

Qantas LOSA



- Speaking the same language throughout the airline; aligning LOSA training to enable identification of Non-technical behaviours.

- Qantas LOSA programs
- Training NTBs
- Challenges and ways forward

What Qantas LOSA Programs exist?

- **LOSA**
 - Short and Long Haul Flight Crew Observation Programs
- **CLOSA**
 - Short and Long Haul Cabin Crew Observation Programs
- **GOSA**
 - Domestic and International Ramp Operations

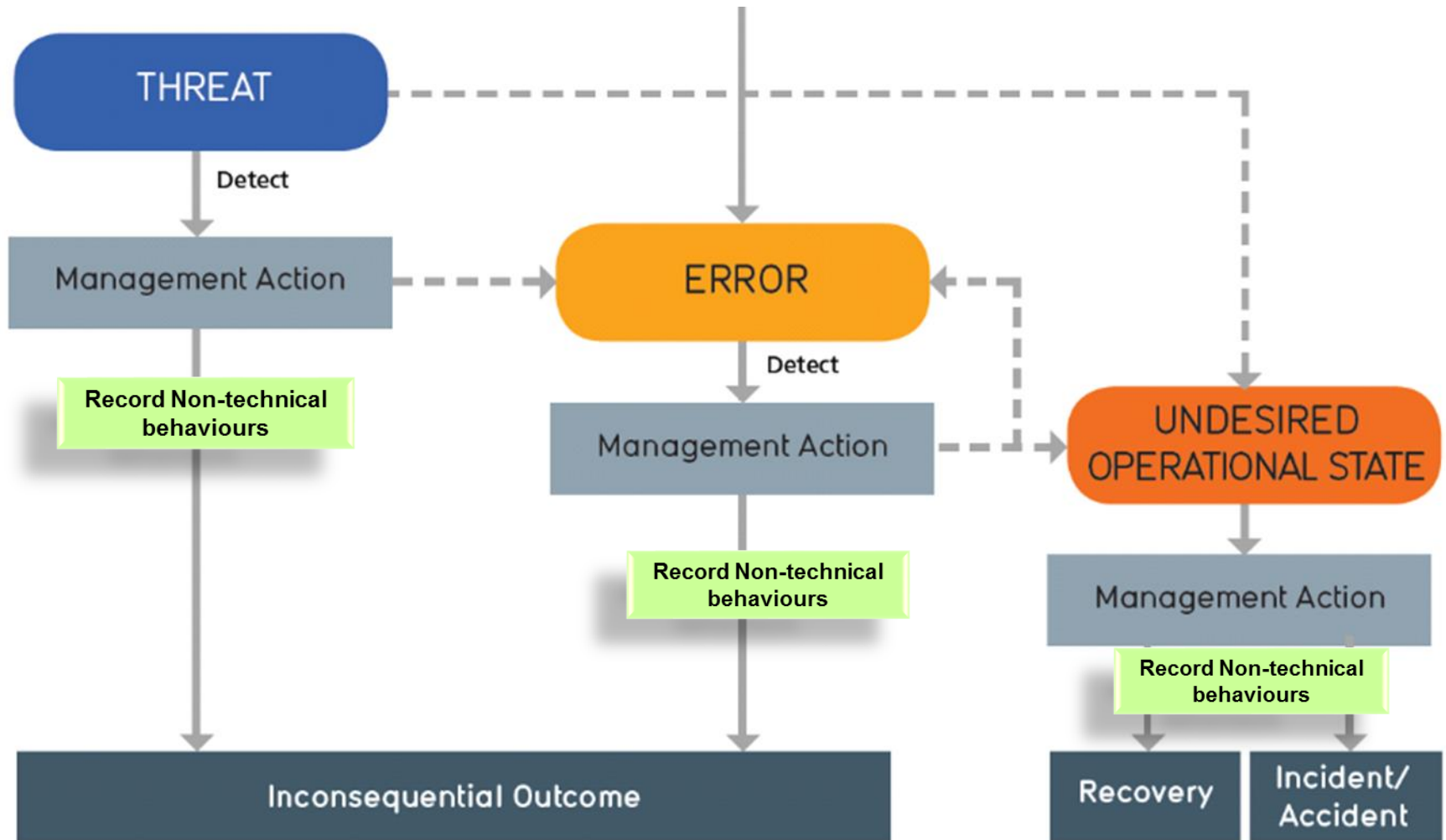
LOSA Observation figures

- **LOSA**
 - 89 sectors (cross fleet)
- **CLOSA**
