



Health, Safety and Culture Strategy 2024 – 2028

Prepared by Jen Maddison, Health, Safety & Culture Lead, Port Skills and Safety Ltd
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PSS Health safety and culture strategy 2024 – 2028

Background

Port Skills and Safety (PSS) is the port industry's body for safety and skills and its members represent the overwhelming majority of port operations in and around the UK. Part of PSS's remit is to drive continual improvement in health and safety through collaboration across the industry.

PSS is an independent membership organised, owned equally by the British Ports Association (BPA) and United Kingdom Major Ports Group (UKMPG) and its health, safety and culture remit as defined in its Articles of Association is:

- To promote health safety, good workplace mental health and good working practices in ports and harbours situated in, or near to, the United Kingdom; this definition also includes but is not limited to the Channel Islands, Isle of Man, Republic of Ireland.
- To engage widely with academia and other relevant maritime, health and safety organisations in order stay at the forefront of safety, training and skills, innovation and development.

Where we are now

The port industry is viewed by the HSE as a mature industry, with PSS promoting a collaborative approach for improvements on safety. PSS is well respected within the industry, with a reputation for providing good guidance, particularly the Safety in Ports (SiP) guidance suite¹.

Collaboration, and the sharing of best practice and lessons learnt, are two of PSS's main objectives. This is facilitated via quarterly Port Safety Group meetings, the dissemination of lesson learned and near misses, and knowledge sharing via the Ask Members service and bulletins.

PSS collects incident and near miss data from participating member organisations and provides a data dashboard allowing those organisations to benchmark performance against each other.

Visits to members' locations provide the opportunity for the PSS Health, Safety and Culture Lead or contracted Health and Safety experts to provide an independent and first-hand advice and auditing of members health and safety procedures.

PSS recognises the importance of technology for data analyses to understand and recognise trends and risks; to develop new systems or work, and to develop equipment which reduces or eliminates risk. PSS promotes innovation through the annual Innovation in Port Safety conference as well as providing platforms for members operating in this area to promote and improve their products.

¹ 2024 member HSC survey: SiPs used by 97% of respondents with 95% respondents finding the documentation easy to reference.

Where we want to be

PSS's vision is to drive the port sector to become one of the safest places to work, with opportunities for individual growth and collective success. PSS aims to cultivate a paradigm shift in port safety; leveraging the power of data-led insights, innovation, collaboration, and resource sharing.

PSS envisions a future where every aspect of port operations is guided by comprehensive data analysis, enabling proactive identification of potential risks and the implementation of targeted measures to safeguard personnel, vessels, and cargo. PSS believes it is possible to achieve zero incidences of fatal industry accidents among the membership, where SiPs guidance is adhered to.

Continuous improvement can be achieved through the adoption of cutting-edge technologies and methodologies that enhance safety performance. The SiP documents can provide a central focus for improvements and must be continuously reviewed to ensure they reflect current best practice and technological developments. Collaboration is central to sector performance and by pooling our expertise, resources, and best practices, we can collectively address safety challenges and achieve optimal outcomes for all involved. It is imperative to share resources and knowledge within the maritime industry to strengthen overall safety performance and PSS is committed to fostering a culture of collaboration among stakeholders, including members, government agencies and industry partners.

PSS will spearhead thought leadership on safety culture, drawing insights from other high performing sectors to propel the port industry to becoming one of the safest places to work.

How we will get there

The 2024 to 2028 strategic KPIs prioritise improving port safety guidance, expanding the number of members contributing port safety data and enhancing member value propositions. Through collaborative efforts, data-driven insights, and innovative solutions, PSS aims to continually improve services and uphold industry standards. This strategy focuses on resource optimisation, fostering collaboration, leveraging data, and promoting innovation to realise our vision.

The safety strategy identifies four priority areas:

- Resources
- Collaboration
- Data
- Innovation

These pillars reflect the distinct areas of the PSS safety remit and give specific outcomes which PSS performance can be measured by.

1 - Resources

Overview

PSS will continue to be seen as the primary source of authoritative health and safety information and advice on safety for the port sector.

