

Skills Strategy 2023 – 2028

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A PSS Paper endorsed by BPA and UKMPG

Updated and amended in January 2026



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PSS Skills Strategy 2023 - 2028

Background

Port Skills and Safety (PSS) is the ports 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 develop and promote port and harbour skill standards to ensure the sector stays at the forefront of training and skills innovation and development. Collaboration is a core part of the operating model and therefore prioritises opportunities for discussion and dissemination of information relating to skills and acting on any proposed legislation.

PSS is an independent not for profit membership association which is owned equally by the British Ports Association (BPA) and United Kingdom Major Ports Group (UKMPG) and its skills remit as defined in its Articles of Association as:

- To develop and promote port and harbour related skills standards.
- 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.

Historically, PSS has focused its skills remit on Health & Safety skills, National Occupational Standards (NOS), port qualifications and apprenticeship development. It has collaborated with other associations including Maritime Skills Alliance (MSA), Maritime UK, UKMPG, BPA and UK Harbour Masters Association.

This focus has meant the organisation did not always look at skills in a broad sense, including the wider skills required in ports (outside of health and safety), professional development, or the future skills needs of ports and their workers; suggesting that skills was the 'small S in PSS'.

This has resulted in many similar but unconnected projects, and a lack of a single clear lead for skills in ports, a point made most clearly in the Maritime Skills Commission [Future Ports Workforce](#) report in March 2022, commissioned by UKMPG.

Introduction

Port Skills and Safety should be the natural home for coordinating port skills projects, in the same way the organisation is for health and safety projects. To achieve this, PSS believes it must adopt the same holistic approach to skills as it does to safety. This means not looking at skills in isolation. PSS does not simply collect data on incidents and accidents in ports, it provides safety audits; shares best practice and lessons learnt and develops safety guidance so that members can improve their safety data. For skills this means collaborating with other partners in the sector to understand career needs, map current and future skills requirements and, where necessary, develop training programmes.

This five-year plan, fully updated in March 2024, demonstrates how PSS can truly take the lead on skills in the port sector, focusing on all the elements that support a strong, future-proof, highly skilled workforce. This includes understanding the long-term career needs of both new entrants and the existing workforce, promoting the sector by developing skills which allow port workers to maximise their employment opportunities and helping train the workforce to stay safe.

PSS does not intend to do this alone or undermine the years of work that has already taken place in these areas. One of PSS's strongest assets is facilitating information sharing and promoting best practise. Therefore, PSS will seek to bring together and work with all those organisations and projects currently supporting the ports skills agenda to provide a single voice on port skills. This work will be led by the themes agreed by industry and be delivered alongside the BPA, UKMPG and the Maritime Skills Commission.

Importantly, PSS will continue to ensure that it is the central body in terms of improving and developing port sector qualifications, whether they be on National Occupational Standards, for port apprentices, or specific qualifications such as the Harbour Masters' Certificate. Equally, PSS will be a central resource to share training activities and promote cost-effective solutions.

An update has been provided on each of the objectives and key data.

Key Performance Indicators (KPIs)

Maintain PSS as the standard setter for port skills

PSS must maintain a position as the ports' skills standards-setting body. Within the next five years, PSS will review all the port-specific apprenticeships and deliver increased usage of them in ports. Career mapping will be developed demonstrating entry level and progression routes through ports and the skills required at each stage. PSS will provide resources which support training and skills development, and work with training providers to meet current and future training needs to support the development of a skilled and future-proof workforce.

Update: PSS reinforced its role as the port sector's skills standards-setting body through targeted skills policy engagement with the Department for Transport (DfT) and Department for Work and Pensions (DWP), including formal input into government consultations and calls for evidence, ensuring the port sector's skills needs are reflected in emerging national policy. Alongside this, PSS developed key sector resources including [Career Pathways in Ports](#), [The Education Landscape: PSS Guide for Employers](#), and the [Early Careers Headline Data Report 2025](#).

Collectively, this work provides the first consistent, sector-wide structure for port careers, setting out clear entry routes, progression pathways, and skills requirements, while strengthening the evidence base to support apprenticeship review, provider engagement, and future workforce planning across the sector.

Be data-driven

PSS will collect and use data to drive all areas and demonstrate success. The use of port-specific apprenticeship and qualifications we will be captured. Early careers data, membership surveys, and feedback from events and meetings, will be used to determine which resources to produce. Data on downloads, event attendance and engagement should evidence success of all outputs.