 - 47 sectors (international fleets)
- **GOSA**
 - 93 turns

The Qantas Group LOSA system

- Uses existing TEM methodology
- Non technical behaviours (Flight, Cabin, Ramp and Dispatch)
- Common vocabulary – reference cards can provide guidance
- Capability to compare performance against other behaviour systems
- Capturing information – phase of flight or specific operational context vs overall
- Assessment – effective/ineffective vs Rating 1-5

The Threat and Error Management Framework

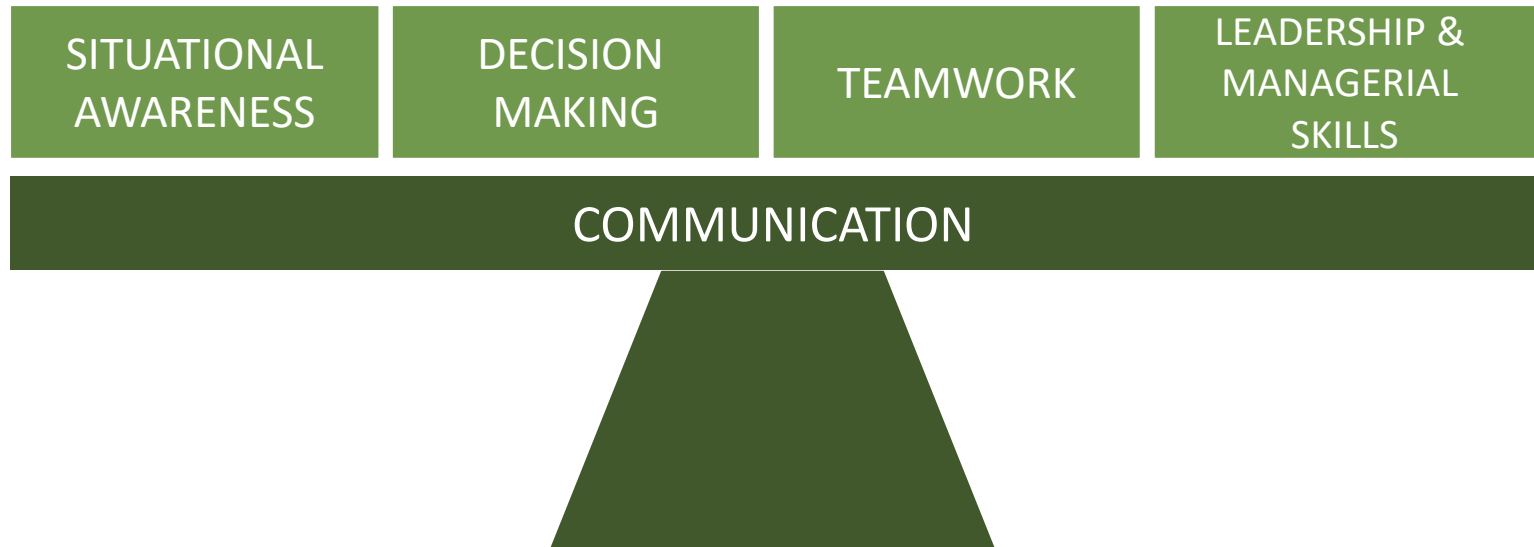


Why collect and analyse HF data?

