

Safety Culture Developments Seminar Report

"The safety culture of an organisation is the product of individual and group values, attitudes, perceptions, competencies, and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organisation's safety management system (within the overall business management system)".

Adapted from ACSNI Human Factors Study Group: Third report - Organising for Safety (HSE Books, 1993).

The SCSC held an online seminar on Safety Culture Developments (scsc.uk/e793) on 13th April 2021. The seminar reviewed approaches to measuring and improving safety culture in organisations, and summarised results from the SCSC Safety Culture Working Group's Online Survey.

This seminar was led by the SCSC's Mike Parsons and Paul Leach (Rail Safety and Standards Board). Four individual presentations were given by industry experts, followed by a panel session. Approximately 50 delegates and speakers attended from a range of industries.

Moving Up the Culture Ladder: A Case Study

Patrick Hudson (Delft University of Technology) and Tim Hudson (Hudson Global Consulting) summarised the findings from a review of a major aviation Maintenance Repair and Overhaul programme using the safety culture ladder model.



Surveys and workshops were used to measure an airline's safety management system in terms of twelve cultural dimensions in April 2016. Process Performance Indicators and improvement actions with completion dates were defined based on desired behaviours for each dimension, resulting in nine divisional projects.

Project progress was monitored on a monthly basis. By November 2017, significant improvements were reported in the survey scoring. Tangible benefits were realised by the organisation in terms of: increased staff involvement in SHEQ activities, clearer staff roles and responsibilities, two-way communications, enhanced training materials, improved Safety Notice Boards, simplified Standard Operating Procedures. The findings from the review emphasized that senior management's understanding and commitment to the ladder process was critical to achieving sustained cultural improvements.

Pilot - Human Performance

Rob Saunders (Shell) discussed a safety culture initiative used during investigation of several major incidents. The incidents occurred at one of its Dutch plants between 2014 and 2016 and led to fatalities, serious injuries, plant shutdown and staff dismissals.

In 2017 a "deep dive" assisted reflective learning activity was undertaken with the plant's leadership team and operators, which raised cultural concerns around: variability in task performance, error-traps, tasks without independent verification, competence, confidence, clarity of roles and responsibilities, assurance not scaled with risk criticality, work mindset, and differing perceptions of consequences.



A Human Factors "Pilot" workshop focussed on three tasks with a high chance of human mistake. A Safety Critical Task Analysis (SCTA) systematically reviewed aspects of the tasks in terms of: Steps, Errors, Consequences, Existing Safeguards, Performance Influencing Factors and Actions.

The SCTA helped to identify required improvement actions – e.g. changes in the language, attitude and ways of working, design of separations, training, visual aids to situational awareness, operator verification, and engagement with plant maintenance.

The tasks were changed in recognition that “*People make mistakes – this is not a license for poor workmanship, but setting people up to succeed*”. Following implementation of these actions, the unit’s safety KPIs improved significantly in 2018 and 2019 and there have been signs of a cultural shift in terms of behaviours, language and perceptions.

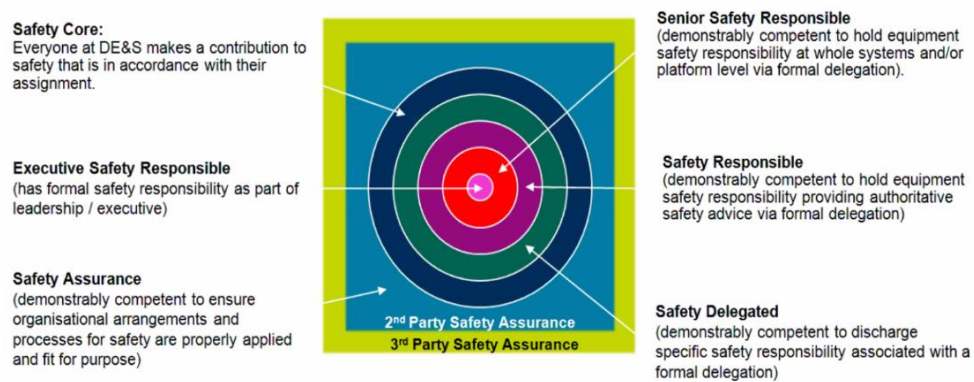
Safety Culture: Stimulating Change

Sarah Whittaker (Defence Equipment & Support) discussed how DE&S measures and tracks safety culture within its organisation, and summarised some improvement initiatives.

The vision of DE&S is to deliver equipment and services to the Armed Forces that are safe to operate, and to ensure its people are safe at work (“Delivery focused; Safety driven”). Its safety culture must demonstrably support this vision. DE&S undertakes an annual safety culture assessment of its organisation spanning both Occupational Health & Safety and Acquisition Safety. These assessments use the safety culture ladder model and a toolkit of methods including a questionnaire and culture level indicators.

The DE&S Acquisition Safety Project was launched in 2018 aimed at improving safety culture. To raise staff awareness a video using live actors was produced to dramatize several safety incidents, and an e-learning course was developed. This initiative helped to identify a taxonomy of safety assignments and clarified DE&S safety roles and responsibilities.

Acquisition Safety Assignment Taxonomy



The initiative helped to realise improvements in the equipment design and support processes, and to identify information to help Operating Duty Holders to use equipment safely. DE&S plans further improvements to its Acquisition Safety and Environmental Management System supporting safety assurance and safety culture. An environmental culture ladder has also been developed in line with DE&S climate change and sustainability objectives.

SCSC Safety Culture Working Group: 2020-21 Survey Results

Michael Wright (Greenstreet Berman) summarised the results and conclusions from the SCWG's recent survey on safety culture that received 122 full responses from a range of sectors.

Benefits and disbenefits of measuring safety culture

Benefits	Disbenefits
Enables targeting of areas for improving safety culture	Cost, time and effort required to carry out reliable measurement
Improves the organisations understanding of their safety culture	Results are often subjective and it can be hard to understand the context of answers and therefore what they mean for understanding and enhancing culture
Promotes safety behaviours within the organisation – helps staff understand behaviours to demonstrate	Can create false sense of achievement e.g. certain overall score achieved means no improvement required
Provides opportunity to measure effectiveness of improvements implemented and benchmarking safety culture against other organisations	Results can be used to criticise management and staff
Contributes to continuous improvement in performance and business success	Staff may not see the benefit because they may not see improvements after measurement and so do not engage or do not see safety culture as an important area
Fosters and facilitates safety leadership – helps leaders focus on safety culture	

The survey results were summarised as:

- Reasons for assessing or not assessing safety culture
- Benefits and disbenefits of measuring safety culture (see table above)
- Assessment methods and models, their advantages and disadvantages
- How the results of safety culture assessments are evaluated and used
- Whether the results present a valid profile of the organisation
- Safety culture KPIs and objectives
- Approaches taken, key challenges and enablers to improving safety culture
- What worked well and not so well in engaging individuals
- Who leads, and who would be approached with ideas, to improve safety culture
- Levels of management commitment
- Future help from the SCSC in terms of assessing or improving safety culture

The SCWG's survey can be found here: <https://www.surveymonkey.co.uk/r/SCWGsurvey>

Panel Session

A wrap-up session led by Paul Leach gave delegates an opportunity to put further questions to the speakers. The panel was asked for its views on:

- The main threats to improving safety culture. The panel's responses included: lack of senior management commitment, contradictory communications, lack of authenticity, psychological safety, complacency, distraction from safety objectives.
- How to help staff understand their contribution to safety culture. The panel's responses included: education, using exemplary staff as role models, involvement in risk assessments.

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