

Maritime
UK

Maritime 2050: Where are we now?

Maritime UK

Maritime UK is the umbrella body for the maritime sector, bringing together the shipping, ports, services, engineering and leisure marine industries. Our purpose is to champion and enable a thriving maritime sector.

Our members are:

Belfast Maritime Consortium, British Marine, British Ports Association, CLIA UK & Ireland, Institute of Chartered Shipbrokers, Maritime London, Maritime UK South West, Mersey Maritime, Nautilus International, The Seafarers' Charity, Shipping Innovation, Society of Maritime Industries, Solent LEP, The Baltic Exchange, Trinity House, UK Chamber of Shipping, UK Major Ports Group and the Workboat Association.



Foreword

Dear colleague,

Since the UK published its Maritime 2050 strategy in January of 2019, the world has seen a huge amount of upheaval. Though the UK's exit from the European Union was already in train, the unprecedented outbreak of a global pandemic was soon to cause major disruptions across the sector and across the world.

And yet, despite much happening during the past two and a half years, the long-term challenges and opportunities for the sector remain very similar. In many cases, the pandemic has simply accelerated change or made the imperative to make progress that much greater. Be that the focus of society on the climate crisis or the need to provide greater support on seafarer welfare following the crew change crisis.

Whilst Maritime UK and its members have worked hard to support businesses and colleagues across the sector during the pandemic, I am pleased that the sector was able to keep its eye on Maritime 2050 and make real progress in delivering its recommendations. Such is the value that the sector attaches to the first long-term national government strategy for the maritime industries.

Following the publication of a government strategy, there is always the potential for it to sit on the shelves and remain simply a document. Both industry and government have been determined that Maritime 2050 should be a different story. With a wide and diverse membership spanning across the maritime sector and across the UK, Maritime UK, its members and the industrial community have worked closer than ever to deliver as much of the strategy's short-term recommendations as possible. This has necessitated new working practices across the sector – encouraging a culture change that breaks down silos to make progress on

common priorities – and, as the report demonstrates, we have taken real strides in these directions. There is much more to do, clearly, but that progress has been made across the board should give us real cause for optimism about the future of our sector.

Whilst we have only just started on our journey to 2050, it is clear that the greatest progress has been made when we work together. Across the sector and then with government. We should take pride in what we have achieved so far, despite the greatest economic and societal shock in modern times.

To respond to the climate crisis and play our sector's part in getting to net zero, we need to collaborate. Some may question the value in publishing a report so soon into the strategy's life. Maritime UK believes it is important to celebrate where progress has been made, to learn from those successes, and employ that collaborative approach to the biggest challenges we face – with decarbonisation at the top of the list.

Whilst so much of our potential can be realised by working within industry, there are some things that we can only do with government. I thank government departments, led by the Department for Transport, for their leadership in supporting the sector on its journey to 2050.

Together, let us rededicate ourselves to the mission of Maritime 2050, learn the lessons of unlocking progress so far and move forward together as we recover from the pandemic with Maritime 2050 as our guide.

Yours sincerely,

Sarah Kenny

Chair, Maritime UK

Introduction

Maritime 2050 and Maritime UK

When the Maritime 2050 strategy was published in January 2019, it was the first major strategy comprehensively outlining government and industry priorities and ambitions for the future of the UK maritime sector. The document set out over 180 recommendations across seven themes, all intended to ensure the UK secures its position as a globally renowned, competitive maritime nation. These themes spanned widely, anticipating challenges and opportunities ahead on the environment, security and resilience, infrastructure, people, competitive advantage, innovation and technology and trade. The strategy detailed the ways in which the maritime sector – through both government and industry action – could capitalise on these opportunities in the short, medium and long-term.

At the halfway mark for the short-term recommendations, Maritime UK and its members have determined to take stock of where the sector finds itself on the journey to realising the strategy's ambitions. This is to ensure that progress is appropriately monitored, and to provide a basis for the consideration of current gaps in delivery or reconfigurations that may have to be made due to changed circumstances; not unlikely for a strategy spanning thirty years.

In the period since the publication of Maritime 2050, major geopolitical, economic, and societal shocks have highlighted the need for a strategic response to the major challenges of our time, such as climate change, but also complicated its delivery. Despite external changes however, the Maritime 2050 strategy has remained relevant and continues to provide a roadmap for the progress of the sector that can help respond to the additional challenges of recovery from the COVID-19 pandemic. The pandemic has brought into sharp relief the essential nature of maritime supply chains and its key workers in keeping

the country supplied and connected. Delivering upon the recommendations of Maritime 2050 will contribute to future resilience in the face of other unprecedented circumstances.

The Maritime Sector

95% of all imports and exports coming into and leaving the UK transit through sea ports, making use of an entire maritime ecosystem on its way, consisting of port operators and personnel, shipping, the manufacturing of specialised equipment, and the use of services such as insurance, financing and arbitration. Maritime UK's [State of the Maritime Nation report](#) estimated that the maritime sector contributes £46.1bn to the national economy every year and supports 1.1 million jobs, meaning it has a significant impact on the rest of the economy through its wide-spanning supply chains and networks of suppliers. Due to the historic locations of maritime businesses, the maritime sector is also a major contributor to the prosperity of coastal communities, which have been disproportionately affected by financial hardship as a result of the pandemic.

Maritime UK, as the umbrella body for the UK maritime sector, representing interests from across the five maritime industries; shipping, ports, engineering and marine science, leisure marine and professional business services, is uniquely positioned to provide updates and bring industry representatives together to progress key recommendations. With the contributions of Maritime UK member bodies from across the sector, this document sets out current industry progress in key priority areas, specifically for the short-term recommendations set out in the strategy, celebrating those successes that have already been achieved and trying to understand where efforts need to be focused over the next two years in order to ensure progress in areas where activity to date has been lacking.

While the Maritime 2050 strategy originally provided recommendations for seven different themes, this report will be filtered through the five key Maritime UK priority areas:

 **Competitiveness**

 **People**

 **Environment**

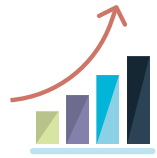
 **Innovation**

 **Regional growth**

The report does not make further recommendations as to where activity should next be prioritised. This prioritisation process will be undertaken by industry and government in the coming weeks and months. This process will be supported through a major Maritime 2050 conference on 25 June, and a series of thematic 'Build Back Better' webinars throughout the rest of 2021. This report should be seen as the first part of a wider conversation to be held between government, industry and across the sector about future priorities and next steps.

The appendix of this report provides a complete overview of all short-term recommendations set out within the Maritime 2050 strategy, alongside updates from across industry and government.





Competitiveness

While a factor in all the recommendations in the Maritime 2050 strategy, for the purpose of this report, the umbrella of 'Competitiveness' will encompass all those recommendations set out under the themes of 'UK Competitive Advantage' and 'Trade'. Those recommendations focused on regional clusters within the competitive advantage chapter will be reviewed within this report's section on 'Regional Growth'.

Background

The UK has a unique maritime offering exhibiting strengths from across the UK and the sector, and aims to be a global thought leader and strong international maritime partner. As host to the UN's International Maritime Organization (IMO), the UK is in a position to positively influence international maritime regulations and legislation, and to lead by example by offering a consistent and secure business environment underpinned by strong partnership between government and industry. Those recommendations relevant to the theme of competitiveness have therefore also been concerned with continuing to strengthen the relationship between industry and government which will enable a comprehensive delivery of Maritime 2050.

Aiming to ensure the UK is an attractive location for maritime business for both domestic and international partners, and leads a forward-thinking maritime agenda, key priorities and actions within this area have been:

- To create a coordinated and collaborative environment within the UK maritime sector, with links between government, industry and academia that enables the comprehensive delivery of the Maritime 2050 strategy;
- To ensure the UK takes a leading role in the international maritime sector, both through the IMO and directly from industry;

- To develop a competitive business environment for maritime business and consider regulatory and non-fiscal measures in place to attract businesses to the UK;
- To enhance and retain the competitiveness of the UK Ship Register;
- To promote the existing fiscal regime and to engage directly with both SMEs and international maritime companies;
- For government to consider if the existing secondary regulatory regime is fit for purpose on an ongoing basis and seek to explore opportunities to reduce burdens to business;
- To develop specialist green finance products and define the standards for green maritime finance;
- To enhance the opportunities for UK companies for domestic vessel procurement.

Performance

Industry and government partnership

The past few years have seen increased engagement between industry and relevant government departments. This has been particularly facilitated by Maritime UK, as the umbrella body for the sector, promoting common views to government and as a collaborative and coordinating vehicle for the sector. The commitment to work together with industry to progress the recommendations set out within Maritime 2050 were enshrined within the strategy itself, which vows to 'put in place the most appropriate mechanisms for the delivery of Maritime 2050 and its route maps' and to 'continue to support Maritime UK and its international impact'.

For the progression of Maritime 2050 specifically, Maritime UK has worked with its members to prioritise recommendations within each area and members have taken leading roles on those recommendations relevant

to their part of the sector. Government and industry also work together through a range of joint working groups relevant to different areas of priority, including the Clean Maritime Council, the Maritime Exports and Investments Group, Technology and Innovation Group, Maritime Skills Commission and so on. Government and industry partnership has also been evident through the pandemic at joint forums such as DfT's Restart and Recovery Working and Steering Group, and Maritime UK's Maritime Business Continuity Taskforce, as well as through extensive engagement by Department for Transport ministers.

International leadership

Beyond cooperation on the domestic scene, the UK has sought to show global maritime leadership, particularly through the IMO. The UK was the first major economy to legislate for net zero carbon emissions and the first to produce a national clean maritime strategy. It was also the first to announce that its share of international aviation and shipping emissions would be included within domestic carbon targets. During the COVID-19 crisis, the UK has been a leading voice in calling for action by governments around the world to resolve the crew change crisis. Similarly, the UK has been at the forefront of calls for seafarers to be considered key workers. The UK government has successfully bid to host the Global Maritime Forum and London International Shipping Week is increasingly viewed as a key moment in the global industry calendar for coming together to discuss the shared challenges for the sector. The UK delegation to the IMO includes industry representatives, and Maritime UK members actively participate in a number of ways.

UK shipping business environment and the UK Flag

The UK flag remains number one of states in the Paris MoU, denoting high compliance with global maritime legislation and safety regulations.

Proposed amendments developed with industry to the UK Tonnage Tax regime, which have implications for the costs and obligations of shipping companies choosing to register their vessels in the UK, could grow the presence of shipping interests in the UK. Amendments to the Tonnage Tax scheme will have an impact on the attractiveness of the UK shipping business environment.

London's first shipping IPO in four years was successfully completed in May 2021, realising \$253m.

UK export promotion

Like all themes explored in this report, the outbreak of the COVID-19 pandemic has had a significant impact on delivery. A key example has been around ambitions to increase the UK's international business development work through trade missions and exhibitions, as international travel has been curtailed, and activity has had to adapt.

However, the sector has, through collaboration between the Department for International Trade (DIT) and industry, developed a [Five-year Plan for Maritime Exports and Investment](#), which sets out steps to help better support companies to export and to market the UK's maritime sector across the world. Ambitions set out in this document are being progressed through the joint industry and government Maritime Exports and Investment Group. In the context of the National Shipbuilding Strategy, the DIT Maritime team is growing significantly and industry expects the new resource to better support SMEs to get to market, to match UK capability with international opportunities through the commercial network in-country and to more comprehensively market the UK's maritime sector proposition in key markets.

The Maritime Team at DIT has, in partnership with industry partners such as Maritime UK, delivered several webinars aiming to equip UK maritime exporters with the skills and knowledge to increase exports in new and existing markets, with a focus on key maritime markets.

The new GREAT marketing materials have been produced, comprising video, digital and print assets. These items showcase different parts of the maritime sector.

The Maritime Capability Campaign Office was recently set up by government to help coordinate campaign activity across the civil and military maritime sectors, aiming to make UK maritime exports more competitive abroad.

Shipbuilding

Competitiveness is at the heart of industry's priorities for the refreshed National Shipbuilding Strategy, due to be published in 2021.