The drivers for implementing a Human Factors focused LOSA program:

- Better determination of the causes and contributing factors to events (including individual and systemic issues)
 - » “Not just WHAT is happening out there and but also WHY”
- To continuously improve (not just reduce cost arising from human limitations/errors but add value to improve human performance)
- Meet regulatory requirements for SMS and HF

What are the LOSA Non-Technical Behaviours?





Cabin Crew

Non Technical Behaviours

Situational Awareness

The monitoring and perception of the environment to allow accurate perception of the crew

Cognitive

1. Systems Awareness

- Demonstrates basic knowledge of aircraft systems
- Monitors and reports changes in system status
- Acknowledges entries and changes to system status

2. Environmental Awareness

- Identifies and utilises all resources available to collect information
- Shares information about the environment with others
- Demonstrates awareness of flight phase
- Provide timely information to those who need to know
- Ensures common understanding of information with others
- Monitors passenger behaviour/ conditions

3. Anticipation

- Discusses contingency strategies
- Identifies possible future problems or threats

Decision Making

Formulating and implementing an appropriate plan of action on the assessment of available information

Cognitive

1. Problem Definition

- Gathers information & accurately identifies problem(s)
- Reviews causal factors with other crew members where necessary

2. Option Generation

- Generates courses of action / courses of action (with other crew members)
- Considers consequences of alternative courses of action
- Selects strategy/ strategies
- Implements strategy

Behaviours are used to help us understand what is going on in their minds

e.g. Panel Scan = Monitoring

COMMUNICATION

Teamwork

Team members work together to achieve common objectives

Social

1. Team Building

- Establishes and monitors an atmosphere for open communication and participation
- Encourages inputs and feedback from others
- Works as a team member, not individually
- Contributes to crew debrief

2. Considering Others

- Takes notice of the suggestions and concerns of other crew members
- Takes circumstances and limitations of other crew members into account
- Considers impact of non-routine events on crew performance

3. Supporting Others

- Offers assistance to other crew members when necessary
- Provides feedback to crew members (eg. Encouragement, constructive criticism)
- Actively raises concern over unclear instructions, communications, or situations when doubt exists.

4. Conflict Solving

- Identifies situations of potential conflict.
- Remains calm
- Defuses conflict in a non-confronting manner
- Suggests solutions to conflict resolution
- Remains objective despite interpersonal differences
- Manages abnormal passenger behaviour/ conditions to minimise cabin disruption

Leadership & Managerial Skills

The ability to influence others and achieve objectives by setting a productive working environment

Social

1. Use of Assertiveness and Authority within Defined Role

- Understands and respects on-board hierarchy
- Asserts own position

Establishes a productive working environment and task completion and support when appropriate

- Sets standards for crew members
- Enforces standards from Company standards

Ensures crew members are equipped with required

behaviours

Behaviours tend to be easily observable communications

e.g. Use of support language

3. Workload management

- Prioritises tasks
- Recognises higher safety goals and priorities
- Distributes tasks among crew; checks and corrects appropriately
- Allocates enough time to complete tasks



Non Technical Skills

Situational Awareness

Accurate perception of all factors affecting the monitoring of aircraft and team

- 1. Systems Awareness**
 - Monitors, reports and acknowledges system entries and changes
 - Acknowledges entries and changes to systems
- 2. Environmental Awareness**
 - Collects information about the environment
 - Contacts outside resources where necessary
 - Shares information about the environment with others
- 3. Anticipation**
 - Discusses contingency strategies
 - Identifies possible / future problems or threats

Decision Making

Formulating and implementing an appropriate plan of action based on the assessment of available information

- 1. Problem Definition/Diagnosis**
 - Gathers information and identifies problem
 - Reviews causal factors with others
- 2. Option Generation**
 - States alternative course of action
 - Asks other team member/s for options
- 3. Risk Assessment / Option Choice**
 - Considers and shares risks/threats of alternative courses of action
 - Discusses possible risks for courses of actions in terms of others limitations
 - Decides (selects and implements) strategies
 - Confirms selected course of action
- 4. Outcome Review**
 - Evaluate outcome against plan, modifies plan, if necessary with consultation with others