The PSS strategic plan identifies two specific measures for improvements to safety resources:

- Bring all existing Safety in Port (SiP) documents up to best practice industry standards by 2028. At least four SiPs will be reviewed per year, with existing SiPs updated by 2028.
- Increase awareness of SiPs guidance by increasing website downloads of guidance by 35 per cent from 2023 levels by 2028.

Safety in Ports Guidance

The Safety in Ports (SiP) guidance suite is highly respected across the industry. The documentation has been developed in conjunction with the HSE, trade unions and industry stakeholders; and covers a wide range of topics including terminal management and the handling of specific cargos. The Safety in Ports guidance aims to outline industry best practice and [all documents are to be reviewed and updated by 2028](#) (strategic KPI). To support this, at least four SiPs are scheduled for review each year, to ensure that the guidance remains accurate and relevant.

Members have told us that SiPs are used predominantly by their Health and Safety teams, but they have indicated that, in the right format, the guidance would be used more widely by supervisors and port operational employees [2024 member HSC survey]. PSS believes that the guidance should be accessible to all sizes of member organisations and their employees, and will work to develop the guidance in alternative formats including 'bite-size' and multimedia versions.

As SiPs are reviewed and updated, they will continue to be developed with the input and support of the HSE and will carry the declaration 'produced in conjunction with HSE'. This statement of support (as opposed to the former approval process required to include the HSE logo) can be applied more readily to documentation where the HSE has been consulted on development, will minimise any delay in publishing documents, and supports the new direction of the HSE. Trade unions will continue to be involved in the development and approval stages of SiP development and invited to badge the guidance with their logo to demonstrate that the guidance supports their members' safety.

In order to retain the support of the HSE and unions, the basic format SiPs guidance will continue to be publicly available, but PSS members will be able to access enhanced versions via the website which include alternative formats, videos and best practice case studies.

Objective 1.1: PSS will bring all existing Safety in Port (SiP) documents up to best practice industry standards by 2028, with at least four SiPs reviewed per year. (schedule of reviews included in the timeline appendix).

Objective 1.2: PSS will work with members to produce media; videos, photos, and best practice case studies to enable the SiP documents to be used by all levels of operations personnel.

Objective 1.3: PSS will work with members, using incident dashboard data to identify areas where new SiPs are required and develop them accordingly.

Objective 1.4: PSS will improve the availability and awareness of SiPs among all employees within member workplaces to achieve a 35 per cent increase in SiP downloads between 2024 and 2028.

Objective 1.5: PSS will increase awareness and use of SiP related resources by those on the quayside, using the members HSC survey to measure a year on year increase in engagement.

Objective 1.6 : PSS will develop a self-assessment tool for members, to allow them to assess compliance with SiP guidance.

Project dates: Q2 – Q3 2025

Safety alerts / bulletins service

PSS currently provides a service to distribute information via Safety Alerts and Bulletins. These continue to represent value and are used by members to communicate important safety messages throughout their organisations (97% of respondents in the 2024 members HSC survey confirmed the bulletins and alerts were useful).

PSS ensures that each alert or bulletin has ‘added value’ considerations for members. Members have told us that they share the alerts and bulletins across their organisations and use them as the basis of their own alerts and toolbox talks.

PSS aims to improve member engagement with the service by building trust and encouraging more ports to share alerts. Organisation anonymity is maintained when alerts are sensitive and the alert is always discussed with members before being circulated.

Objective 1.7: PSS will publish safety alerts within three days of receipt.

Objective 1.8: PSS will produce a quarterly summary of enforcement actions which are relevant to members.

Objective 1.9: PSS will monitor numbers of alerts to encourage a 25 per cent increase in the number of members sharing their alerts and increase a 25 percent increase in the number of members accessing them, measured through website statistics and the annual HSC survey.

Culture surveys

The culture of organisations is vitally important to improve safety performance. PSS recognises that members are at different stages of cultural maturity, but that continual improvement is vital to maintain safety in the long term.

