Council on Geostrategy

PRIMER
Sea Power Laboratory
No. 2025/04
January 2025

Empowering Britain's maritime-industrial base

By Dr Emma Salisbury

EXECUTIVE SUMMARY

- The British maritime-industrial base should be a cornerstone of the national economy, with the sector playing a vital role in national security, international trade and renewable energy development.
- However, this maritime-industrial base faces significant challenges which threaten the sector's competitiveness and sustainability. Therefore, His Majesty's (HM) Government should take action to ensure the future of this critical sector.
- Britain should work with industry and educational institutions to develop a long-term plan for the maritime workforce and commit to significant levels of government-driven British shipbuilding.
- HM Government should also establish a Maritime Innovation Hub to target increased government R&D support for the maritime-industrial base.

Once a central part of the domestic economy, the British maritime sector is now facing a series of complex challenges that threaten its future viability. The National Shipbuilding Strategy (NSS), published in 2017 and updated in 2022, represents a comprehensive effort to revitalise the shipbuilding industry specifically, but there has been little thought around bringing shipbuilding together with the other parts of the maritime-industrial base to deal with the comprehensive challenges faced throughout the sector.[1] The British maritime industry's ability to recover and thrive will depend on its capacity to adapt to global market conditions, attract new talent, and secure long-term investment. If it cannot do so, the sector risks remaining one of small niches and scattered bright spots, rather than a competitive and sustainable part of the British economy.

His Majesty's (HM) Government has a clear opportunity to nurture the maritime sector to secure its future – from shipbuilding to port services, undersea infrastructure, offshore energy, scientific research and beyond. The United Kingdom (UK) should be building on the maritime roots that remain and encouraging the development of an innovative and sustainable technological powerhouse throughout the sector. Reinvigorating these once-mighty industries would be valuable for promoting not only national security, but also a stronger British economy and the prosperity of communities around shipyards, ports and maritime manufacturing sites around the country. This Primer offers recommendations on how to achieve that.

The maritime-industrial base: Key components

The British maritime-industrial base is made up of a wide range of smaller and specialised subfields, but the three core sectors are ports and services, offshore energy and shipbuilding.

Table 1: The British maritime-industrial base in the mid-2020s

Sector	Annual economic contribution	Jobs
Ports and services[2]	£37 billion	125,000
Offshore Energy[3]	£30 billion	220,000

[1] 'National Shipbuilding Strategy', National Shipbuilding Office, 10/03/2022, https://assets.publishing.service.gov.uk/ (checked: 28/01/2025).
[2] 'The economic contribution of the UK Ports industry', Centre for Economics and Business Research (for Maritime UK), 05/2022, https://www.maritimeuk.org/ (checked: 28/01/2025).
[3] 'Economic Report 2023', Offshore Energies UK, 09/2023, https://oeuk.org.uk/ (checked: 28/01/2025).

Shipbuilding[4]	£2.4 billion	42,000

Ports and services

British ports are vital to the nation's maritime-industrial base, acting as essential nodes for trade, logistics and industrial activity. With over 120 commercial facilities along the country's coastline, ports support a wide range of industries, from shipping and logistics to energy, manufacturing and tourism.

UK ports handle approximately 95% of the country's imports and exports by volume, making them indispensable to international trade; major ports such as Felixstowe, Southampton and London Gateway dominate containerised trade, handling millions of 20-foot equivalent units (TEUs) annually.[5] British ports handle diverse cargo types, including bulk goods, liquids and specialised freight, ensuring the smooth operation of other important national industries such as agriculture, construction and manufacturing. Ports also offer services beyond loading and unloading cargo: advanced logistics operations include warehousing, inventory management and customs processing, often supported by digital technologies.

The UK's ports also contribute to the maritime economy through passenger services and tourism. Cruise terminals, such as those in Southampton and Liverpool, bring global visitors to Britain and support the tourism industry. Ferry services connecting to Europe and island territories also operate through ports such as Dover and Holyhead.

UK ports face intense competition from nearby European ports, such as Rotterdam, Antwerp and Hamburg, which benefit from larger economies of scale, streamlined customs processes, and substantial public investment. There is a critical need to modernise infrastructure to match global standards, but this is too often constrained by funding limitations. Legacy infrastructure at many British ports is ill-equipped to handle larger modern vessels, so upgrading quay walls, deepening harbours and expanding container-handling capacity are costly but essential for remaining relevant in global shipping. Many UK ports also lag behind global leaders in adopting advanced technologies, such as automation, artificial intelligence (AI) and blockchain for logistics and supply chain management. This need for investment is compounded as Britain strives to achieve net-zero emissions by 2050, with ports facing the need to reduce their environmental footprint. Transitioning to low-carbon technologies, such as shore-side power, electric vehicles and hybrid port equipment, will require significant investment and infrastructure upgrades.

[4] 'New shipbuilding lending scheme to boost UK's coastal communities', Department for Business & Trade, 26/07/2023, https://www.gov.uk/ (checked: 28/01/2025).
[5] 'Port freight annual statistics 2023: Overview of port freight statistics and useful information', Department for Transport, 17/07/2024, https://www.gov.uk/ (checked: 28/01/2025).

Offshore energy

The UK's maritime-industrial base and offshore energy industry are deeply interconnected, with the former playing a crucial role in supporting the development, operation and maintenance of offshore energy projects. Ports such as Aberdeen, Grimsby and Harwich serve as critical hubs for assembling, deploying and maintaining offshore wind turbines. The construction of large-scale projects such as the Dogger Bank Wind Farm, the world's largest offshore wind farm, depends on specialised vessels designed for transporting and installing turbines, as well as crew transfer vessels and service operation vessels for their life in service. The construction and maintenance of such vessels locally brings additional scope for strong links between the offshore energy and shipbuilding industries within the maritime sector – as will future renewable projects at sea, such as wave/tidal power and seabed carbon capture/storage.

Britain's reserves of oil and gas, primarily in the North Sea, also remain a significant part of the energy mix. Maritime support is an underpinning requirement for the operation of offshore platforms and pipelines, and ports like Peterhead are a central hub for engineering support and logistical services. Both the fossil fuel and renewable energy industries also rely on the maritime-industrial base to provide innovative subsea technologies for inspections and repairs, particularly remotely operated vehicles (ROVs) and autonomous underwater vehicles (AUVs) and their software for surveys and related tasks.

The UK will need to continue to invest in the offshore energy industry to retain its preeminent place. This will require a steady construction flow of the specialised vessels (both crewed and uncrewed) needed to support offshore energy projects, as well as

the maintenance and upgrading of shore-based facilities.[6] As technologies advance, new skills and methodologies will be required. Similar to other maritime-industrial sectors, the offshore energy industry struggles with an aging workforce and the need to attract younger talent to maritime and engineering careers in order to maintain a sustainable workforce into the future.

Shipbuilding

The core of the British maritime-industrial base has historically been shipbuilding, with iconic shipyards in cities such as Glasgow, Belfast and Newcastle. These sites were vital to Britain's war effort during both world wars, and they were significant employers in the coastal communities around them. However, British shipbuilding began to lose its competitive edge in the post-war years, and by the 1980s and 1990s the industry was dominated by nations such as

[6] Jack Simpson, 'Port infrastructure delays threaten UK's transition to net zero, industry says', *The Guardian*, 02/07/2024, https://www.theguardian.com/ (checked: 28/01/2025).

South Korea, Japan and the People's Republic of China (PRC), all of which were able to take advantage of lower labour costs and considerable government subsidies.[7] Today, the Asian shipbuilding giants outproduce Britain by an enormous margin; Britain's shipbuilding industry is now predominantly focused on naval contracts and a commercial side largely sticking within the niche of high-value bespoke vessels. The large shipyards that remain operational are primarily military-focused, with a scattering of smaller yards building small vessels and leisure craft, and/or offering repair and refit services. Moreover, compared to their foreign rivals, British shipyards are often outdated due to consistent underinvestment in infrastructure and new technologies.

Today, HM Government is the main buyer of ships built in British yards, with the Royal Navy being the leading recipient.[8] While these contracts provide essential revenue, they also create vulnerabilities. The dependence on government orders means that the industry's fortunes are closely tied to political decisions and defence budgets, which can be affected by political expediency. The Queen Elizabeth class aircraft carriers, for example, were held up for years due to cost-saving measures and attempted redesign. This focus on military contracts also limits the industry's ability to compete in the global commercial shipbuilding market, where demand is much higher. Equally, the industry is facing a critical skills shortage. The decline of the sector over the past few decades has led to a loss of skilled labour, with fewer young people entering the trade and insufficient investment in the training required to pass on the specialised knowledge of shipbuilding to the next generation.

Boosting the maritime-industrial base

The maritime-industrial base has a great deal of potential to grow, boosting not only the British economy but also the nation's security. These recommendations offer a pathway to making the UK's maritime industries stronger, more resilient and better connected.

Work with industry

Fostering a strong partnership between HM Government and the British maritime industry is key to ensuring that both can work together to address the

[7] Paul Stott, 'Shipbuilding Policy in the UK: The Legacy of a Century of Decline and its Influence on Naval Procurement', *The RUSI Journal*, 168(5), 25/09/2023, https://doi.org/ (checked: 28/01/2025) and 'Review of Maritime Transport 2023: Facts and Figures on Asia', United Nations Trade and Development 27/09/2023, https://unctad.org/ (checked: 28/01/2025).
[8] For a deeper focus on naval shipbuilding, see: Emma Salisbury, 'Empowering Britain's warship production', Council on Geostrategy, 19/09/2024, https://www.geostrategy.org.uk/ (checked: 28/01/2025).

challenges the sector faces, improving the industry's sustainability, competitiveness and ability to meet future demands.

HM Government should work closely with the maritime industry to drive innovation, developing cutting-edge technologies that can enhance the capabilities of British manufacturing facilities and make them more competitive on the global stage. Partnerships should be strengthened between businesses, universities and research institutions to ensure that the latest scientific and engineering advancements are being applied to the maritime.

Another critical area for government-industry collaboration is in skills development and workforce planning. Building on the work of the UK Shipbuilding Skills Taskforce, HM Government and industry should jointly invest in training programmes, apprenticeships and educational initiatives which can attract new talent to the maritime sector as a whole and upskill the existing workforce. Such initiatives could include apprenticeship schemes tailored around hands-on experience in manufacturing facilities, ports and shipyards, as well as the development of specialised courses at universities focused on maritime engineering and technical skills. Long-term planning is again central to success here – industry and government should work together to align educational efforts with future labour needs through regular forecasting to build a sustainable pipeline of skilled maritime workers for decades to come.

This work should be based around a new Maritime Skills Passport, drawing on the forthcoming scheme for the energy sector to support the ongoing transition from oil and gas to renewable energy sources.[9] This scheme would allow workers to identify which qualifications and training programmes are required for particular roles in the maritime sector, ensure mutual recognition of qualifications and better enable those interested in the maritime field to map out potential career paths. A comprehensive Maritime Skills Passport could also be connected into careers in the Royal Navy, Royal Fleet Auxiliary and other government agencies, allowing for maritime career paths that can span military, commercial and government roles and bring considerable value to all.

Industry-government collaboration should extend throughout the multifaceted supply chains that make up the maritime-industrial base. The security and resilience of these supply chains is critical to ensuring a sustainable sector, and it is important for HM Government to gain and retain thoroughgoing knowledge of these connections and their potential weak points. An open working relationship between government and the various industries in the maritime sector will allow for the implementation of targeted solutions to problems as they arise – whether that comes in the form of targeted investment, tax incentives or regulatory tweaks from HM Government, or internal investment from industry.

[9] 'Delivering a skills passport for the Clean Energy Transition', Department for Energy Security and Net Zero, 17/10/2024, https://www.gov.uk/ (checked: 28/01/2025).

Recommendations:

- Develop a long-term plan for the maritime workforce across government, industry and educational institutions and build a new Maritime Skills Passport.
- Collaborate across industry and government to identify ways to invest in supply-chain resilience and sustainability.

Work across government

No strategy to revitalise the British maritime-industrial sector can succeed without the coordination of efforts across the various departments that make up HM Government. Each department has a specific role to play, but their collaboration is essential to success.

The cross-pollination of technological advancements between the naval and commercial sides of shipbuilding will require alignment between the Ministry of Defence (MOD) and the Department for Business and Trade. The MOD can help set strong demand signals and ambitious technological requirements for future naval vessels, driving innovation in ship design, materials, propulsion systems and uncrewed capabilities that can spread throughout the wider sector. The Department for Business and Trade can likewise support innovation and research and development (R&D) within the commercial industry.

Both departments will also be needed for efforts to collaborate on securing the resilience of supply chains, given the considerable overlaps between the downstream suppliers of military and commercial shipbuilding. Moreover, the Department for Transport can work with the MOD and the Department for Business and Trade to improve logistics and transport infrastructure, both at ports themselves and onward throughout the country, making it easier and more cost-effective to move materials and components across the country to create a more efficient supply chain.

Addressing the maritime workforce skills gap will need wider collaboration across government. The MOD and the Department for Business and Trade have a considerable part to play in helping to identify skills gaps in their respective areas, but these cannot be addressed without the Department for Education and the Department for Science, Innovation and Technology. These latter two departments will be instrumental in building relationships with educational institutions and devising the focused initiatives needed to plug gaps in maritime skills across the current and future workforce.

All of these efforts will cost money, so it is vital that these departments all work closely with HM Treasury to ensure that they have the funding to achieve

these goals. Making the case for improving the British maritime-industrial base does not end with the MOD or the Department for Business and Trade – only if HM Treasury is on board can these policies be properly enacted.

Recommendation:

Ensure the long-term structural and funding resilience of cross-departmental work on boosting the maritime-industrial base.

Boost technology and innovation

The future competitiveness and sustainability of the British maritime-industrial base can only be secured in the long term through innovation, requiring increased investment in R&D. HM Government should provide financial incentives and direct support for research projects that align with the broader strategic goal of bolstering the maritime sector, encouraging risk-taking and the exploration of new technological horizons.

There is considerable scope for innovation within the maritime field. A core area will be the design of vessels and their propulsion, particularly around the growing need for environmentally sustainable shipping, both for new ships and the retrofitting or upgrading of existing ships. Uncrewed surface and subsurface systems will be key for many tasks, including maintenance, offshore operations and data collection, and this can be fertile ground for British innovation. New digital methods around ship management, networking, autonomous navigation and logistics support can enhance operations for both crewed and uncrewed vessels. The construction and maintenance of vessels could benefit from innovation in areas such as lean manufacturing, automation, three-dimensional printing, predictive maintenance and advanced materials.

Many of these technology areas will also benefit British ports and their downstream supply chains. Automation and digitalisation can contribute to the more efficient and streamlined handling of cargo and logistical operations. Funding for R&D into low-carbon port technologies, such as shore-side power, hydrogen-powered equipment and hybrid vessels, can also help ports align with the UK's net-zero targets. There is also considerable potential for R&D for shore-based support for the offshore energy industry, including specialised vessels and uncrewed systems, cable and pipeline technologies and innovative materials.

HM Government should set up a Maritime Innovation Hub, based in the Department for Business and Trade, but working closely with other responsible departments and agencies. The Hub would be tasked with strategically coordinating increased government investment in maritime-related R&D,

identifying gaps and barriers that require intervention and providing a central point of contact between government, industry and academic institutions in the pursuit of technological advancement across the maritime domain.

One of the central planks of the NSS was the recognition that demand signals from HM Government do a great deal to encourage modernisation and innovation within the shipbuilding industry. As well as directly supporting R&D, government shipbuilding contracts can be leveraged to drive technological advancement through the specification of cutting-edge capabilities – for energy efficiency, advanced materials or ship system automation, for example – and the encouragement of new manufacturing methods. However, these benefits are not restricted to shipbuilding for government purposes, as such innovations have the potential to flow laterally into not only commercial shipbuilding but also other maritime industries and their supply chains. If this capability is used strategically together with targeted R&D support, HM Government can make a significant contribution to support and encourage innovation within the maritime field.

Recommendations:

- Establish a Maritime Innovation Hub to target increased government R&D support at the maritime-industrial base, especially areas that benefit both the military and the commercial side.
- Use government shipbuilding contracts to stimulate industry investment in lateral innovation, particularly around manufacturing processes and environmental sustainability.

Integrate naval and commercial shipbuilding

The future of the British shipbuilding industry as it currently stands is one heavily tied to military contracts. While these contracts provide good revenue for the companies involved and support the nation's security, too much of a reliance on them brings significant risks – shifting political priorities and fluctuating defence budgets make for a sector exposed to uncertainty, production gaps and underutilisation. To thrive in the long term, the industry should look to chart a new course, tapping into the immense potential of the global commercial shipping market to open new revenue sources and reduce its dependence on government contracts.

With the right strategy, British shipyards should be able to leverage their existing strengths into the commercial market, especially their latent reputation for quality, precision and highly specialised engineering. However, they will need to embrace emerging technologies to become competitive – investment in

automation, lean manufacturing and other digital technologies would help to reduce production costs while keeping standards high. There could also be scope for government support, such as tax incentives, subsidies or direct investment, which could assist in levelling the playing field against Asian competitors who benefit from the same. Investment and innovation in the commercial sector will also drive progress throughout the military side, and vice versa – advancements in construction technologies for commercial vessels can enhance military projects, while technologies developed for naval vessels can solve security problems for their commercial brethren.

The expertise and connections of the National Shipbuilding Office (NSO) make it the obvious choice to lead on this work. The team at the NSO should be empowered to conduct a comprehensive review of the barriers to investment within the commercial shipbuilding industry, working with industrial representatives, and to identify strategic ways in which HM Government could provide incentives and assistance in bolstering commercial shipyards.

Recommendation:

- Work between government and industry, led by the NSO, to identify barriers to investment in commercial shipbuilding, plus solutions to overcoming these.

Set strong demand signals

Demand signals from HM Government contracts are not only important in innovation – they also provide the security of a steady and predictable flow of work for British shipyards and their supply chains. In a complicated and intense global market, consistent demand from the government over a sustained period gives companies the stability they need to invest into their businesses, allowing them to commit to long-term investment in technology, infrastructure and a skilled workforce. As the NSS highlighted, a reliable pipeline of shipbuilding contracts creates the conditions to sustain shipyards into the future. However, this is not just a matter of building – government contracts also include maintenance, repairs and modernisation services, all of which are needed to keep a fleet operational and up to date.

Long-term planning is vital, and HM Government should provide a clear and predictable schedule of shipbuilding projects, extending over several decades. This long-term view allows shipyards to plan and optimise their operations, reducing costs and improving efficiency. It also gives suppliers and subcontractors the confidence to invest in their capabilities, knowing that there

will be sustained demand for their products and services, bringing cascading effects down the maritime-industrial supply chains that support shipbuilding.

Recommendation:

- Commit to a long-term plan for significant levels of government shipbuilding, centred in British shipyards.

Conclusion

The future of the British maritime-industrial base lies in a diversified and innovative sector supported by strong government demand, R&D investment, industry collaboration, and cross-departmental coordination. This Primer makes several broad recommendations for HM Government:

- Develop a long-term plan for the maritime workforce across government, industry and educational institutions and build a new Maritime Skills Passport;
- Collaborate across industry and government to identify ways to invest in supply-chain resilience and sustainability;
- Ensure the long-term structural and funding resilience of cross-departmental work on boosting the maritime-industrial base;
- Establish a Maritime Innovation Hub to target increased government R&D support for the maritime-industrial base, especially areas that benefit both the military and the commercial side;
- Use government shipbuilding contracts to stimulate industry investment in lateral innovation, particularly around manufacturing processes and environmental sustainability;
- Work between government and industry, led by the National Shipbuilding Office, to identify barriers to investment in commercial shipbuilding, plus solutions to overcome these; and
- Commit to a long-term plan for significant levels of government shipbuilding, centred in British shipyards.

HM Government should grasp the considerable opportunities to rejuvenate the whole British maritime-industrial base, from shipbuilding to ports to offshore energy and beyond. A Britain with a sustainable and revitalised maritime sector will be safer, stronger, greener and more prosperous over the long term.

ABOUT THE AUTHOR

Dr Emma Salisbury is Sea Power Research Fellow at the Council on Geostrategy.

Dedicated to making Britain, as well as other free and open nations, more united, stronger and greener.

ISBN: 978-1-914441-95-0

Address: 14 Old Queen Street, Westminster, London, SW1H 9HP
Phone: 020 3915 5625
Email: info@geostrategy.org.uk