SMS – A Safety Manager's Perspective

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FLIGHT PLAN

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- Outcome vs. Output Focus
- Risk Management – The Cornerstone
- How Safety Intelligence is Developed
- High-Reliability Organisations – Challenges and Thoughts
- How Safety Intelligence is Used – Assurance & Improvement
- Operational Safety (SMS) and Occupational H&S
- Capability – It's About People
- Safety Culture – It's About People Too
- SMS Maturity – Looking Forward

SAFETY EQUATION

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OUTCOME vs. OUTPUTS

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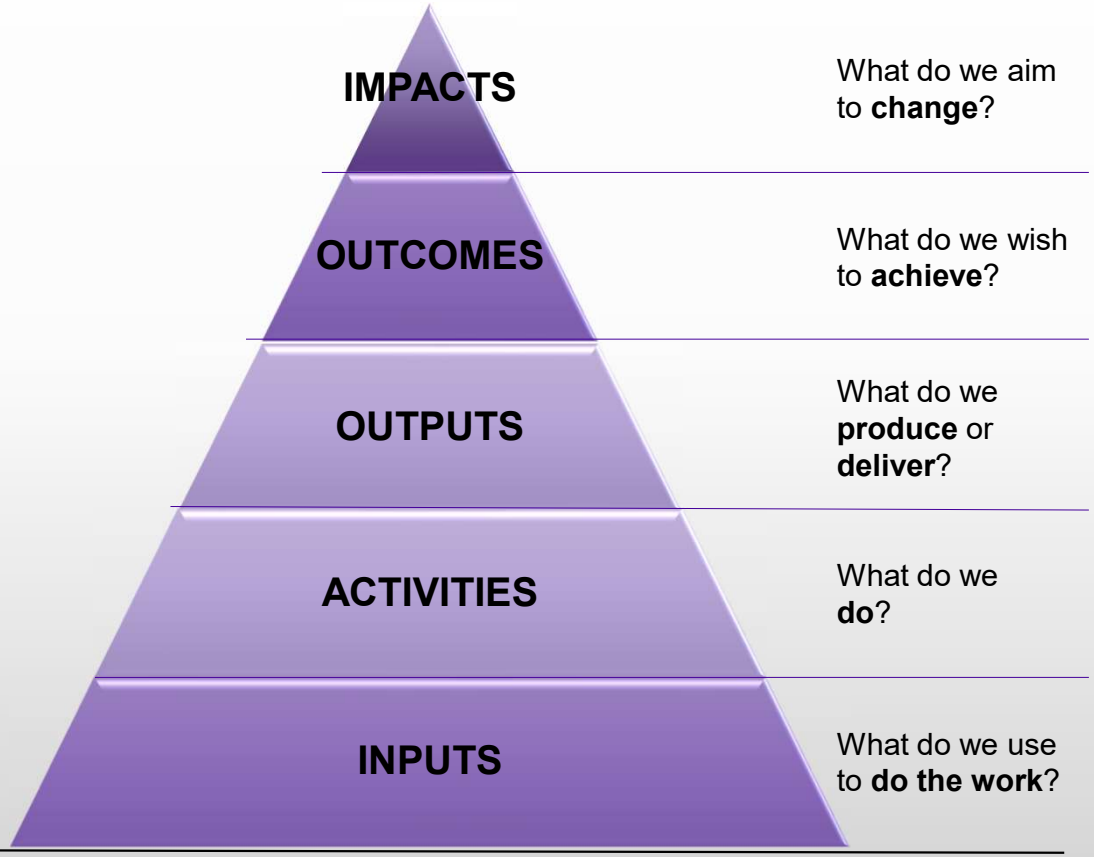
- Focus on those things which result in meaningful safety improvement
- How do you know?
- Benefit lens
- Target resource to risk
- People understand how their work connects with the desired outcome
- Safety Goals and Objectives



SMS and RISK MANAGEMENT

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Safety Management System (SMS) in four simple questions:

- What is most likely going to cause your next accident/incident?
- How do you know that?
- What are you doing about it?
- Is it working?

From William R. Voss, *Flight Safety Foundation*

Safety Risk Management

- What are the safety risks affecting the operation?
- What am I doing to effectively manage these?