In 2022, a PhD research project developed a port specific safety climate tool, which can provide ports with a basic statistical report of members’ safety culture. PSS member Comet

(formally STC Inviso), has also developed a port culture assessment service which can be made available at a discounted rate to PSS members to provide the next step of safety culture analysis and intervention with detailed reviews and final reports.

Both these resources can provide PSS with anonymised data and reports to measure safety culture industry-wide and will inform strategic direction including campaigns and support offered to members.

Objective 1.10: PSS will develop and support a port specific safety climate survey and offer this an additional service to members.

Project dates: Q2 – Q3 2025

Objective 1.11: PSS will gather anonymised data from the culture survey tools. Summaries of this data will be shared with PSG meetings and the information used to develop guidance and resources on organisational culture where appropriate.

Objective 1.12: PSS will revise and update its leadership guidance to ensure it reflects the standards set by the Institute of Directors and other respected bodies.

Project dates: Q3 – Q4 2026

Audits

Most members will already have developed an existing programme of internal and external audits including, and in many cases, certification audits against ISO standards. However, PSS can offer a niche independent ‘friendly critic’ audit service, carried out by industry experts. These audits will allow members to check compliance by providing assessment against local procedures, industry best practice and international management standards, including a measure for training and competency against SiP requirements.

PSS audit procedures will ensure auditors work to a consistent standard, providing high quality reports and feedback. The range of audits, undertaken by a network of auditors with industry experience, will be designed to suit all member organisations with differing levels of need.

Objective 1.13: PSS will develop a tiered suite of compliance and system audits from site inspections to reviews of compliance with SiP guidance and ISO45001 standards.

Objective 1.14: Using COMET Assure, PSS will monitor audit outcomes and analysis to highlight areas for improvement across the sector to membership.

2 - Collaboration

Overview

Collaboration between PSS members and with wider industry stakeholders, is vital to drive continuous improvement across the sector. The PSS strategic KPIs include the requirement to facilitate full communications with and between members.

Ask Members Forum

Members have told us that they value the Ask Members service, however interaction with enquiries is low. PSS has combatted this by including a session at each PSG to review recent enquiries, and the development of an online interactive forum on the PSS website.

Objective 2.1: PSS will increase member engagement with the Ask Members service through regular mailings, discussion at the PSG and promotion of the website forum.

Port Safety Group (PSG)

The PSG continues to provide a valuable opportunity for members to meet and network. The meetings are held quarterly, with two held online and two in person, hosted by volunteer member ports. The voluntary roles of PSG chair and vice chair ensure the PSG serves the requirements of members and they support the development of meeting agendas. Each meeting provides opportunities for sharing best practice and member presentations.

Objective 2.2: PSS will seek to ensure that two meetings per year are held at member ports, covering a wide geographic area and range of port operations.

Objective 2.3: PSS will review methods of disseminating information from PSG meetings to all members, including non-attendees. This will include recording presentations and providing the opportunity to submit questions in advance.

Working groups

Working groups are valuable to PSS, enabling the development of industry best practice, strategy and guidance documents. PSS appreciates the time given by professionals within member organisations and will ensure that working groups remain effective and timely.

Objective 2.4: PSS will establish working groups to review at least four SiPs each year.

Objective 2.5: PSS will establish a working group to develop guidance on handling lithium-ion batteries and managing electric vehicle safety. This group will support a campaign week and conference to discussion electric vehicle safety, especially related to fire risk.

Objective 2.6: PSS will establish a Large Ports Working Group to provide the largest PSS members with a working group to discuss health and safety issues which are pertinent to larger operators. The group will consist of senior health and safety representatives from PSS ten largest port members and will meet quarterly.

3 - Data

Overview

Data is vital; without it PSS cannot effectively assess industry wide performance, identify trends or measure improvements. PSS intends to relate key operational decisions to the trends and information evident in the data collected.

Most organisations maintain electronic records of incidents alongside other organisational information on training, occupational health records and compliance data. Advancements in technology mean that it is increasingly easy to analyse large data sets, particularly by deploying artificial intelligence solutions and PSS is exploring how this can be used to better support members and highlight areas of focus.

PSS's path to achieving these goals involves streamlining data submission processes, promoting dashboard insights, and encouraging wider member participation.