Communication

Teamwork

Team members working together to achieve common objectives

- 1. Team Building and Maintaining**
 - Establishes environment of open communication and participation
 - Encourages inputs and feedback from others (lower the barriers)
 - Does not compete with others
- 2. Considering Others**
 - Takes notice of suggestions of other team members even if he/she does not agree
 - Takes condition of others into account
 - Gives feedback
- 3. Supporting Others**
 - Helps other team members in demanding situations
 - Offers assistance
 - Actively raises concern over unclear instructions, communications or situations when doubt exists
- 4. Conflict Solving**
 - Keeps calm in conflicts
 - Suggests conflict solutions
 - Concentrates on what is right rather than who is right

Leadership & Managerial Skills

The ability to influence others, set tasks, achieve objectives and maintain standards whilst coordinating a productive working environment

- 1. Use of Authority and Assertiveness**
 - Advocates own position
 - Takes initiative to ensure involvement and task completion
 - Takes command if situation requires
 - Motivates team by appreciation and coaches when necessary
- 2. Providing and Maintaining Standards**
 - Ensures SOP compliance
 - Intervenes if task completion deviates from standards
- 3. Planning and Coordination**
 - Encourages participation from others in planning and task completion
 - Clearly states intentions and goals
 - Conducts SOP briefings
- 4. Workload management**
 - Distributes tasks among others; checks and corrects appropriately
 - Secondary operational tasks are prioritised to retail sufficient resources for primary duties
 - Allocates enough time to complete tasks

Quiz 1 & 2

How well do you know your Non Technical Behaviours?

SA

DM

Keeps calm in conflicts
Gives feedback
Workload Management

Considering Others

Supporting Others

Advocates own position

Identifies possible future problems or threats to their objective

Offers assistance

Conflict Solving

Systems Awareness

Suggests conflict solutions

Environmental Awareness

Distributes tasks among others; checks and corrects appropriately
Use of Authority and Assertiveness

Anticipation

Actively raises concern over unclear instructions, communications or situations when doubt exists

Priorities and delegates tasks appropriately
Problem Definition / Diagnosis

Conducts SOP briefings

Ensures SOP compliance

Identifies situations of potential conflict

Takes notice of suggestions and concerns of others even if opinions differ

Team Building and Maintaining

Motivates others by acknowledgment and coaches when necessary

TW

L&M

Risk Assessment / Option Choice

Intervenes if task completion deviates from standards

Option Generation

Outcome Review

Encourages inputs and feedback from others (lower the barriers)
Anticipates and allocates enough time to complete tasks
Concentrates on what is right rather than who is right

Helps others in demanding situations
Takes initiative to ensure coordinated task completion

Providing and Maintaining Standards

Encourages participation from others in planning and task completion
Does not compete with others

Planning and Coordination

Qualities of an Assessment System

- **Validity**

Does the system measure what it's supposed to measure?

- **Reliability**

Do we rate the same each time?