Risk Management is the cornerstone of SMS

SAFETY RISK MANAGEMENT TOOLS

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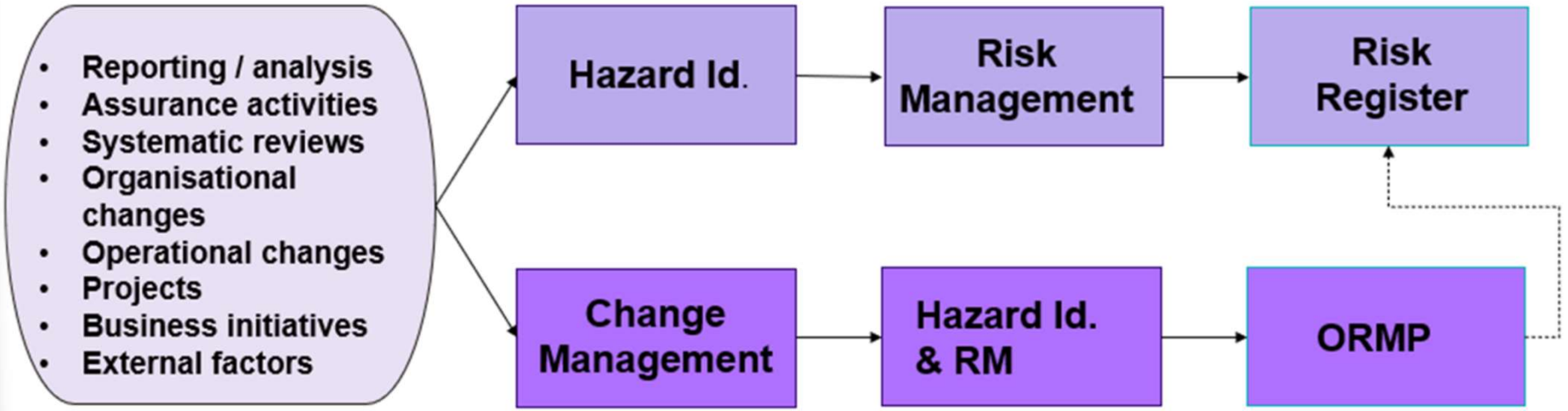
Risk Register for 'enduring' risks



ORMP for change or transient risks

SAFETY INTELLIGENCE - CREATION

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- **Internal data sources**
  - Passive – data-led
  - Active – focused search
  - AI / Machine learning
- **External data sources**
  - OEMs
  - Safety Reports
  - Sharing information
  - IATA
- **Analysis**
  - Coalescing data
  - Statistical principles
  - SME Input
  - Emerging and monitoring

Lagging (reactive)	**Leading** (proactive / predictive)	**Perspective** (interactive)	**Capability** (review)
- Occurrence Reports	- Hazard identification / reporting	- Improvement reports	- Safety Strategy / Plans
- Safety Reports	- Analysis, trending, benchmarking	- Observation, engagement, 4Ts	- SMS, HSEW MS Annual Reviews
- PS Incident, Security Reports	- Risk Classification, precursors	- Team meetings, SWA, BBS	- Resources
- Safety Performance Indicators (SPIs)	- Change Management	- HSR perspectives	- Policy, Process, Procedure
- Safety Investigation	- Risk Assessment, Risk Management, RCE Review	- Safety Scrums	- People Competency / Capability
- GSIRP	- Critical Risk Gap Analysis	- Employee Surveys	- Training Programmes
- Audit (1) – Self Assessment	- Aircraft Trend Analysis	- Feedback (e.g., training)	- Business Systems (e.g., DOI)
- Audit (2) – Internal / Interdependent	- Contractor Assessments	- Customer Surveys	- Information flows
- Audit (3) – External	- Quality & Safety Reviews	- Safety Promotion (readership)	- PREQUAL Assessments
Management Review: ASMB, MSMB, GSRB, BHSSC etc			

HIGH-RELIABILITY OPERATIONS

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HRO

- Weak signals
- Early warning signs
- Vigilance
- Precursors
- Event Risk Classification (ERC)
- Creating a reporting, learning environment
- Talk to your people

HROs – LOOKING DEEPER

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Known Knowns	Things (risks) we are aware of and understand.	• Manage these risks • Risk is dynamic so monitor and review
Known Unknowns	Things (risks) we are aware but don't understand. Expected or foreseeable conditions which can be reasonably anticipated but are not [yet] qualified or quantified.	• Seek further information to understand the risk. • Investigation, data analysis, risk assessment
Unknown Knowns	Things (risks) we are not aware of but understand. Our blind spots.	• Invite diverse perspectives and challenge. • Seek feedback. • What might someone else know? • Maintain a 'chronic unease'. • Avoid or test assumptions. • Follow instincts and intuition.
Unknown Unknowns	Things (risks) we are neither aware of nor understand. Rare and unexpected conditions which pose a potentially greater risk because they cannot be anticipated based on past experience. Includes Black Swan risks/events.	• Think further ahead and explore scenarios • Build capability and competency for managing new/emerging risks • Good planning – leave capacity to deal with the unexpected • Use data/intelligence to detect and amplify weak or early signals • Exercise and test – build readiness/resilience

SAFETY INTELLIGENCE - APPLICATION

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Assurance

- What is happening in practice
- Risk Control Effectiveness

Improvement

- Management Review
- Actions – the “doing”

Monitoring

- Monitoring data/trends
- Deep dive (investigations, audits, reviews)
- Talking with leaders and front-line personnel – is what you are seeing in data aligning with what they are experiencing in the operational environment?
- Focus: is it working?

OPERATIONAL SAFETY AND OCCUPATIONAL H&S

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- Collaboration
- Harmonisation
- Integration
- Initiatives
  - People/user focus
  - Reporting systems
  - Combined strategy and ‘Safety Roadmap’
  - Combined safety goals and objectives
  - Combined safety promotion

SAFETY CAPABILITY

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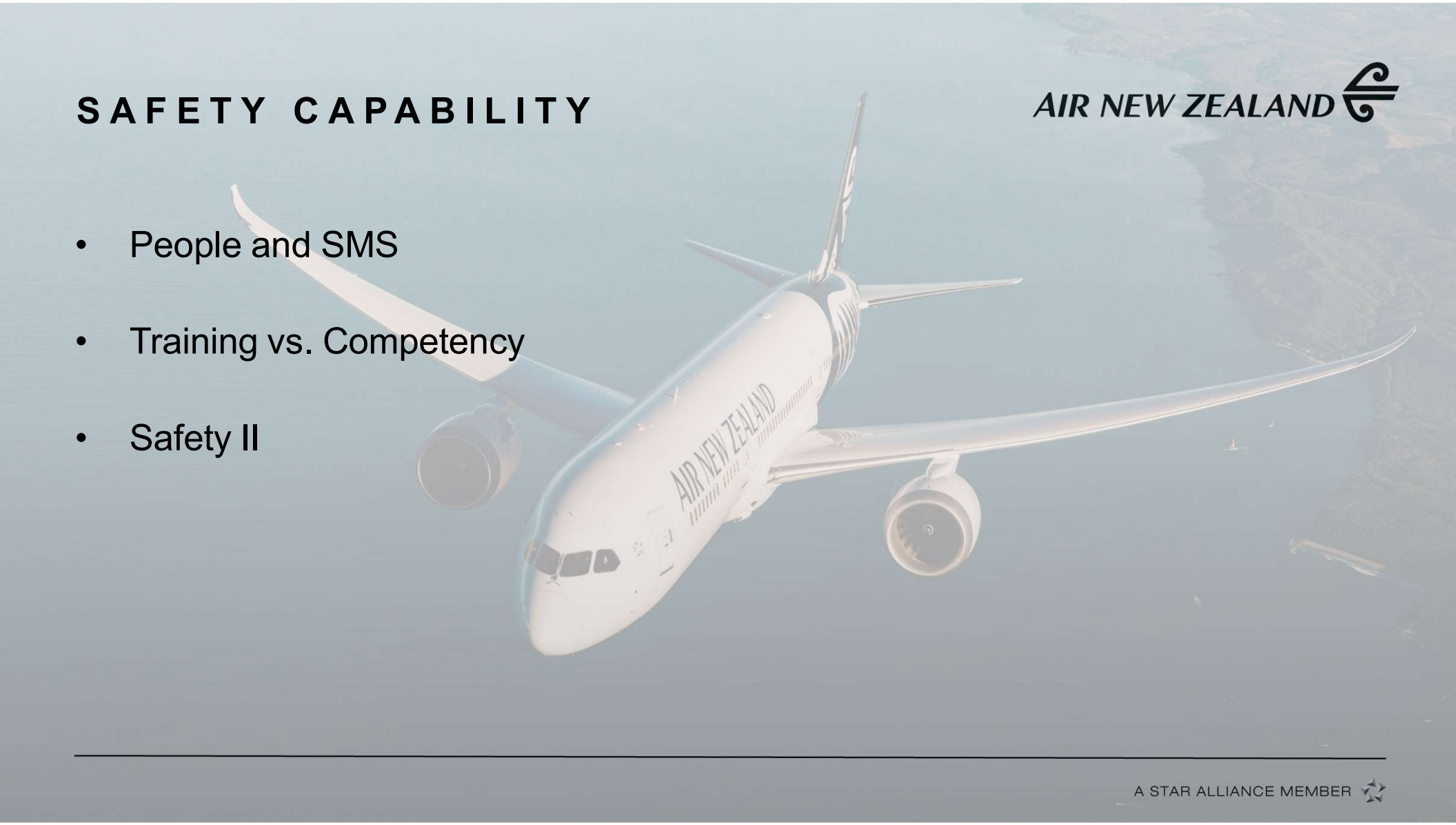
- People and SMS
- Training vs. Competency
- Safety II



