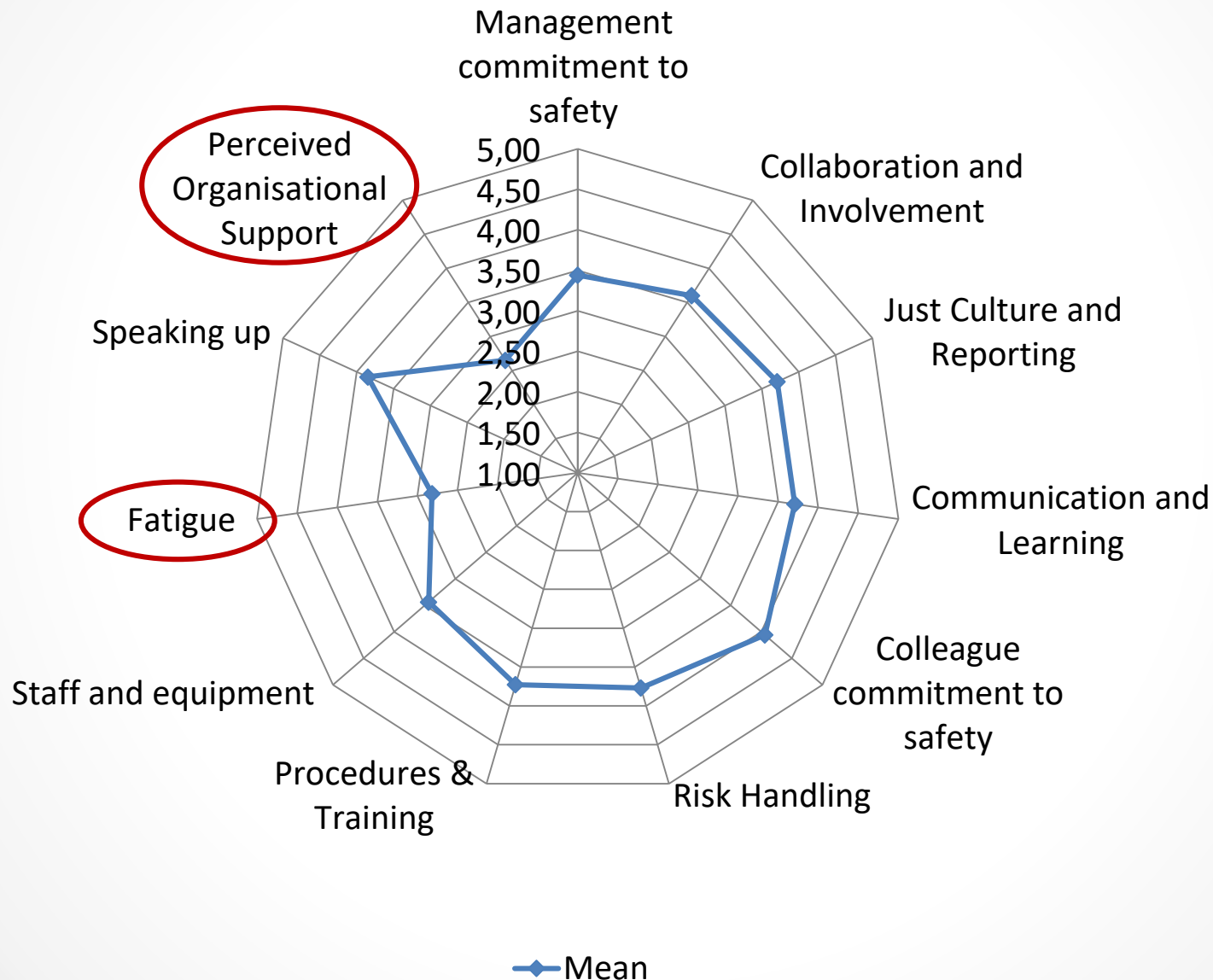
Survey of European Commercial Pilots



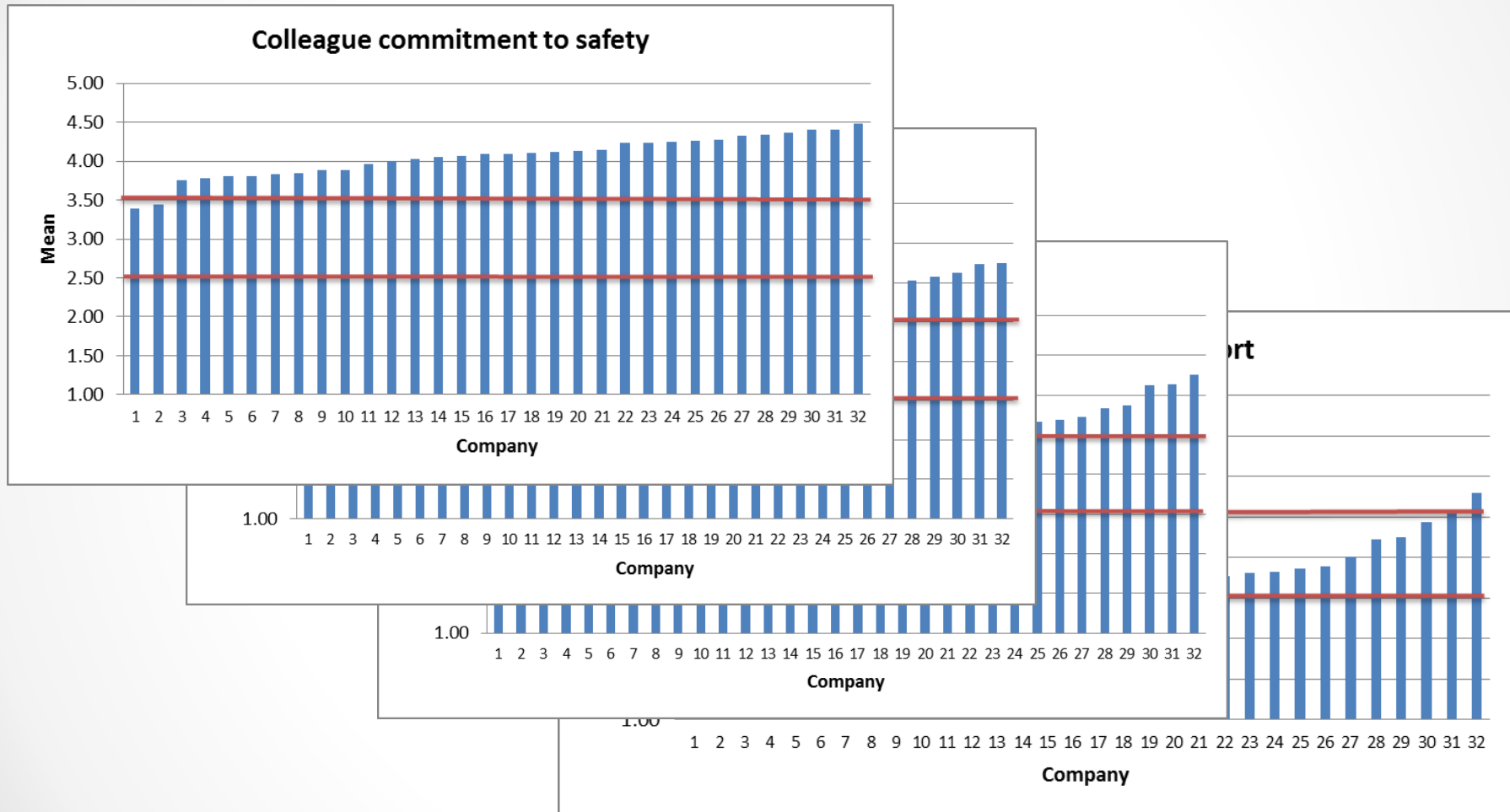
7200 Pilots
17 Countries
33 Companies
*Network, Low-cost,
Charter, Cargo,
Business Jets, S&R,
Helicopter, GA*



Overall Results



Company variations ('N' varies)



Press coverage of survey (Dec 2016)

Press focused on the negative aspects such as Fatigue and atypical contracts.