The strategy intends to provide industry with the necessary certainty needed to invest in technology and capability as well as in people and skills. The strategy outlines the UK's future shipbuilding offer, with the promotion of the construction of both military and commercial vessels. The refreshed strategy will have a broader scope than the original, published in 2017, and consider the involvement of the entire maritime supply chain. Maritime UK published its priorities for the strategy in its [National Shipbuilding Strategy manifesto](#) in May 2021.

The Department for Business Energy and Industrial Strategy (BEIS) is working on a business case for a new Home Shipbuilding Credit Guarantee Scheme.



People

Background

The short-term recommendations set out under the theme of 'People' in the Maritime 2050 strategy were in large part concerned with establishing those structures and initiatives that could drive future ambitions forward, ensure better coordination and collaboration across the sector and involve a greater diversity of people in work to promote opportunities and inclusivity. Maritime 2050 made clear that the people of the maritime sector are a key element of the future; they are the lifeblood that enables its success¹. Alongside the progress of the recommendations themselves, the Department for Transport in September 2019 also launched a [People Route Map](#), setting out the more detailed steps required to reach the overarching goals within Maritime 2050.

The pandemic has had a severe impact upon individuals in all parts of the sector, whether that be because of the crew change crisis, redundancies, job insecurity, or the challenges of having to work from home. In this area, certain recommendations, including those to establish safe-space networks, have been valuable to colleagues across the sector.

Alongside significant disruption and uncertainty, the pandemic has hastened the adoption of new technologies in the delivery of training and education. This was explored by the Maritime Skills Commission's [Digital Learning Report](#), in which it was concluded that one effect of the pandemic has been the quick implementation of digital capabilities for educational delivery by training providers across the sector, which in the past would have taken longer to achieve.

Focused on the workforce, diversity, skills, careers and welfare, key recommendations within this theme included:

- Establishing a sector-wide careers programme for the promotion of maritime careers across the country;
- Establishing a Maritime Skills Commission and identifying skills gaps across the sector;
- Expanding the Women in Maritime programme to include other diversity issues;
- Ensuring that the UK Tonnage Tax scheme retains its training element;
- Introducing National Minimum Wage, mental healthcare guidelines and standardised ID cards for seafarers.

Progress

Based on a total of 15 recommendations, significant progress has been made under the theme of 'People'. The past two and a half years has seen the successful establishment of the Maritime Skills Commission, the Maritime Careers campaign, and the expansion of the existing Women in Maritime programme to include other diversity challenge areas into what is now known as the Diversity in Maritime programme. With support from the Department for Transport Maritime UK has played a coordinating role in these initiatives, encouraging participation from the breadth of the sector.

Beyond the establishment of these structures, the following activity has been delivered:

Coordination of maritime careers promotion

After identifying Maritime UK as the single-industry body referred to in Maritime 2050, and being provided with funding from the Department for Maritime Careers programme, the following activity has taken place:

- A dedicated Programme Manager was put in place to manage the development of the Maritime Careers campaign and associated activity;
- [An Industry Ambassador programme](#) was established in September 2020 and has attracted a growing pool of volunteers from across industry who are speaking to children and young people in schools and colleges across the UK on a regular basis. At the time of writing, there are 115 volunteers involved in the initiative, and these have collectively spoken to more than 13,700 children in the months since its establishment;
- Weekly CPD (Continuing Professional Development) sessions are regularly delivered to a new and growing [Careers Professionals' Network](#) comprising professionals from schools and colleges around the UK. These sessions provide an introduction to the opportunities that exist within the maritime sector;
- Regional Engagement Plans have been developed for most nations and regions of the UK to set targets for careers promotion activity with regional cluster organisations;
- A Maritime Careers Campaign Partner initiative was established and now has more than 60 organisations signed up as official partners;
- A ['People Like Me'](#) project was funded by the Department for Transport in 2019 and was developed and delivered by both Maritime UK and the Institute of Chartered Shipbrokers. The bank of profiles of women working in different roles across the sector is now being expanded to become part of the wider Maritime Careers campaign;
- Significant amounts of online materials and digital resources including videos and a soon to be launched website have been produced. These have often been produced to better engage with national initiatives like National Careers Week or National Apprenticeship Week(s).

Increasing diversity across the maritime sector

Since Maritime UK was supported by the Department for Transport to establish the Diversity in Maritime programme, the Diversity in Maritime Taskforce has overseen:

- The appointment of a dedicated Programme Manager overseeing diversity and inclusion workstreams;
- The establishment of four [Diversity in Maritime Networks](#) aiming to create safe spaces for different protected characteristics, consisting of Mental Health in Maritime, Ethnicity in Maritime, Women in Maritime and Pride in Maritime;
- The development and expansion of the existing Women in [Maritime Pledge and Charter processes](#) to include all forms of diversity. To achieve Diversity in Maritime Charter Status, organisations can now also take part in the Women in Maritime Pledge, the Mental Health Pledge and the Conference and Events Pledge, which encourages organisations to increase the diversity amongst panellists and speakers at industry events;
- The establishment of the [Ethnicity in Maritime Book Club](#) in collaboration with The Baltic Exchange, which aims to broaden the knowledge and understanding of race and race issues, and the impacts of racism;
- The re-launch of the [Interview Pool and Speaker Bank](#). These initiatives intend to increase the diversity of aspects of industry activity, both that which is internal to organisations (recruitment and hiring processes), and external (panels, speakers and participants represented at events).

Establishment of the Maritime Skills Commission and the mapping of skills gaps

The Maritime Skills Commission was established in July 2020 with Professor Graham Baldwin as Chair, who received a tasking letter from the Minister for Maritime to which its work programme adheres.

This has resulted in the following activity:

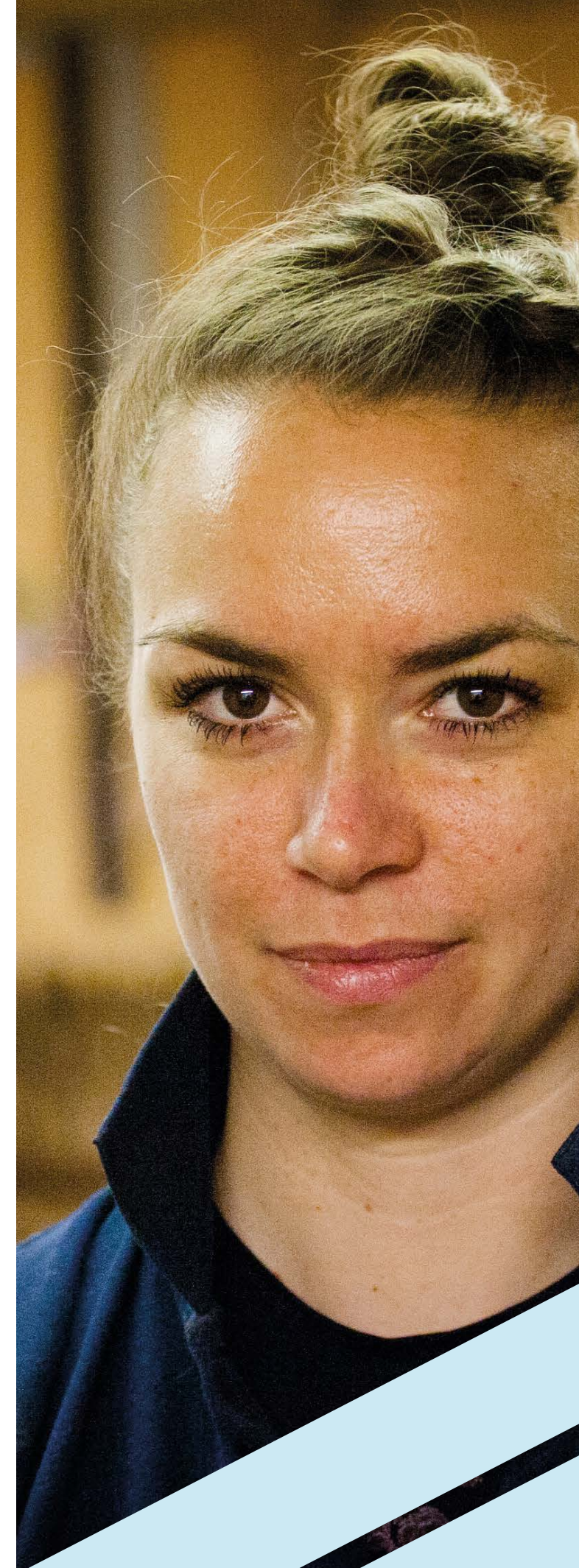
- A dedicated Programme Manager has been put in place to coordinate the work of the MSC;
- The publication of a [Labour Market Intelligence Report](#);
- The publication of a [Digital Learning Report](#);
- The completion of the Careers to Maritime Ashore project and establishment of a new qualification for shore-based maritime roles;

- The commencement of a number of projects and delivery of output, including a Seafarer Cadet Review, Exporting Maritime Education and Training and Future Ports Workforce Research, all involving all parts of the maritime sector;
- In July 2021, MSC will be holding its first evidence-gathering session of green skills, aiming to publish a report on the topic at COP26 in Glasgow in November;
- Contributions to recommendations on regulatory changes to training schemes with input from Nautilus International.

Beyond the establishment of these structures, progress has also been made on those recommendations concerned with the working conditions of the current workforce, and especially seafarers. This includes:

- **The extension of the National Minimum Wage to seafarers working in UK territorial waters:** On 1 October 2020, the National Minimum Wage legislation was extended to include all seafarers working on any ship in a domestic trade in UK territorial waters, as well as those engaged in offshore activities operating on the continental shelf from a UK port.
- **The production of mental health guidelines and the development of mental health resilience testing for seafarers:** Alongside the Diversity in Maritime Taskforce's launch of the [Mental Health Pledge](#) in February 2021, the UK Chamber of Shipping, Nautilus International and RMT published [practical guidance to companies on seafarer mental health](#), which was launched in March 2021.
- **Worldwide recognition of and standardisation of seafarer ID cards:** The UK government is currently in the process of ratifying the ILO Seafarers Identity Documents Convention (Revised), 2003 (No.185).
- **Retention of UK Tonnage Tax training element:** Industry amendments have been proposed to government which present greater flexibility and support the training element of tonnage tax.
- **Regulatory changes to realise the benefits of new technologies for seafarer training:** A trial on increasing the amount of simulator training began in 2021 under the direction of the Maritime and Coastguard Agency.

1. [Department for Transport \(2019\) 'Maritime Annual Report 2018-2019'](#)





Environment

Maritime 2050 recognised that industry and government would have to work closely to respond to the challenge of decarbonisation, to develop alternative zero emission fuels and technologies for vessel propulsion and the associated infrastructure to bunker those new solutions, as well as improve air quality whilst ships are in port.

Societal interest in responding to climate change has increased since the publication of the Maritime 2050 strategy, and in 2019, the UK became the first major economy to legislate for net zero carbon emissions by 2050.

Since the pandemic, there has been a clear move to respond to needs of recovery and climate change in unison; asking how countries can 'build back better', with decarbonisation and green growth at the heart of the UK's definition of the term. The UK's hosting of the COP26 summit will shine further light on UK climate ambitions and provided an opportunity for the UK to showcase climate leadership.

Key priorities set out under the theme of 'environment' in the Maritime 2050 strategy have included:

- To encourage and drive investment in green maritime infrastructure, which will be necessary to support the introduction and deployment of low and zero emission fuels and vessels;
- To consider the use of economic instruments to support the transition to net zero and introduce financial incentives to encourage investment in green technologies;
- To develop the UK as a centre for green finance;
- To develop the environmental and economic case for coastal and inland shipping;
- To publish the UK Clean Maritime Plan, setting out a route map for the maritime sector's transition to net zero;
- To better understand the capacity of the UK's energy networks to support an increase in demand for green energy from ports

and shipping activity, and consider the role of maritime and offshore renewables in decentralising energy generation.

Progress

Despite comprising of long-term ambitions that may be hard to measure, there have been notable developments within this theme of the Maritime 2050 strategy. This includes laying down key frameworks and providing initial funding for projects designed to accelerate further developments in innovation, infrastructure and regulation. Successful delivery of key activity includes:

- £20m government funding for the one-year 'springboard programme', the [Clean Maritime Demonstration Competition](#) to support the transition to net zero in the maritime sector through the development of clean maritime technology and feasibility studies on key sites;
- £1.4m grant funding awarded through [MarRI-UK](#) Clean Maritime funding call, unlocking a further £1.5m in private funding;
- The UK government published its [Clean Maritime Plan](#) in 2019, as a route map for the transition to zero emission maritime sector;
- Government's Transport Decarbonisation Plan is due to be published in 2021, outlining a comprehensive strategy to decarbonise the transport sectors;
- UK's share of international shipping emissions [included within national carbon targets](#);
- The maritime sector was included within Prime Minister's ['Ten point plan for a green industrial revolution'](#) alongside aviation;
- £160m funding announced to develop port infrastructure for offshore renewable projects, including offshore wind as part of the government's 2021 Budget;
- £30m Strength in Places funding received by Belfast Maritime Consortium to develop a carbon zero hydrofoiling ferry;

- Shore power capabilities are under development in Orkney and at the Port of Southampton.

Government frameworks and industry strategies

The publication of key government strategies related to clean maritime and net zero targets is an important aspect of ensuring a joint government and industry approach to the decarbonisation of the sector, providing a common framework and terms of reference. Documents such as the [Clean Maritime Plan](#), which set out a roadmap for the sector's transition to a net zero future, and the anticipated 2021 Transport Decarbonisation Plan, alongside the inclusion of the maritime sector in government-wide policy documents such as the 'Ten point plan for a green industrial revolution' are significant examples. Different parts of the sector have published environmental strategies for their industries, such as the Port Air Quality Strategies developed by major ports in England, which help drive these ambitions forward.

Collaborative government-industry bodies such as the Clean Maritime Council have been established to act as a strategic advisory board for policy on emissions from the maritime sector. The Council includes representation from industry, academic and non-governmental organisations.

Funding support for decarbonisation

Since the publication of Maritime 2050 in 2019, the maritime sector has received government funding for several initiatives related to decarbonisation. This includes:

- £20m funding for the development of clean maritime technology through the Clean Maritime Demonstrator Competition (2021);
- £30m of funding secured by the Belfast Maritime Consortium through UK Research and Innovation to develop net zero ferries in Belfast;
- Funding from the Department for Transport to help establish the collaborative and industry-led innovation vehicle [Maritime Research and Innovation UK \(MarRI-UK\)](#).

- Thereafter, funding for the first Clean Maritime call;
- Funding announced to develop infrastructure for offshore renewable projects including offshore wind.

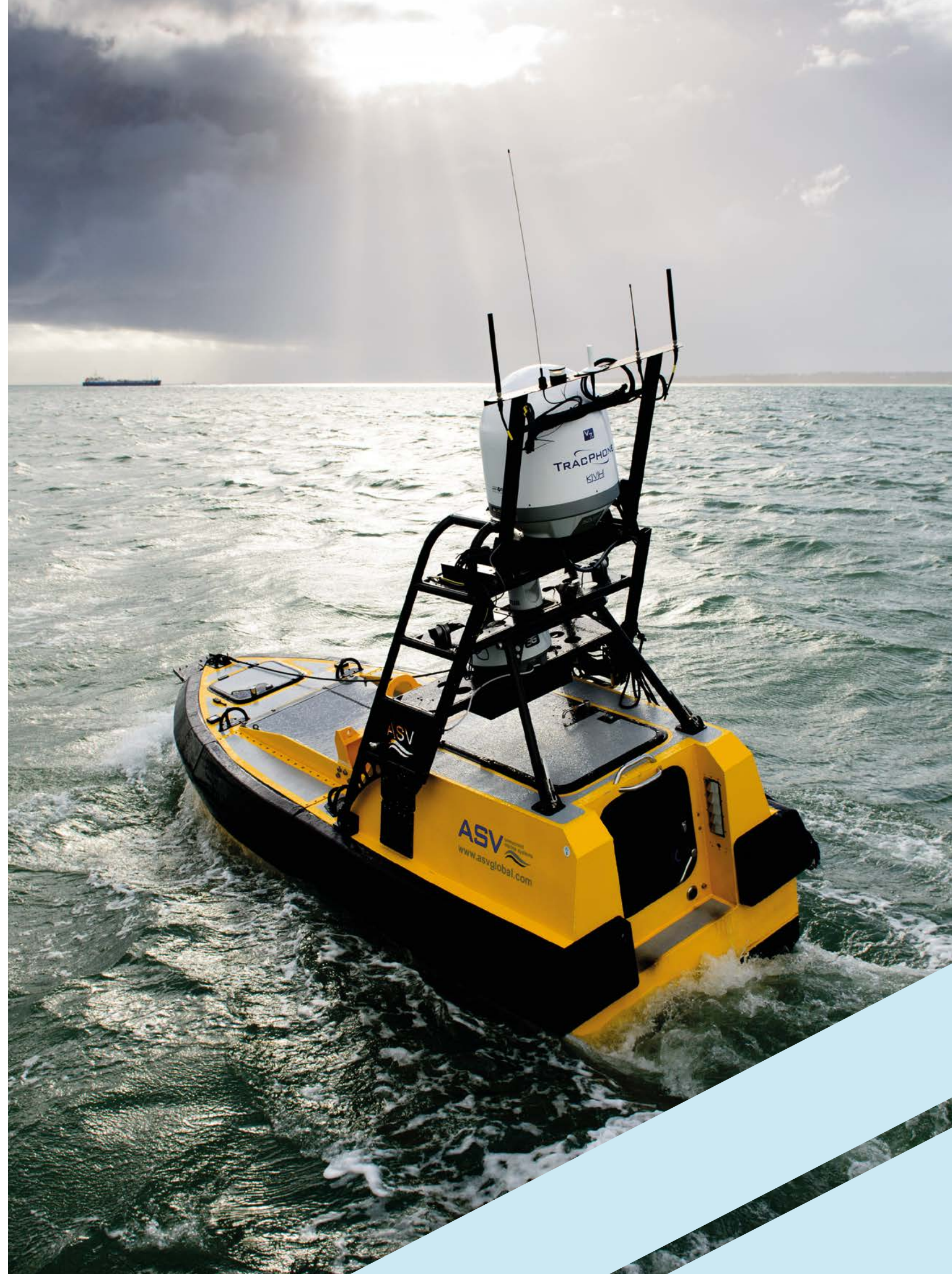
In April 2021, the UK government recognised the maritime sector as 'hard to decarbonise' and announced that international shipping emissions would now be included within the UK 6th carbon budget. The Climate Change Committee recommended that the sector would require increased government support to enable the maritime sector to move toward decarbonisation.

Green infrastructure and contributions to the wider decarbonisation project

To enable the transition to net zero and the use of low emission vessels, making use of alternative fuels or propulsion systems, appropriate infrastructure must be built in and around ports across the UK. This infrastructure will be critical, not only ensuring the transition for the maritime sector, but also supporting other modes of transport, as well as other sectors such as offshore renewables which depend on and will benefit from the capacity of ports across the UK.

Significant progress in this area has so far included:

- The development of shore power facilities in Orkney and at the Port of Southampton, where support was received from the government's Local Growth Deal.
- The establishment of a UK Infrastructure Bank was announced as part of the 2021 Budget, which aims to support the development of UK infrastructure so that it can support ambitions to tackle climate change and strengthening the economy. The budget announcement also included funding for the development of infrastructure for the offshore wind sector, which will include significant developments at ports around the country. An exploration of the role of the maritime sector in the growth of offshore renewable energy projects will be set out in Maritime UK's Offshore Wind Plan.





Innovation

Background

Within the Maritime 2050 strategy, the importance of taking on a leading role in the innovation and implementation of new technologies, both to tackle climate change and for the UK to remain a competitive trading nation, were highlighted. It was recognised that increased digitalisation positioning the UK as '[a] world-leader in the development, manufacture and uptake of new technologies, such as artificial intelligence and autonomous systems could bring significant benefits', but only if government and industry were able to work together to encourage this kind of innovation. Alongside the strategy itself, the Department for Transport published its '[Technology and Innovation in UK Maritime](#)' route map, which set out steps to achieve these ambitions in more detail.

Key priorities set out under the theme of 'innovation' in the Maritime 2050 strategy have included:

- The delivery of flagship projects for new maritime technologies, technological proofs of concept and the demonstration of smart shipping;
- The development of Maritime Innovation Hubs across the country;
- Supporting industry innovation and the adoption of new technologies through collaborative initiatives such as Maritime Research and Innovation UK (MarRI-UK) and Maritime UK's Technology and Innovation Group (TIG);
- For government and industry to work together to understand the benefits to the maritime sector of innovative new technologies and government's role in supporting their development and use.

Progress

Delivery has focused on establishing the necessary collaborative structures for the sector to work together and then through their initiatives. Successful delivery in this space has included:

- £20m from government to fund green innovation through the Clean Maritime Demonstration Competition;
- MarRI-UK established as cross-collaborative innovation vehicle at University of Strathclyde;
- Government provided £4.8m for MarRI-UK to promote maritime technology development. So far, this has funded 21 projects across a wide range of areas, including decarbonisation, autonomy and digitalisation;
- 114 expressions of interest for MarRI-UK innovation funding calls;
- First Innovation Hub established at the Port of Tyne;
- Code of practice for the regulation of autonomous vessels published annually;
- Regional innovation USP mapping underway through regional cluster organisations;
- Establishment of MCA MarLab;
- First fully autonomous vessel to set sail from Plymouth to the US in 2021;
- A [sector-wide portal](#) for innovation funding opportunities established.

Collaboration

The progression of relevant Maritime 2050 recommendations have been aided by the establishment of relevant cross-sector innovation vehicles. Significant examples include:

- The establishment of the collaborative innovation vehicle Maritime Research and Innovation UK (MarRI-UK), which has received government funding to conduct several funding calls for different technologies. MarRI-UK has so far awarded more than £2.9m in grant funding for

projects worth £5.1m, and have received over 114 applications and expressions of interest. This makes clear that there is great appetite and capacity for innovation across the maritime sector;

- The first Maritime Innovation Hub, the Maritime 2050 Innovation Hub, was established at the Port of Tyne in 2019, specifically intended to drive innovation to progress key Maritime 2050 priorities;
- The Maritime Autonomy Regulation Lab (MARLab), led by the MCA has been established. Bringing together representatives from academia and industry, the intention of this initiative is to pioneer ideas for the regulation of maritime autonomous surface ships and eventually allow the UK to take a leading role in this field internationally;
- Maritime UK's Technology and Innovation Groups, consisting of representatives from across the sector and from both inside and outside Maritime UK membership, has recently confirmed a new workplan with support from DfT.

Supporting innovation and adoption of new technologies

- To aid the introduction of new technologies and to complement the work of MARLab, Maritime UK's Maritime Autonomous Systems Regulatory Working Group has for the past two years published guidelines on the regulation and governance of autonomous systems in the marine space.
- In aid of government's intention to explore the case for new technologies, the British Ports Association produced a Smart Ports whitepaper in partnership with the Port of Rotterdam looking at how ports can embrace this new agenda.



Regional growth

With the maritime sector significantly located in coastal towns and cities around the UK, activity to support sector growth in these areas has the dual benefit of delivering against government's agenda of levelling up whilst improving the strength and competitiveness of the sector.

London is the UK's global city, and one of the world's leading maritime centres, particularly in the provision of professional services. Maritime 2050 aimed to shine a spotlight on the capability and value of each of the UK's regional maritime cluster offers, and to develop their potential as centres for maritime activity in their own right.

Key priorities within regional growth set out in the Maritime 2050 strategy have therefore included:

- Maintaining and enhancing the attractiveness of the UK's regional maritime clusters;
- Promoting the strength of regional clusters and their importance to the economy;
- Strengthening the ties between government, industry and academia in the regions;
- Supporting the activity at ports, increased port connectivity and the opportunities for the involvement in and development of new and existing markets;
- Considering the case for freeports;
- Exploring the case for reforms in regulation related to planning and port development.

Progress

Successful delivery of key activity under the theme of regional growth has largely involved increasing the coordination between regional clusters, national bodies and government, something that has generally been delivered through increased activity as part of Maritime UK's Regional Cluster Development Programme, supported

by government. Government is also supporting the roll-out of the freeports initiative with the first eight freeports in England included in the 2021 Budget announcement.

Key delivery has included:

- The development of operational regional clusters in Northern Ireland, the Solent, Scotland, Cornwall and the South West, Liverpool City Region and the Humber region. These clusters comprise Maritime UK's Regional Council and regularly meet to discuss regional cooperation and involvement in national programmes and initiatives;
- In 2019/20, The Regional Cluster Development Programme was provided £50,000 in government funding for its first phase, which has included the establishment of several new clusters, the development of the Regional Council and a toolkit to support further cluster creation. Government has subsequently provided another £300,000 to support the continued development of the programme;
- The development of Regional Cluster Development Plans in all regions, detailing current work programme and future ambitions. Activity delivered through the regional clusters directly contribute to the delivery of wider Maritime 2050 objectives and increases the level of input for national consultations, events and programmes around subjects such as technology and innovation, careers, skills and training, decarbonisation;
- Government explored the case for freeports across England and in 2020 opened the freeports consultation process. As part of the 2021 Budget, the first eight freeports in England were announced; Felixstowe and Harwich, Humber, Liverpool City Region, Plymouth, Solent, Thames, Teesside, and East Midlands Airport. The devolved administrations are currently considering the introduction of their own freeports programmes.

- Funding for several maritime projects in England through 'MHCLG Get Building Fund';
- £160m for port infrastructure to develop offshore wind capacity at two UK ports was announced as part of the 2021 Budget.



8 freeports
announced in England



£160m
to develop offshore wind capacity

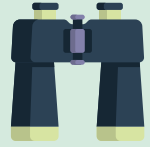


£300,000
to develop The Regional Cluster Development Programme



Funding
for several maritime projects in England





Next Steps

1

Maritime UK and its cross-sector working groups will continue to monitor and coordinate delivery activity within their priority areas. Companies and others with detail of activity in support of Maritime 2050 not reflected within this report are encouraged to get in touch for inclusion in future reports and promotion.

2

Case studies promoting activity toward Maritime 2050 will be published on Maritime UK's website and the sector will be given the opportunity to share details of their own activity – such as an innovation project seeking collaboration partners through Maritime UK's website.

3

Following the assessment within this report, Maritime UK and its members will work with government to prioritise delivery as the sector moves from short to medium-term recommendations.

4

The complete grid of Maritime 2050 short-term recommendations providing updates from government and industry under each of the strategy's seven themes will be regularly updated. The most up to date version of the grid can be found on Maritime UK's website.



UK Competitive Advantage

<p>Fiscal competitiveness</p>	<p>Government and industry to work together to ensure we have the best possible fiscal regime in place, including through taxation and the business environment.</p>	<p>Industry and government have and will continue to support the maintenance of a fiscal and business environment that is conducive to growing and sustaining the UK Ship Register, encourages inward investment, the growth of regional clusters and promotion of the UK's leading role as a global and competitive maritime nation.</p>			<p>of regional cluster organisations. Regional maritime clusters currently operate in Northern Ireland (Belfast Maritime Consortium); Solent (Maritime UK Solent); Cornwall and Isles of Scilly, Devon, Dorset and Somerset (Maritime UK South West); Liverpool City Region (Mersey Maritime); Scotland (Scottish Maritime Cluster), and in the Humber Region (Team Humber Marine Alliance).</p>
<p>Fiscal competitiveness</p>	<p>Government and industry to better promote the existing fiscal regime and to engage directly with both SMEs and international maritime companies.</p>	<p>Increased engagement between industry and relevant government departments such as the Department for International Trade (DIT) and joint working groups such as the Maritime Exports and Investment Group contributes to the delivery of the Five-year Plan for Maritime Exports and Investment, including engagement with SMEs.</p> <p>DIT is developing a series of promotional collateral material to promote the UK's maritime offer.</p>			<p>Work is actively underway in other regions, such as the North East, South East, East Anglia, in partnership with local government or industry partners to build new cluster organisations. As part of a DfT backed long-term programme, a prospective pipeline of activity in other areas is also planned between 2021 and 2023.</p>
<p>The UK's maritime cluster</p>	<p>The UK, as host of the IMO, will seek to maximise its leadership role in the organisation.</p>	<p>Government continues to work closely with the International Maritime Organization (IMO) on all maritime issues, providing leadership, challenges and setting an example with its policies and engagement across the maritime sector.</p> <p>The UK took leadership in the international call for seafarers to be considered key workers during the outbreak of the COVID-19 pandemic in 2020.</p> <p>The UK delegation to the IMO includes industry representatives and Maritime UK members actively participate in a number of ways.</p>	<p>Thought leadership</p>	<p>Strengthen the UK profile as the place for maritime thought leadership through government and industry hosting top academic maritime conferences and shipping events.</p>	<p>The UK continues to be the location for major international maritime events such as London International Shipping Week, where activity is increasingly closely coordinated between industry and government. In 2021, the UK is also host to COP26, the G7 and the Global Maritime Forum, at which significant maritime activity will be taking place.</p> <p>A number of maritime events with national focus are also taking place in the regions every year.</p>
<p>The UK's maritime cluster</p>	<p>Government and industry to work together to maintain and enhance the attractiveness of the UK's regional maritime clusters and London as a global maritime professional services cluster.</p>	<p>Progress has been made through Maritime UK's Regional Cluster Development Programme to increase the interaction between and establish new regional cluster organisations unified through the Maritime UK Regional Council. Regional clusters are involved in Maritime UK's central work on key priorities for the sector.</p> <p>Regional Cluster Development Plans have been created in each region with a fully established regional cluster organisation from 2021. These identify and support projects to develop regional specialisms and areas of focus in collaboration with national initiatives and projects.</p> <p>Regional clusters have showcased their strength and capability at key points in the maritime calendar, such as at LISW 2019 and 2021. Collaborative activities, for example, through partnership building and joint working, has been facilitated for activities such as the Clean Maritime Demonstration Competition in a partnership between Maritime UK, the Department for Transport, and Innovate UK.</p> <p>Government has provided additional funding of £300,000 over three years for the continued development of the Regional Cluster Development Programme.</p>	<p>Thought leadership</p>	<p>Invite leading figures from the UK maritime academic sector to work with government, industry and social partners to create a blueprint for future maritime thought leadership collaboration, including cluster success.</p>	<p>Government and industry recognise the importance of partnership with the UK maritime academic sector and continues to work with it in various ways, including through regional clusters, skills and diversity projects, and the climate change, decarbonisation and innovation agendas.</p>
<p>The UK's maritime cluster</p>	<p>Government will support, enhance and promote the strength of all regional clusters in the UK, and their importance to the economy.</p>	<p>Government has provided additional funding of £300,000 over three years for the continued development of the Regional Cluster Development Programme.</p> <p>Progress has been made through Maritime UK's Regional Cluster Development Programme to increase the interaction between and establish new regional cluster organisations unified through the Maritime UK Regional Council. Regional clusters are involved in delivering aspects of Maritime UK's central work on key priorities for the sector.</p> <p>Regional Cluster Development Plans have been formulated in each region with a fully established regional cluster organisation from 2021. These identify and support projects to develop regional specialisms and areas of focus, in collaboration with national initiatives and projects.</p> <p>The Local Government Authority has recently established a Coastal Special Interest Group in part due to extensive industry engagement.</p>	<p>Strong partnership</p>	<p>Government and the maritime sector will put in place the most appropriate mechanisms for the delivery of Maritime 2050 and its route maps.</p>	<p>Government and industry have been working together to initiate and progress actions related to recommendations set out within the Maritime 2050 strategy. Maritime UK brings the maritime industries together around key priorities, and Maritime UK members have taken a lead on recommendations relevant to their industries.</p> <p>As a part of industry monitoring and implementation, Maritime UK and its members have produced a report outlining key successes and achievements of targets set out within the Maritime 2050 strategy at the halfway mark for the short-term recommendations.</p> <p>Government is working with industry to reassess and reprioritise actions taken to deliver the vision set out within Maritime 2050, as the sector and UK economy recover and grows post-pandemic and following the UK's departure from the European Union.</p> <p>A national Maritime 2050 conference, organised in partnership with Mersey Maritime and the Department for Transport, as well as a 2021 series of Build Back Better webinars, will aim to explore necessary industry and government action for future progression of Maritime 2050 recommendations.</p>
<p>The UK's maritime cluster</p>	<p>Strengthen the ties between government, industry, and academia to build on existing cluster success and identify new opportunities.</p>	<p>Academic partners are involved across Maritime UK's working areas including through the Maritime Masters programme and regional cluster organisations and regional membership bodies.</p> <p>Identifying stakeholders across government, industry and academia sits at the heart of the work</p>	<p>Strong partnership</p>	<p>Government will continue to support Maritime UK and its international impact.</p>	<p>Maritime UK works in close collaboration with the Department for International Trade and members to deliver recommendations set out within the Five-year Plan for Maritime Exports and Investment, and to organise activity with industry to promote the UK as a competitive maritime nation.</p>



UK Competitive Advantage - continued

Strong partnership	Government and industry will review the governance structures supporting the UK maritime sector and consider potential rationalisation.	<p>Over the last 18 months, government and industry have worked together in responding to the global COVID-19 pandemic. This has necessitated regular contact and fluid governance structures that enables a rapid response to new challenges. Future efforts will seek to ensure that future governance structures post-pandemic also enable close cross-sector communication.</p> <p>Government has recently conducted consultations with industry and industry bodies as part of the development of proposed reforms to the UK Tonnage Tax scheme. The Maritime Skills Commission is currently conducting a UK Cadet Training Review to understand the implications of current regulations on seafarer training.</p>	Safety	Government will continue to develop Maritime Safety Week in partnership with industry and other stakeholders, celebrating the work already underway, and encouraging innovation and sharing of best practice.	Maritime Safety Week has been a significant part of the maritime calendar since the inaugural event in 2018. The event has been driven by close partnership between the Department for Transport and sector partners and will also be held in July 2021.
			Safety	Government will provide a significant contribution to the IMO's working groups on the development of a Universal Maritime Data Model.	Progress update expected in the next iteration of this table as part of Maritime UK's continuing efforts to monitor Maritime 2050 delivery.
A modern approach to UK regulation	Government will develop proposals for a new Merchant Shipping Act 1995 in the next five years.	Initial investigations conducted by government showed little evidence of a need to replace the Merchant Shipping Act 1995. Government will revisit at a later stage.			
A modern approach to UK regulation	Government will consider if the existing secondary regulatory regime is fit for purpose on an ongoing basis and explore opportunities to reduce burdens to business.	Government continues to consider whether the existing secondary regulatory regime is appropriate and seeks to reduce the burden to business whenever possible.	UK flag	The UKSR will keep under constant review the capability and services it needs to provide a high-quality customer service.	The UK flag is now a digital register, providing instant access to registration documentation to assist customers across the world. The digital platform was launched in September 2019 and will be improved through customer feedback. This is part of the 'Digital First' government policy. Key UKSR accounts are supported by 24/7 access to MCA experts. High-level operator engagement and feedback is gained in regular Ship Owners Forums that have continued during the COVID-19 pandemic.
A modern approach to UK regulation	Government will play a leading role in setting an appropriate and proportionate global maritime legislative regime through the IMO and other international bodies.	UK government continues to work closely with the IMO on maritime issues, providing leadership, challenging and setting examples with policy and engagement, including the setting of global maritime legislative regimes. The UK delegation to the IMO includes advisory industry organisations with Maritime UK members contributing in a number of ways.	UK flag	The UKSR will put in place a communications and marketing strategy to increase its promotion globally and attract companies to the UK flag.	The UKSR sits within the new UK Maritime Services directorate of the MCA. The service-led approach has been expressed through a new identity, displaying the Red Ensign across the operations of the directorate.
A modern approach to UK regulation	The MCA is the leading government agency responsible for the development of and enforcement of key elements of UK maritime legislation. The Agency will not compromise its safety principles but continue to recognise the need for proportionality and commercial delivery.	The UK flag remains number one of states in the Paris MoU, denoting high compliance with global maritime legislation and safety regulations.	UK flag	The UKSR will develop a 'horizon scanning' capability working with the government and maritime sector as appropriate. This will anticipate and lead the way in implementing changes in registration and in the global shipping fleet.	UKSR collaborates closely with the new Maritime Future Technologies function of the MCA. This delivers support and insights to customers on the flag, preparing them for the disruption of the global market through technology and decarbonisation. UKSR has also worked closely with industry partners to define the shape of the UK maritime offer that will encourage global investment in the sector.
Safety	Government will ensure the UK continues to provide a significant contribution to the development of international frameworks on safety measures through the IMO organisations.	UK government continues to work closely with the IMO on maritime issues, providing leadership, challenging and setting examples with policy and engagement, including the development of international frameworks on safety measures. The UK delegation to the IMO includes advisory industry organisations with Maritime UK members contributing in a number of ways.			
Safety	Government will continue to support the GLAs in safeguarding shipping and seafarers, and encourage further improvements at international level through IALA.	<p>Government continues to support General Lighthouse Authorities (GLAs) in delivering their statutory tasks, which has included supporting their efforts during the outbreak of the COVID-19 pandemic.</p> <p>Following the completion of a comprehensive fleet review, GLAs are procuring two new vessels which will enhance capabilities and provide modern platforms to improve their services.</p> <p>UK government has been supportive of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA)'s move to become an inter-governmental organisation and is developing the necessary legislation to ensure the UK can be one of the first states to join the new organisation.</p>			
Safety	Government will develop a Safety Action Plan to explain what it is doing to improve safety, highlighting future actions and priorities.	The Safety Action Plan was published by government in July 2019, outlining action from the Department for Transport, its agencies, arm's length bodies and partners to ensure and continuously work to improve safety in the maritime environment. The document also set out high-level government ambitions for a safer future and specific short-, medium- and longer-term action taken to deliver those ambitions.			

Technology

<p>Future of shipping</p>	<p>Government and industry will deliver three flagship projects, developing technological proofs of concept and provide demonstrations of use cases for smart shipping.</p>	<p>The Department for Transport provided £1m of funding for the establishment of Maritime Research and Innovation UK (MarRI-UK) as a collaborative innovation vehicle capable of developing flagship projects for the maritime sector.</p>
<p>Smart ports</p>	<p>Industry and government collaboration to find use cases and develop proof of concepts for new and existing technologies.</p>	<p>The development of proof of concepts is currently supported through a range of initiatives, such as government’s £20m Clean Maritime Demonstration Competition, MarRI-UK funding calls and so on.</p> <p>There are also industry-specific examples of exploring the case for new technologies, such as the British Ports Association Smart Ports white paper developed with the Port of Rotterdam looking at how ports can embrace the smart agenda. This was submitted to the Department for Transport for their consideration.</p>
<p>Smart ports</p>	<p>Government will work with industry to develop a ‘Maritime Innovation Hub’ in a UK port as a result of an open competitive process.</p>	<p>The first Maritime Innovation Hub was established at the Port of Tyne in 2019, created as a partnership between Port of Tyne, PD Ports, Nissan, Connected Places Catapult, Accenture, Royal HaskoningDHV, Ubisoft and the Department for Transport. The ‘Maritime 2050 Innovation Hub’ works closely with the DfT and MarRI-UK to ensure delivery for the benefit of the maritime sector.</p>
<p>Digitalisation</p>	<p>Government will work with industry to understand the benefits to the maritime sector of innovative new technologies and government’s role in supporting their development and use.</p>	<p>A Technology Route Map was published by the Department for Transport in January 2019.</p> <p>Government has provided £4.8m in funding to MarRI-UK to promote maritime technology development. This has provided funding for 21 projects across a wide range of areas, including decarbonisation, autonomy and digitisation. A recent funding call for ‘Clean Maritime’ funding was oversubscribed, showing industry appetite and capabilities.</p> <p>Maritime UK South West has, together with the Department for Transport, match-funded additional human resource to support the work of the refreshed Maritime UK Technology and Innovation Group, which has now agreed a new work programme.</p>
<p>Communication, navigation, and exploration</p>	<p>Government will commission a study into the potential for ‘Future Navigation’, understanding what information the sector requires and UK capabilities to provide it.</p>	<p>This work has been paused due to the impacts of the COVID-19 pandemic and associated response work.</p>
<p>Communication, navigation, and exploration</p>	<p>UK to commence charting its own seabed and EEZ seabed using autonomous vessels to understand the potential economic benefits of the seafloor.</p>	<p>In recent years, the MCA has introduced the use of Autonomous Surface Vessels on the UK Civil Hydrograph Programme (CHP) to undertake seabed mapping in the UK EEZ.</p>

People

<p>Maritime workforce</p>	<p>Ensure the UK Tonnage Tax regime has a training element which continues to support UK maritime workforce ambitions while also supporting growth of the UK Tonnage Tax regime.</p>	<p>The Maritime and Coastguard Agency are currently in the process of recommending reforms to the UK’s Tonnage Tax scheme. Discussions have taken place between industry and government, and the MCA has developed proposed drafts for recommendations in which the importance of UK seafarer training has been emphasised.</p>
<p>Maritime workforce</p>	<p>Raise awareness of the maritime sector in schools by having a single industry body overseeing a more coordinated cross-sector in-school awareness and ambassador programme.</p>	<p>Maritime UK was identified as the relevant single-industry body and supported by the Department for Transport to establish the Maritime Careers campaign and outreach programme. A dedicated Maritime UK Programme Manager has been put in place to coordinate this work. Careers networks built with schools and colleges across the UK, network of careers professionals established, industry ambassador programme initiated.</p> <p>The DfT also awarded £40,000 in funding for the Institute of Chartered Shipbrokers to develop their Why Shipping Matters programme, intending to bring awareness around the maritime sector into schools, to include materials for Key Stage 3.</p>
<p>Maritime workforce</p>	<p>Task a single industry body for bringing greater coherence and coordination to the promotion of maritime careers sector-wide.</p>	<p>Maritime UK was identified as the single-industry body responsible for coordinating the cross-sector promotion of maritime career opportunities. The careers and outreach strategy was published identifying key stakeholder groups of influencers such as careers professionals as a communication channel into schools and colleges. The Maritime Careers campaign was initiated, and an ambassador programme established. CPD sessions are regularly delivered to key influencers and careers professionals, and our input and participation in their own schools or college careers activity via the industry Ambassador network has exceeded speaking about maritime careers to over 12,700 children since September 2020.</p> <p>DfT supported the development of the Maritime Careers campaign with an initial £250,000 in funding.</p>
<p>Diversity in the maritime workforce</p>	<p>Government will fund the production of the ‘People Like Me’ maritime industry project to help address the image and perception of the industry and demonstrate how we can effectively showcase its value to a wider diversity of people.</p>	<p>A ‘People Like Me’ project was funded by DfT (£40,000) in 2019 and developed and delivered by the Institute of Chartered Shipbrokers and Maritime UK. Outcomes of the project included a guide to diverse recruitment, case studies of women working across the sector, and maritime additions to the economy-wide My Skills My Life quiz administered by WISE. There are current plans to expand parts of the project, such as the bank of case studies, to make part of the wider Maritime Careers programme.</p> <p>In addition to the project itself, DfT awarded £100,000 in funding for The 1851 Trust to establish their STEM Roadshow for Girls. So far, this has enabled a series of 12 workshops across the UK. A total of 1,400 girls from 93 different schools, aged 11-13, attended these workshops. DfT awarded another £50,000 in 2021 to support the next events in the series.</p>
<p>Diversity in the maritime workforce</p>	<p>Joint delivery between government and industry of the Women in Maritime Charter.</p>	<p>Maritime UK was identified as the relevant single-industry body and supported by the Department for Transport to establish the Diversity in Maritime programme. A dedicated Maritime UK Programme Manager has been put in place to coordinate this work along with managing the Maritime Skills Commission.</p> <p>The Diversity in Maritime programme was established in May 2020, and as part of the programme, the Women in Maritime Charter was expanded to progress other areas of diversity and inclusion, including mental health, ethnicity and race and LGBT+. Gender diversity continues to be a key pillar of the Diversity in Maritime Charter programme.</p>
<p>Diversity in the maritime workforce</p>	<p>Widening the scope of the Women in Maritime Taskforce to consider diversity as a whole, including undertaking a short study assessing the diversity data of trainees across the UK maritime sector.</p>	<p>Maritime UK was identified as the relevant single-industry body and supported by the Department for Transport to establish the Diversity in Maritime programme. A dedicated Maritime UK Programme Manager has been put in place to coordinate this work along with managing the Maritime Skills Commission.</p> <p>The Women in Maritime Taskforce was expanded in May 2020 to become the Diversity in Maritime Taskforce as part of the Diversity in Maritime programme. The Diversity in Maritime programme has four networks; Women in Maritime, Mental Health in Maritime, Pride in Maritime and Ethnicity in Maritime Network, and includes several cross-network working groups focusing on recruitment,</p>



People - continued

		retention and progression. A number of initiatives have launched since the programme's establishment, including a Mental Health Pledge, Book Club, expanded Interview Pool, Speaker Bank, Lunch and Learn webinars, expanded Toolkits, Conference and Events Pledge and LGBT+ Industry Roundtables. The programme works closely with the Maritime Skills Commission.	Considering the human in the face of technological change	Government to introduce a National Minimum Wage for all seafarers working in the UK territorial waters, affording them the same protection as land-based workers.	On 1 October 2020, the National Minimum Wage legislation was extended to include all seafarers working on any ship in UK territorial waters, operating on the continental shelf from a UK port or who have a sufficiently close connection to the UK.
Maritime skills and promotion	Government will support Royal Navy efforts to enhance training facilities and delivery, developing assured and accredited maritime training centres which will use their capacity to support the training of all maritime enterprise skills.	Work continues in this area to explore opportunities to enhance the collaboration between the merchant and Royal navies.			
Maritime skills and promotion	Government will introduce appropriate regulatory changes to realise the benefits of new technologies to seafarer training.	<p>A trial on increasing the amount of simulator training commenced in 2021 under the direction of the Maritime and Coastguard Agency.</p> <p>The Maritime Skills Commission will report on appropriate improvements to maritime training with input from members of Nautilus International related to their experiences.</p>			
Maritime skills and promotion	Government aims to establish a Maritime Skills Commission bringing leading maritime skills experts together, to report on the existing and future skills needs of the industry on a five yearly cycle, to inform the maritime training curriculum and keep it up to date with the evolving needs of the sector.	<p>The Maritime Skills Commission (MSC) was established in 2020 with Professor Graham Baldwin as Chair. The Commission reports dually to the Maritime UK National Council and the Maritime Minister, and a dedicated Maritime UK Programme Manager has been put in place to coordinate this work, along with the Diversity in Maritime programme. DfT awarded an initial £300,000 for the MSC's establishment.</p> <p>The Commission received a tasking letter from the Maritime Minister on 1 July 2020 to which the Commissions' work programme adheres. Commissioners of the MSC represent the breadth of the sector.</p> <p>People Route Map published by the Department for Transport in September 2019.</p>			
Need for continuous education and training	The Maritime Skills Commission will be tasked with overseeing the identification of opportunities for the UK maritime sector to access reskilling programmes, ensuring the workforce can take advantage of a wide range of initiatives.	The Maritime Skills Commission published a Labour Market Intelligence Report in late 2020 and followed up with its first Annual Report . Since its first meeting in July 2020, a number of projects have commenced and outputs produced, including a Seafarer Cadet Review; Digital Learning Report ; Exporting Maritime Education and Training; Careers Ashore; Future Ports Workforce Research involving all parts of the sector. In July 2021, the MSC will be holding its first evidence gathering session with the sector to commence work on green skills. Maritime UK members have contributed to these activities by facilitating research and focus groups within their own memberships.			
Need for continuous education and training	Government, industry and academia to jointly establish an internet connectivity working group to identify action needed to drive internet connectivity at sea in support of social care and continuous education.	<p>No working group yet established, though Nautilus has carried out research and produced a report with recommendations for industry Crew Connectivity Report.</p> <p>UK social partners have developed guidelines on internet access on board for the seafarer's personal use. These are currently being finalised by the European social partners, with continuing involvement from the UK.</p>			
Considering the human in the face of technological change	Develop a social framework that lays out UK expectations for the welfare of the UK maritime workforce.	<p>While the work on an explicit social framework has been delayed as a result of the COVID-19 pandemic, the UK has amended the National Minimum Wage legislation to protect all seafarers, regardless of nationality, working in UK territorial waters.</p> <p>The UK has been one of the leading actors on the international stage promoting seafarers rights during the COVID-19 pandemic, and was the first state to designate these as key workers, permitting shore leave, facilitating transit, transfer and repatriation.</p>			
Considering the human in the face of technological change	Government and industry to push for worldwide recognition and standardisation of seafarer ID cards through the ILO.	The UK government is currently undertaking a gap analysis of legislation regarding Seafarer Identity Documents to identify legislative changes needed to comply with the technical requirements of ILO Convention 185.			

Environment

<p>Towards zero emission shipping</p>	<p>In line with proposals in the UK Clean Air Strategy:</p> <ul style="list-style-type: none"> Major ports will publish Port Air Quality Strategies in summer 2019. Government will produce guidance for ports on this. Government will publish consultations on the extension of SOx and NOx ECAs around the UK, and a call for evidence to explore options for standardising environmental regulations for vessels operating domestically with the UK, including inland waterways. Government will publish the UK Clean Maritime Plan by spring 2019. 	<p>Major ports published Port Air Quality strategies in 2019 and 2020, establishing a minimum level of understanding of air quality in ports, and reflecting actions being taken to address emissions under their control.</p> <p>Port Air Quality guidelines establishing a system of voluntary air quality planning for large ports in England was published by government in 2019.</p> <p>A call for evidence from July 2019 sought public views on the scope of emissions from domestic vessels and options to address these.</p> <p>Further discussions with neighbouring states on the likely coverage and the options available for a potential ECA in the Irish Sea are needed before the Department for Transport can consult on this proposal</p> <p>The Clean Maritime Plan was published by the Department for Transport in 2019. The document set out a route map for the maritime sector's transition to net zero future.</p>	<p>Towards zero emission shipping</p> <p>In line with proposals in the UK Clean Air Strategy, the government has now established the Clean Maritime Council, working closely with research bodies like MarRI-UK to ensure strong collaboration between government, industry and academia in this field. Over the next year, government will consider the potential role for the Council in directing funding into green technologies for shipping.</p>	<p>Meetings of the Clean Maritime Council were temporarily suspended as a consequence of the COVID-19 pandemic. Since November 2020, regular meetings have resumed to ensure collaboration between government, industry and academia in policy development. Topics discussed include the Clean Maritime Demonstration Competition and engagement at COP26.</p>
<p>Towards zero emission shipping</p>	<p>Government will continue to actively participate at the IMO, working with industry and other key stakeholders to support the smooth transition to new environmental standards.</p>	<p>UK government continues to work closely with the IMO on maritime issues, providing leadership, challenging and setting examples with policy and engagement, including the transition to new environmental standards. The UK delegation to the IMO includes advisory industry organisations with Maritime UK members contributing in a number of ways.</p>	<p>Towards zero emission shipping</p> <p>Government will work to better understand the capacity of the UK's energy networks to support an increase in demand for green energy from our ports and shipping sectors. It will also consider the role the maritime and offshore renewables sectors can play in decentralised energy generation.</p>	<p>Shore power capabilities are being developed in Orkney and at the Port of Southampton.</p> <p>DfT and BEIS continue to liaise to better understand the capacity of the UK's energy networks to support green energy demands from the port and shipping industries.</p>
<p>Towards zero emission shipping</p>	<p>Government will review the existing legislative framework, including the provision of primary powers, to ensure that the UK has the flexibility to respond to public concerns in relation to pollution from the maritime sector.</p>	<p>Government has undertaken an internal review of primary powers and found that necessary powers are in place to implement current international commitments. This will be kept under review, noting the growing focus on domestic emissions.</p> <p>Government is making more use of the ambulatory referencing powers under the Merchant Shipping Act 1995 to hasten the process of implementing routine and technical changes to international conventions into domestic legislation.</p> <p>The MCA is reviewing the use of civil and criminal sanctions in relation to environmental controls for ships and this process is expected to conclude in 2022.</p>	<p>Towards zero emission shipping</p> <p>Government will seek to ensure that measures which tackle the UK's maritime emissions are considered for national grants set aside for dealing with environmental issues.</p>	<p>Government announced a £20m grant programme, the Clean Maritime Demonstration Competition, in November 2020 to support the design and development of clean maritime technology.</p> <p>Artemis Technologies secured £60m of funding through UK Research & Innovation to develop net zero ferries in Belfast.</p> <p>Maritime UK and members are collaborating to develop bids for the expected 2021 Comprehensive Spending Review related to government spending around maritime decarbonisation.</p>
<p>Towards zero emission shipping</p>	<p>Government will consider options to promote the UK flag as the flag of first choice for vessels adopting low or zero emission technologies.</p>	<p>Government has recently conducted consultations with industry and industry bodies as part of the development of proposed reforms to the UK Tonnage Tax scheme, which may have implications for the prevalence of zero emission technologies.</p>	<p>Towards zero emission shipping</p> <p>Government will consider options to support the development of technology which enables monitoring and enforcement of any new regulations governing emissions of GHGs and air quality pollutants.</p>	<p>MCA has incorporated the need for remote emissions monitoring, such as 'sniffer' devices, into the DAR2G requirements and will become a UK capability once the SAR2G service commences. The UK is an active member of the Bonn Agreement, which has expanded its scope to include monitoring air emissions from shipping under Annex VI of the MARPOL Convention. The UK continues to monitor developments being made by other coastal states.</p>
<p>Towards zero emission shipping</p>	<p>Government will consider options to increase the registration of domestic vessels operating in the UK as a means to improving our ability to regulate emissions from this sector.</p>	<p>Government continues to engage with the maritime industries to understand the evidence base for any further policy decisions and regulations.</p>	<p>Towards zero emission shipping</p> <p>Government will consider the merits of introducing a medium term target for emissions of GHGs and air quality pollutants from UK shipping. Further detail on this consideration will be set out in the Clean Maritime Plan.</p>	<p>The Clean Maritime Plan was published in 2019, outlining key ambitions within maritime decarbonisation, including the aim to have all new vessels designed for UK waters capable of zero emissions by 2025, and making zero emission bunkering widely available across the UK by 2035. A series of initiatives in the fields of economic incentives, infrastructure, innovation and regulation were also introduced in the document.</p> <p>The Department for Transport's Transport Decarbonisation Plan is expected to be published in 2021, setting out further targets on the road to net zero by 2050.</p>
<p>Towards zero emission shipping</p>	<p>In parallel with increased international reporting through the IMO Data Collection System and EU Monitoring, Reporting and Verification Regulations, government will consider domestic options to increase the transparency of emissions data from the maritime sector.</p>	<p>The UK is introducing a national emissions reporting system for CO2 emissions from ships which is based on the existing EU Monitoring, Reporting and Verification (MRV) system.</p>	<p>Towards zero emission shipping</p> <p>Government will work in partnership with the British banking sector to encourage the provision of finance towards zero emission shipping technology development and manufacturing.</p>	<p>The Greening Finance/Financing Green for maritime initiative was launched at London International Shipping Week 2019.</p>
<p>Towards zero emission shipping</p>	<p>Government will assess how economic instruments could support the transition to zero emission shipping in the medium to long term.</p>	<p>Government announced a £20m Clean Maritime Demonstration Competition (CMDC) to support the design and development of clean maritime technologies in November 2020.</p> <p>Government is funding a research project to understand how further economic intervention could be used to support the transition to zero emission domestic shipping.</p>	<p>Towards zero emission shipping</p> <p>Government will review the environmental and economic case for coastal shipping, and whether the government should play a greater role in encouraging modal shift.</p>	<p>The Transport Decarbonisation Plan is expected to be published in 2021. The section dedicated to maritime will contain a series of proposals for policies to foster climate action.</p>



Environment - continued

Minimising wider environmental impacts	UK will continue to advocate for the designation of scientifically-based spatial management measures, provided for under international law, to protect the most vulnerable environments, for example, around Antarctica.	The UK is actively promoting the 30x30: the need to protect 30% of the world's oceans by 2030, and DfT is participating in work at the UNGA in collaboration with FCDO and DEFRA on the development of biodiversity beyond national jurisdiction mechanisms for the seas.	Achieving our goals through continued international leadership	UK will ensure that there is meaningful progress at the IMO GHG negotiations to take forward an action plan and pursue early implementation of specific short term measures ahead of 2023, and progress work on mid and longer-term measures to meet the targets in the Initial IMO Strategy.	The UK government and the Department for Transport continue to demonstrate leadership in GHG negotiations at the IMO, developing a paper on GHG life cycle emissions guidelines that was well-received when submitted.
Minimising wider environmental impacts	Government will work to bring the UK's penalty structures into line with international best practice to ensure we effectively tackle ships which break the law. This could include a wider range of sanctions including 'on-the-spot' fines.	MCA is reviewing the use of civil and criminal sanctions in relation to environmental controls for ships. This process is expected to conclude in 2022.	Achieving our goals through continued international leadership	UK will take advantage of its experience on carbon pricing and market-based measures from other sectors. We will work hard to achieve this at a global level through the IMO but if progress isn't sufficiently rapid, we will need to consider options for taking additional steps with other like-minded partners.	UK continues to view the development and adoption of ambitious mid- and long-term measures, including market-based measures, as high priority in GHG discussions at the IMO and will remain committed to working towards a good outcome on a global measure.
Minimising wider environmental impacts	Government will apply a new ship recycling regime from 1 January 2019, and work with industry to improve compliance. By 2023, conduct a post-implementation review to assess how effective the new regime has been in improving the sustainability of end-of-life shipping.	The EU ship recycling regime was implemented in January 2019 and was retained at the end of the EU transition period. In line with a requirement set out in the UK's EU exit regulation (SI 2019/277), the MCA published a UK list of approved ship recycling facilities (similar to the EU's European List) in February 2021, which end-of-life UK flagged vessels must use for recycling.	Achieving our goals through continued international leadership	UK will play a leading role in the development of an action plan at the IMO on marine litter and plastics.	UK government continues to work closely with the IMO on maritime issues, providing leadership, challenging and setting examples with policy and engagement across the maritime sector.
Minimising wider environmental impacts	Government will cooperate with other States in the development and application of new technologies (e.g. remote sensing, fuel sampling kits, use of drones, airborne sensors), which could be used to help industry and streamline enforcement arrangements.	The outbreak of the COVID-19 pandemic has limited the opportunities for international collaborative working, but work has continued on the enforcement of IMO measure with neighbouring states, most notably the revised Annex VI of MARPOL.	Achieving our goals through continued international leadership	UK will continue to use its influence across international and regional bodies to enhance the conservation and sustainable use of ocean resources, such as the suppression of illegal, unreported and unregulated (IUU) fishing and the development of appropriate frameworks to manage deep sea mining and biodiversity beyond national jurisdiction (BBNJ).	Progress update expected in the next iteration of this table as part of Maritime UK's continuing efforts to monitor Maritime 2050 delivery.
Adapting successfully to the impacts of climate change	Government will work with ports to review their understanding and implementation of climate change adaptation measures, and encourage periodic reporting on preparedness through the adaptation reporting power.	Progress update expected in the next iteration of this table as part of Maritime UK's continuing efforts to monitor Maritime 2050 delivery.	Achieving our goals through continued international leadership		
Adapting successfully to the impacts of climate change	Government will work on the international stage to ensure effective governance and environmental protections are in place to regulate ships operating in Arctic waters as they become more accessible.	Progress update expected in the next iteration of this table as part of Maritime UK's continuing efforts to monitor Maritime 2050 delivery.	Achieving our goals through continued international leadership		
Achieving The UK goals through continued international leadership	UK will continue to maintain an active presence in developing the global maritime environmental regulatory framework at the IMO, ensuring that the UK ratifies international environmental conventions to which we are a signatory, in particular, the Ship Recycling Convention and Ballast Water Conventions.	Government has progressed legislative work to implement the Ballast Water Convention in UK law as a necessary first step before accession to the convention. Work on ship recycling has focused on the implementation of the post-EU exit arrangements, and ratification of the Hong Kong Convention has therefore been delayed.	Achieving our goals through continued international leadership		

Trade

Supply and demand	Government has already committed to helping create a network of Export Champions across the UK who offer expertise and guidance to support other companies on their exporting journey. This initiative will be fully supported and implemented in the near term.	The Trade Route Map , published in January 2019, confirms government commitment to offer expertise, guidance and support to help companies access new markets and grow their business in existing markets.
Global rules-based trading framework	Government will seek opportunities to pursue an ever more ambitious free trade agenda with the rest of the world, while ensuring continuity of existing EU third country free trade agreements to maintain their benefits and provide certainty to businesses.	<p>Government continues to pursue economic prosperity for the UK and lead by example through liberal economy and the pursuit of free trade, aspiring to develop, support and enforce a fair and proportionate rules-based system for trade, domestically and internationally.</p> <p>The UK has agreed deals with both the EU and Japan that include ambitious commitments on international maritime transport services that benefit all parties.</p> <p>The UK is currently negotiating FTAs with EEA-EFTA states, the United States, Australia and New Zealand, and has recently launched consultations on upcoming negotiations with Canada, Mexico and India.</p>
Competition in a globalised world	Government will work with the maritime services industry to commission and deliver a study into the competitiveness of the sector.	Catching the Wave: UK Maritime Professional Services Competitiveness Study was published in September 2019. Government is working in partnership with industry to progress recommendations that can boost the competitiveness of the sector with a view to feeding some of these actions into the maritime recovery plan setting out action for the recovery post-pandemic.
Competition in a globalised world	Government will engage with the ports and the manufacturing industry to consider the case for free ports in the UK.	<p>Government has established an ambitious freeports policy and supports the roll-out of the freeports initiative, ensuring the needs of the transport sector are accurately reflected in policy design and development.</p> <p>The establishment of eight freeports in England was announced in the 2021 Budget announcement. This included:</p> <ul style="list-style-type: none"> • East Midlands Airport • Felixstowe and Harwich • Humber Region • Liverpool City Region • Plymouth • Solent • Thames • Teesside <p>The devolved administrations are currently considering the viability of their own freeports programmes.</p> <p>The British Ports Association and UK Major Ports Group have produced a number of resources and policy papers promoting the benefits of freeports and port zoning, as well as working with policy makers across the UK and developed administrations to develop the current freeports strategy.</p>
New technology and future modes of transportation	UK will partner with like-minded nations to coordinate mutual understanding of how to successfully develop the services and technology necessary for safe, secure, environmentally sound and reliable Arctic maritime activity in order to maximise mutual benefit from new shipping routes.	Progress update expected in the next iteration of this table as part of Maritime UK's continuing efforts to monitor Maritime 2050 delivery.

Infrastructure

Ports and harbour infrastructure	Government will monitor the availability of funding to ports through commercial lending, identifying any market failures and developing plans to address these, together with the ports.	<p>During the outbreak of the global COVID-19 pandemic, government has provided financial support to all parts of the economy. In the maritime sector, government provided additional bespoke support to domestic ferry operators and critical ferry routes.</p> <p>The government made £200m of funding available through the Port Infrastructure Fund, which was launched in October 2020 to enable maritime ports, airports and international rail termini currently handling goods from the EU to access funds to build the necessary infrastructure and facilities to enable customs and sanitary/phytosanitary checks to be carried out at ports following the end of the transition period.</p> <p>The British Ports Association has conducted a Port Financing Options exercise which has looked at the various sources of finance available to ports.</p> <p>Government has launched the Office for Investment and Infrastructure Bank and new funds such as the Build Back Better and Levelling Up funds.</p>
Ports and harbour infrastructure	Government will review Port Master Plans Guidance, identifying opportunities to better support the sector across planning, environmental and connectivity issues.	The British Ports Association has offered to review the Port Master Planning guidance, the DfT welcomed this proposal but progress has been delayed due to the outbreak of COVID-19.
Ports and harbour infrastructure	Government will consider renewing the National Policy Statement for ports, to provide additional support if needed.	The Freeports Bidding Prospectus noted the government's intention to initiate a review of the National Policy Statement for ports.
Ports and harbour infrastructure	Government will implement a targeted programme of Port Economic Partnerships for ports meeting specific scheme and success criteria, leveraging the maximum benefits from both government and industry investments.	The Department for Transport launched a Port Economic Partnership with ABP's Port of Southampton.
Port connectivity, the supply chain, and logistics	Government expects full implementation of the Port Connectivity Study recommendations in the short term.	The British Ports Association has carried out a UK-wide Port Connectivity Review covering surface access, energy and digital connectivity. The BPA is in the process of summarising this and will shortly produce a final report.
Port connectivity, the supply chain, and logistics	Building on UKMPG's 'Dragons Den', DfT will host jointly with industry an annual seminar bringing together key stakeholders in the maritime and technology sectors to showcase best practice.	Progress on this recommendation has been delayed as a result of the COVID-19 pandemic, which has made physical events difficult to organise.
Port connectivity, the supply chain, and logistics	Government will support the work of industry, including the BPA, UKMPG and Maritime UK, as they produce their visions of the future.	<p>The British Ports Association has continued its Port Futures thought leadership programme.</p> <p>Government is working with industry to reassess and reprioritise actions that can be taken to deliver Maritime 2050 ambitions and support post-pandemic recovery and growth across the sector.</p>
Port connectivity, the supply chain, and logistics	Government will continue to consider the needs of the maritime sector as part of rail and road infrastructure funding to support the onward transportation of freight and passengers from maritime infrastructure.	<p>The British Ports Association has carried out a UK-wide Port Connectivity Review covering surface access, energy and digital connectivity. The BPA is in the process of summarising this and will shortly produce a final report.</p> <p>Government continues to work closely with all modes of transport to ensure schemes designed to support port connectivity and make sure this is well evidenced and supported through implementation.</p>



Infrastructure - continued

<p>Port connectivity, the supply chain, and logistics</p>	<p>Government anticipates the maritime sector will continue investing to integrate and provide added value to the wider supply chain and associated industries.</p>	<p>UK ports have made significant investments in infrastructure and capabilities in the past two years, including the development of new terminals and harbours, as well as power plants and energy supplies, to accommodate the next generation of container ships. These investments all benefit the efficiency and future sustainability of the rest of the supply chain.</p>	<p>Sectoral infrastructure</p>	<p>Government will meet its maritime accessibility responsibilities through correct implementation of the passenger rights legislation and the delivery of the Inclusive Transport Strategy.</p>	<p>The Inclusive Transport Strategy was published in 2018.</p> <p>Following publication of the Strategy, a toolkit was published summarising details of the assistance maritime operators must offer to passengers. To help passengers understand their rights, an additional guide was published in easy to read format, sign language and an audio version.</p>
<p>Sectoral infrastructure</p>	<p>The maritime sector, with government support where appropriate, will identify and explore opportunities for the development of new and existing markets.</p>	<p>The Five-year Plan for Maritime Export and Investment, developed by DIT in partnership with industry, identified new growth opportunities across different international markets.</p> <p>The refreshed National Shipbuilding Strategy is similarly expected to position the UK's shipbuilding enterprise for future growth in new markets.</p> <p>Industry regularly monitors opportunities for growth across new markets, such as offshore renewables, and Maritime UK expects to publish an Offshore Wind Plan outlining opportunities for maritime growth in 2021.</p>	<p>Sectoral infrastructure</p>	<p>Government will continue to look for appropriate means of support for SMEs to export, attend tradeshows and explore opportunities to enhance their impact in the boat and shipbuilding sectors.</p>	<p>The Maritime and Coastguard Agency started, and continue to, undertake inspections to ensure operators are complying with passenger rights regulations.</p> <p>The next step is to encourage disabled groups to work with industry to review travel arrangements and identify any improvements required.</p>
<p>Sectoral infrastructure</p>	<p>The maritime sector, including ports, will actively engage the energy sector to understand the primary (generation) and secondary (manufacturing, servicing and storage) market needs, promote collaboration and identify new market opportunities.</p>	<p>The maritime sector, including ports, will build its vital role in achieving the UK's ambitious decarbonisation targets through working with the energy sector and investing in new facilities and capabilities to support market needs, including generation and manufacturing.</p> <p>Industry and port trade associations such as the British Ports Association have already worked actively with National Grid to model potential future energy demand from ports in a range of scenarios up to 2050 and are working to extend this work to make it easier for all UK ports to forecast potential demand from new fuels, development of shore power and port electrification.</p>	<p>Sectoral infrastructure</p>	<p>Government will continue to look for appropriate means of support for SMEs to export, attend tradeshows and explore opportunities to enhance their impact in the boat and shipbuilding sectors.</p>	<p>DIT is working in partnership with industry to deliver the recommendations set out within the Five-year Plan for Maritime Exports and Investment, which sets out steps to help better support companies to export. These ambitions are being progressed through the joint industry and government Maritime Exports and Investment Group.</p> <p>New GREAT marketing materials have been produced, and the Maritime Capability Campaign Office was recently set up by government to coordinate campaign activity across the civil and military maritime sector.</p> <p>The Government is refreshing the National Shipbuilding Strategy, expanding its scope beyond naval shipbuilding to realise the UK's potential to be a world leader in commercial shipbuilding. The refresh of the strategy is expected to be published this year.</p>
<p>Sectoral infrastructure</p>	<p>Industry will identify specific barriers to ports serving the energy sector and jointly with government, will actively develop and propose solutions.</p>	<p>Industry is working to identify specific challenges to ports maximising their support for the energy sector, such as future-proofing investment opportunities and the availability of enabling energy network infrastructure, engaging with government to find solutions.</p> <p>Industry has already made significant efforts to understand the barriers to ports serving the energy sector, primarily in relation to the development of shore power. Examples include the British Ports Association's (BPA) report on barriers to widespread shore power published in 2020, which identified a lack of energy capacity in local networks for many ports.</p> <p>UK Major Ports Group, together with BPA and the Tyndall Centre, also published research suggesting government support for shore power is essential to unlocking a triple-win of cleaner air, lower climate pollution and smart 21st-century electricity grids in UK ports.</p>	<p>Sectoral infrastructure</p>	<p>Government will work with the leisure, superyacht and small commercial marine industry to ensure their needs are factored into the strategic growth agenda for the maritime sector, in the context of government's Industrial Strategy.</p>	<p>The DfT and FCDO commissioned a report by the Carbon Trust on decarbonising the recreational craft sector: Decarbonising recreational vessels in the UK and Europe. The report highlighted the need for a comprehensive solution in order to overcome technology, policy, financial and behavioural barriers to achieving a net zero fleet by 2050.</p>
<p>Sectoral infrastructure</p>	<p>Government will explore with the maritime and marine leisure sectors where barriers to development exist and identify opportunities to grow the sector.</p>	<p>The DfT and FCDO commissioned a report by the Carbon Trust on decarbonising the recreational craft sector: Decarbonising recreational vessels in the UK and Europe.</p>	<p>Sectoral infrastructure</p>	<p>Government will work with industry to review and understand any issues which might prevent UK businesses and shipbuilders from being competitive in bids for UK-based contracts. And if necessary, look for options to provide appropriate support.</p>	<p>The Government is refreshing the National Shipbuilding Strategy, expanding its scope beyond naval shipbuilding to realise the UK's potential to be a world leader in commercial shipbuilding.</p> <p>The refresh of the strategy is expected to be published this year.</p>
<p>Sectoral infrastructure</p>	<p>Government and the cruise and ferry sectors will have increased interaction, to better understand concerns and any barriers to growth.</p>	<p>Government has worked closely with the cruise sector through the last year to support the development of COVID-19 frameworks, and phased, risk-based plans for the restart of cruise operations in the UK following the voluntary suspension of activity in March 2020. Government is committed to continuing to support and collaborate with the cruise sector to ensure the safe operation of cruises, both domestic and international, and support the rebuilding of consumer confidence to support recovery.</p>	<p>Sectoral infrastructure</p>	<p>UK ports will maintain their attractiveness for vessel calls on global shipping routes and the effectiveness of UK maritime infrastructure through continued investment, in step with improvements in technology and vessel types.</p>	<p>UK ports have made significant investments in infrastructure and capabilities in the past two years, including the development of new terminals and harbours, as well as power plants and energy supplies, to accommodate the next generation of container ships,</p> <p>The government made £200m of funding available through the Port Infrastructure Fund, which was launched in October 2020 to enable maritime ports, airports and international rail termini currently handling goods from the EU to access funds to build the necessary infrastructure and facilities to enable customs and sanitary/phytosanitary checks to be carried out at ports following the end of the transition period.</p>
<p>Sectoral infrastructure</p>	<p>Government will support industry to proactively seek opportunities for maritime infrastructure to access existing innovation programmes and funds, making the case for inclusion commensurate with the economic profile of the maritime sector.</p>	<p>Government has provided £4.8m in funding to MarRI-UK to promote maritime technology development. This has funded 21 projects across a wide range of areas, including decarbonisation, autonomy and digitisation.</p>	<p>Sectoral infrastructure</p>	<p>UK ports will maintain their attractiveness for vessel calls on global shipping routes and the effectiveness of UK maritime infrastructure through continued investment, in step with improvements in technology and vessel types.</p>	<p>UK ports are committed to maintaining investment, in step with improvements in technology and vessel types, to maintain their position as the UK's key gateways with the world for the overwhelming majority of international trade.</p>