Power BI Data dashboard

The Power BI (a Microsoft product) data dashboard managed by PSS is an established resource which allows contributing members to benchmark their performance against similar organisations. Currently 25 out of 42 full port member organisations submit data to the data dashboard, this equates to just under 60%. Relevant data will also be held by non-port members, including those who manage contractors in ports and these members largely do not current report their data to PSS. The metrics measured and the process for submitting data is discussed and agreed with stakeholders annually at the data workshop meeting. Although contributing members confirm that the data collection process is not onerous, the take-up on this valuable benchmarking opportunity remains low.

The dashboard will be managed by Comet from April 2024. Alongside continuing the current provision, the company will explore the provision of more valuable data insights and ways to obtain member data, which minimise the burden on members.

Members have told PSS that the annual data review is useful, therefore PSS will continue to produce the annual statistics report with insights into industry wide performance.

Objective 3.1: PSS will promote the data dashboard to increase participation to more than 75% of full port members.

Objective 3.2: PSS will encourage non-port members who collect safety data to provide this to PSS to gain a better overview of the level of safety in ports.

Objective 3.3: PSS will work with Comet to develop more insights from the dashboard data and develop more efficient ways of obtaining data from contributing members.

Objective 3.4: PSS will continue to provide the annual industry statistics report.

Artificial intelligence

Artificial intelligence (AI), and specifically computer learning and data analysis, is being discussed in many applications and in 2023 PSS commissioned a pilot project to explore how AI can be used to analyse incident data to better understand common root causes.

The project with Comet involved taking large “data dumps” from five member ports, using downloads directly from their individual EHS systems without the need to separately extract specific information (as is need for the current dashboard). Natural language processing was then used to teach the AI port-specific knowledge and terminology to be able to analyse all the reports and detect where common root causes occurred across the sector.

The trial has shown that AI can assign root causes to incidents and provide insight into trends in the data, which may go unnoticed by human analysis. However, in order to provide a deeper insight, the AI needs large amounts of high quality data. The project has highlighted that many incident reports provided had a low word count with minimal description, which reduces the effectiveness of the AI analysis.

There is far more that can be done with AI, and PSS intends to encourage members to link more of their records to their incident data, so that it can be included in the data analysis. This includes linking all investigation notes to the data and recording leading indicators such as near miss / close call reports, inspection reports and audit findings.

These indicators provide valuable insights in advance of incidents occurring, and yet many organisations do not fully investigate them due to time and resource restrictions. AI can process high volumes of incident data, and natural language processing means any type of written description can provide data insights. Therefore, any record of a near miss can be included to provide indications of root causes and trends. In turn, this allows health and safety teams to learn lessons much more effectively and address the root causes most likely to be the cause of incidents in the future.

Over the next five years, this technology will develop, and it is anticipated that as the advantages of these insights are demonstrated, more members will choose to become involved.

Objective 3.5: PSS and Comet will share the insights and analysis developed from the data pilot project and run a second round of the project, giving more members the opportunity to take part.

Project dates: Q4 2024 – Q1 2025

Objective 3.6: PSS will promote the Comet investigative tools and similar products from other members, in support of the incident data collection project

Project dates: Q3 – Q4 2025

4 - Innovation

Overview

Innovation in the port sector offers a dual landscape of opportunities and challenges. Utilising artificial intelligence can find issues or patterns which the human eye may overlook; while technologies like remotely-operated machinery can remove the risk inherent in some port operations. Nevertheless, these advancements can also introduce new risks and workplaces will need to adapt to mitigate them. As the wider maritime sector moves to being more environmentally aware, the integration of autonomous vehicles and alternative fuels will necessitate the adoption of innovative safety strategies to safeguard both personnel and assets.

Innovation in Port Safety events

PSS wants to be at the forefront of digital innovation, providing information to members on the latest developments and welcoming tech companies in to the port sector – both start-ups and those with products already on the market in other sectors which could be adapted to work in ports. As well as providing the opportunity to collaborate as part PSS membership, PSS will hold innovation days designed to bring members together to discuss innovative solutions to port safety.