Update: PSS strengthened its data-driven approach by using engagement, performance and workforce data to shape priorities and demonstrate impact across skills activity. Sector engagement was evidenced through an average attendance of 33 participants at quarterly Port Skills Group (PSkG) meetings, with 100% of attendees rating sessions as very good or good.

Insight from member engagement, feedback, and identified sector need informed both the development and sharing of 23 skills resources, including member case studies, while a 73% increase in traffic to skills-related webpages indicates growing reach and usage. PSS

gathered annual data on the use of port-specific apprenticeships and qualifications. In 2025, also established a baseline set of early careers data drawn from member ports, providing an evidence base against which future engagement, resource usage, and skills activity can be measured.

Pillar one: Career pathways

Overview

Career pathways are an important part of how ports plan, develop, and retain their workforce.

Research undertaken in 2023 highlighted that information about port careers, qualifications, apprenticeships, and progression routes was fragmented, with no single point of reference for individuals or employers. While careers activity was taking place across the sector, it was inconsistent, difficult to measure, and often focused on local needs rather than providing a clear, sector-wide picture.

This pillar focuses on mapping roles from entry-level to senior positions, linking training and qualifications to operational needs, supporting workforce planning and retention, collaborating with partners to promote skills and progression, providing talent development programmes such as apprenticeships, graduate programmes, internships, and work experience.

Objectives

Objective 1.1: PSS to meet with the port associations and Maritime Skills Alliance (MSA) regularly to explore areas to support and collaborate.

Update: In 2025, PSS held regular meetings with BPA and UKMPG, chaired the first MSA meeting of the year, and attended a MUK Solent skills meeting. PSS continued to collaborate with BPA and UKMPG throughout the year on the [Women in Ports](#) network as detailed in pillar three.

Objective 1.2: PSS will look to add to the existing materials that highlight the opportunities that exist across UK ports by outlining what skills, qualifications and training might be needed to enter and progress in the sector.

Completed.

Objective 1.3: To add to the resources available and encourage all other maritime organisations to point to the PSS website as the main source of information about port skills, entry points and progression.

Completed.

Objective 1.4: PSS should monitor the impact of Generation Logistics and look for opportunities to highlight the distinct lack of port representation in its marketing. PSS should consider joining Generation Logistics in the future if a gap is identified that is not already covered by the BPA.

Completed.

Objective 1.5: PSS will produce a career pathway map to help the development of talent pools and an indication of the roles that exist at each point.

Update: The [Career Pathways in Ports](#) resource was developed in 2025 to give a clear, consistent view of career progression across a wide range of operational and professional roles. The pathways highlight the skills, qualifications, and experience commonly associated with each stage. The resource is designed to help members structure internal development programmes, support conversations about progression with employees, and create transparent routes for attracting new entrants into the sector.

Objective 1.6: PSS will work with members, Maritime UK and BPA to build a picture of the engagement activities being undertaken and ensure port skills resources are available where necessary.

Completed.

Objective 1.7: PSS will research port qualifications and include a listing on its website.

Completed.

Objective 1.8: PSS to include PDFs on the website from training provider members detailing specific training delivery information and case studies. PSS will determine and add a definitive list of port qualifications in higher education.

Completed.

Objective 1.9 PSS to gather annual data on the use of the port-specific qualifications and apprenticeships available.

Update: [Official 2024/25 data](#) has been gathered for port-specific apprenticeships and qualifications.

Objective 1.10: Gather data on early careers initiatives, including the use of apprenticeships, graduate programmes, internships, and work experience.

Update: The [Early Careers Headline Data Report 2025](#) brings together a baseline snapshot of early careers activity across the port sector, focusing on apprenticeships, graduate programmes, work experience, internships, and T Level industry placements in the academic year 2024/25. The report presents headline participation figures and high-level breakdowns that show how early careers routes are being used across the sector.

Objective 1.11: Expand the information on apprenticeships, including nation-specific guides, supported by a webinar highlighting the benefits and the port-specific apprenticeship programmes.

Update: The [PSS Guide to Apprenticeships in England](#) was launched during National Apprenticeship Week. Options for webinars in 2026 will be explored, contingent on member interest and engagement.

Objective 1.12: PSS will review the port-specific apprenticeship in England in close and comprehensive consultation with the sector to bring the standards up to date and make them less restrictive.

Update: The Port Marine Operations Officer (PMOO) Level 4 apprenticeship review was completed. However, approval was delayed due to the apprenticeship assessment reforms. Plans are in place to revise the assessment plan with Skills England in line with their new guidance. The work is scheduled to be completed early 2026.