EASA now re-assessing their Flight Time Limitations regulations (FTLs) for pilots

Study has influenced EASA guidance on new business models in aviation

More than half of airline pilots 'fly w



Graeme Paton Transport Co

Passengers are being put at risk by a shoddy airline safety regime, say researchers who have urged airlines to take control of their pilots' fatigue.

In what is billed as the biggest study of its kind into commercial flight, academics have warned that airlines may be guilty of cutting corners to meet demanding schedules.

The researchers, by the London School of Economics (LSE), found that pilots were often tired at work and that airlines did not take fatigue into account. Companies also treated pilots as troublemakers, they said.

The conclusions, based on a survey of more than 7,200 pilots across Europe, raised concerns that pilots were overworked, particularly by airlines that often schedule them on multiple flights in the same day.

Fifty per cent of pilot fatigue was "not taken into account" by their company and 58 per cent of their pilot colleagues were "not taken into account" at work. More than 25 per cent of pilots said there was insufficient "staffing to work safely", and about 20 per cent suggested that they were feeling unwell.

The researchers said that pilots felt they were not given the chance to practise their skills and 22 per cent said that maintenance teams were unable to "repair" technical problems.

The British Airline Pilots' Association (BALPA) said previous regulations were being forced to work more than 20 hours without

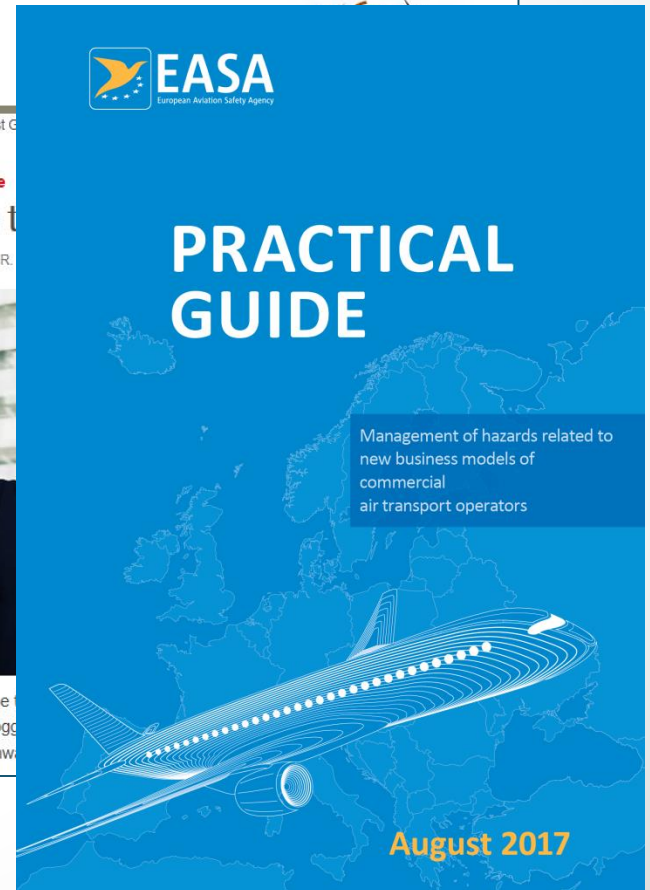
Gulliver Business travel

Waking up to fatigue Pilots are t

Dec 8th 2016, 14:05 BY B.R.



A RARE tragedy came to an end as a foggy day cleared and a British Airways jet on the runway.