Objective 4.1: PSS will recruit tech and innovation companies as members to support the development of port safety.

Objective 4.2: PSS will organise an annual innovation day aimed at sharing improvements in safety technologies. The event will showcase keynote speakers and encourage discussion among members addressing emerging ideas. Feedback will be actively sought after each event to ensure its ongoing relevance and value to all participants.

Objective 4.3: PSS will facilitate the sharing of knowledge and experiences between members adopting or considering the adoption of new technologies.

Promote innovation opportunities

PSS is uniquely positioned to promote innovation opportunities through connections with strategic partners. PSS will leverage connections with government organisations to access funding streams for research and development, and implementation of innovation projects.

Objective 4.4: PSS will support innovation projects by accessing development grants to support member innovation projects

New technologies network

PSS intends to facilitate the sharing of knowledge and experiences between members adopting or considering the adoption of new technologies.

Objective 4.5: PSS will create a 'new technologies' network within PSS membership, providing the opportunity for members to discuss new technologies; to ensure shared awareness of hazards and best practice.

Appendices

Appendix 1 – Timeline

Key	 Commencement date	 Ongoing	 Completion date
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Objective	2024			2025				2026				2027				2028				
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.1 SiP reviews.	See Appendix 2 for SiP review timetable																			
1.2 Develop additional resources to support SiPs.																				
1.3 Identify new SiPs.																				
1.4 Improve availability of SiPs and increase downloads.																				
1.5 Increase use of SiP related resources on quayside.																				
1.6 Develop SiP compliance self assessment tool.																				
1.7 Publish safety alerts within three days of receipt.																				
1.8 Publish quarterly summary of enforcement actions.																				
1.9 Encourage a 25 per cent increase in the number of members sharing their alerts.																				
1.10 Develop the culture assessment service.																				
1.11 Analyse anonymised data from the culture survey tools and share learnings with members.																				

Objective		2024			2025				2026				2027				2028			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.12	Revise and update leadership guidance.																			
1.13	Develop PSS audit service.																			
1.14	Use audit reports and findings to identify improvement areas.																			
2.1	Increase member engagement with the Ask Members service.																			
2.2	Hold two PSG meetings per year at member ports.																			
2.3	Review methods of disseminating information from PSG meetings.																			
2.4	Establish working groups to review at least four SiPs each year.																			
2.5	Establish a working group to develop guidance on lithium-ion batteries and electric vehicle safety.																			
2.6	Establish a large ports working group																			
3.1	Promote the data dashboard participation.																			
3.2	Encourage non-port members to provide safety data.																			
3.3	Develop the dashboard data.																			
3.4	Provide annual industry statistics.																			
3.5	Share the insights and analysis from the data pilot project.																			
3.6	Promote the use of investigative tools which support data analysis for the benefit of the port sector.																			
4.1	Recruit tech and innovation companies as members.																			
4.2	Hold annual innovation day.																			

Objective		2024			2025				2026				2027				2028			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.3	Facilitate the sharing of knowledge of new technologies.																			
4.4	Support innovation projects by accessing development grants.																			
4.5	Create a 'new technologies' network.																			

Appendix 2 – SiP review timetable

SiP review timetable		2024			2025				2026				2027				2028			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
001	Workplace Transport																			
002	General Cargo																			
003	Container Handling																			
004	Timber Handling																			
005	Mooring Operations																			
006	Bulk Liquids																			
007	Loading and Unloading Dry Bulk																			
008	Dry Bulk Storage																			
009	Lighting Guidance																			
010	Ro-Ro / Sto-Ro																			
011	Sources of Occupational Health Information																			
012	Ro-Ro Passenger and Cruise Operations																			
013	Managing Non-Permanent Employees																			
014	Safe Access and Egress																			
015	Confined Spaces in Ports																			
016	Emergency Planning in Ports																			
017	Fitness for Work and Health Surveillance																			
018	Safety Induction and Training																			
020	Water Safety and Use of Buoyancy Equip.																			
021	Safe Access to Fishing Vessels and Small Craft																			
022	Biomass Wood Pellet and Chip																			