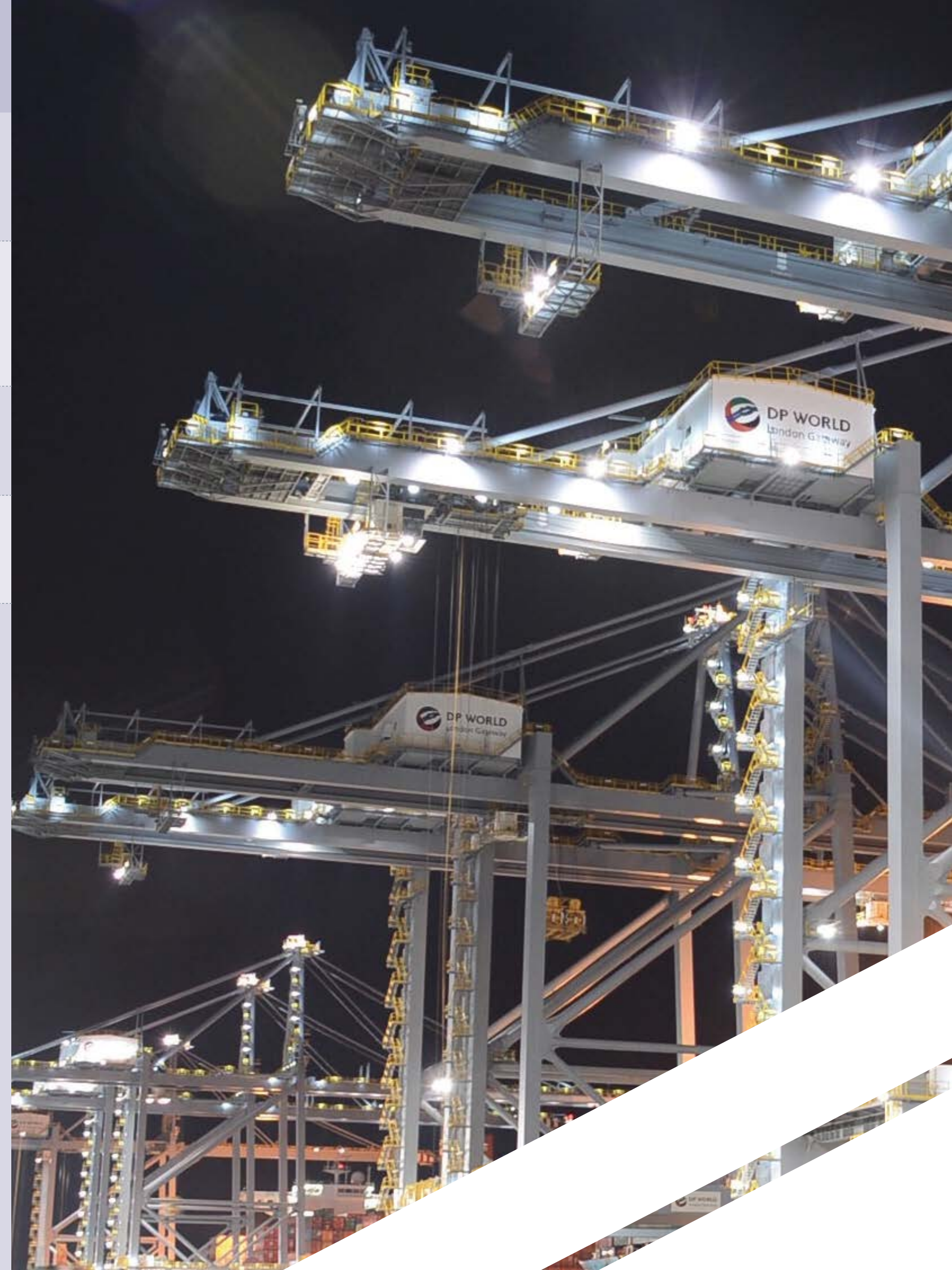
Security and Resilience

Overall recommendations	Government will lead on the assessment of risk, analysis and emergence of new threats to shipping and port operations in the global shipping sphere.	Government continues to lead in this area and will further consider it as part of the 2021 Integrated Review. This will also be captured in the forthcoming National Strategy for Maritime Security 2021.		and Europe, and continue NATO participation to deter and adapt to threats as the maritime security picture evolves.		
Overall recommendations	Government will improve the processes to address security threats and target methodologies to implement proportionate mitigations to new tactics as needed.	HMG undertakes regular reviews of processes and procedures to mitigate the effects of new security threats. This will also be captured in the forthcoming National Strategy for Maritime Security 2021.		Security and resilience at ports and on ships	Government will provide information to encourage and enable informed investment to protect critical port infrastructure from future hazards such as severe weather events.	Government continues to work with UK ports.
Overall recommendations	The UK will broaden its already strong alliances, both diplomatic and military, to maintain and build consensus for an open and stable maritime domain.	The UK continues to broaden its alliances and will consider this further as part of the 2021 Integrated Review.		Security and resilience at ports and on ships	Government will work with ports to review their understanding and implementation of climate change adaptation measures and encourage periodic reporting on preparedness through the adaptation reporting power.	Government continues to work with UK ports.
Security of UK waters – including Overseas Territories	The defence of UK waters and those of its Overseas Territories from all threats will remain a standing commitment.	The defence of UK waters and those of its Overseas Territories from all threats remains a standing commitment. Recent investment has been made in the Joint Maritime Security Centre to support the protection of UK waters following the end of the Transition Period. This will also be captured in the forthcoming National Strategy for Maritime Security 2021.		Security and resilience at ports and on ships	To maintain and increase port throughput efficiency, government will support industry in seeking emerging technologies and systems to deliver screening of goods and people more efficiently and effectively.	Government continues to look at new screening technologies to support industry.
Security of UK waters – including Overseas Territories	The UK will maintain a cross-government research and development programme to find innovative solutions to detect, monitor, and respond to threats and protect UK maritime interests including Overseas Territories and Crown Dependencies.	HMG continues to conduct research in many areas, including the detection and monitoring of threats to UK maritime interests.		Security and resilience at ports and on ships	Government will assess the feasibility of undertaking a systems approach to identifying single point of failure for maritime infrastructure – that is looking ‘beyond the fence’ to identify interdependencies of connected infrastructure, supply chains, and their levels of redundancy.	Government continues to work to understand the connected nature of the critical national infrastructure.
Security of UK waters – including Overseas Territories	Government will continue to maximise its use of capabilities by securing a long-term delivery plan for the NMIC and the JMOCC. We will provide world-class maritime domain awareness and deliver effective asset disposition.	The Joint Maritime Security Centre (JMSC) is the UK government’s centre of excellence for maritime security. Its mission is to increase awareness and understanding of maritime security threats and enable cross-government coordination to deliver a whole-system response to mitigate them. Investment has been made to develop additional maritime domain awareness capabilities to support the protection of UK waters following the end of the Transition Period.		Security and resilience at ports and on ships	Government will monitor investment activity in UK maritime infrastructure to protect national security against hostile actors who may wish to harm the UK.	Government continues to monitor investment activity in UK maritime infrastructure.
Security of UK waters – including Overseas Territories	Government will continue to support the rules-based international system to build and deepen relationships with emerging global markets by strengthening alliances and building partnerships. Government will encourage rational behaviour by states and support the peaceful settlement of disputes.	This will be considered as part of the 2021 Integrated Review and will also be captured in the forthcoming National Strategy for Maritime Security 2021.		Cyber – security of technology	It is unlikely that every maritime organisation will have the resources to employ dedicated cyber security specialists so industry should consider exploring models that could provide the maritime industry with cyber support services more effectively.	Progress update expected in the next iteration of this table as part of Maritime UK’s continuing efforts to monitor Maritime 2050 delivery.
Security of UK waters – including Overseas Territories	Government will reflect on the changing maritime security landscape and review its approaches in coordination with future defence reviews.	Government continues to monitor the changing security landscape and review approaches to maritime security. This will also be captured in the forthcoming National Strategy for Maritime Security 2021.		Cyber – security of technology	Government will continue its approach to assessing cyber threats through the National Cyber Security Centre and closely liaise with industry to warn, inform and advise of such threats.	This will be captured in the forthcoming National Strategy for Maritime Security 2021. The British Ports Association have teamed up with Astaara to produce a short paper on port cyber security. This highlights some of the issues that ports need to consider and also signposts current Government regulation and guidance. It covers some key areas where ports might need to take action, including staff training and awareness.
Security of UK waters – including Overseas Territories	Government will maintain an exchange of intelligence with its closest partners, including the US.	Government continues to work closely with all relevant partners on maritime security threats and issues.				



Security and Resilience - continued

Terrorism	UK will continue to be alive to evolving terrorist threats – in both their identification and the mitigation options required – working closely with industry to deliver solutions.	Government continues to prioritise the identification and mitigation of terrorist threats.
Terrorism	UK government policy and inspection regimes continue to ensure that UK ports, and those of the Overseas Territories, are compliant with the current legislation and responsive to current and emerging threats.	Government continues to work with UK ports to support compliance with legislation and response to current and emerging threats.
Terrorism	The UK will maintain highly effective operational counter-terrorist capabilities in policing, intelligence, and defence so that terrorist actors will have no safe place to operate.	Government continues to prioritise counter-terrorist capabilities.
Terrorism	The UK supports the development of security regimes at foreign ports through a targeted programme of partnerships to deliver security capacity development.	Government continues to work with international partners to support the development of port security. This will be captured in the forthcoming National Strategy for Maritime Security 2021.
Maritime crime and piracy	Government will continue engagement with foreign partners to improve law enforcement and legislative capability and capacity in those areas that suffer from organised criminality and piracy. Interim measures, like the use of armed guards and naval engagement, will continue and we will remain alive to changes in the locality of threats as well as methodologies of such groups.	The government continues to engage with all relevant partners on these issues.





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