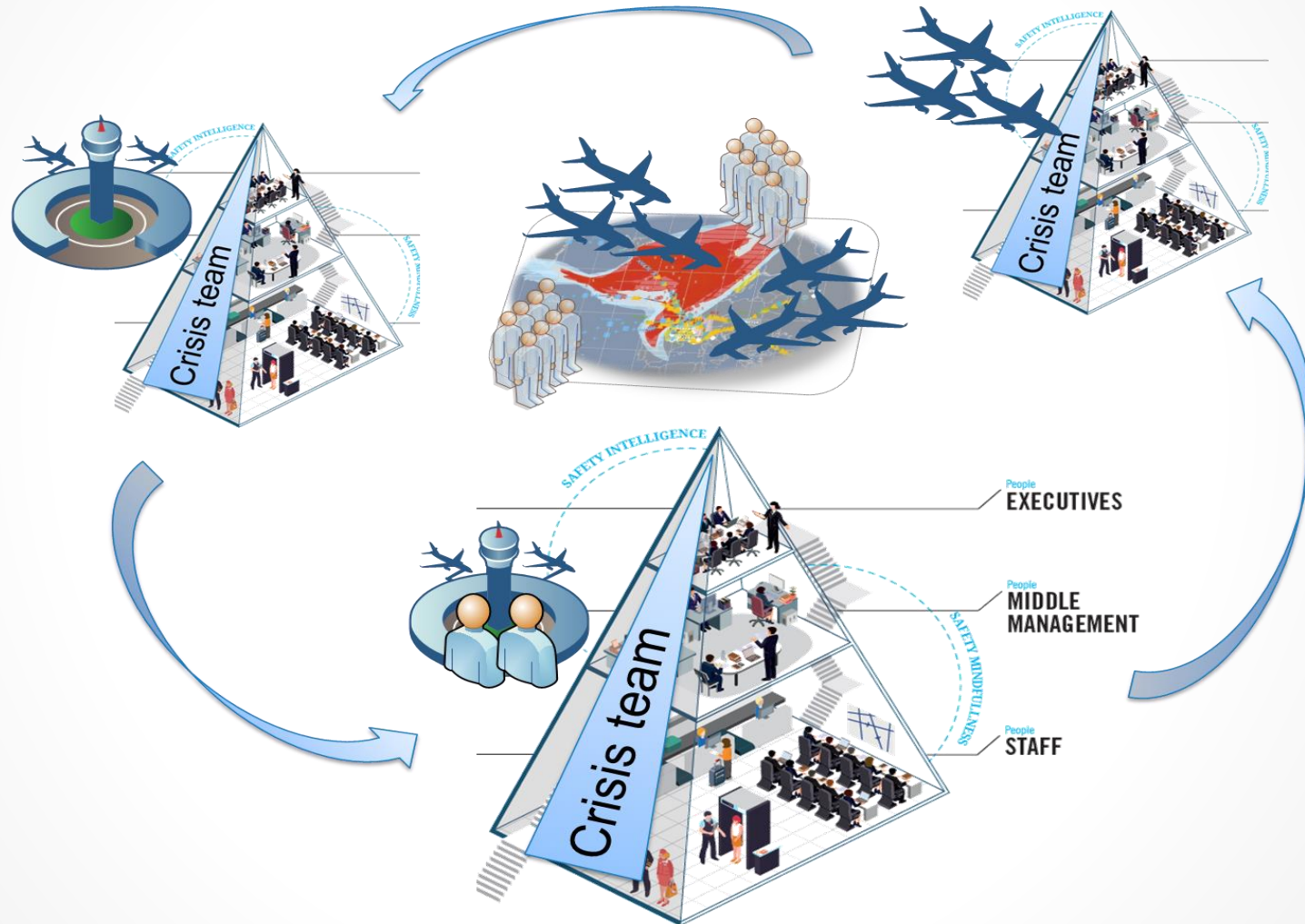


Agile response capability



Organisations working together effectively in a crisis

Agile Response in Crises

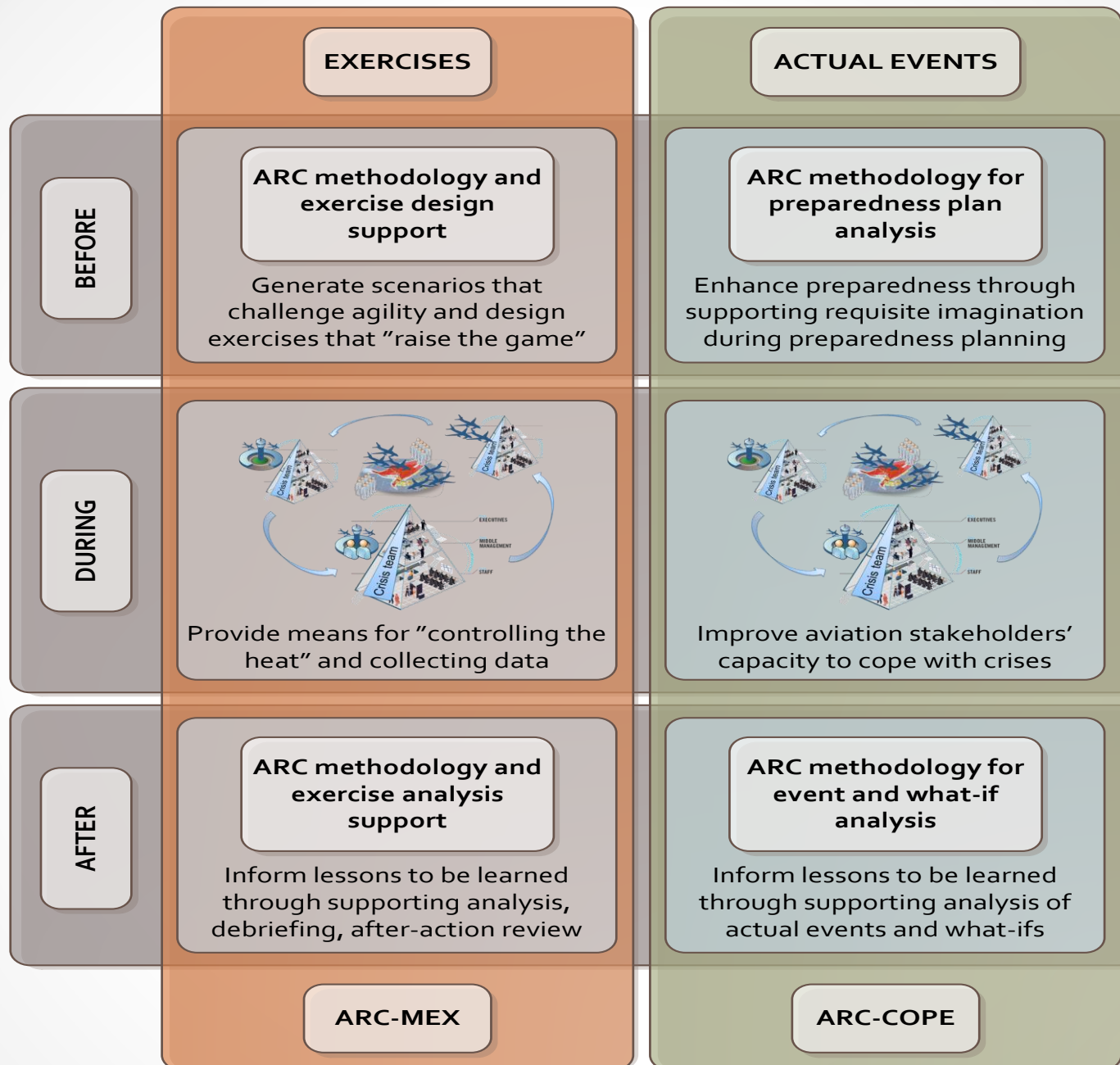




Raising the heat, Raising our game



- Moving beyond "need to have regular exercises"
- Moving from individual competence to **organizational resilience**
- Creating **challenging exercises**
- Increasing **learning opportunities** of exercises and actual crises
- Enlarging the **comfort zone** by gaining experience through exercising and learning
- **Better preparedness** and crisis management, managing and mitigating adverse events that could impair safety

