

SMS Best Practice Submission

ANSP	Airways NZ	Date of submission	30 October 2023
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SoE Study Area	8.1 Safety reporting, investigations and improvement		
OP/GP title	Safety Performance Indicators (SPI)		
In use since	June 2021		
ANSPs using this practice	Airways NZ		

SMS process - description and justification

Airways NZ is submitting the SMS Safety Performance Indicators (SPI) process for consideration of best practice.

Airways SPI have been structured to strengthen our traditional safety performance monitoring methodology of measuring what has not gone right (Safety-1) and delivers an additional suite of leading safety performance indicator metrics that also measure what is going well. This will enable the Airways' frontline staff, people leaders, Executive and Board to see the future and apply early intervention that enables effective recovery from organisational and operational drift, well before a significant safety event occurs (Safety-II).

SPI project - resourcing and scope

This project is a major change that has required significant individual effort by the Project Lead and organisational courage from the Board and Executive Management. For our people, it has expanded safety thinking from what has been a well-established and understood traditional methodology.

External SME contractor support was engaged to design the dashboard structure, understand the background calculations and develop interactive dashboards that are capable of displaying the same data targeted at diverse levels of the business.

The SPI were derived over a 12-month process, which included:

- reviewing extant KPI,
- researching SPI from other ANSPs and industry,
- seeking input from Airways Teams across the business,
- identifying the data points that will be enablers for our Managers, Team Leaders and people to improve business resilience,
- developing a balanced scorecard methodology that weights each indicator against the broader safety objectives, designing, and
- delivering a data collection system to aggregate the data and create new dashboards to provide real time SPI data to our people at all levels of the business.

SPI project - costs and funding

The value that this project would deliver was clearly identified and articulated to the Executive and Board by the Project Manager. It would also have not been possible without the enduring and unwavering support provided by the Head of Safety and Assurance. These attributes were the key enablers that ensured funding approval was gained for the use of internal and external resources to support the concept development, design the data warehouse structure and create the SPI dashboards.

Notably, although the business was significantly constrained operationally and financially by the COVID pandemic, and many other projects across the business had been deferred or curtailed, the Executive and Board fully supported initiation and delivery of the SPI project. At a time of constrained resources and funding, this decision demonstrated considerable trust and confidence in the Safety and Assurance team, recognised the high value placed on safety projects and supported our continuous improvement methodology for achieving excellence in safety outcomes.

Why were SPI developed?

The change from KPI to SPI originated from a routine review. However, it quickly became apparent during the literature review work (within the scoping phase) that there was an opportunity for Airways to significantly improve its monitoring of safety metrics, data mine actionable information, deliver a more informative data set to our people and enable effective safety decision making.

The backbone of the SPI is the Airways Operational Barrier Model. This delivers data on Threat & Errors, Barriers & Controls, and Human Performance. Additional to this the SPI are multifactored and balanced to enable monitoring of Actions and Risks, alongside Occupational Health and Safety (OHS) requirements, as part of our integrated SMS.

Safety outcomes

All of the business has benefited from the SPI project. It has moved Airways from traditional safety management thinking into proactive safety. We will still keep a weather eye on the past while also ensuring that our main efforts and focus are firmly on doing the key things that will ensure our future safety and business success.

The SPI dashboards enable an all of Company, interconnected perspective for operational safety and health and safety, company-wide that is drillable down to individual Business Units. With this toolset, our managers and people have the ability to direct their safety performance monitoring and efforts into the areas where the greatest benefits will be achieved.

These dashboards are now integrated in the Monthly Company Safety reports and quarterly board Safety reports that give a snapshot in time, additional to the Realtime dashboards available to everyone in the company. The conversations are now about ensuring the weighted measures are driving the right behaviours and conversations to ensure the resources and responses are tailored and proportionate.

2023 update

Since implementation of the SPI it is clear that the measures are driving the required behaviour within Airways. Targeted safety improvements have been made across the organisation which have had a positive impact on Airways safety performance. The SPIs are discussed both at the monthly Executive meeting and the relevant Board meetings (monthly and quarterly).

Examples of recent improvement initiatives are:

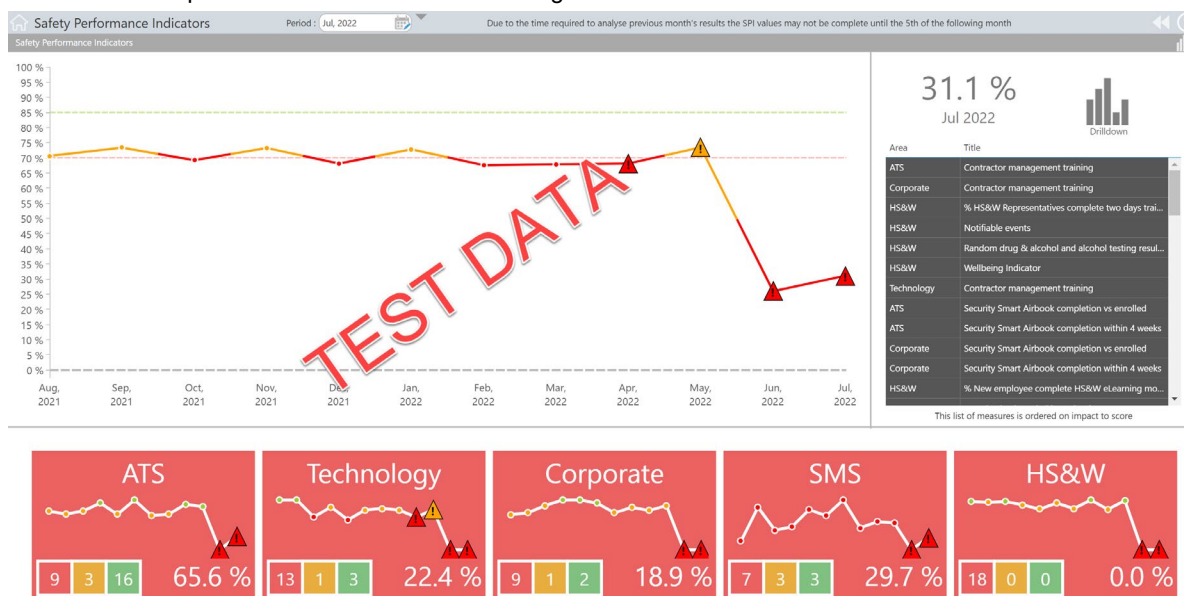
- Event Management/Overdue Actions – increased spotlight on event and action management
- Risk Reviews – More discipline with oversight
- Technology Group (TG) –
 - introduction of a Safety II focus
 - improved awareness for TG leadership on Safety II and what effective leadership is

Airways is part way through a review of the SPI, where stakeholder input is critical to ensure the SPIs are fit for purpose, to continue to drive the right behaviours and accurately measure performance. This review is part of our annual periodic review to sense check that the SPIs are meaningful and continue to support effective integrated safety decision making across the business. Changes requested by stakeholders will be considered and reviewed to ensure any unintended consequences are assessed and managed.

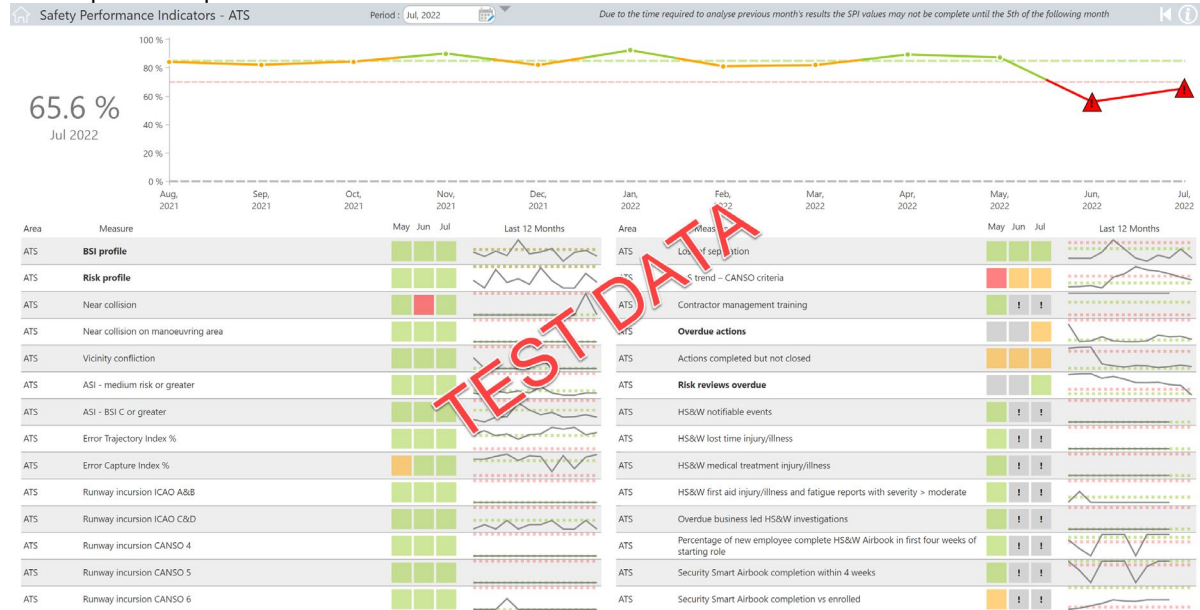
The SPIs have also been presented to the Safety team of one of our aerodrome customers to help this customer look at how they could integrate their SMS and relevant safety data. It was also presented at the 2023 National Airways Safety Forum, where participants from across the system spent the day talking about all things safety related for aviation.

Example data displaying the structure of the SPI dashboards.

Main dashboard provided for Board/Exec monitoring:



ATS department specific dashboard:



The enclosed SPI Procedure, an SMS Controlled document, provides a detailed description of the SPI methodology and dashboards.

By submitting this document, your organisation is willing for the proposed Best Practice to be shared with other ANSPs.

This document should be sent to: soe_2022@eurocontrol.int **by 31st July 2022 at the latest.**