Objective 1.13: PSS will consult with members and stakeholders to determine the next apprenticeship to be reviewed and form the trailblazer group with Skills England (formerly IfATE) to start the process. The review process for each apprenticeship takes approximately nine months and all four standards will be reviewed by the end of 2026 if there is sufficient interest from members using the apprenticeship. It should be noted that the apprenticeships will be at risk of being withdrawn if there isn't sufficient interest to review them and that must start with a commitment by a trailblazer group to use them.

Completed.

Objective 1.14: PSS will develop links with the devolved nations and research the funded provision of port-specific qualifications.

Update: PSS presented at the BPA Scottish Ports Group in Peterhead to gather support in lobbying the Scottish government to review the funding band for the [Modern Apprenticeship in Maritime Occupations](#) and thereby support its increased use by ports. Work will continue with a focus on building relationships for apprenticeships and qualifications with the devolved nations, focusing on each in turn. PSS will work with MSA for a joined-up approach.

Objective 1.15: PSS will promote the benefits of the apprentice platform and evaluate data. If the platform is not found to be of benefit to members and port apprentices, the subscription will not be renewed and alternative methods to gather data will be explored.

Completed.

Objective 1.16: PSS will communicate with port apprentices to engage with them early in their careers and raise awareness of the services provided.

Update: Port apprentices were engaged with the [Safer Tomorrow competition](#). Building on this, in 2026 PSS will actively promote the Career Pathways in Ports resource directly to apprentices, supporting early engagement and helping them navigate entry routes and career progression in the sector.

Objective 1.17: Establish relationships with other associations that could benefit the sector, for example, logistics, renewables, motor/plant and construction.

Update: PSS strengthened sector-wide relationships in 2025, including RenewableUK and EngineeringUK (EUK), whose representatives joined the [Skills for Tomorrow panel](#) at the PSS Members' Conference. [Collaboration with EngineeringUK](#) was further highlighted at the September PSkG meeting and cemented with a Memorandum of Understanding. The Road Haulage Association joined the Safety panel, and links with Logistics UK were reinforced through participation in DfT's Freight Workforce Group.

Objective 1.18: PSS will include technical qualifications available in each nation as part of the career mapping work and seek data for higher qualifications from level 4.

Completed.

Objective 1.19: PSS will investigate whether a standardised CPD programme for the sector would be viable.

Completed.

Pillar two: Current and future skills requirements

Overview

Ports are operating in a period of rapid technological change, which is reshaping the skills required across the workforce. Industry 4.0 is changing the way we work and presents huge opportunities. There is a focus on automation to increase safety and efficiencies, as well as decarbonisation and green technologies to improve sustainability. New technologies mean that jobs will become less manual, and the skills required of the workforce will change. This will require upskilling and retraining of the existing workforce. It will help address some of the recruitment challenges by attracting a more diverse mix of applicants to fill new roles in digital, electronics, and sustainability.

This pillar focuses on understanding current and future skills requirements across the port sector and considers the impact of emerging technologies such as artificial intelligence, automation, robotics, the Internet of Things (IoT), and cloud computing, alongside the growing importance of data and cyber security. It also recognises the changing nature of training delivery, including the use of simulators, virtual reality, and other digital learning methods, as well as the additional training required to support the energy transition and the use of new and alternative fuels.

The pillar also recognises the importance of labour market intelligence and workforce diversity in addressing skills shortages. A diverse workforce supports safety, innovation, and resilience, and is essential if the sector is to meet future skills needs. PSS supports members by working with partners across the sector, including Maritime UK and the British Ports Association (BPA), and by using available data and insight to help ports plan for emerging skills requirements.

Objectives

Objective 2.1: Recruit new affiliate and training provider members working with new technologies.

Update: PSS continued to recruit new affiliate and training provider members working with innovative technologies. The [Innovation in Ports Conference 2025](#) in Belfast attracted with 80 delegates and helped introduce new members to the organisation. In addition, a new [Innovation and Technology Working Group](#) was established to bring together PSS members leading the way in the development and application of innovative solutions to make ports safer.

Objective 2.2: PSS will identify opportunities for training courses.

Update: PSS added a new [Mental Health First Aider](#) training course in 2025. In 2026, a new [Managing Safely in Ports \(MSiP\) Refresher](#) course will be offered and work is underway to introduce a new supervisor development programme.