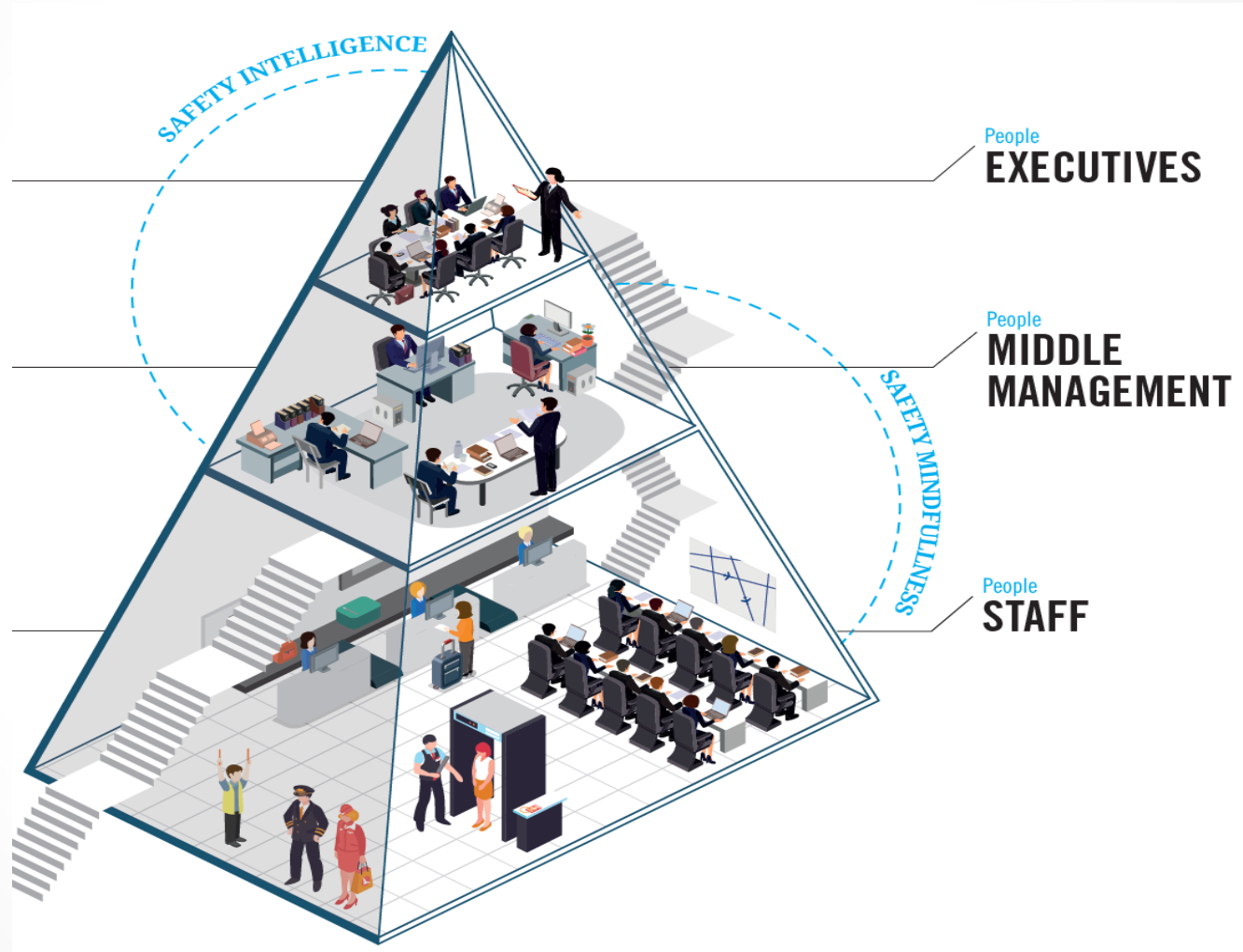


P5 Portfolio

Safety Wisdom
Safety Dashboard

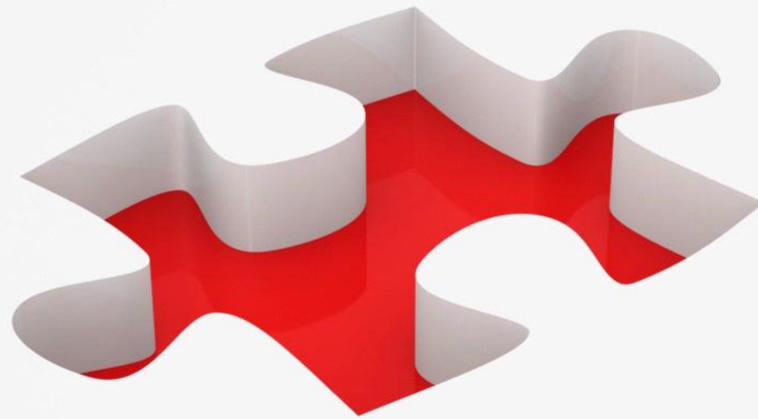
Safety Blueprint