SAFETY CULTURE

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What

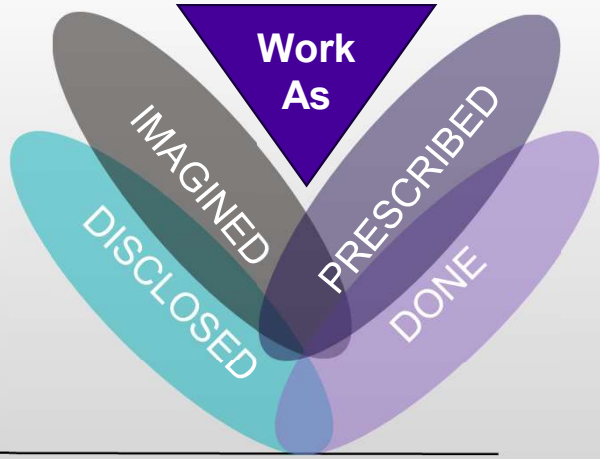
- The safety-related attitude, behaviours, and practices within an organisation, Signifies 'how things are actually done' in the workplace. Reflects the way safety is perceived, valued, and prioritised by individual and groups.
- Is the product of everything an organisation does. However, safety culture can be fostered and improved through communication and actions.

Why

"*SMS is never enough if practiced mechanically, it requires an effective safety culture to flourish*."
Prof. Patrick Hudson

How

- Leaders can foster an environment that has safety as its core value, where employees are encouraged and recognised for adopting a safety mindset.
- Engagement and communication.
- "*The standard you walk past is the standard you accept*."
- Just culture. Reporting and learning focus.
- Learning – creating enduring change
- Assurance: WAI vs. WAD – how do you know?



SMS MATURITY

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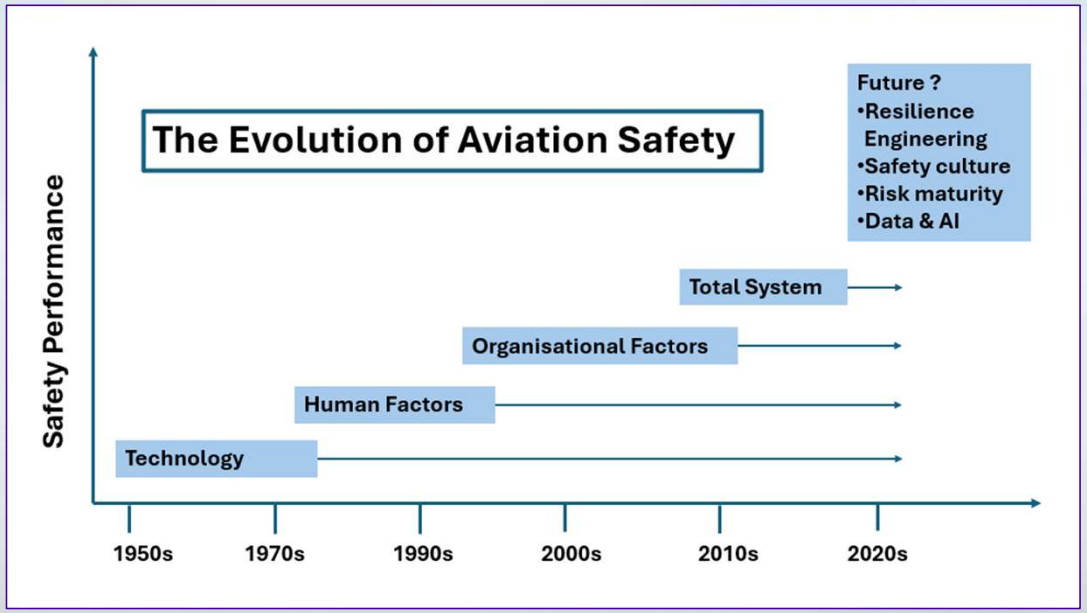
- SMS / Safety Roadmap
- IOSA RBI
- SM ICG



SMS BENEFITS

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Can help to avoid of a failure, or similar failure

Designed to identify and manage risks before they become adverse events

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