Objective 2.3: Work with all UK nations to monitor the development and introduction of relevant new apprenticeships. PSS will assist other organisations in this area of work and continue to highlight training courses and apprenticeships of interest.

Update: PSS continues to monitor proposed apprenticeship developments that could be of interest to the sector.

Objective 2.4: PSS will create a [training directory](#) to help members pool resources and negotiate rates on training.

Completed.

Objective 2.5: PSS will conduct research to understand the new skills required by ports and support the creation of training courses to meet the need for skills in new technologies.

Update: PSS will monitor support and training requirements through the Innovation and Technology Working Group and seek to work with existing training provider members to create identified training needs.

Objective 2.6: PSS will conduct research to understand the new skills required by ports and support the creation of training courses to meet this need for the renewables sector.

Update: The [Safer Tomorrow](#) campaign highlighted the need to focus on today's workforce, both to upskill and to strengthen the safety culture.

Objective 2.7: PSS will partner with the Maritime Skills Commission to devise and deliver the initial stage one of a project to provide data on the current jobs and skills within ports.

Completed.

Objective 2.8: PSS will explore funding options to re-run the data collection phase of the project to increase the amount of data collected. To alleviate confidentiality concerns raised in the initial survey, confirmation on data protection will be circulated in advance.

Update: PSS explored alternative options to run this project and took the view to focus on gathering early careers data instead as detailed in pillar two.

Objective 2.9: PSS will offer skills audits to help organisations gather data around skills and diversity, identify gaps, and provide recommendations for additional training needs.

Update: This objective has been re-opened following new member interest. One skills audit was completed at the end of 2025 and this service will be promoted to members during 2026.

Objective 2.10: PSS will explore the possibility of accrediting training provider courses and training offered in-house by organisations.

Update: PSS has started drafting this with further development work planned across 2026.

Objective 2.11: PSS will promote Maritime UK and BPA diversity events and share resources.

Ongoing.

Objective 2.12: With BPA and UKMPG, establish a Women in Ports group and mentoring scheme.

Update: In 2025, two [Women in Ports](#) meetings were held, including an [in-person event](#) sponsored by Associated British Ports during London International Shipping Week, which attracted over 100 attendees and launched the [Women in Ports mentoring programme](#). The first cohort of 30 mentor–mentee pairs received online training supported by Women in Transport, and sponsored by Forth Ports, Peel Ports, and Port of London Authority. The [Women in Ports LinkedIn page](#) was also created to promote events and support ongoing communication.

Pillar three: Skills standards

Overview

PSS is the standard setting body for port skills, and this work includes developing and reviewing National Occupational Standards (NOS). While internal competency assessments already exist within some ports, they are not yet widely adopted across the sector.

During the development of this strategy, members identified a need for greater standardisation of competence assessment. While there was broad agreement on the need for consistency, discussions highlighted the complexity of defining a single framework. Members recognised that competence must be assessed on an ongoing basis, even following certification, and expressed a desire to develop their own assessments within a common, sector-led framework overseen by PSS.

The pillar also considers the longer-term potential for PSS to expand its role, whether through the development or accreditation of industry-specific training, competency assessment, or apprenticeship activity. Taking a lead in this area would reinforce PSS's position as the standard-setting body for port skills and could support a more sustainable, sector-led approach to skills development.

Objectives

Objective 3.1: Establish a working group to collaborate on an over-arching [competency framework](#) for ports and assessment documents for priority areas within engineering, operations and marine.

Update: Three [example competency assessments](#) were developed for safety-critical tasks in operations, engineering, and marine areas to be used in conjunction with the existing [PSS competency management system](#). These templates provide a practical starting point from which members can create their own suite of assessment documents tailored to local requirements and specific tasks.

Objective 3.2: In collaboration with the safety working groups working to the [Safety in Ports \(SiPs\) Guidance Strategy 2023-2028](#), review the competency section of each SiP producing any necessary competency assessments. Future steps include using the work to date as a foundation for creating a broader framework of behaviours to benefit the sector.

Ongoing.

Objective 3.3: Establish a technical working group to review the Supervision of Port Operations NOS.

Completed.

Objective 3.4: The Marine Pilot NOS and the Vessel Traffic Services NOS are due for review and a request has been received to review the Harbour Master NOS due to updates in requirements.

Update: PSS will support MSA with the development of port-specific NOS. Members will be engaged as needed to ensure the standards reflect current port requirements.