- **Objectivity**

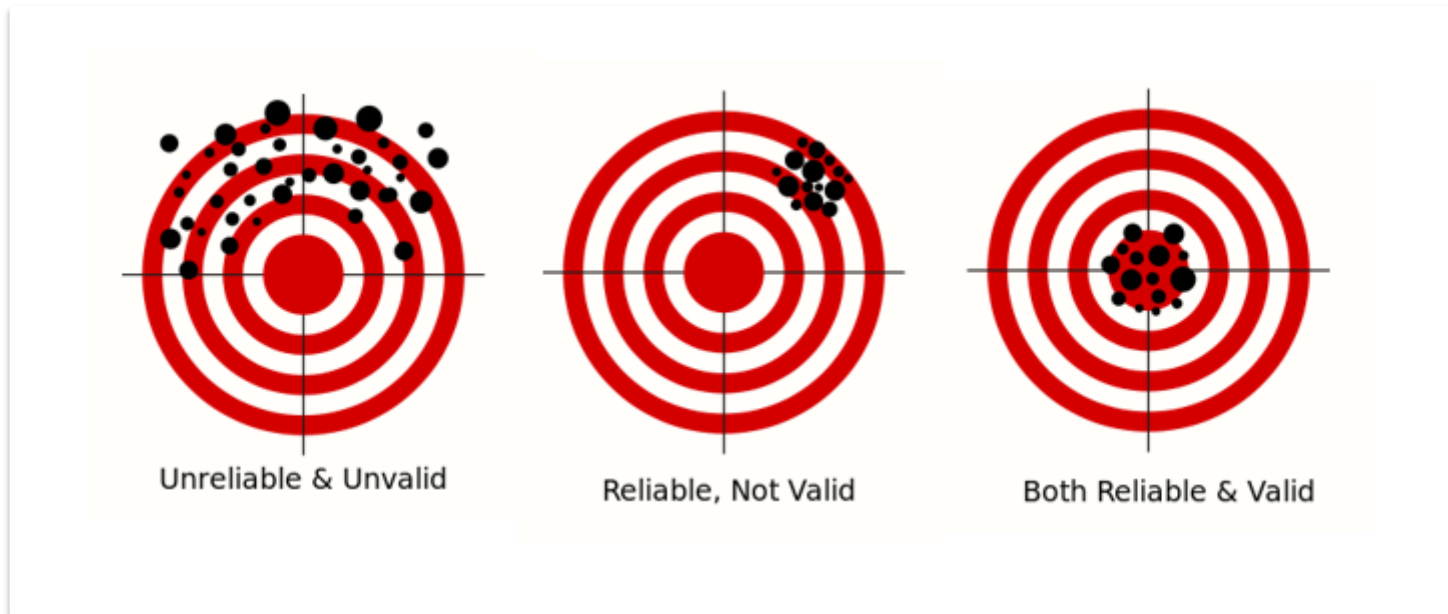
Do we rate the same as each other?

- **Practicality**

Is it easy to use and easy to interpret?



Validity and Reliability



Assessment Challenge – Twisties Backstage

1. Choose a rating system

1 2 3 4 5? Y/N?

