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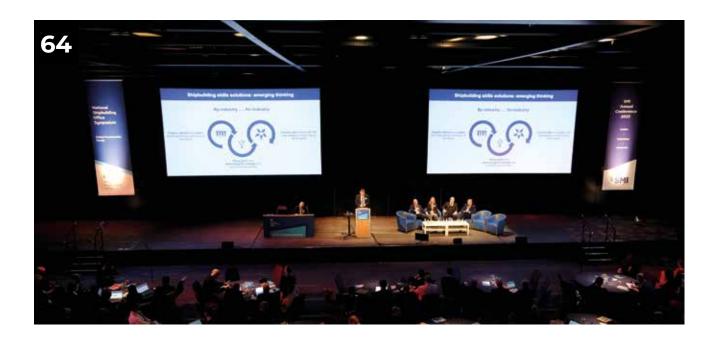
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Front cover image: 12 months of maritime traffic data

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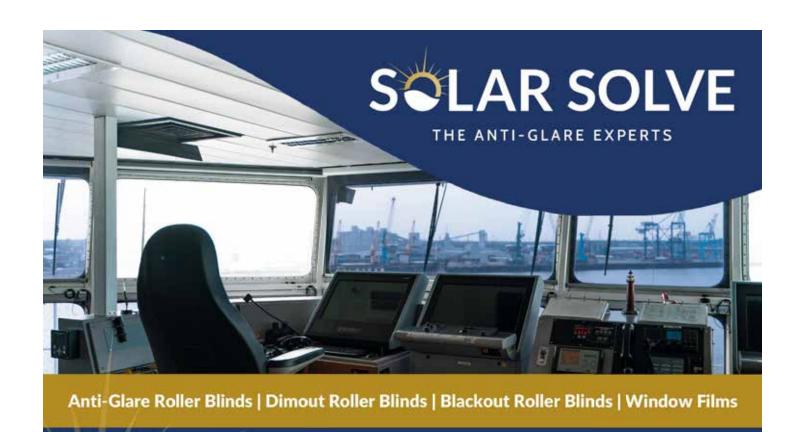
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# Leading the charge towards a clean, innovative future

hank you for picking up our 2024 SMI Members' Directory. Each year we print at least 2,000 copies and never fail to distribute them via our UK pavilions overseas, events in the UK and a high proportion via our office where industry, government officials and international visitors regularly gather.

The SMI Directory is a handbook for the who's who in the UK's maritime enterprise. I'm delighted that our range of members includes start-ups, SMEs and the UK's large shipbuilding primes. That vital diversity of innovation through to the corporate end delivery gives our membership a unique strength.

Trade, energy and data have become the keywords for the UK's maritime enterprise. Recent geo-political events have revealed many incidents that highlight the need for a robust UK maritime enterprise to support the Royal Navy in its protection of global trade, of which around 90% is delivered by sea. The disruption in the Red Sea showcased just one example of the Royal Navy's work. The Nordstream incident in the Baltic also demonstrated the vulnerability of energy supplies at sea and the damaged subsea cables in the Baltic highlighted that 97% of internet traffic travels by undersea cable. This has driven the Royal Navy to purchase two multi-role vessels who will utilise an increasing amount of autonomous technology to monitor and protect subsea assets.

Our members in the supply chain, supporting the global merchant navy fleet and our marine science industry, provide you with an enterprise to work with whose very backbone is being very strong exporters. They deliver innovative products and services that compete globally by being faster, better and cheaper. Very importantly they are supported by strong global networks instilling high confidence in decision makers when selecting UK products. When you factor in the exceptional ease of doing business in the UK you will always have a strong case for choosing UK partners for your business.

The UK maritime enterprise is centuries old, born from the original need for protection and trade. It now contributes to the UK's prosperity and growth through a networked maritime enterprise that includes the Royal Navy, government, industry, SMEs, and academia.

The global maritime enterprise faces challenges in the next decade that are all connected with trade, energy and data, and it is the experience, innovation and diversity of the UK industry that brings us our unique strength. UK industry and the SMI team looks forward to meeting you in 2024 around the world.

# **Tom Chant MBE**Society of Maritime Industries CFO





# Time for engagement

he annual members' directory provides an opportunity to review the achievements of the Society of Maritime Industries (SMI) and to support our members' business development around the world. As the trade association for companies in the maritime engineering and marine science and technology industries, we strive to help those companies seeking to grow their businesses and represent the sector to the UK government and wider stakeholders.

The SMI Conference in March 2023 brought together 300 professionals and demonstrated the increasing momentum within the UK maritime enterprise and unprecedented government engagement in the sector. The establishment of the National Shipbuilding Office (NSO) has created a cross-government organisation that operates across departments on behalf of the maritime industry. SMI and its member companies are playing a leading role in the work of the NSO and its industry engagement body, the Shipbuilding Building Enterprise for Growth. These efforts collectively drive forward our sector, so the entire UK maritime enterprise has access to seize opportunities presented by the wide-ranging decarbonisation agenda, offshore renewables, and all that is to come in AUKUS.

As activity in the maritime domain increases, particularly offshore, the focus on the marine environment and sustainability is also increasing and SMI and its member companies are playing important roles in all these areas.

This is an exciting time for the maritime sector, and I would like to express my thanks to the many contributors to SMI's Councils and activities. Your input into the strategy and direction of SMI are vital for the SMI team to understand industry issues and represent the industry in a host of government and stakeholder panels and meetings. The SMI team exist to work on behalf of our members and the wider industry; do please reach out to them with your ideas and issues.

**John Howie MBE**Society of Maritime Industries
President

"SMI AND ITS
MEMBER COMPANIES
ARE PLAYING
IMPORTANT ROLES IN
ALL THESE AREAS"





# Understanding what we do and how we're set-up

elcome to SMI's 2024 Members' Directory. As the trade association for the UK's maritime engineering, science and technology community, we are here to enable maritime organisations of all sizes and types to thrive. There are three ways in which we do that:

#### **New insights and resources**

We enable members to stay in touch more easily with what is going on in the maritime industry – *and...there is a lot going on.* We are able to point our members to the key issues and resources most relevant to them, as well as highlighting the latest issues confronting the sector.

#### **New connections and support**

Both in the UK and internationally we help our members to connect with support organisations, new partners, clients and suppliers. We do this through various events – including: annual conferences, dinners and exhibitions – as well as overseas events and trade missions.

We also provide tailored support to enable members to raise their profiles and enjoy meaningful collaborations.

#### **New momentum and influence**

Above all, we look to enable our members to thrive and seize new opportunities; to develop and grow their businesses and to enjoy new success and influence.

As a trusted advisor to the government, we are also in a position to bring about new momentum and progress for the industry as a whole.

We have a unique perspective on how to create new levels of maritime innovation, within our member community and beyond.

#### Our SMI board

SMI is a not-for-profit company limited by guarantee. Our activities are overseen by a board of directors drawn from the membership. The composition of the board is monitored to ensure there is adequate representation of different sectors, and company sizes, from both the primes and SMEs.

## How we are set up

#### **Our six sector groups**

To understand, represent and support the interests of members, SMI has six sector groups. These are:

- Commercial Marine Group: commercial vessel build/refit, design, services and supply chain. The Workboat Working Group sits within this group and focuses on the sub 100 m vessel market.
- **Ports & Terminals Group:** port design, infrastructure and technology.
- Maritime Defence & Security Group: naval and security vessel build/refit, design, services and supply chain.
- Marine Science & Technology Group: sensors and systems for the ocean and inland waterways.
- Maritime Autonomous Systems Group: autonomous vessel build, design and systems development.
- Digital Technology Group: insight building on digital technologies.

Each of these groups is led by a member-elected Council who develop an annual work plan of activities. Every year, elections to the Councils take place to renew the composition of the group. Each Council has a member-appointed Chair who is supported by the SMI director responsible for the sector. At SMI we are proud of the way this model brings about such deep engagement with the membership.

In their work plan, each Council will outline activities and events for the year; these will be chosen for their capacity to provide insight and connections to both the members and also the wider contacts with interests in that sector.

A real strength of the sector groups is how interdependent these groups often become – particularly with opportunities like decarbonisation, where port, vessel and digital solutions are reached via collaboration. Members have access to each Council's activities assisting companies in developing contacts, insight and building collaboration.



# SMI – a global presence

The Society of Maritime Industries (SMI) is the organiser for UK pavilions at maritime exhibitions around the world. Exhibiting in the UK Pavilion will ensure high traffic and value-added activities to support your investment in the show. These activities include receptions within the pavilion, and where possible, at British Embassies or High Commissions.

Please visit the SMI website at www.maritimeindustries.org for the latest information on the exhibitions we are supporting. Below are the exhibitions SMI has supported in the past few years. For 2024, the selection of overseas shows includes APM in Singapore, Posidonia in Athens, SMM in Hamburg and Euronaval in Paris. For the first time in many years, we are also heading to Tokyo for Sea Japan.



#### **SECTOR-SPECIFIC EVENTS**

There are many other events outside the exhibition programme. Each sector group within SMI organises its own seminars and networking opportunities. An example is the Ports & Terminals Group Shipping Review, where top industry analysts give their updates on market conditions and intelligence. In the UK, SMI will be at Oceanology International and Seawork. At both, SMI will be organising activities to support member engagement.

To be notified of relevant of events please sign up to our newsletter on the SMI website, **www.maritimeindustries.org**, and head to the top righthand corner of the home page.



13 - 15 MARCH 2024	APM 2024 (ASIA PACIFIC MARITIME)
10 - 12 APRIL 2024	SEA JAPAN 2024
3 - 7 JUNE 2024	POSIDONIA 2024
11 - 13 JUNE 2024	SEAWORK 2024
3 - 6 SEPTEMBER 2024	SMM HAMBURG 2024
10 - 11 SEPTEMBER 2024	SMI ANNUAL CONFERENCE
4 - 7 NOVEMBER 2024	EURONAVAL 2024
<b>28 NOVEMBER 2024</b>	SMI ANNUAL DINNER
3 - 6 DECEMBER 2024	FXPONAVAL 2024





# Harnessing UK maritime expertise for global port development

Authors: Gordon Rankine and Beckett Rankine

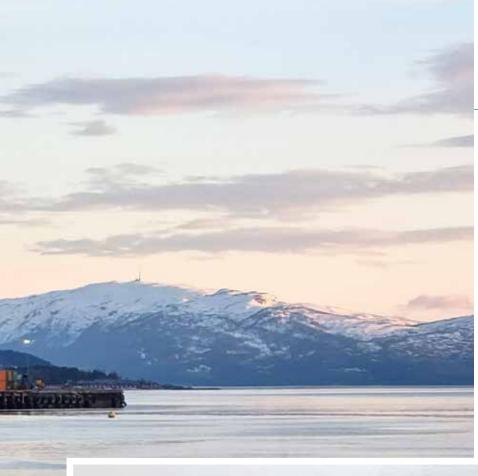
he UK's maritime excellence spans every aspect of port creation and development. Our experts have been entrusted to produce plans and designs for many of the world's largest ports, recognising the unique aspects of every project; the facilities that are required, the location and geography of the site, the commercial requirements for the development, and environmental and consenting issues.

The UK is a hub of knowledge encompassing transformations right across the port lifecycle, from building new ports and modifying existing ones, through to closing and repurposing port sites for commercial and leisure uses.

The design, engineering and construction of our ports are underpinned by integrated expertise in maritime financing, insurance, legal support and much more.

Global trade has expanded exponentially, seeing 40-times larger exports today than a century ago. However, 24% of carbon emissions are estimated to come from transport, with 10% of all transport emissions attributed to shipping. There is a clear need to improve and reduce how oil is used, and the UK is well positioned to drive these changes.

The UK government's ambitious plans to decarbonise the maritime industry present unique opportunities for ports to embrace novel technology. Modern port developments



# "THE UK IS IN PRIME POSITION TO PLAY A PIVOTAL ROLE IN SUPPORTING PORT DEVELOPMENT"

**LEFT:** Global trade has expanded exponentially, seeing 40-times larger exports today than a century ago

**BELOW:** The UK is a hub of knowledge encompassing transformations right across the port lifecycle



increasingly embed sustainability into the heart of their operations for a proactive take on carbon reduction, with the flexibility to adapt and accommodate future technologies that will emerge. As larger vessels need to be loaded and unloaded more quickly, we will see increased levels of automation and a reduced carbon footprint.

Ports can be a catalyst for achieving carbon net-zero in the maritime transport industry, providing access to clean energy sources and optimising logistics to minimise energy use. Electrification of port infrastructure is already widespread and is increasing. The UK is at the forefront of offshore renewable energy (ORE) development, adoption and export,

investing heavily in research to advance ORE technology capability and accelerate its applicability. Unlocking the full potential of renewables – and all the complexities of applying them around the globe – could revolutionise the entire maritime logistics supply chain.

It's critical maritime expertise continues to be shared across borders so that ports and harbours around the world are not left behind. The UK is in prime position to play a pivotal role in supporting port development, particularly in emerging economies, by drawing on its extensive experience to create and apply practical, lasting and sustainable solutions anywhere in the world. ■



# Developing modern port facilities and infrastructure with a reduced carbon footprint

Author: Ben Challier, RHDHV

he call for a more sustainable world is clearer than ever before. Governments, policy makers and companies across all sectors are motivated to reduce their CO2 emissions. Maritime facilities have their part to play in this global ambition.

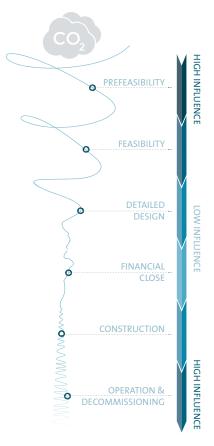
Making the right maritime infrastructure investment decisions can be complex; maritime assets last for decades and the industry and society are evolving fast. Emerging market needs, climate change and tightening legislation make the future difficult to predict, while ports, shipyards and terminals face stiffer competition than ever. Maritime civil engineering consultants see themselves as an enabler for the global port network to achieve these goals.

Adopting the use of traditional and newly developed tools, we can help ports to better understand their CO2 emissions by taking a sustainable, end-to-end view, designing climate

and market resilience into your infrastructure, while achieving your immediate goals. We can combine civil and energy expertise to incorporate future market provisions into maritime infrastructure design, such as preparing for and implementing shore power and renewable energy generation - and the lower energy costs they can bring, or the transition to automated equipment in a brownfield environment.

Whether you are building new structures or upgrading your current facilities, experienced maritime infrastructure engineers - using digital modelling and parametric design tools - consider the whole asset lifecycle to help you save energy, cost, materials and waste. The result is efficient, sustainable infrastructure and a lasting competitive edge.

Our goal is to assist our clients in developing future-proof infrastructure that accounts for evolving markets and the changing climate.





investment decisions can be complex





# The Universal Hydrographic Data Model: a key enabler for UK ports to support precision e-navigation and autonomy

Author: Phil Thompson, Maritime Products Director, BMT

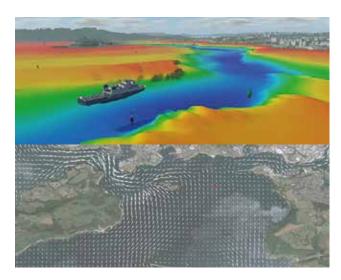
he International Hydrographic Office (IHO)
Universal Hydrographic Data Model (UHDM S-100)
is inherently more flexible and machine readable
than the existing IHO S-57 standard, offering
provision for richer, granular gridded data and imagery, timevarying data, enhanced metadata and multiple coding formats.
In November 2022, the International Hydrographic Office
published its *Roadmap for the S-100 Implementation Decade*(2020-2030). The UK port sector, together with its suppliers
and systems that support safe navigation, are likely to rely
more and more on a full digital world model, with the IHO
S-100 Universal Hydrographic Model as part of its core.

Currently, only S-100 will meet the highest requirements for richer data and imagery, interoperability, machine readability, maritime situational awareness, collision avoidance, system assurance and cyber security. BMT operates five, fully integrated S-100 platform full bridge mission facilities, including two 3600 simulators. These facilities are currently supporting port operators, pilots and shipyards, together with cruise and naval fleet operators, with S-100 data-based navigation simulation and synthetic training. This is providing significantly greater situational awareness in ports and with considerably more precise evaluations of port access windows to accommodate the navigation and pilotage of large ships. BMT navigational simulators fuse various high-resolution S-100 data sets, including bathymetry (S-102), dynamic water levels (S-104) and surface currents (S-111). BMT's pioneering work in developing a full S-100 model of Plymouth (shown in Figure 1) for use in manned and autonomous navigation secured the inaugural UK Admiralty Prize for Maritime Innovation.

The introduction of S-102 data removes depth band restrictions often imposed using S-57 ENCs, while adding S-104 dynamic water level and S-11 dynamic current data allows particularly precise plans to be prepared, customised to the vessel's draught and the tidal height at the time of passage.

BMT has already provided S-100 navigation simulation

support in the Port of Belfast for larger cruise ship access (Figure 2) and in Peel Ports Liverpool and Portsmouth to support advanced S-100-based synthetic pilot training. The use of S-100 data also allows for an expansion of pilot training scenarios, eg, outside of slack water windows.



**Figure 1:** Plymouth Fused S-102 – S-104 – S-111 Navigation Simulation



**Figure 2:** BMT's REMBRANDT simulator using S-102 bathymetric data to examine port entry



# The future of shipbuilding: how technology is revolutionising the industry

Author: Kieran McDonagh for Harland and Wolff

or more than 160 years, Harland & Wolff has been among the most iconic of British shipbuilding names. It was in our yards the titans of the golden age of the liner were built, and, just as then, technology is revolutionising the industry today. From decarbonisation to digitalisation and autonomy, to compete and push boundaries, we continue to innovate and embrace new technologies. In delivering our fleet solid support subcontract, we are investing £77M (US\$95M) in new shipyard technology in Belfast, which will see the yard become the UK's most technologically advanced. Investments cover advanced robotic and autonomous equipment that includes material movement, marking, plate cutting, panel lines and robotic welding. In addition, new larger paint buildings will be constructed to facilitate larger and more efficient block painting.

The pace of change is accelerating in the maritime sector. To respond and harness that change, we all need to understand what that means for our respective operations. For Harland & Wolff, so much of this is about forming the right partnerships to deploy the best solutions for our customers. That is why we have launched Harland & Wolff Technologies (HWT), a fully owned subsidiary that will operate alongside our larger group.

HWT will focus on batteries, propulsion, future fuels and systems integration. We are committed to being at the forefront of these developments, and in turn, support the UK's net-zero targets. We are developing a suite of support agreements and joint venture partnerships with equipment manufacturers to provide the highest level of service. The business will drive to support the energy market alongside the service operation vessel market and the tugboat and crew transfer vessel markets with industry-leading modern technology solutions. Included in this offer will be a dedicated after-sales package to support consumers with their infield operations.

The business is based in Aberdeen, Europe's energy

capital, and led by Richard Davidson. Throughout his career, Mr Davidson has been instrumental in introducing and commercialising new technologies centred around propulsion and fuels. We are building a first-class team with decades of experience in the energy and maritime markets. HWT is positioning itself as a partner of choice to develop and exploit new technologies for the maritime sector.









**ABOVE:** Team Resolute, comprising BMT, Harland & Wolff and Navantia UK, will deliver three Fleet Solid Support ships for the Royal Fleet Auxiliary (RFA)

**LEFT:** Nusrat Ghani, Minister Of State visits Harland & Wolff in Belfast





Emphasis on hull form efficiency has never been higher. Advances in software, computer processing power and modelling techniques mean designers can deliver

# The future of ship design: a rude awakening?

Author: Rupert Hare, Houlder

hat is the worst way you have been woken from a deep sleep? Try a wet finger in the ear. That is impossible to ignore and ship designers have just undergone the equivalent.

Vessel designers might have been forgiven the odd long blink over the past couple of decades. Cookie-cutter hullforms. Heavy fuel oil for propulsion. We will design everything ourselves. Gone, gone and gone. We are now well and truly awake. How come?

The future of vessel design promises to be a long restless night as we all face up to wave after wave of fresh challenges. What if we don't have any people on board? Can we switch fuel type in five years?

We recently responded to a competitive brief requiring sustainability, diversity, education, future technology, stewardship, humanitarianism, research, trade and diplomacy. All at a reasonable price.

Take ESG for example. Just a few years back this was a 'non-thought' aspiring to be an 'afterthought'. Now charterers, vessel owners and financiers are all over the environmental impact of ships. The regulatory environment struggles to keep up but provides a wake-up call for any laggard refuseniks.

Emphasis on the efficiency of hullforms has never been higher. But fortunately, advances in software, computer processing power and modelling techniques are equipping designers to deliver. Concepts can be developed and proven in record time with increased certainty of performance.

These are the inspiring challenges of a lifetime. Their demands have sparked a myriad of aspiring decarbonising, 'efficiency-enhancing' technologies, each supported by thrusting OEMs championing their cause. Maturing at different rates. Promising varying returns. Bringing various design challenges. Designers have got to get to grips with what each can offer and design the right combination in.

The best designers have twigged that effective collaboration is imperative. It is all about bringing the best combined talents to bear and invariably that means working beyond traditional corporate boundaries. Project teams working on new vessel concepts typically combine client with consultancy, deep techies with aesthetic artists, and hardnosed money men with sustainability specialists.

Irrespective of how the industry has been woken up, we now need our eyes wide open and our wits about us. A rude awakening? We wouldn't have it any other way. ■



# The role of crew transfer vessels in offshore windfarm operations

Author: Noel Tomlinson, BMT

ffshore windfarms have emerged as a vital and sustainable source of energy, contributing to the global commitment towards reducing carbon emissions. However, being at sea, the successful operation and maintenance of these complex installations heavily relies on an indispensable component - crew transfer vessels (CTVs). These purpose-built vessels serve as the lifeline, transporting technicians, replacement parts and essential stores safely and swiftly to and from remote windfarm locations.

The importance of CTVs cannot be overstated and their role has expanded and evolved in line with the technological advances of the turbines and size and location of the windfarms themselves.

This has led to larger vessels with higher carrying capacity, capable of accommodating larger numbers of personnel, with enhanced stability to cope with harsher weather conditions. The trend shows that vessels are likely to continue to get larger in size, and alternative propulsion solutions are going to become much more common.

CTVs play a pivotal role in reducing downtime by optimising crew transfers, ensuring quick access for technicians, minimising turbine downtime and maximising power generation. Safety, however, is imperative in a high-risk



environment such as offshore wind and all our vessel designs are developed for people that work at sea all year around, sometimes in difficult weather conditions. It is therefore a priority to make the vessels a safe, comfortable environment for crews, passengers and engineers to effectively work and rest in.

Furthermore, CTVs contribute to the overall sustainability of offshore windfarms. With lower fuel consumption and fewer carbon emissions compared with larger vessels, we never cease to innovate, always looking to develop new vessels to meet the future needs of operators and developers. We continuously invest in research and development, looking at new types of vessels with a strong focus on reducing carbon

emissions for the future.

As the world continues to invest in offshore windfarms, it is crucial to recognise the significance of CTVs and invest in their optimisation. Government support, industry collaboration and research and development efforts are essential to continually improve the efficiency, safety and environmental impact of these vessels.

By recognising and harnessing the potential of crew transfer vessels, the UK can continue its pioneering role in renewable energy and solidify its commitment to a greener future. Let us sail towards a sustainable future, powered by the combination of offshore windfarms and their trusty companions, crew transfer vessels.



# Options for the UK's future marine research infrastructure

Author: Leigh Storey, NERC UKRI

he Natural Environment
Research Council, part of UK
Research and Innovation, has
initiated the Future Marine
Research Infrastructure (FMRI)
programme to consider, and then
deliver, the next generation of national
marine research capability. UKRI has
given itself the bold, yet necessary,
target of being net zero by 2040 and
this is the background to the more

immediate issue of how to replace the royal research ship *James Cook* in 2031 and then the RRS *Discovery* in 2038. Research ships support scientific teams of up to 30 scientists at sea with high-tech laboratories and the ability to deploy scientific equipment to the ocean's depths. The vessels are exceptionally quiet, rated to DP1 and able to deploy systems over the stern A-frame and/or mid-section

booms. Powered by fossil fuels, they can passage at up to 12 knots with an endurance of 50 days.

In future, they will use low- or zeroemissions fuels and any replacement ship will be built to use a sustainable fuel such as e-methanol. The lower energy density will require compromises which are driving consideration of a more radical change driven by the latest technology – marine autonomous



Research ships, such as James Cook (pictured), support up to 30 scientists at sea with high-tech laboratories and the ability to deploy scientific equipment to the ocean's depths



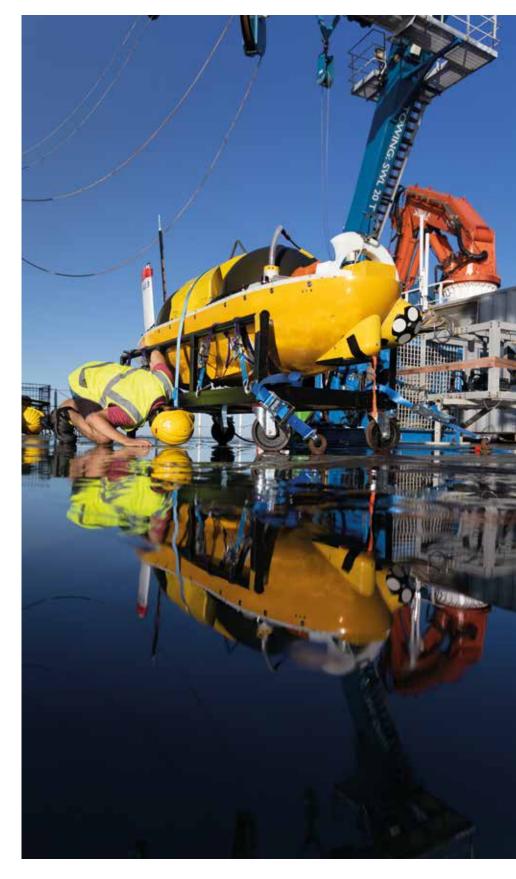
systems (MAS). The Net Zero Oceanographic Capability scoping review provided some insight into how MAS might offset the compromises required and how, in future, research ships might work in tandem with multiple MAS missions (swarms of two, five, 10 or even 50 platforms) to better explore the ocean. There are, however, multiple core capabilities that have to join together to deliver success.

Scientific sensors are the critical component to any MAS: they both enable its operation and collect the required data. Those sensors have to be reliable and robust (often capable of diving to 6,000 m) alongside measuring to the necessary level of accuracy and precision. The FMRI programme will need sensors that are small, low power and value for money but the scale of ambition - for the UK to lead this change and support scientists with 500+ MAS platforms of various types and sizes - presents an opportunity to this growing sector.

Long-range, uncrewed surface vessels and long-range, deep diving autonomous underwater vehicles (AUVs) will be required at scale. The expectation is for platforms that can cross ocean basins while collecting data from multiple sensors and sending some of that data back in near real-time. The National Oceanography Centre's long-range ALR is a great example of the type of AUV required with its proven ability to swim through complex canyons, follow cables along the seabed and even explore 100 km under ice shelves.

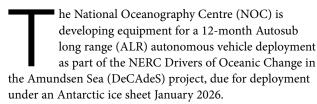
One element of this change that is often overlooked, but which is both critical and a key enabler, is the planning and logistical element. Funded by the FMRI programme, the BAS AI lab is developing tools that can optimise the planning and deployment of MAS and ships and maximise the number of users of the data collected.

**RIGHT:** Long-range, deep diving AUVs will be required at scale



# Autosub to collect Antarctic data in year-long study

Author: Mark Hamson, Innovation Centre Manager



In the Antarctic, the general pattern is one of widespread retreat, but the rates and specific areas of retreat vary over multiyear to decadal timescales. Existing data is sparse and thus the uncertainty in projections is high. One cause of the sparse data is difficulties with traditional mooring methods monitoring undersea ice with high yearly variability. Regularly moorings are deployed which cannot be recovered, due to how the sea ice coverage changes from season to season. A location accessible one year may not be accessible the next time a vessel is nearby for recovery.

The NOC is working on a solution to this challenge using its long endurance ALR autonomous vehicle. In 2022, the ALR completed the current longest autonomous deployment of a subsea vehicle completing  $\sim$ 2,000 km over five weeks while only depleting 45% of the vehicle's battery. The vehicle was shore-launched from Plymouth UK and drove out unaided to the continental shelf completing a series of science missions before driving back.

Under the DeCAdeS project, the NOC and partners plan to deploy an ALR vehicle equipped with a new specialised mooring system under an Antarctic ice sheet for 12 months, after which the vehicle will drive itself out to meet the waiting recovery vessel, thus ensuring recovery AUTOSUB-5 is a high-power workclass AUV designed to explore depths of up to 6,000 m. It has higher power sensors including state-ofthe-art sonars and imaging systems that will enable scientists to create detailed maps and establish habitat characteristics of the seafloor

of the mooring data. The vehicle mooring system under development is a self-contained system meaning the vehicle will carry all of its mooring equipment with it and thus does not need any onsite infrastructure. Additionally, the system is capable of 12 moorings, making it possible for the vehicle to move locations up to 12 times over the deployment.

During the DeCAdeS deployment while the ALR is under ice, the vehicle will be taking readings of environmental water conditions such as CTD data. Once a month, the vehicle will wake up and traverse a 200-km loop over five days before remooring in roughly the same location. This allows the vehicle to not only collect temporal data, but also spatial data throughout the 12-month period.

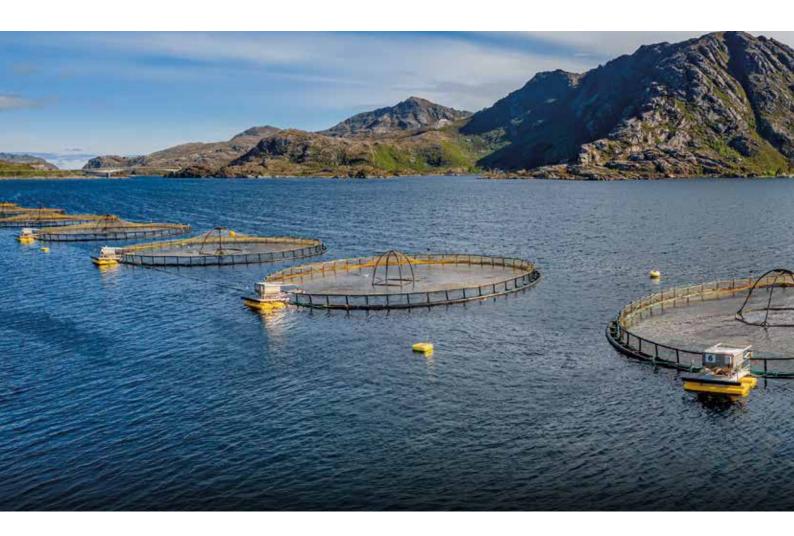
This is a risky project presenting plenty of challenges, including key aspects of autonomous vehicle deployments, navigation accuracy and reliability. ■











# Ocean science technology and the new blue economy

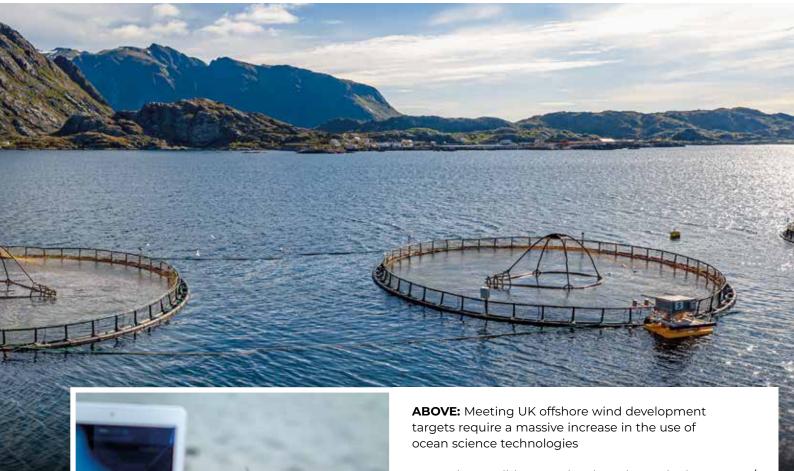
Author: Ryan Mowat, RS Aqua

s the demand for green energy from our oceans increases, several key maritime nations around the world are investing significantly in the blue economy. Like all economies, this one is concerned with exploiting resources, but it is unique because it is compelled to do so in an environmentally sustainable manner.

An example of this is offshore wind development. In the UK, we are planning to increase current capacity to 50 GW

by 2030. This will require a massive increase in the use of various existing ocean science technologies required for the environmental monitoring, construction and maintenance of wind turbine fields. Many of these technologies are already used by offshore oil and gas, eg, the use of active acoustic sensing systems for sub-bottom profiling and underwater asset location, and several UK companies lead the world in their development. One key difference with offshore oil and gas is the need for the wind energy companies to commit to





carbon-neutral development to ensure ongoing investment. Whereas offshore site monitoring would, in the past, have used multiple diesel-powered vessels, there is now an incentive to reduce vessel numbers and time at sea.

This has led to an increase in the development of electric-powered robotics systems that can operate as force multipliers alongside traditional vessels at offshore sites. The mapping of pipelines and cables can now be carried out by autonomous subsurface vehicles using sonar technologies that in the past, would have had to have been towed. The result is a reduction in the carbon footprint of ocean mapping.

Sensors themselves are also undergoing changes,

LEFT: Site conditions can be viewed over the internet 24/7

through the application of machine learning and AI, to data analysis in the field, and through increased cloud and IOT connectivity. Outside of our coastal regions, satellite systems are required for internet connectivity, and these have traditionally been prohibitively expensive. With the advent of low Earth orbit satellite systems, costs are coming down, while the broadband capacity of the networks is rapidly going up. This means data can be sent from sensors positioned in remote ocean locations directly to the cloud, in some cases removing the need for ship-going scientists.

One UK blue economy sector already benefiting from these changes is aquaculture, and salmon farming in particular. In just the last few years, we have seen the widespread introduction on Scottish salmon farms of completely wireless underwater sensors that send key environmental data to cloud-based phone apps in real time. This has revolutionised farm management, enabling key decisions to be taken from anywhere at any time, since site conditions can be viewed over the internet 24/7.

As our blue economy grows, we'll see a step-change in the capabilities of ocean monitoring sensors and robots. ■



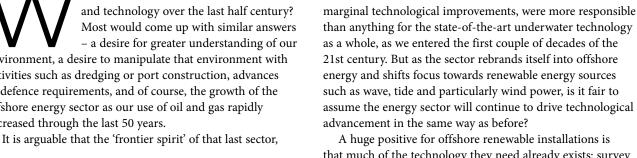
# Will the energy sector continue to drive progress in marine science and technology?

Author: Matthew Quartley, Valeport





hat has driven advances in marine science and technology over the last half century? environment, a desire to manipulate that environment with activities such as dredging or port construction, advances in defence requirements, and of course, the growth of the offshore energy sector as our use of oil and gas rapidly increased through the last 50 years.



that much of the technology they need already exists: survey equipment to assess sites for installation; cable installation capability; sensing technology to monitor environmental conditions and local changes such as scouring and erosion; dynamic positioning systems for floating installations, to name a few. All of these are readily available thanks to all of those previous technology drivers, a fact which has facilitated the rapid expansion of offshore windfarms in particular.

and the colossal financial benefits that stemmed from even

We are often told renewable energies offer enormous opportunities for businesses in the marine science and technology sector, so if the above is true, what are they? Of course, there is the simple opportunity of increased volume - more installations require more equipment - but that is not really driving advances in technology. It is also inevitable that there will be incremental improvements in specification, performance and quality, as innovative minds in a competitive market place strive to outperform their competitors.

But what are the 'known unknowns', those areas where science and technology together can help us to understand and improve the way that this new energy market is best exploited? I am not knowledgeable enough and this piece is too short to detail too many avenues, but examples would include monitoring the integrity and improving the longevity of these offshore installations, and monitoring and minimising long-term environmental impacts, be they local (eg the seabed, during both installation and operational phases), in the wider marine context (effects on cetacean behaviours for example), or even further afield (possible downstream impacts of 'removing' energy from the atmosphere/ocean).

The direction of travel is clear though - in addition to exploiting these science-driven needs, there will be an accelerating technological need for us to keep up with advances in the wider world, specifically utilising new communications platforms and power/battery technology to satisfy the inevitable demand for more data. As far as the marine science and technology niche is concerned, these are exciting challenges, and as we have proven in the past, ones that we are well capable of meeting.

**LEFT:** A huge positive for offshore renewable installations is that much of the required technology already exists







20 years ago, Prince Albert of Monaco brought together a community of scientists and cartographers to create a 'General Bathymetric Chart of the Oceans' - a project to fill the gaps in knowledge about the shape of the global sea floor. At the time, this wasn't simply about scientific curiosity – the growing size and draught of ships meant that better charts were needed to ensure safe navigation, and the development of a network of seabed telegraphic cables was delivering new knowledge about the shape of the seafloor, showing it was a far more complex place than

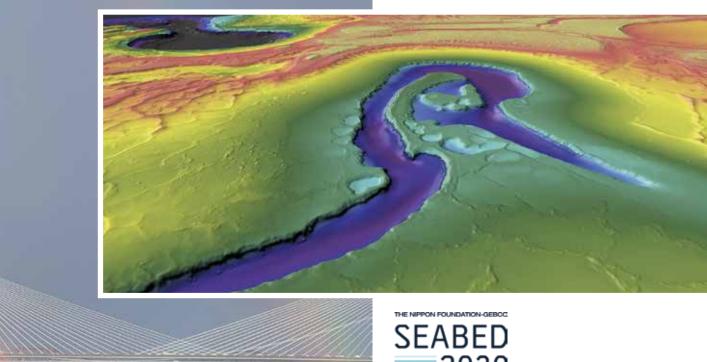
had hitherto been believed, with mountains, valleys, abyssal plans and deep trenches causing great puzzlement to an establishment that hadn't yet understood plate tectonics and the dynamic nature of the seafloor.

The invention of the echo sounder, and the rapid technological progress driven by two World Wars and the Cold War, meant by the close of the 20th century, the GEBCO chart showed a good global approximation of the shape of the seafloor, but it was still very low resolution, especially outside of coastal waters, with vast areas depicted through educated guesswork

rather than hard data. Many nations regarded seafloor data as information to be kept classified in case it was of military value to opponents, and the detailed mapping gathered to enable development of offshore oil and gas was often classed as 'commercial in confidence'. By 2016, only 6% of the ocean had been mapped to modern standards and made available to the global public.

At this point, the Nippon Foundation, a philanthropic organisation based in Japan, joined forces with GEBCO with a new project, Seabed 2030, to accelerate







**ABOVE:** Bathymetric charts fill knowledge gaps on the global sea floor (credit: FUGRO Swathe bathymetry geohazard studies seafloor)

LEFT: In 2016, only 6% of the ocean had been mapped and made publicly available (credit: FUGRO Blue Essence USV in Rosyth)

the mapping of the ocean floor by building new relationships with industry, by encouraging data sharing, and working with governments and academics to persuade them to share their data - if necessary at a reduced resolution where there were security or commercial concerns. Seabed 2030 established a small, dedicated secretariat to focus on the task, and funded work at a network of data centres, each working on a particular set of ocean basins to help compile all available data into the GEBCO grid. Seabed 2030 collaborates with

technology developers and software providers to encourage the use of advanced marine autonomous systems, to facilitate the uploading of data, and to extract bathymetric data from satellite observations.

This collaboration is working – by Spring 2023 the grid was up to 24.9% and growing, and new partners joined the programme at a steady pace including the Society of Maritime Industries, who are in a unique position to encourage their members to contribute data and expertise to the production of the global grid. Seabed 2030 also supports citizen scientists

and private organisations who want to contribute crowdsourced bathymetric data - for example by fitting data loggers to ships and providing training and advice.

Together, we'll succeed in mapping the ocean. There's still a huge area left to be mapped, but as sensors, platforms and robotic systems improve, and participants in the project grow, little by little the gaps will be filled, and humankind will know the shape of the ocean floor, helping us manage how we use the oceans, maintain their health and respond to geohazards, climate change and rising seas. ■





Collaboration will drive innovation, increase UK prosperity and improve national resilience

# Defence and industry: 'a new alliance'

Author: Richard Powell, QinetiQ

he *Defence Command Paper Refresh*, published on 18 July 2023, promises a new relationship with industry, based on a genuine partnership. We have heard this before and the SMI Maritime Defence and Security Group Council have been working hard at developing close ties across government and consistently calling for a closer relationship and earlier engagement with industry. Hopefully this time we will see a real shift in culture and behaviours.

The 2021 Defence Command Paper announced the government's intent to adopt a more strategic relationship with industry and build a more sustainable industrial base. This was developed further within the Defence and Security Industrial Strategy which set out an ambitious agenda of policy change, reform and investment . Both documents

recognised the mutually reinforcing relationship between prosperity and security and that defence investment sustains high-value jobs, strengthens productivity and enhances the UK's competitiveness on the global market. The *Integrated Review Refresh*, published in March 2023, further resolved to bolster the UK's economic security and address vulnerabilities through resilience . This approach is also reflected in the *National Shipbuilding Strategy Refresh*. Importantly, the *Defence Command Paper Refresh* goes much further - it refers to the naval shipbuilding industry as a strategic asset and calls for a 'new alliance' and genuine partnership between defence and industry.

Closer and more collaborative relationships between the front-line commands, DE&S, academia and with industry, particularly trade associations because of their broad reach



across industry, would help achieve strategic alignment and delivery of the capability the navy requires in an even more timely and effective manner.

But the government and defence could go further. The government view of value for money tends to revolve excessively around cost, which has led to an often-difficult relationship between government and industry. We believe this could be addressed more effectively with a broader perspective, which considers UK prosperity more widely, including taxation and national insurance returns to the Exchequer when making procurement decisions.

To help build sovereign capability and resilience, we believe it would be better to adopt a design, build and integrate in the UK by default policy, with the UK's capacity and capability tested through early market engagement. Collaborative approaches, such as that adopted through the Aircraft Carrier Alliance, should also be considered as an alternative to competition, as this is likely to deliver better long-term value for money in the constrained and often distorted naval market.

Finally, the *Defence Command Paper Refresh* does take skills seriously. People are recognised as the foundation on which our strategic advantage is built. The AUKUS announcement on the joint development of nuclear

submarine technology with Australia and the United States highlights the challenge on skills essential for safeguarding our national resilience and will need careful management.

In conclusion, the government has made a strong commitment to joint working and closer collaboration with both industry and academia. While there are various initiatives underway to realise this, we believe there is much more that can be done to build on them to deliver enhanced strategic value for the UK and its allies. Fundamentally, we believe that a mindset change is required across the defence enterprise, moving to think about collaboration by default, in order to drive innovation, increase UK prosperity and improve national resilience. The Maritime Defence and Security Group Council will continue to engage and encourage this transformation.

- <sup>1</sup> Defence and Security Industrial Strategy, CP410, dated March 2021, p.7.
- <sup>2</sup> Integrated Review Refresh 2023, CP811, dated March 2023, p.12-16.
- <sup>3</sup> National Shipbuilding Strategy Refresh, CP605, dated March 2022.
- <sup>4</sup> Defence Command Paper Refresh, CP901, dated July 2023, p. 38.

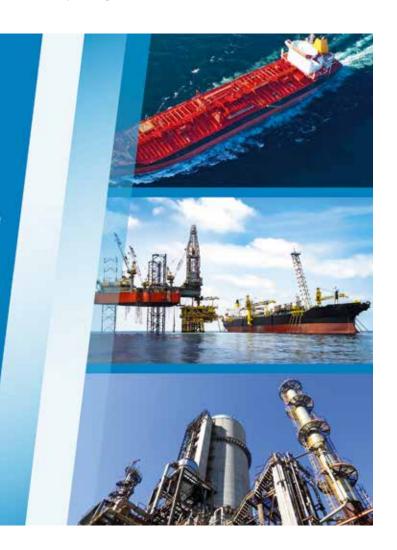
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# Rolls-Royce: sustainable power for the marine market

Author: Richard Barton, Rolls-Royce

s global leaders, Rolls-Royce continues to be committed to playing an enabling role in the energy transition to meet the goal of net-zero carbon emissions by 2050. We're determined to use our position, capabilities and expertise to help create a resilient, inclusive and net-zero carbon future in the sectors we operate as we outlined in our strategy paper *Leading the Transition to Net Zero Carbon by 2050*.

While there have been concerns in some sectors that an increased focus on sustainability could impact operational capability, we believe sustainable practices can actually offer improved operations, supply resilience and provide greater independent freedom of action.

In 2021, Rolls-Royce invested more than £1bn in research and development (R&D) but we recognised we needed to go further. By 2025, 75% of our R&D spend will be invested in developing lower carbon and net-zero technologies.



By the end of 2024, in-production gas turbines and popular diesel engines will be compatible with sustainable fuels

The use of new technologies and developing solutions that will reduce emissions for already in-service products will ensure we employ efficient and sustainable power solutions to meet customers' operational requirements.

Our current portfolio includes MTU gas engines running on lower carbon liquefied natural gas in several marine applications. These engines undercut the NOx limits of the current IMO III exhaust gas directive, even without gas aftertreatment, and particulate matter is below the detection limit.

However, by the end of 2024, we aim to ensure our in-production gas turbines and most popular diesel engines can be compatible with sustainable fuels, which has already been achieved for several of our engine types. This involves working closely with sustainable fuel producers, international standards organisations and our customers, and is a key step in enabling the latter to use fuel that will help them achieve net-zero carbon operations with today's equipment. We're excited to be working with customers of our gas turbines and diesels in the military and commercial sectors to demonstrate the use of 100% sustainable fuels in their aircraft and ships.

Today, our most popular marine diesel engines are approved for use with EN15940 synthetic diesel fuels - including hydrotreated vegetable oil and power to liquid fuels - which can be considered a drop-in alternative to fossil diesel fuel. In addition, we believe e-methanol is a promising marine fuel. As a result, Rolls-Royce is currently developing methanol propulsion solutions for ships. Both these fuel types can be considered 'green' when they are produced from renewable energies; in this instance, CO2 emissions are reduced enormously with CO2-neutral operation possible with green methanol. Additionally, other harmful emissions such as NOx and particulates are significantly reduced.

We're also focused on decarbonising at the system level and we continue to support our customers in hybridising





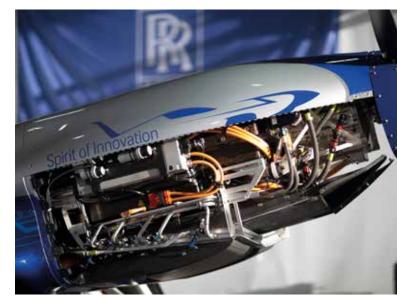
Rolls-Royce is developing commercially viable solutions that will provide long-term clean and safe power

their propulsion systems. A hybrid propulsion system combining combustion engine, batteries and electric propulsion provides the opportunity of reducing emissions in flexible operation and even running completely emissions-free locally in ports. We've been looking at removing fossil oils from other parts of the system and are currently manufacturing controllable pitch propellers that utilise polyalkylene glycol (PAG) as the working fluid instead of traditional hydraulic oil. PAG is water soluble and eliminates the risk of pollution from hydraulic oil.

We also believe nuclear power will become more readily available to the marine sector and we're using our 60 years of experience in submarine nuclear propulsion in our Novel Nuclear programme. Our aim is to develop commercially viable nuclear solutions that will provide long-term clean and safe power, bringing new energy and power dense technology to the market. As a result, we're currently developing a versatile next-generation micro-reactor at an affordable cost, across multiple applications to provide safe, reliable and emissions-free power. It will have the potential to provide 1 to 10 MW of power and will be compact in size, making it potentially suitable for the marine sector.

Throughout Rolls-Royce, there is a strong desire to be part of the solution to climate change and the ambition, ingenuity and skills of our people will be instrumental to our success.







# How DASA accelerates innovation for defence and security

Author: Adam Muspratt

he Defence and Security Accelerator (DASA) finds and funds exploitable innovation for UK defence and security quickly and effectively, while supporting the nation's prosperity.

Our vision is for the UK to have strategic advantage through the most innovative defence and security capabilities in the world.

We help small and medium-sized enterprises (SMEs) to reach the marketplace rapidly – providing support to those who have not worked with government before.

DASA is a cross-government team from a wide range of backgrounds including defence, security, the private sector and academia. We are co-located with Dstl at Porton Down and Portsdown West and are part of the Defence Innovation Directorate.

We fund innovative suppliers through:

- Open call cycles providing innovators with opportunities to submit ideas they feel would be of interest to national security end users.
- Themed competitions innovation that meets the needs of specific government areas of interest.
- Defence Technology Exploitation Programme aims to inspire companies to collaborate, develop industrial capabilities and provide cutting-edge answers to defence problems.
- $\bullet$  Defence Innovation Loans encouraging SMEs to move towards commercialisation through later stage R&D.
- First Customer Seed Fund funding to a government customer to buy pre-production prototypes/minimum viable products, providing SMEs with validation in the marketplace and giving defence and security the opportunity to evaluate innovation.

Since it was founded in 2016, DASA has launched 110 competitions across 70 challenges. We have invested more than £230M on some 1,300 projects, of which 57% has been awarded to SMEs. ■



DASA is a cross-government team from a wide range of backgrounds

## Case study:

DASA funding helps Northern Ireland SME deliver personnel and accounting technology to the Royal Navy's aircraft carriers

Northern Ireland-based SME, Kinsetsu, developed a resilient and scalable platform to accurately account for and locate personnel on Royal Navy ships, providing immediate insight of all souls on board, as well as visitors to ships.

Funded through the DASA themed competition, Get the Ship in Shape, Kinsetsu's innovation has been procured by the Royal Navy for use on board *HMS Queen Elizabeth* and *HMS Prince of Wales*.

Kinsetsu had not previously worked with defence, but its DASA journey helped it realise the defence potential of its personnel accounting and locating innovation, and it now has a thriving defence-centric business.



## **Above Water Sensors** and Radars

- Astute
- Chess Dynamics Limited
- HENSOLDT UK
- Kinsetsu
- Kongsberg Maritime
- Leonardo UK Ltd
- OceanWise Limited
- Protea Ltd
- Safeguard Engineering
- Thales Group
- University of Plymouth
- Valeport
- Xylem Analytics UK Ltd
- Zizo Software

# Accommodation – Systems and Equipment

- Jo Bird and Company Limited
- Solar Solve Limited

# Anti-Fouling/Bio-Fouling and Anti-Corrosion Systems

- Aquatec
- Nivalis-Tech Limited
- NRG Sonihull

# Automation, Control and Alarm Condition Monitoring Systems

- DC Electronics
- GE Power Conversion UK
- Johnson Controls / ADT Fire and Security plc
- Kinsetsu
- L3Harris MAPPS Ltd
- Marine Data
- Navantia UK Ltd
- P&S Automation Limited
- Quality Monitoring Instruments Limited
- Robosys Automation
- SyScada Dynamic Engineering
- Valmet Limited

#### Autonomous Vessels, Remote Operated Vehicles and Robotics

- ACUA Ocean Ltd
- Artemis Technologies
- ATLAS ELEKTRONIK UK Ltd
- BMT Group Ltd
- Centre for Future Clean Mobility, University of Exeter

- DC Electronics
- Dendrityca Ltd
- Echandia Marine UK
- Frazer-Nash Consultancy Ltd
- Houlder Limited
- JD Marine International Ltd
- L3Harris-ASV
- National Oceanography Centre
- Ocean Business
- Oceanology International
- Planet Ocean Limited
- QinetiQ
- Robosys Automation
- Rolls-Royce plc
- RS Aqua Ltd
- SeaBot Maritime
- Southampton Marine and Maritime Institute
- Stehr Consulting Ltd
- SubSea Craft Ltd
- SyScada Dynamic Engineering
- Thales Group
- University of Plymouth
- Warsash Maritime School
- Welin Lambie Ltd, part of Fairbanks Morse Defense

#### Ballast Water, Scrubbers, Separators and Oil in Water Systems

- Alfa Laval Ltd
- BP Exploration Operating Company Ltd
- Brooksbank Valves Limited
- Chelsea Technologies Group Ltd
- DESMLItd
- Flowserve Flow Control
- IMI Truflo Marine
- PML Applications Limited
- Rivertrace Limited
- Valmet Limited
- Victor Marine

#### **Brokers and Agents**

- Colebrook Offshore

#### Business Services – Finance, Tax, Audit, Legal and Insurance

- Clyde & Co LLP
- Liberty Collins Ltd
- Watson Farley & Williams LLP

# **Business Services –** PR and Marketing

- Marine Resources Recruitment
- Polaris Public Relations

# Cables – Systems and Equipment

- Astute
- Babcock International Group
- MacTaggart, Scott & Co Ltd
- Rolls-Royce plc
- Roxtec Ltd
- Wesco Anixter

# Cargo Handling Equipment and Control Systems

- DESMI Ltd
- Nectar Group Limited
- STS Marine Solutions
- Victor Marine
- Welin Lambie Ltd, part of Fairbanks Morse Defense

# Civil Engineering Consultancy

- Beckett Rankine
- Moffatt & Nichol Ltd
- Royal HaskoningDHV UK Limited

#### Classification Societies, Regulatory and Registry

- Lloyd's Register
- Safeguard Engineering
- Stehr Consulting Ltd

# **Communication Systems - Satcoms, Civil and Naval**

- Cellnex UK
- L3Harris MAPPS Ltd
- Leonardo UK Ltd
- Northrop Grumman UK

# Consulting Services and Design Engineering

- Allan Webb Ltd
- Babcock International Group
- Beckett Rankine
- BMT Group Ltd
- BMZ Innovation Group Ltd
- Eminox Ltd
- Ferguson Marine (Port Glasgow) Limited
- First Marine International - Griffon Hoverwork
- HR Wallingford

## PRODUCTS / SERVICES LISTING



- Intermarine UK Limited
- Liberty Collins Ltd
- Lloyd's Register
- Lockheed Martin UK Holdings Limited
- Malin Group
- Marico and Risk Consultants Limited
- Moffatt & Nichol Ltd
- Nectar Group Limited
- O.S. Energy
- Oceanic Engineering Consultants Ltd (OEC)
- Roxtec Ltd
- Safeguard Engineering
- Stehr Consulting Ltd
- SyScada Dynamic Engineering
- Templar Executives
- University of Strathclyde
- Warsash Maritime School

# Cyber Security and Data Management

- Allan Webb Ltd
- BMZ Innovation Group Ltd
- CyberOwl
- Frazer-Nash Consultancy Ltd
- Leonardo UK Ltd
- Lockheed Martin UK Holdings Limited
- Northrop Grumman UK
- Primary Networks
- Templar Executives
- UK Hydrographic Office
- University of Plymouth
- Zizo Software

#### **Data Acquisition and Analysis**

- 90POE
- Allan Webb Ltd
- Aquatec
- Kinsetsu
- National Oceanography Centre
- O.S. Energy
- Ocean Business
- Oceanology International
- OceanWise Limited
- QinetiQ
- Southampton Marine and Maritime Institute
- Systems Engineering & Assessment Limited (SEA)
- UK Hydrographic Office
- University of Plymouth
- University of Strathclyde
- Zizo Sofware

# **Deck Equipment** and Machinery

- Anemoi Marine Technologies
- CU Phosco Lighting
- Evica Limited
- Jo Bird and Company Limited
- MacTaggart, Scott & Co Ltd
- Marico and Risk Consultants Limited
- MPCC (UK) Ltd
- Pilgrim International
- Twiflex Limited
- Victor Marine
- Welin Lambie Ltd, part of Fairbanks Morse Defense

#### **Design - Naval Architecture**

- Babcock International Group
- Beckett Rankine
- BMT Group Ltd
- Ferguson Marine (Port Glasgow)
- Frazer-Nash Consultancy Ltd
- Griffon Hoverwork
- H2NA Limited
- Houlder Limited
- ICE Design
- Macduff Ship Design
- Malin Group
- Navantia UK Ltd
- O.S. Energy
- OCEA Shipbuilding (UK) Ltd/Wight Shipyard Company Ltd
- Rockabill Marine Design
- Roxtec Ltd
- RS Aqua Ltd
- SeaBot Maritime
- Serco
- SubSea Craft Ltd
- Ultimate Boats
- University of Strathclyde
- Warsash Maritime School

#### **Dredging and Reclamation**

- Foreshore Technology
- Valeport
- Twiflex Limited

### Electrical Control, Batteries and Power Management Systems

- Artemis Technologies
- Astute
- AutoNaut Limited

- Babcock International Group
- Blue Deep International
- BMZ Innovation Group Ltd
- Centre for Future Clean Mobility, University of Exeter
- CU Phosco Lighting
- DC Electronics
- Dendrityca Ltd
- Duodrive Limited
- Echandia Marine UK
- Ecomar Propulsion Limited
- ---
- GE Power Conversion UK
- Navitron Systems Limited
- Oceanic Engineering Consultants Ltd (OEC)
- P&S Automation Limited
- Rolls-Royce plc
- Wesco Anixter
- Whippendell Marine Limited

### **Electronic Warfare Systems**

- Chess Dynamics Limited
- HENSOLDT UK
- Leonardo UK Ltd
- Northrop Grumman UK

#### Engine Emissions Monitoring and Exhaust Aftertreatment

- Eminox Ltd
- Protea Ltd
- Rivertrace Limited

# **Engineering Services, Fabrication and Assembly**

- APCL Group
- BMZ Innovation Group Ltd
- Ductform HFE
- European Diesel Services
- Griffon Hoverwork
- Harland & Wolff
- ICE Design
- IMI Truflo Marine
- Intermarine UK Limited
- Moffatt & Nichol Ltd
- Nivalis-Tech Limited

- Seetru Limited

- Systems Engineering & Assessment Limited (SEA)
- Wärtsilä Shaft Line Solutions
- Welin Lambie Ltd, part of Fairbanks Morse Defense
- Whippendell Marine Limited



#### Engines (HFO/Diesel/Dual/ Alternate) – Servicing and Spare Parts

- Cummins
- European Diesel Services
- Vulkan Industries Ltd

# Fire Protection Equipment and Systems

- Chess Dynamics Limited
- Chesterfield Special Cylinders Ltd
- Coltraco Ultrasonics
- DESMLItd
- Ductform HFE
- EQUANS Axima
- Jo Bird and Company Limited
- Johnson Controls / ADT Fire and Security plc
- Marine Components International Ltd
- NRG Sonihull
- PG Products Limited
- Rolls-Royce plc
- Roxtec Ltd
- RS Aqua Ltd
- Twiflex Limited

# Fuels – Fuel Systems and Equipment

- Alfa Laval Ltd
- Cummins
- Eminox Ltd
- RAB Microfluidics
- Rivertrace Limited
- Seetru Limited
- Southampton Marine and Maritime Institute
- SyScada Dynamic Engineering

# Galley – Systems and Equipment

- EQUANS Axima
- Tony Team Limited

# Hatches, Hatch Covers and Equipment

- Coltraco Ultrasonics
- Kort Propulsion Co Ltd
- MacTaggart, Scott & Co Ltd
- Malin Group
- Marine Components International Ltd
- Welin Lambie Ltd, part of Fairbanks Morse Defense

#### HVAC – Heating, Air Conditioning, Ventilation, Refrigeration Systems and Ducting

- AERIUS Marine UK Ltd
- Ductform HFE
- EQUANS Axima
- Wesco Anixter

# Hydraulics – Systems and Equipment

- Kawasaki Precision Machinery (UK) Ltd
- Wesco Anixter

#### **Inspection and Surveys**

- AutoNaut Limited
- BMT Group Ltd
- Briggs Marine
- Harland & Wolff
- Lloyd's Register
- National Oceanography Centre
- O.S. Energy
- Offshore Operations Ltd
- The Crown Estate
- UK Hydrographic Office

#### Instrumentation and Sensor Technology

- Aquatec
- Coltraco Ultrasonics
- DC Electronics
- Kinsetsu
- Marine Components International Ltd
- OceanWise Limited
- PSM Instrumentation Ltd
- Rivertrace Limited
- Seetru Limited
- Sonardyne International Ltd
- Systems Engineering & Assessment Limited (SEA)
- Xylem Analytics UK Ltd

# Interior Design and Furnishing

- Solar Solve Limited
- Varivane Industries

# Lighting – Vessels and Ashore

- CU Phosco Lighting
- Evica Limited

# Logistics and Supply Chain Solutions

- Allan Webb Ltd
- Ewepack
- Kinsetsu
- Malin Group
- STS Marine Solutions
- Wesco Anixter

#### Marine Science – Equipment, Sensors and Systems

- ATLAS ELEKTRONIK UK Ltd
- Chelsea Technologies Group Ltd
- Foreshore Technology
- HR Wallingford
- National Oceanography Centre
- NAVSYSTEMS IOM Limited
- Nivalis-Tech Limited
- Nortek UK
- Ocean Business
- Oceanology International
- OceanWise Limited
- Planet Ocean Limited
- SEA Ltd
- Sonardyne International Ltd
- Valeport
- Xylem Analytics UK Ltd

#### Mine Countermeasure and Anti-Submarine Warfare (ASW) Systems

- ATLAS ELEKTRONIK UK Ltd
- Northrop Grumman UK
- SFA I td

### Navigation and Bridge Systems - Compasses, Gyros, Instrumentation and ECDIS

- Frequentis UK
- HENSOLDT UK
- Kongsberg Maritime
- L3Harris MAPPS Ltd
- Marine Components International Ltd
- Marine Data Systems
- Navitron Systems Limited
- Northrop Grumman UK
- Primary Networks
- Robosys Automation
- Safeguard Engineering
- Zizo Software

#### **Noise and Vibration Control**

- IMI Truflo Marine
- Southampton Marine and Maritime Institute

## PRODUCTS / SERVICES LISTING



#### Ocean Data Solutions, Environmental Monitoring and Analysis

- 90POE
- Aquatec
- AutoNaut Limited
- Kinsetsu Limited
- Lloyd's Register
- National Oceanography Centre
- Ocean Business
- Protea Ltd
- Sonardyne International Ltd
- UK Hydrographic Office
- Valeport
- Valmet Limited
- Xylem Analytics UK Ltd
- Zizo Software

#### **Painting and Coatings**

- APCL Group
- Harland & Wolff
- Malin Group

# Piping and Plumbing Systems

- Nivalis-Tech Limited

# Port and Terminal - Crane and Handling Equipment Suppliers

- Nectar Group

#### Port and Terminal -Infrastructure Master Planning, Design and Construction

- Beckett Rankine
- First Marine International
- Houlder Limited
- Moffatt & Nichol Ltd
- Portia Management Service Itd
- Royal HaskoningDHV UK Limited

#### Port and Terminal -Operators, Public and Private Harbour Authorities

- Port of Tyne
- Portia Management Service Itd

#### Port Automation and Terminal Management Systems

- Cellnex UK
- Ensemble Analytics
- Marico Marine

# Port Connectivity and Information Systems

- Cellnex UK
- Ensemble Analytics
- Frequentis
- Kinsetsu
- OceanWise Limited

# Port Energy and Power Systems

- BMZ Innovation Group Ltd
- Fminox I td
- GE Power Conversion UK
- Rolls-Royce plc
- Vulkan Industries Ltd

# Port Vessel Traffic Services (VTS)

- Frequentis

# Propulsion – Auxiliary Wind Propulsion, Systems and Equipment

- ACM Bearings Limited
- Alfa Laval Ltd
- Anemoi Marine Technologies
- Twiflex Limited
- Windship Technology Limited

# Propulsion – Electric Motors and Systems

- Centre for Future Clean Mobility, University of Exeter
- DESMI Ltd
- Duodrive Limited
- Ecomar Propulsion Limited
- GE Power Conversion UK
- L3Harris MAPPS Ltd
- Twiflex Limited
- Voith Turbo Limited
- Vulkan Industries Ltd

# Propulsion Systems - Water Jet, Propellers and Equipment

- ACM Bearings Limited
- HamiltonJet UK
- Kort Propulsion Co Ltd
- NRG Sonihull
- Somers Forge Limited
- Stone Marine Propulsion
- Teignbridge Propellers International Ltd
- Twiflex Limited
- Voith Turbo Limited

- Vulkan Industries Ltd
- Westley Group Ltd

# Publishers, Event Organisers and Event Logistics

- FwePack
- Mercator Media Ltd / Seawork
- Ocean Business
- Reed Exhibitions (Oceanology International)

# Recruitment, Staffing and Training

- Ensemble Analytics
- European Active Projects Limited (EAP Ltd)
- Intermarine UK Limited
- Marine Resources Recruitment
- Offshore Operations Ltd

## Regulatory Compliance and Certification

- Eminox Ltd
- Frazer-Nash Consultancy Ltd
- Lloyd's Register
- Safeguard Engineering
- Stehr Consulting Ltd

# Replenishment at Sea Systems

- Kongsberg Maritime

## Safety, Life Saving Equipment and Systems

- Frazer-Nash Consultancy Ltd
- Marine Components International Ltd
- QinetiQ
- Seetru Limited
- Spinlock Ltd
- Wescom Group

#### **Seals and Bearings**

- ACM Bearings Limited
- Kort Propulsion Co Ltd
- Marine Components International Ltd
- Roxtec Ltd
- Wärtsilä Shaft Line Solutions
- Westley Group Ltd

# **Shipping Business Intelligence and Analysis**

- 90POE
- Drewry
- Stehr Consulting Ltd

### PRODUCTS / SERVICES LISTING



# Shipyards – Newbuilding, Repair and Conversion

- Aluminium Marine Consultants Ltd
- APCL Group
- Babcock International Group
- BAE Systems Maritime Naval Ships
- European Active Projects Limited (EAP Ltd)
- Ferguson Marine (Port Glasgow) Limited
- Griffon Hoverwork
- Harland & Wolff
- Navantia UK LTD
- OCEA Shipbuilding (UK) Ltd/Wight Shipyard Company Ltd
- Tor Group International
- Ultimate Boats

### **Software and IT Solutions**

- 90POE
- Allan Webb Ltd
- Cellnex UK
- Ensemble Analytics
- Kinsetsu
- UK Hydrographic Office

# **Spare Parts and Components Suppliers**

- Alfa Laval Ltd
- European Diesel Services
- Marine Components International Ltd
- MPCC (UK) Ltd
- Wärtsilä Shaft Line Solutions
- Westley Group Ltd

### Stabilisers and Motion Control

- Kongsberg Maritime
- Marine Components International Ltd

# Steering – Systems and Equipment

- DC Electronics
- Kongsberg Maritime
- Kort Propulsion Co Ltd
- Marine Components International Ltd
- Navitron Systems Limited
- Somers Forge Limited

### Submarines – Build, Systems, Equipment and Design

- APCL Group
- ATLAS ELEKTRONIK UK Ltd

- Babcock International Group
- BAE Systems Maritime Naval Ships
- EQUANS Axima
- GE Power Conversion UK
- HENSOLDT UK
- IMI Truflo Marine
- MacTaggart, Scott & Co Ltd
- Navantia UK LTD
- Northrop Grumman UK
- NRG Sonihull
- QinetiQ
- Somers Forge Limited
- Thales Group
- Varivane Industries
- Wärtsilä Shaft Line Solutions
- Westley Group Ltd

# Tank Level – Measuring and Alarms

- Coltraco Ultrasonics
- P&S Automation Limited
- PSM Instrumentation Ltd
- Seetru Limited

# **Temperature and Pressure Calibrators**

- National Oceanography Centre

# Training and Simulation Systems

- Artemis Technologies
- BMT Group Ltd
- Clyde Marine Training Ltd
- HR Wallingford
- L3Harris MAPPS Ltd
- Marico and Risk Consultants Ltd
- Navantia UK LTD
- OinetiO
- SeaBot Maritime
- University of Strathclyde
- Warsash Maritime School

# **Underwater Sensors** and Sonar

- Aquatec
- Artemis Technologies
- ATLAS ELEKTRONIK UK Ltd
- Chelsea Technologies Group Ltd
- Leonardo UK Ltd
- National Oceanography Centre
- Northrop Grumman UK
- Ocean Business
- Oceanology International
- RS Aqua Ltd

- Sonardyne International Ltd
- Systems Engineering & Assessment Limited (SEA)
- Thales Group
- Valeport
- Xylem Analytics UK Ltd

# University, College and Research Institution

- Centre for Future Clean Mobility, University of Exeter
- Clyde Marine Training Ltd
- Coltraco Ultrasonics
- Liverpool John Moores University
- National Oceanography Centre
- Newcastle University
- Southampton Marine and Maritime Institute
- University College London (UCL)
- University of Plymouth
- University of Southampton
- University of Strathclyde
- Warsash Maritime School

# Valves, Systems and High Pressure

- Brooksbank Valves Limited
- Flowserve Flow Control
- IMI Truflo Marine
- Seetru Limited
- Westley Group Ltd

### **Vessel – Build Materials**

- Alfa Laval Ltd
- SubSea Craft Ltd
- Ultimate Boats

### **Vessel – Owner/Operator**

- AutoNaut Limited
- BP Exploration Operating Company Ltd
- Briggs Marine
- O.S. Energy (UK) Ltd
- Offshore Operations Ltd
- Serco
- Tor Group International

### **Waste Water Treatment**

- Victor Marine
- Rivertrace Limited
- MPCC (UK) Ltd

# Windows, Blinds, Frame and Wiper Systems

- Solar Solve Limited

### MEMBERS' DIRECTORY





### 90POE

90POE 7th Floor, Portman House, 2 Portman Street, London W1H 6DU

Contact: Nik Hope, Chief Commercial Officer Email: contact@90poe.io Tel: +44 20 8078 7332 Web: www.90poe.io

Summary: 90POE is pioneering the future of digital intelligence for the maritime industry. Unlocking data silos, creating transparency and accelerating digital transformation. Their cloud-based platform, OpenOcean STUDIO®, helps ship owners, operator and seafarers achieve maritime excellence.

Capabilities: Data Acquisition and Analysis; Ocean Data Solutions; Environmental Monitoring and Analysis; Shipping Business Intelligence and Analysis; Software and IT Solutions.



### **ACM Bearings Ltd**

Derwent Way, Wath West Industrial Estate, Rotherham, South Yorkshire S63 6EX

Contact: Andrew McCulloch, CEO Tel: +44 1709 874951

andy.mculloch@acmbearings.co.uk Web: www.acmbearings.co.uk

**Summary:** Marine composite selflubricating bearings fully class approved for rudder, stern tube, and deck equipment.

Capabilities: Bearings.



### **ACUA Ocean**

3rd Floor, 86-90 Paul Street London EC2A 4NE, United Kingdom

Contact: Mike Tinmouth Tel: +44 20 453 81020 Email: info@acua-ocean.com Web: www.acua-ocean.com Summary: ACUA Ocean are developing a cost effective, scalable hydrogen-powered uncrewed offshore platform to provide the geographical coverage and physical presence required to sustainably monitor and protect our oceans and waterways.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics.



### **Aerius Marine UK Ltd**

409 Innovation Centre (Admin), Queens Meadow Business Park, Hartlepool, TS25 5TG

Contact: Tony Swateridge, Business Development Director Tel: +44 1429 874554 Email:

tony.swateridge@aerius-marine.com **Web:** www.aerius-marine.com

Summary: Through life system integrator for HVAC, refrigeration and fixed fire fighting systems in the naval, commercial, cruise, yacht and offshore wind markets.

**Capabilities:** HVAC – Heating, Air Conditioning, Ventilation, Refrigeration Systems and Ducting.



### Alfa Laval Ltd.

7 Doman Road, Camberley GU15 3DN

Contact: Tristan Matthews, Regional Manager Marine Division, UK & Ireland Email: tristan.matthews@alfalaval.com Tel: +44 1276 633833

Web: www.alfalaval.co.uk

Summary: Alfa Laval accelerate success for their customers, people and the planet. Alfa Laval is a global supplier of products and solutions for heat transfer, separation and fluid handling – including: heat exchangers, separators, pumps and valves.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems; Fuels – Fuel Systems and Equipment; Propulsion – Auxiliary Wind Propulsion, Systems and Equipment; Spare Parts and Components Suppliers; Vessel – Build Materials.



### Allan Webb Ltd

Red Lodge, Bonds Mill, Stonehouse, United Kingdom GL10 3RF

Contact: Paul Havron, Strategy Director Tel: +44 1453 824581 Email: paul.havron@allanwebb.co.uk Web: www.allanwebb.co.uk

Summary: From support engineering and training services through to comprehensive obsolescence management, AWL works with organisations and businesses all over the world to reduce whole life cost, increase operational availability and deliver a seamless support solution.

Capabilities: Consulting Services and Design Engineering; Cyber Security and Data Management; Data Acquisition and Analysis; Logistics and Supply Chain Solutions; Software and IT Solutions.



### **Aluminium Marine Consultants**

25 Castle Street, East Cowes, Isle Of Wight PO32 6RD

Contact: Rob Stewart Tel: +44 1983 298736

**Email:** rob@aluminium-boats.com **Web:** www.aluminium-boats.com

Summary: AMC has been involved in workboat and offshore crew vessel transfer design and construction since 2007 and offers a range of comprehensive services across the commercial sector.

Capabilities: Shipyards – Newbuilding, Repair and Conversion.

# **ANEMOI**

### **Anemoi Marine Technologies**

Marlow House, 1A Lloyds Avenue, London EC3N 3AA

**Contact:** Eleanor Taylor, Marketing Manager

Email: enquiries@anemoimarine.com

Tel: +44 20 3727 6902

Web: www.anemoimarine.com



Summary: Anemoi is committed to accelerating the maritime industry's transition to zero-emission shipping by delivering market-leading wind technology. Rotor Sails use the renewable power of wind to reduce fuel consumption and lower ship emissions by 5-30%.

Capabilities: Deck Equipment and Machinery; Propulsion – Auxiliary Wind Propulsion, Systems and Equipment.



### **APCL Group**

C/O Cammell Laird, Campbeltown Road, Birkenhead, Merseyside CH4l 9BP

Contact: David McGinley, Chief Executive Email: info@apclgroup.com Tel: +44 0151 649 6600 Web: www.apclgroup.com

Summary: APCL Group Ltd brings together A&P Group, A&P Australia, Cammell Laird and Neway. Their services and global reach supports defence and international maritime communities at home and in operational theatres.

Capabilities: Engineering Services, Fabrication and Assembly; Painting and Coatings; Shipyards – Newbuilding, Repair and Conversion; Submarines – Build, Systems, Equipment and Design.



### **Aquatec Group**

Aquatec House, Stroudley Road, Basingstoke, Hampshire RG24 8FW

Contact: Tony Youell, Senior Technical Sales Executive Tel: +44 1256 416100 Email: tyouell@aquatecgroup.com Web: www.aquatecgroup.com

Summary: Aquatec designs instruments, technology, and custom underwater measurement, monitoring, and communication solutions. Its portfolio features standard products created to measure physical oceanographic and subsea process parameters; as well as custom systems for applications in offshore structures and pipelines.

Capabilities: Anti-Fouling/Bio-Fouling and Anti-Corrosion Systems; Data Acquisition and Analysis; Instrumentation and Sensor Technology; Ocean Data Solutions, Environmental Monitoring and Analysis; Underwater Sensors and Sonar.



### **Artemis Technologies**

Concourse 2, Queens Road, Belfast BT3 9DT

Contact: David Tyler,
Commercial Director
Tel: +44 7818 844336
Email: info@artemistechnologies.co.uk

Summary: Experts in green maritime innovation, digitalisation and autonomy. Building on our high-performance background, our mission is to lead the decarbonisation of the maritime industry through the design and

Web: www.artemistechnologies.co.uk

development of transformative technologies and zero-emissions vessels.

Capabilities: Autonomous Vessels,

Remote Operated Vehicles and Robotics; Electrical Control, Batteries and Power Management Systems; Training and Simulation Systems; Underwater Sensors and Sonar.

# ASTUTE

### **Astute Group**

Rutherford Close, Stevenage, Herts SG1 2EF

Contact: Jay Hugill, Senior Business Development Manager Tel: +44 1438 909909 Email: jay.hugill@astutegroup.com Web: www.astutegroup.com

Summary: Astute Electronics' growth spans three decades and our global offices cross five continents. We have become one of the world's most knowledgeable, quality-driven experts in franchised electronics distribution, global procurement, and supply-chain management.

Capabilities: Above Water Sensors and Radars; Cables – Systems and Equipment; Electrical Control, Batteries and Power Management Systems.



### ATLAS ELEKTRONIK UK Ltd

Dorset Innovation Park, Winfrith Newburgh, Dorchester DT2 8ZB

Contact: Sarah Kirlew Email:

sarah.kirlew@uk.atlas-elektronik.com Tel: +44 1305 212547 Web: www.uk.atlas-elektronik.com

Summary: ATLAS ELEKTRONIK provides innovative underwater systems to the Royal Navy and global markets, including: sonar, autonomous systems, marine electric actuation and mine counter-measures.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Marine Science – Equipment, Sensors and Systems; Mine Countermeasure and Anti-Submarine Warfare (ASW) Systems; Submarines – Build, Systems, Equipment and Design; Underwater Sensors and Sonar.

# **AutoNaut**

### AutoNaut Ltd

Unit J, Heath Place, Bognor Regis,

Contact: Harry Spedding, General Manager Tel: +44 1243 511421 Email: info@autonautusv.com Web: www.autonautusv.com

Summary: AutoNaut uncrewed surface vessel (USV) with unique UK patented wave propulsion providing quiet, zero carbon platform for long endurance survey.

Capabilities: Electrical Control, Batteries and Power Management Systems; Inspection and Surveys; Ocean Data Solutions, Environmental Monitoring and Analysis; Vessel – Owner/Operator.



# babcock<sup>\*</sup>

Babcock International
33 Wigmore Street, London W1U 1QX

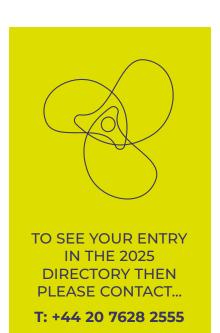
**Contact:** Blair Jamieson, Senior Business Development Manager

Email: marine.marketing@babcockinternational.com

Web: www.babcockinternational.com

Summary: Babcock is an international defence company operating in our focus countries of the UK, Australasia, Canada, France and South Africa, with exports to additional markets with potential to become focus countries. We meet our customers' key requirements of affordability, availability and capability.

Capabilities: Cables – Systems and Equipment; Consulting Services and Design Engineering; Design – Naval Architecture; Electrical Control, Batteries and Power Management Systems; Shipyards – Newbuilding, Repair and Conversion; Submarines – Build, Systems, Equipment and Design.



### **BAE SYSTEMS**

BAE Systems – Maritime Services The Old Iron Foundry, The Parade, HM Naval Base, Portsmouth POI 3NB

**Tel:** +44 2392 896 000 **Web:** www.baesystems.com

Summary: Maritime Services employs 3,500 employees, based across 5 sites, delivering end to end maritime services.We deliver support to over 50% of the Royal Navy's surface fleet.

Capabilities: Shipyards – Newbuilding, Repair and Conversion; Submarines – Build, Systems, Equipment and Design.

**BAE Systems – Naval Ships**South Street, Scotstoun, Glasgow
G14 0XN

Contact: Brian Johnson, UK Business Development Director Tel: +44 141 959 1207 Web: www.baesystems.com

**Summary:** Encompasses ship design, build and combat systems for surface fleet warships.

### BAE Systems – Maritime Microwave Materials

Burcote Road, Towcester, Northamptonshire NN12 6TF

Contact: Stuart Drummond, BD Manager (Microwave Materials) Tel: +44 3300 468 440 Email:

stuart.j.drummond@baesystems.com **Web:** www.baesystems.com

**Summary:** UK expertise in electromagnetic material and stealth consultancy.

### **BAE Systems – Submarines**

Main Shipyard Offices, Barrow-in-Furness, Cumbria LA14 1AF

Contact: Simon Lee, Supply Chain Director

Tel: +44 1229 823366

Email: simon.lee5@baesystems.com Web: www.baesystems.com

**Summary:** The Submarine business unit is a key component of BAE Systems Naval activities.



## Beckett Rankine 47 Gillingham Street, London

47 Gillingham Street, London SWIV 1HS

Contact: Gordon Rankine, Director Email: info@beckettrankine.com Tel: +44 20 7834 7267 Web: www.beckettrankine.com

Summary: Beckett Rankine is a leading independent marine civil engineering consultancy specialising in the planning, design and project management of marine infrastructure in the UK and globally.

Capabilities: Civil Engineering
Consultancy; Consulting Services and
Design Engineering; Design – Naval
Architecture; Port and Terminal
– Infrastructure Master Planning,
Design and Construction; Shipyards –
Newbuilding, Repair and Conversion.



### **Blue Deep International Ltd**

Contact: Neil Walker Tel: +44 7769 253370 Email:

neilwalker@bluedeepinternational.com

Summary: Actively involved in helping the marine industry to achieve Net-Zero, through the deployment of systems which can generate Fuel Cell grade hydrogen on board the vessel on demand, eliminating the challenges of hydrogen storage. The business is also involved with the provision of Ground Stations used for Earth Observation and Terminals for high integrity/bandwidth communication systems used on ships, aircraft and UAV/USV applications.

Capabilities: Electrical Control, Batteries and Power Management Systems.





### **BMT Group Ltd**

Zig Zag Building, 70 Victoria Street, London SW1E 6SQ

Contact: Jenni Williamson, Head of Global Marketing Email: jenni.williamson@uk.bmt.org Tel: +44 20 943 544 Web: www.bmt.org

Summary: BMT is a leading international design, engineering, science and risk management consultancy with a reputation for excellence.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Consulting Services and Design Engineering; Design – Naval Architecture; Inspection and Surveys Training and Simulation Systems.



### **BMZ Innovation Group Ltd**

Future Business Centre, Kings Hedges Road, Cambridge CB4 2HY

Contact: Lukas Gazda Email: lukas.gazda@bmz-group.com Tel: +44 7391 351787 Web: www.bmz-group.com

Summary: German company BMZ, a developer of state-of-the-art maritime and energy storage batteries, is one of the leading battery manufacturers worldwide, with production facilities in Germany, Poland, China, the US and the UK office in Cambridge.

Capabilities: Consulting Services and Design Engineering; Cyber Security and Data Management; Electrical Control, Batteries and Power Management Systems; Engineering Services, Fabrication and Assembly; Port Energy and Power Systems.



### **BP Exploration Operating Company Ltd**

Chertsey Road, Sunbury On Thames, Middlesex TW16 7BP

Contact: Alistair Fox, Subsea Transformation Manager & Agility Product Owner Email: info@uk.bp.com Tel: +44 1932 762 000 Web: www.uk.bp.com

Summary: BP's purpose is reimagining energy for people and our planet. BP want to help the world reach net zero and improve people's lives. BP's ambition is to be a net zero company by 2050 or sooner and to help the world get to net zero. With operations in Europe, North and South America, Australasia, Asia and Africa, BP delivers energy solutions across the world.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems; Vessel – Owner/Operator.



### briggsmarine.com

### **Briggs Marine**

Seaforth House, Seaforth Place, Burntisland KY3 9AX

Contact: Rob Baker, Group General Manager Email: enquiries@briggsmarine.com Tel: +44 1592 872939 Web: www.briggsmarine.com

Summary: Briggs Marine is a leading provider of marine and environmental services, specialising in port and marine operations, subsea, cable, renewables support and vessel charter.

Capabilities: Inspection and Surveys; Port and Terminal – Operators, Public and Private Harbour Authorities; Vessel – Owner/Operator.



### **Brooksbank Valves Ltd**

Unit 4, The Crossings Business Park, Riparian Way, Cross Hills, West Yorkshire BD20 7BW

Contact: David Laver, Maritime & Defence Sector Lead Tel: +44 7917 997533 Email: david.l@brooksbank.co.uk Web: www.brooksbank.co.uk

Summary: Brooksbank Valves Ltd, an ISO9001:2015 company, manufacturers a wide range of high quality and high integrity valves, in specialist materials, to an increasingly diverse end user base within the Global Maritime, Defence and Energy sectors.

Capabilities: Fire and Gas Protection Systems and Equipment; High Pressure Valves; Repairs; Submarines – Build, Systems, Equipment and Design.



### Cellnex

R+ 4th floor Berkshire, 2 Blagrave St, Reading RG1 1AZ

Contact: Filipe da Silva, Product Manager Tel: +44 20 4526 8553

Email: info@cellnextelecom.co.uk

Web: www.cellnex.co.uk

Summary: Cellnex is Europe's largest independent telecoms infrastructure provider. In the UK, they support the Maritime sector with connectivity solutions that cater to needs. They are a leader in 4G/5G Private Wireless Networks and In-Building Solutions.

Capabilities: Communication Systems – Satcoms, Civil and Naval; Port Automation and Terminal Management Systems; Port Connectivity and Information Systems; Port Management -Operating/Information Systems; Software and IT Solutions.





Centre for Future Clean Mobility

### Centre for Future Clean Mobility, **University of Exeter**

University of Exeter Engineering Research Centre, Anning Road, Exeter, Devon EX5 2GD

Contact: Professor Chris Smith, Director

Tel: +44 1392 724802

**Email:** 

futurecleanmobility@exeter.ac.uk Web: https://futurecleanmobility.com

**Summary:** The Centre for Future Clean Mobility partners with businesses to develop low-emissions, high-efficiency integrated power systems for applications in the marine, off-highway, rail, defence and energy sectors.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Electrical Control, Batteries and Power Management Systems; Propulsion - Electric Motors and Systems; University, College and Research Institution; Vessel - Boat Handling and Storage.



**Chelsea Technologies Ltd** 55 Central Avenue, West Molesey **KT8 20Z** 

Tel: +44 20 8481 9000 Email: sales@chelsea.co.uk Web: www.chelsea.co.uk

**Summary:** Chelsea Technologies prides itself on its deep engineering expertise, ingeniously applied to create the world's most sensitive, accurate and reliable environmental monitoring sensors and systems for surveying the ocean and other aquatic systems.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems; Marine Science - Equipment, Sensors and Systems; Underwater Sensors and Sonar.

### CHESS () **DYNAMICS**

A COHORT PLC COMPANY

### **Chess Dynamics**

Quadrant House, North Heath Lane, Horsham, West Sussex RH12 5QE Vision4ce

Unit 4, Wokingham Commercial Centre, Molly Millars Lane, Wokingham **RG41 2RF** 

### **Naval Systems**

22-24 Davy Road, Derriford, Plymouth

Contact: Mark Byfield, Vice President Strategic Business Development Tel: +44 1403 249888

Email: sales@chess-dynamics.com Web: www.chess-dynamics.com

**Summary:** Advanced situational awareness, surveillance and precision fire control solutions for all classes of surface vessels.

Capabilities: Above Water Sensors and Radars; Electronic Warfare Systems; Fire Protection Equipment and Systems.



**Chesterfield Special Cylinders Ltd** Meadowhall Road, Sheffield S9 1BT

Contact: Lee Lawrence, Sales Tel: +44 114 242 7500 Email:

info@chesterfieldcylinders.co.uk Web: www.chesterfieldcylinders.co.uk

Summary: Chesterfield have been designing and manufacturing high pressure seamless steel cylinders for over 100 years. We specialise in the supply of ultra-large cylinders with water capacities from 150L to 3,000L and working pressures to 700 bar.

**Capabilities:** Fire Protection Equipment and Systems.

# Clydf&Co

### Clyde & Co LLP

The St Botolph Building, 138 Hounsditch, London EC3A 7AR

Contact: Nick Purnell, Partner Tel: +44 20 7876 5000 Email: nick.purnell@clydeco.com Web: www.clydeco.com

Summary: Clyde & Co is a global law firm providing a complete service to marine clients internationally with fullservice legal solutions. They help their clients grow, diversify and adapt no matter what the project or location.

Capabilities: Business Services -Finance, Tax, Audit, Legal and Insurance.



**Clyde Marine Training** 2 Meridian Cross, Ocean Village, Southampton SO14 3TJ

Contact: Thomas Campbell Tel: 023 8022 3424 Email: info@clydemarinetraining.com

Summary: The UK's largest maritime training provider, Clyde Marine Training, manages over 800 cadets at any one time on behalf of numerous shipping companies globally. For more than 30 years, Clyde Marine Training has been the preferred option for those seeking to pursue careers in the Merchant Navy. The organisation strives to maintain its position through innovation and by maintaining strong working relationships with all of its clients and partner companies.

**Capabilities:** Training and Simulation Systems; University, College and Research Institution.



### **Coltraco Ultrasonics**

Orbit NETPark, Joseph Swan Road, Durham TS21 3FB

Contact: Chloe Barker, Head of Commercial Department & Private Office



Email: chloe@coltraco.co.uk Tel: +44 1740 618 240 Web: https://coltraco.com

Summary: Coltraco Ultrasonics is a high-exporting, advanced manufacturer of ultrasonic and acoustic systems and instrumentation. They work in an array of specialised environments to deliver the Safesite® on land and the Safeship® at sea.

Capabilities: Fire Protection Equipment and Systems; Hatches, Hatch Covers and Equipment; Instrumentation and Sensor Technology; Tank Level – Measuring and Alarms; University, College and Research Institution.



### **Colebrook Offshore**

19-21 Christopher Street, London EC2A 2BS

Contact: Sam Stout, Managing Director Email: sas@colebrookoffshore.com

Tel: +44 7802 463 284
Web: www.colebrookoffshore.com

Summary: Established in 2016, Colebrook Offshore provides chartering, sale and purchase, data analysis, and market intelligence for the offshore renewables, energy and offshore construction markets.

Capabilities: Brokers and Agents.



### **The Crown Estate**

1 St James's Market, London SW1Y 4AH

Tel: +44 20 7851 5000
Email: enquiries@thecrownestate.co.uk
Web: www.thecrownestate.co.uk

Summary: The Crown Estate has been serving the nation for over 260 years. As one of the UK's largest landowners, it is responsible for some of the nation's most remarkable places and spaces, on land and at sea. The Crown Estate play an active role on the UK seabed in offshore energy, marine aggregates and cables and pipelines. It also looks after much of UK's foreshore.

Capabilities: Inspection and Surveys.



### **CU Phosco Lighting**

Charles House, Lower Road, Ware SG12 9TA

Contact: Lee Sanderson, Export Manager Email: hello@cuphosco.com Tel: +44 1920 860 600 Web: www.cuphosco.com

Summary: CU Phosco Lighting is the leading UK-based manufacturer of exterior lighting, including: lighting columns, high masts, LED lanterns and floodlights. Established in 1923, their exterior lighting is seen at ports and terminals throughout the world.

Capabilities: Electrical Control, Batteries and Power Management Systems; Lighting – Vessels and Ashore.



### **Cummins**

4400 Leeds Avenue – Suite 300, North Charleston, South Carolina, 29405, USA

Contact: Eddie Brown, Business Development Leader, Marine Tel: +1 843 860 2015 Email: edmonds.brown@cummins.com Web: www.cummins.com

Summary: A collaborative partner for your unique power solutions: diesel propulsion and auxiliary power (from 4-3,132 kW), battery electric offerings, hydrogen fuel cell solutions, and a global support network in 190 countries and 7,600 locations.

Capabilities: Engines (HFO/Diesel/ Dual/Alternate) – Servicing and Spare Parts; Fuels – Fuel Systems and Equipment.



### CyberOwl

Spaces CityPoint, 1 Ropemaker Street, London EC2Y 9HT

Contact: Sara Fortes, Marketing Manager Email: info@cyberowl.io Tel: +44 20 8050 8042 Web: https://cyberowl.io

**Summary:** CyberOwl helps shipping operators gain visibility, cyber security and cyber compliance of their onboard systems.

Capabilities: Cyber Security and Data Management



### **DC Electronics**

Unit 1, Quayside Industrial Park, Bates Road, Maldon CM9 5FA

Contact: David Cunliffe, Director Email: david@dcepowersteering.com

Tel: +44 1621 856451

Web: www.dcepowersteering.com

Summary: DCE design and manufacture electric power steering systems for all types of vessels, both uncrewed and crewed. Linear and rotary actuators are available. Manufacturing facilities in both the UK and USA.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Autonomous Vessels, Remote Operated Vehicles and Robotics; Instrumentation and Sensor Technology; Steering – Systems and Equipment.

### MEMBERS' DIRECTORY





### **Dendrityca Ltd**

Marine Robotics Innovation Centre, National Oceanography Centre, Southampton, Hampshire SO14 3ZH

Contact: Dr Peter Collinson, Founder Tel: +44 7770 751634 Email: peter.collinson@dendrityca.com

Summary: Provides management consulting and coaching on business transformation through digitalisation and decarbonisation. Focus on maritime autonomy, technology, cross domain

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Electrical Control, Batteries and Power Management Systems.

operations and inspection systems.

# **DESMI**

### **DESMI Ltd.**

"Norman House", Rosevale Business Park, Parkhouse Industrial Estate (West), Newcastle Stafford ST5 7UB

Contact: Lee Roberts, Managing Director Email: lero@desmi.com Tel: +44 1782 566900 Web: www.desmi.com

**Summary:** Proven Technology includes:

- Engine room pumps
- Ballast water management systems
- Optisave energy saving systems
- · Finefog firefighting systems
- Scrubber pump solutions
- · Cargo pumps.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems; Cargo Handling Equipment and Control Systems; Fire Protection Equipment and Systems; Propulsion – Electric Motors and Systems.



### Drewry

15-17 Christopher Street, London EC2A 2BS

Contact: Martin Dixon, Head of Research Products Tel: +44 2075 380191 Web: www.drewry.co.uk

**Summary:** A leading research and advisory organisation for the maritime sector.

Capabilities: Consulting Services.



### **Ductform HFE**

17 Faraday Road, Glenrothes KY6 2RU

Contact: Alan Mathieson, Sales Manager Tel: +44 1592 778330 Email: sales@ductform.com Web: www.ductform.co.uk

Summary: Originally founded in 1974, we are Scotland's leading HVAC Ductwork contractors, providing the engineering, manufacture and installation of ventilation systems in the construction, marine and offshore sectors.

Capabilities: Engineering Services, Fabrication and Assembly; Fire Protection Equipment and Systems; HVAC – Heating, Air Conditioning, Ventilation, Refrigeration Systems and Ducting.

### **Duodrive**

The Assembly Hall, Victoria Building Teesside University, Middlesbrough TSI 3BA

Contact: John Carter Email: info@duodrive.com Web: www.duodrivetrain.uk

Summary: DuoDrive is a UK-based engineering company that specialises in the design, development, and production of advanced drivetrain systems for electric vehicles. They offer a range of products, including highperformance electric motors, inverters, and controllers, that are tailored to the needs of their customers.

**Capabilities:** Electrical Control, Batteries and Power Management Systems; Propulsion - Electric Motors and Systems.



### **Dvnautics**

Birch House, Parklands Business Park, Forest Road, Denmead, Waterlooville, Hampshire PO7 6XP

Contact: Dr Henry Robinson, CEO Tel: +44 2392 267607 Email: info@dynautics.com Web: www.dynautics.com

Summary: Dynautics provides intelligent, reliable marine technology that keeps you in control of your USV or UUV. Thousands of miles have been navigated using our uncrewed vehicle management technologies, including autopilots, communications and power management. Our mission is enabling your mission's success.

Capabilities: Autonomous Vessel Control System, Power Management Systems, Navigation and Positioning Systems and Equipment, Communication Systems, Integrated and Satcoms, Electrical Control Systems and Equipment.



### **Echandia**

Karlbergs Strand 4L, Solna, 17173, Sweden

Contact: Carl Bjurling Tel: +46 7273 12310 Email: c.bjurling@echandia.se Web: www.echandiagroup.com

**Summary:** Echandia supply heavyduty, high-power energy storage. All our solutions are built for demanding applications and will provide a safe, durable, and cost-efficient solution with a superior lifecycle.

Capabilities: Battery Technology and Electric Power Management Systems.





### **Ecomar Propulsion Ltd**

32 Standard Way, Fareham, Hampshire PO16 8XG

Contact: Anthony Bennett, Chief Operating Officer Tel: +44 20 1329 230097 Email: info@ecomarpropulsion.com Web: www.ecomarpropulsion.com

Summary: Ecomar Propulsion research, design and manufacture high performance, innovative clean marine propulsion systems. With zero-emissions electric and hybrid hydrogen inboard and outboard motors and complete systems for commercial vessels.

Capabilities: Electrical Control, Batteries and Power Management Systems; Propulsion – Electric Motors and Systems.



### **Eminox Ltd**

Corringham Road Industrial Estate, Gainsborough, Lincolnshire DN21 1QB

Contact: Anthony Greatwood, Global Product Manager Tel: +44 1427 810088 Email:

anthony.greatwood@eminox.com

Web: www.eminox.com

Summary: Flexible, scalable, compact exhaust aftertreatment systems for 100kW-10MW propulsion and auxiliary engines. Achieve Stage V IWW and IMO Tier III emissions standards for diesel, alternative and net zero fuels, including those with challenging space envelopes.

Capabilities: Consulting Services and Design Engineering; Engine Emissions Monitoring and Exhaust Aftertreatment; Fuels – Fuel Systems and Equipment; Port Energy and Power Systems; Regulatory Compliance and Certification.



### **Ensemble Analytics**

180 Borough High Street, London SEI 1AP

Contact: Cato Davies, Co-founder Email: cato@ensembleanalytics.co.uk Tel: +44 7394 557819 Web: www.ensembleanalytics.co.uk

Summary: Ensemble Analytics provide employee management systems specifically designed for ports. Ensemble's time and attendance, employee app and skills management modules integrate with their Al-powered scheduling software, creating efficient and compliant schedules instantly.

Capabilities: Port Automation and Terminal Management Systems; Port Connectivity and Information Systems; Port Management -Operating/Information Systems; Recruitment, Staffing and Training; Software and IT Solutions.



### **EQUANS Axima**

8 Devonshire Square, London EC2M 4PL

Contact: Russ Tidbury, Business Development Director Email: russ.tidbury@equans.com Tel: +44 7399 189 032 Web: https://marine.equans.fr

Summary: Marine HVAC-R and Firefighting systems, fully supported from design concept through to platform disposal. Solutions available from 1,500-tonne vessels to 100,000-tonne vessels. Expertise in low energy solutions, Chilled Water, Provisions Cooling and CBRN protection.

Capabilities: Fire Protection
Equipment and Systems; Galley
– Systems and Equipment; HVAC –
Heating, Air Conditioning, Ventilation,
Refrigeration Systems and Ducting;
Mine Countermeasure and AntiSubmarine Warfare (ASW) Systems;
Submarines – Build, Systems,
Equipment and Design.



### **European Active Projects Ltd**

Berth 5, Chatham Docks, Chatham, Kent ME4 4SW

Contact: Steve Jones, Owner/Director Tel: +44 1634 833200

Email: sales@eap-ltd.co.uk Web: www.eap-ltd.co.uk

Summary: Support services to the marine and industrial sectors from small repairs to large project managed contracts, our rapid response engineering teams can meet vessels in order to effect repairs. A nationwide network of workshops and a 150 m wet berth at Chatham allow alongside works.

**Capabilities:** Recruitment, Staffing and Training; Shipyards – Newbuilding, Repair and Conversion.



European Diesel Services Ltd Unit 8, Ormside Close, Hindley Industrial Estate, Wigan WN2 4HR

Contact: Michael Gore, Managing Director Tel: +44 20 1942 257444 Email: michael@european-diesels.co.uk Web: www.european-diesels.co.uk

**Summary:** Specialist suppliers of spare parts and service engineers for Ruston, Bergen, Paxman, Allen, Wärtsilä, Dorman & Perkins engines as well as Napier Turbochargers.

Capabilities: Engineering Services, Fabrication and Assembly; Engines (HFO/Diesel/Dual/Alternate) – Servicing and Spare Parts; Spare Parts and Components Suppliers.





### **Evica Ltd**

International Development Centre, Valley Drive, Ilkley, West Yorkshire LS29 8AL

Tel: +44 1943 606484 Web: www.evicalights.com

Summary: Evica Ltd are a UK OEM specialising in the design and manufacture of high-end LED lighting products. The Evica Search range delivers high intensity marine and landbased LED searchlights with unique adjustable beam patterns. Visible and infra-red devices are supplied for both conventional and covert surveillance.

Capabilities: Deck Equipment and Machinery; Lighting – Vessels and Ashore.



### **EwePack**

2E Williamsport Way, Lion Barn Ind Est, Needham Market IP6 8RW

Contact: Steve Lawson-Smith Email: steve@ewepack.com Tel: +44 1449 2571771 Web: www.ewepack.com

Summary: Specialists in on-time delivery to events, exhibitions and conferences. EwePack handle shipping, carnets, onsite logistics and storage to all the SMI events and other shows, worldwide.

Capabilities: Logistics and Supply Chain Solutions.



Ferguson Marine (Port Glasgow) Ltd Newark Works, Castle Road, Port Glasgow, Inverclyde PA14 5NG

Contact: David McVeigh, Commercial Director Tel: +44 7880 962972 Email:

david.mcveigh@fergusonmarine.com
Web: www.fergusonmarine.com

Summary: Ferguson Marine has been a commercial shipbuilder on the Clyde river in Scotland for over 100 years, designing, building and launching vessels up to 110m in length.

Capabilities: Consulting Services and Design Engineering; Design – Naval Architecture; Shipyards – Newbuilding, Repair and Conversion.



### First Marine International -

A Company of Royal HaskoningDHV 2 Abbey Gardens, Great College Street, Westminster, London SWIP 3NL

Contact: Damien Bloor, FMI Advisory Group Director

Tel: +44 20 7151 0974 Email: fmi@rhdhv.com

Web: www.royalhaskoningdhv.com/FMI

**Summary:** Specialist consultancy to shipyards and maritime industries worldwide.

Capabilities: Consulting Services and Design Engineering; Port and Terminal - Infrastructure Master Planning, Design and Construction



### Flowserve

Burrell Road Industrial Park, Burrell Road, Haywards Heath, West Sussex RH16 1TL

Contact: Nick Warwick, Defence and Nuclear Sales Manager Tel: +44 7713 501761

Email: nwarwick@flowserve.com
Web: www.flowserve.com

Summary: Since the 1960s, Flowserve has manufactured high integrity valves and actuation equipment for surface and sub-surface naval platform systems such as H/P air, HVAC, vent and blow, flood and drain, hull valves, SSE, direct and emergency blow and reverse osmosis.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems; Valves, Systems and High Pressure.



### **Foreshore Technology Ltd**

Old Ambulance Station, 1B Brockway, Nailsea, Bristol BS48 1BZ

Contact: John Steed, Director Tel: +44 1173 183977

**Email:** info@foreshoretechnology.com **Web:** www.foreshoretechnology.com

Summary: Hardware and software solutions for dredging and marine construction activities. Portfolio of embedded systems, sensors, IoT and Cloud Computing focusing on maritime applications.

Capabilities: Dredging and Reclamation; Marine Science – Equipment, Sensors and Systems.



### Frazer-Nash Consultancy Ltd

Hill Park South, Springfield Drive, Leatherhead, Surrey KT22 7LH

Contact: Paul Havron, Group Business Manager Email: p.havron@fnc.co.uk Tel: +44 117 922 6242 Web: www.fnc.co.uk

Summary: Frazer-Nash is a leading systems, engineering and technology company. Part of KBR Group, that help organisations deliver innovative engineering and technology solutions to make lives safe, secure, sustainable and affordable.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Cyber Security and Data Management; Design – Naval Architecture; Regulatory Compliance and Certification; Safety, Life Saving Equipment and Systems.



### **Frequentis UK Ltd**

Regal House, 70 London Road, Twickenham, London, TW1 3QS

**Contact:** David King, Head of Sales UK and Ireland



Tel: +44 7540 841220 Email: david.king@frequentis.com Web: www.frequentis.com

Summary: Frequentis is ready to lead its customers through future evolutions of their communications and information management infrastructure as technology evolves and systems become more integrated. GMDSS, VTS, CLOUD, DIVOS.

Capabilities: Navigation and Bridge Systems - Compasses, Gyros, Instrumentation and ECDIS; Port Connectivity and Information Systems; Port Vessel Traffic Services (VTS).



### **GE Power Conversion UK**

Thomson Houston Way, Technology Drive, Rugby CV21 1BD

Contact: Rachel Connor, Marketing Director **Fmail:** 

marine.powerconversion@ge.com Tel: +44 1788 563563

Web: www.gepowerconversion.com

Summary: GE' Vernova's Power Conversion business specialises in maritime electrification, improving vessels' energy efficiency, reducing emissions and energising missions in naval, offshore, transport and ports sectors.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Electrical Control, Batteries and Power Management Systems; Port Energy and Power Systems; Propulsion - Electric Motors and Systems; Submarines - Build, Systems, Equipment and Design.



### **Griffon Hoverwork**

8 Hazel Road, Woolston, Southampton, Hampshire SO19 7GA

Contact: Selina Kefford, Marketing Operations Administrator Email: sales@griffonhoverwork.com Tel: +44 23 8068 6666

Web: www.griffonhoverwork.com

Summary: Design, manufacture and in-service support of hovercraft, amphibious vehicles and zeroemissions marine technology including offering research and development, solution/product development and product support for third party solutions.

Capabilities: Consulting Services and Design Engineering; Design - Naval Architecture; Engineering Services, Fabrication and Assembly; Shipyards -Newbuilding, Repair and Conversion.



### **H2NA Ltd**

5 Brighton Way, Chippenham, Wiltshire SN14 OYR Contact: Phil Henderson, Naval Architect Tel: +44 7592 511446 Web: www.h2na.co.uk

Summary: H2NA provides naval architecture and engineering support to any type of floating platform. Our chartered engineers help UK organisations to develop, maintain and operate vessels ranging from 10-m workboats to 200-m naval support ships.

Capabilities: Design - Naval Architecture.



### HamiltonJet UK

The Birches Industrial Estate, East Grinstead, West Sussex RH19 1XZ

Contact: Kevin Robertson, General Manager Tel: +44 1342 313437 Email: kevin.robertson@hamiltonjet.uk Web: www.hamiltonjet.com

Summary: HamiltonJet has 20 different jet models starting from 270 kW up to 5,500 kW in maximum power rating. As a preferred supplier we have installed over 60,000 waterjets into vessels around the globe, including offshore, pilot, rescue, fire, military, patrol, windfarm, fast ferry, fishing, aquaculture and recreational applications.

Capabilities: Propulsion - Waterjet, Propellers, Systems and Equipment.



### Harland & Wolff

Northern and Shell Building, 10 Lower Thames Street, London EC3R 6AF

Contact: Ben Murray, Director of Government and Corporate Affairs Email: ben.murray@harland-wolff.com Tel: +44 330 124 0427

Web: www.harland-wolff.com

Summary: From its international sites, shipbuilding and marine engineering business, Harland & Wolff, designs, builds, refits, repairs and services vessels and structures for the global energy, renewables, defence, commercial and cruise and ferry industries.

Capabilities: Engineering Services, Fabrication and Assembly; Inspection and Surveys; Painting and Coatings Shipyards - Newbuilding, Repair and Conversion; Vessel - Build Materials.



### **HENSOLDT UK**

Unit 4 Voltage, 6 Mollison Avenue, Enfield EN3 7XQ

Contact: Rohan Dearlove Email: surveillance@hensoldt.net Tel: +44 1992 805200 Web: www.uk.hensoldt.net

Summary: A world leader in navigation, mission systems and sensors for commercial and naval vessels. HENSOLDT UK sets the standard in coastal surveillance and VTS sensors, radars for windfarm mitigation and H2 clean energy solutions.

Capabilities: Above Water Sensors and Radars; Electronic Warfare Systems Navigation and Bridge Systems -Compasses, Gyros, Instrumentation and ECDIS; Port Management – Operating/Information Systems; Submarines - Build, Systems, Equipment and Design.



# 母 **HOULDER**

### **Houlder Ltd**

1-2 Paris Garden, London SEI 8ND

Contact: Rupert Hare, Chief Executive Officer Tel: +44 20 7283 1220

Email: enquiries@houlderltd.com Web: www.houlderltd.com

Summary: We are specialists in engineering design, clean technology and technical consultancy for the marine and offshore environments.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Design - Naval Architecture; Port and Terminal - Infrastructure Master Planning, Design and Construction.



### **HR Wallingford**

Howbery Park, Wallingford, Oxfordshire OX10 8BA

Contact: Tom Matthewson, Regional Manager - UK & Ireland

Tel: +44 1491 835381

Email: info@hrwallingford.com Web: www.hrwallingford.com

Summary: We design smart, resilient solutions across the natural and built environments to help everyone live and work more sustainably with water. We provide port owners and operators with the solutions they need to design, build and operate maritime facilities safely and efficiently. We are specialists in the maritime environment; we develop and optimise maritime projects around the world.

Capabilities: Consulting Services and Design Engineering; Marine Science - Equipment, Sensors and Systems; Training and Simulation Systems.



### **ICE Marine Design (International Contract Engineering Ltd)**

19-21 Circular Road, Douglas, Isle of Man IM1 1AF

Contact: Steinar Draegebo, Chairman

Tel: +44 1624 623190

Email: marketing@icedesign.info Web: www.icedesign.info

Summary: Engineering and design services (conceptual, functional, detail, and production documentation) for the commercial marine, naval and energy-related industries to shipowners, yards, EPC defence contractors and offshore energy companies.

Capabilities: Design - Naval Architecture; Engineering Services, Fabrication and Assembly.



### **IMI Truflo Marine**

2 Priory Road, Aston, Birmingham B6 71 G

Contact: Chris Richards, Marine Sales Director

Email: imitm.sales@imi-critical.com

Tel: +44 121 327 4789 Web: www.imi-critical.com

Summary: IMI Truflo Marine have a 60-year naval marine legacy, with over 140,000 valves in service across 36 navies worldwide. Their products have been created to withstand the harshest of environments.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems; Engineering Services, Fabrication and Assembly; Noise and Vibration Control; Submarines - Build, Systems, Equipment and Design; Valves, Systems and High Pressure.



### Intermarine UK

Office 10, JR House D6, Main Avenue, Treforest Industrial Estate, Pontypridd, Cardiff CF37 5UR

Contact: Nick Mansell, Chief Executive Officer Tel: +44 7841 922787

Email: nick.mansell@intermaineuk.com Web: www.intermarineuk.com

Summary: Intermarine UK is a specialist supplier of SQEP labour across shipbuilding trades for newbuild, repair and offshore mobilisation projects in the UK and Internationally. Our capabilities include the supply of complete project teams for turnkey project delivery.

Capabilities: Consulting Services and Design Engineering; Engineering Services, Fabrication and Assembly: Recruitment, Staffing and Training.



### **JD Marine**

College House, 2nd floor, 17 King Edwards Road, London HA4 7AE

Contact: Dom Mee, Managing Director Email: marinedesign@jdmi.co.uk Web: www.jdmi.co.uk

Summary: JDMI Marine autonomy focuses on advanced design and build of cutting edge uncrewed surface vessels USVs. The USV portfolio offers high endurance long range ISR, submarine detection, electronic disruption and electronic counter measure platforms including Search and Rescue.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics.





### Jo Bird Company Ltd

Factory Lane, Bason Bridge, Highbridge, Somerset TA9 4RN

Contact: Nick Atkins, Sales Coodinator Tel: +44 1278 785546 Email: info@jobird.co.uk Web: www.jobird.co.uk

Summary: Jo Bird & Co Ltd provides robust protection for vital lifesaving and fire safety equipment. Designed and built in the UK, our cabinets are exported to over 33 countries through our worldwide network of LSA distributors. Most of the cabinets are Lloyd's Register type test approval and American Bureau of Shipping product design approval.

Capabilities: Accommodation – Systems and Equipment; Deck Equipment and Machinery; Fire Protection Equipment and Systems.



### **Johnson Controls**

2 The Briars, Waterberry Drive, Waterlooville PO7 7HY

Contact: Chris Griffiths, Sales Manager, Global Marine & Navy Tel: +44 7980 716408 Email: chris.griffiths@jci.com Web:

www.johnsoncontrols.com/marine

**Summary:** