**EASA
Safety Management
System Workshop**

June 2024

Rolls-Royce Deployment of our Safety Management System

Product Safety Management System Manual

Keeping our products safe   Protecting our customers

Rolls-Royce provides mission critical products that people's lives depend on. Our commitment to the safety of our products is therefore at the heart of our 'Operate Safely' core value.

Four Pillars of SMS

Principles

- Everything we deliver to a customer is our product – delivered separately or integrated into systems.
- Five principles govern our approach to product safe...
  1. Leadership commitment and accountability
  2. Level of product safety
  3. Maintaining and improving product safety
  4. Conforming product
  5. Safety awareness and competence
- The product safety principles are the foundation of ... the Company Product Safety Assurance Board.

Safety Policy and Objectives

Safety Risk Management

Safety Assurance

Safety Promotion and Training

Rolls-Royce Product Safety Policy

Principles

- Everything we deliver to a customer is our product - hardware, software, services and documentation, whether delivered separately or integrated into systems.

- Five principles govern our approach to product safety:

  1. Leadership commitment and accountability

  2. Level of product safety

  3. Maintaining and improving product safety

  4. Conforming product

  5. Safety awareness and competence

- The product safety principles are the foundation of our Product Safety Management System which is governed by the Company Product Safety Assurance Board.

Reporting Safety Concerns

- Annual Safety Training and periodic internal communications promote a **Speak Up** culture and a just culture.

- Existing safety reporting routes continue to meet 21.A.3A requirements

- Other reporting routes include prompts to consider Safety including:
  - customer in service concerns
  - production issues.
  - Development findings
  - general internal concerns including Human Factors related issues

- "Speak Up" Line from External Provider provides a confidential alternative to safety reporting if someone feels unable to raise an issue using the standard processes

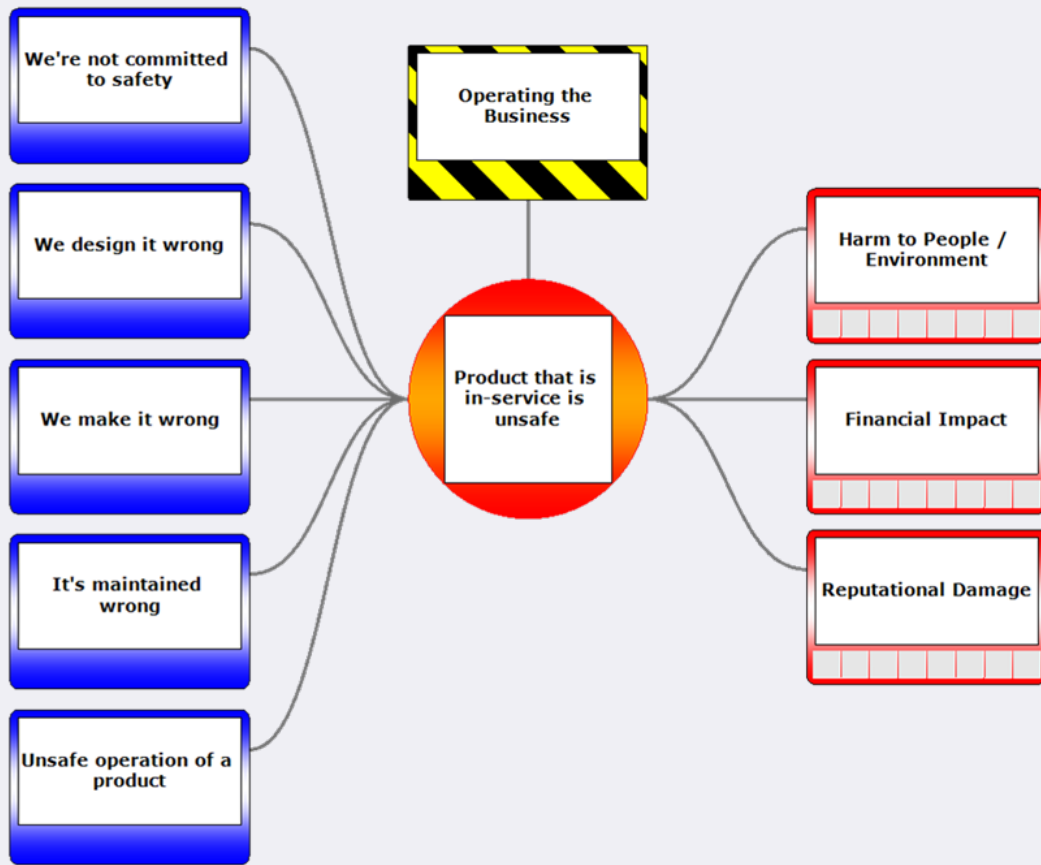- Safety Assurance framework enables risk assessment of how we work.

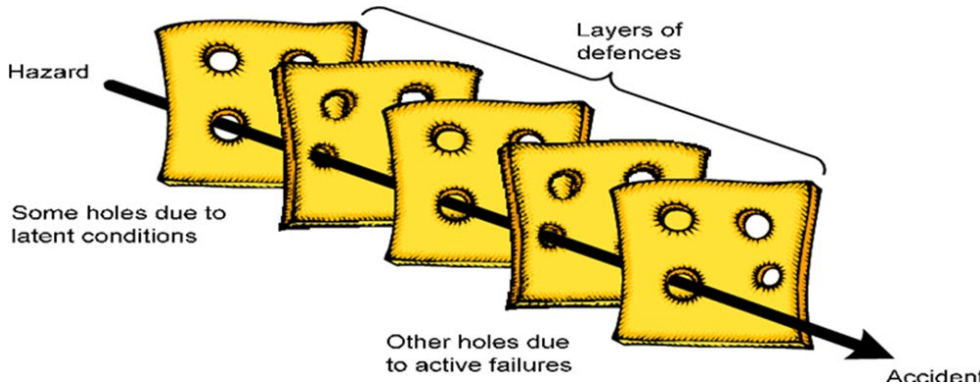# Safety Assurance Framework
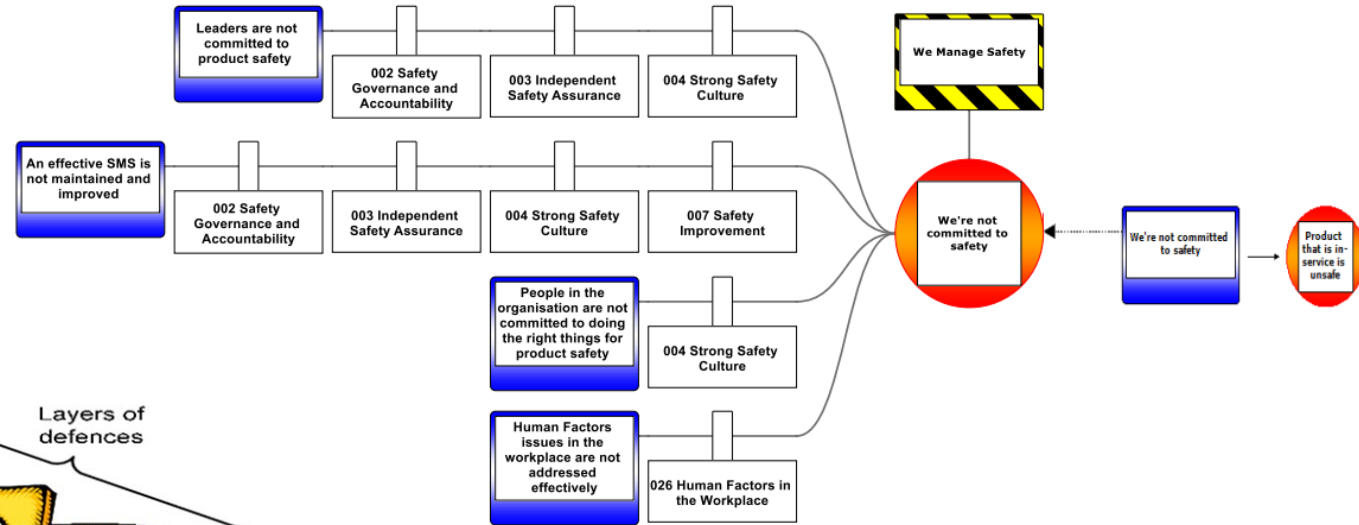
Standard "Bow Tie" Risks defined

Controls defined that mitigate risks

Conduct regular assessments of Effectiveness of Controls

Review at Safety Assurance Boards

We're not committed to safety

We design it wrong

We make it wrong

It's maintained wrong

Unsafe operation of a product

Operating the Business

Product that is in-service is unsafe

Harm to People / Environment

Financial Impact

Reputational Damage

Safety Assurance Framework: Aligned to Swiss Cheese Model

Rolls-Royce

- Each Control area is a slice of cheese.
- By assessing the Control area effectiveness you understand the size of the holes
- Improvements to the controls reduce the size of the holes
- Multiple controls gives Defence in Depth

Advice for those working towards SMS compliance

Leadership Endorsement

Getting Senior leadership and Head of DOA support for SMS is essential.

Look at what you already have

You don't always need to invent something new.

Extend existing processes or document current ways of working

Integrate it

Safety should be woven into the rest of the operating system.

If you have multiple approvals have one way of doing things that applies to all

Safety Assurance

Focus on Quality of conversations driving action.

Rolls-Royce chose a structured bow-tie approach, this is scaleable & helps to focus on the right things