2. What is the rating criteria?

3. What does a good Twistie look like? Bad?

4. Do you all agree?

5. Check that your system works!



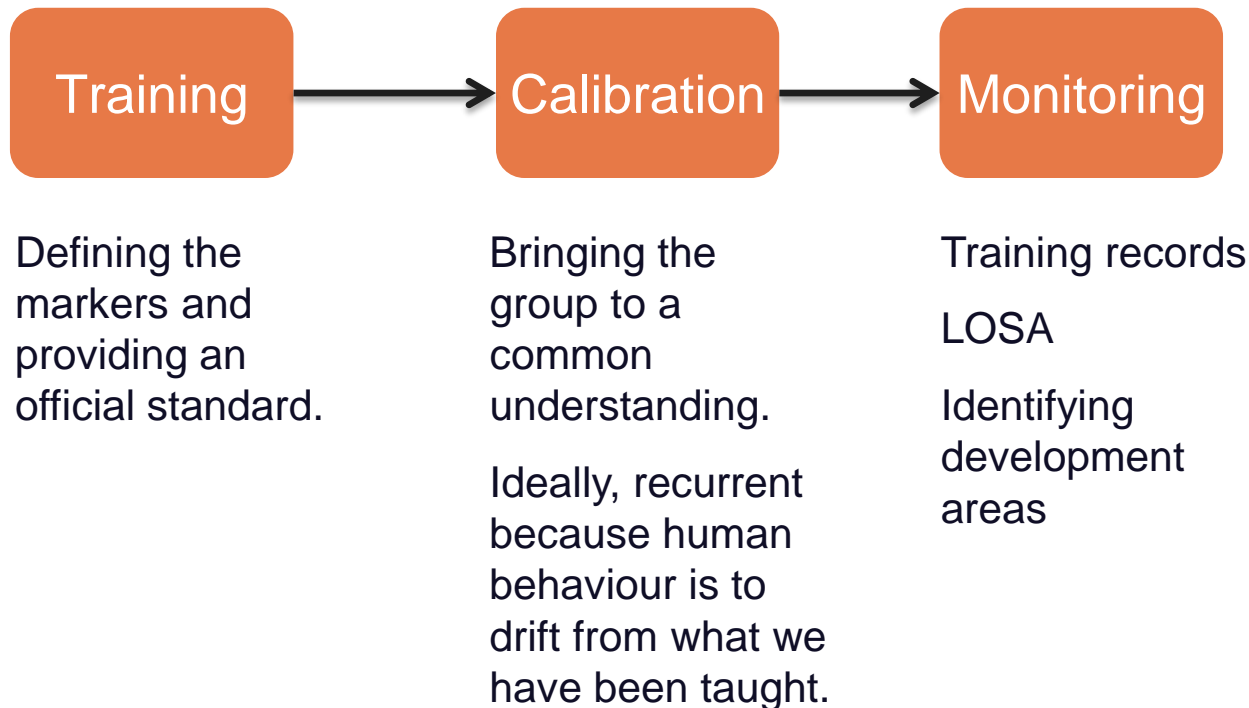
Inter Rater Reliability

When do we have good IRR?

- We agree with the "official" rating of a performance
- We agree with each other
- We agree about which performance is better and which is worse

Inter Rater Reliability

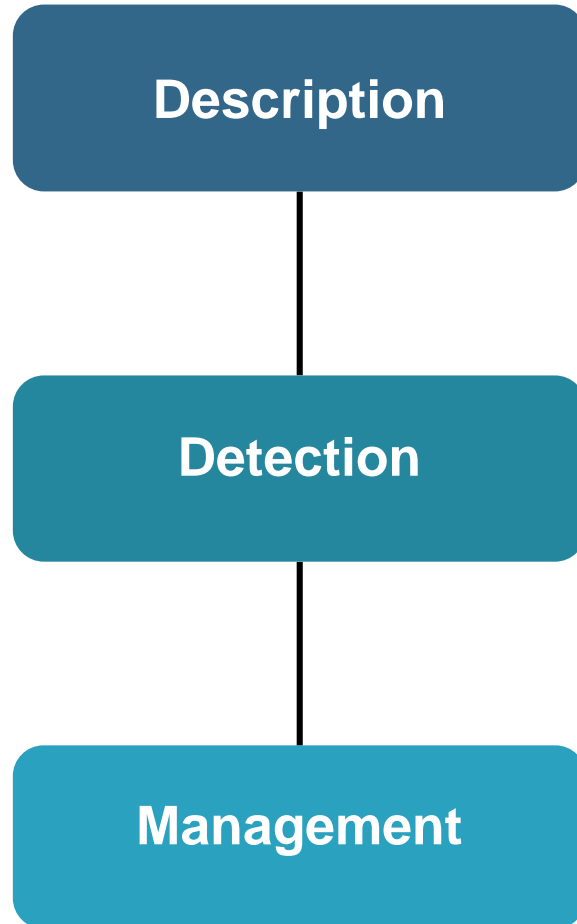
How will we improve IRR?



So, how do we train observers in NTB?