Safety Dashboard
Agile Response
Safety Culture
Safe Performance System

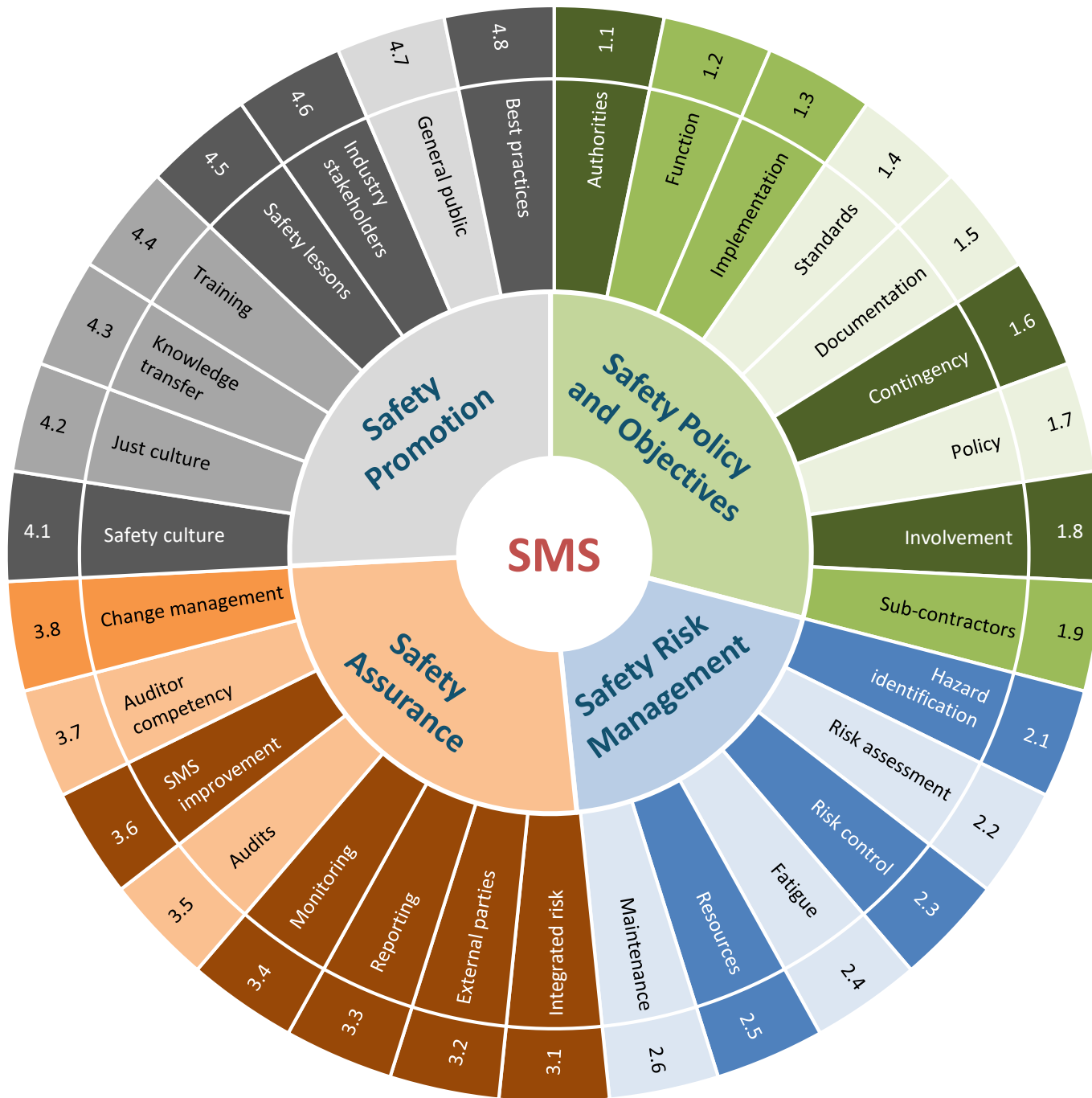
Safety Culture
Safety Stack
Mindfulness App