Objective 3.5: Work with the Health and Safety Executive (HSE) to develop a NOS for tractor unit drivers following recommendations from the Marine Accident Investigation Branch (MAIB) in its Clipper Pennant investigation report.

Completed: [PSSP0103 Drive Shore Based Vehicles](#) is within the [Port Operations NOS suite](#).

Objective 3.6: Investigate the possibilities and funding requirements of a national skills academy.

Update: This work is scheduled to start in 2028.

Objective 3.7: Pilot the development of an operational standard and competency standard for lifting operations. This will test a structured approach to defining operational expectations and the competencies required to meet them, producing clear, practical, and member-validated outputs to support consistent understanding and application.

Update: This work is scheduled to start in 2026.

Appendices

Appendix 1: Actions and Timeline

Key:

	In progress		Completion due date	SPO	Supervision of Port Operations
1	Port Operative	2	Port Marine Operations Officer	3	Marine Pilot

Objective		2024				2025				2026				2027				2028				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1.1	Meet with port associations and MSA regularly to explore areas to support and collaborate.																					
1.2	Look to add materials highlighting skills, qualifications and training needed.		Complete																			
1.3	Add to resources and encourage other maritime organisations to point to the PSS website as the main source of information on port skills, entry points and progression.								Complete													
1.4	Monitor the impact of Generation Logistics and seek opportunities to highlight port careers.					Complete																
1.5	Produce a career pathway map to help the development of talent pools and an indication of roles that exist at each point.								Complete													
1.6	Work with members and associations to build a picture of the engagement activities being undertaken and ensure port skills resources are available where necessary.								Complete													
1.7	Research port qualifications and include a listing on the website.		Complete																			
1.8	Add PDFs on the website from training provider members detailing specific training			Complete																		

Objective	2024				2025				2026				2027				2028			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	delivery information and case studies.																			
1.9	Gather official data on port-specific qualifications and apprenticeships.																			
1.10	Gather data on early careers initiatives in the port sector.																			
1.11	Expand information on apprenticeships, including nation-specific guides.																			
1.12	Review port-specific apprenticeships in England in consultation with the sector.																			
1.13	Consult with stakeholders to determine next apprenticeship for review.																			
1.14	Develop links with devolved nations and research provision of funded port qualifications.																			
1.15	Promote benefits of the apprentice platform and evaluate data.																			
1.16	Communicate with port apprentices to engage early in their careers and raise awareness of PSS services.																			
1.17	Establish relationships with other associations that could benefit the sector.																			
1.18	Include technical qualifications in the career mapping work and seek data for higher qualifications (from level 4).																			
1.19	Investigate whether a standardised CPD programme for the sector would be viable.																			
2.1	Recruit new affiliate and training provider members working with new technologies.																			
2.2	Identify opportunities for training courses.																			
2.3	Work with all UK nations to monitor the development and introduction of relevant new apprenticeships.																			
2.4	Create a supplier list to help members pool resources and negotiate rates on training and equipment.																			

Objective		2024				2025				2026				2027				2028					
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
2.5	Conduct research to understand the new skills required by ports and support the creation of training courses to meet the need for skills in new technologies.																						
2.6	Conduct research to understand the new skills required by ports and support the creation of training courses to meet this need for the renewables sector.																						
2.7	Partner with the Maritime Skills Commission to devise and deliver the initial stage of a workforce data project.		Complete																				
2.8	Explore funding options to re-run the data collection phase of the project in 2025.					Complete																	
2.9	Offer skills audits to help organisations gather skills and diversity data, identify gaps, and provide recommendations.																						
2.10	Explore the possibility of accrediting training provider courses and training offered in-house by organisations.																						
2.11	Promote Maritime UK and BPA diversity events and share resources.																						
2.12	Establish a Women in Ports group and mentoring scheme, in partnership with BPA and UKMPG.					Complete																	
3.1	Establish a working group to develop a competency management system and example assessment documents.																						
3.2	Review the competency section of each SiP with the relevant safety working groups.																						
3.3	Establish a technical working group to review the Supervision of Port Operations NOS.					Complete																	
3.4	Support MSA with the review of port-related NOS.	SP O																					
3.5	Work with HSE to develop a NOS for tractor unit drivers following recommendations from						Complete																

Objective		2024				2025				2026				2027				2028			
		Q1	Q2	Q3	Q4																
	MAIB in its Clipper Pennant investigation.																				
3.6	Investigate the possibilities and funding requirements of a national skills academy.																				
3.7	Pilot the development of an operational standard and a competency standard for lifting operations.																				