- Updates, Changes and Feedback
- Areas of improvements
- TEM
- Writing a Narrative
- Non Technical Skills
- Coding
- Reviewing Narrative
- Refresh on the database
- Wash Process
- Audit Plan
- Wrap Up

TEM Observations and Human intervention



- Describe the threat/error/UOS
- When did the threat/error/UOS occur
- Error
 - who committed the error
 - record any associated threat
- Was the threat/error/UOS detected
- **How was the threat / error detected**
 - **Use Non technical behaviours, where observed**
- Was the threat / error managed
- **How was the threat / error managed / mismanaged**
 - **Use Non technical behaviours, where observed**
- Consequence (no consequence, error, UOS)
- Describe the consequences

Observer Practice

Threat / Error	Detected?	Managed?	+/- NTB

Writing a Narrative - Have you told the whole STORY?

Situation

Time

Observations

Review

Yes!

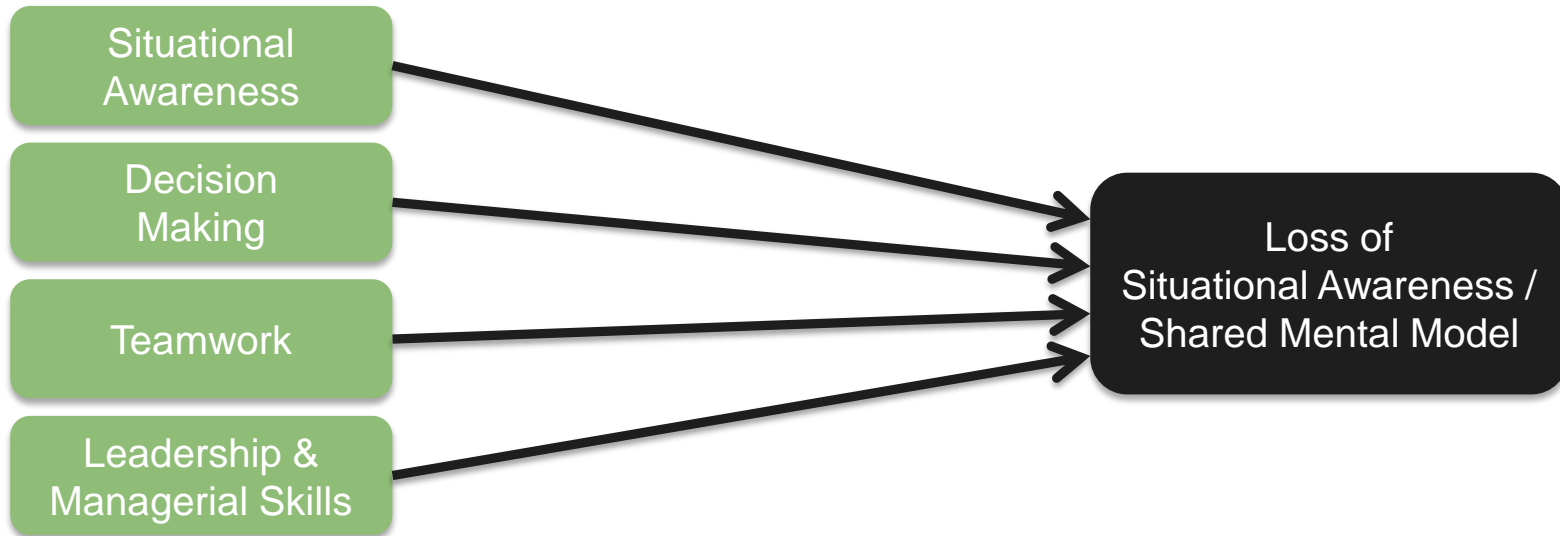
How do we use the information?

- Trends in NTBs are one of the inputs into RBTNAs
 - Human Factors training
 - Evidence Based Training (EBT)

A Common Trap: Contributing Behaviours v Outcome

Contributing Behaviours /
Skills Areas

Outcome

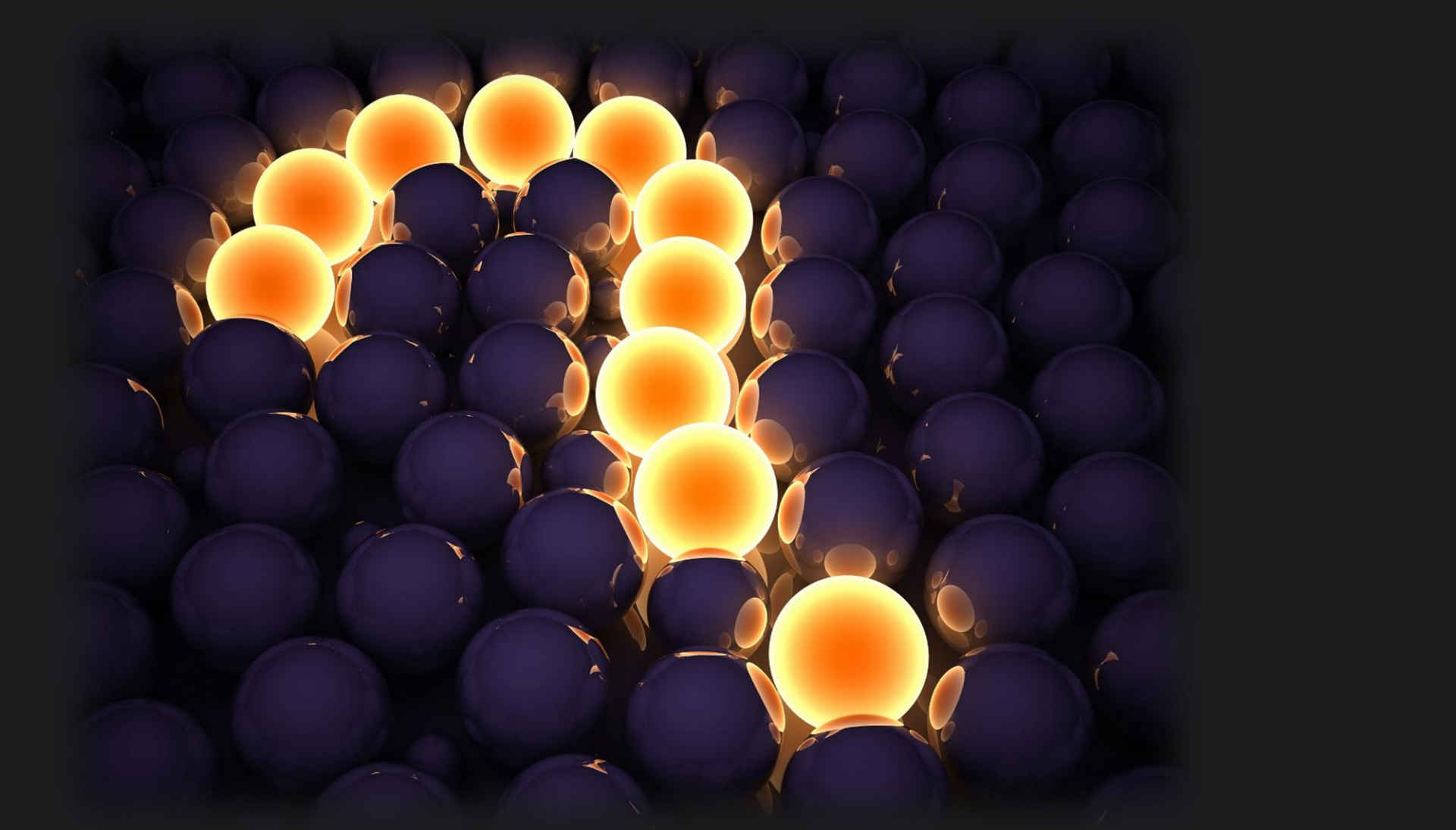


Challenges and ongoing development of training

- Different audiences, backgrounds and experience in observations and NTB etc.
- Inter-rater reliability lower in elements than categories
- Biases can induce 'clusters' of NTB coding

Ways forward:

- Continued rollout throughout the Qantas Group



Questions?