FSS P5 on Final Approach...

How to put all these products together...







WWW.SAFEORG.EU

A one-stop portal for P5 Products

A person wearing a high-visibility vest and a headset is seen from the back, looking at a tablet. In the background, there is an airplane on a tarmac with other ground crew members visible.

WELCOME TO

SAFEORG

TOOLS FOR ORGANISATIONAL SAFETY

Tools for every actor in your organisation

SAFEORG is a toolkit that aims to support aviation **Executives**, **Managers** and **Staff** improve safety and safety culture in their organisations. It is the result of a combination of scientific field studies over a period of four years, involving a diverse range of aviation companies including airlines, air traffic organisations, airports and airframe manufacturers, carried out under the umbrella of the EC's flagship **Future Sky Safety Project**. The tools can be used alone or in combination, and are described on this website with links to supporting material, as well as offering further support if needed.





IMPACT

- P5 is breaking new ground
- We have strong industry engagement which means the products are realistic and useful.
- SAFEORG is the portal for all our products – it will be periodically updated as we work with new Partners and develop new tools
- In the end, we can't claim to have resolved the organisational accident, but we can better equip companies to help them manage organisational safety risks.





Consortium

Stichting Nationaal Lucht- en Ruimtevaartlaboratorium
Deutsches Zentrum für Luft- und Raumfahrt
Office national d'études et de recherches aérospatiales
Centro para a Excelência e Inovação na Indústria Automóvel
Centro Italiano Ricerche Aerospaziali
Centre Suisse d'Electronique et Microtechnique SA
Institutul National de Cercetari Aerospatiale "Elie Carafoli"
Instituto Nacional de Técnica Aeroespacial
Výzkumný a zkušební letecký ústav, a.s.
Totalförsvarets FOrskningsInstitut
European Organisation for the Safety of Air Navigation

Civil Aviation Authority UK
Airbus SAS
Airbus Operations SAS
Airbus Defence and Space
Thales Avionics SAS
Thales Air Systems SA
Deep Blue SRL
Technische Universität München
Deutsche Lufthansa Aktiengesellschaft
Service Technique de l'Aviation Civile
Embraer Portugal Estruturas em Compositos SA

Russian Central Aerohydrodynamic Institute TsAGI
Ente Nazionale di Assistenza al Volo Spa
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Koninklijke Luchtvaart Maatschappij
Sistemi Innovativi per il Controllo del Traffico Aereo

<http://www.futuresky-safety.eu>

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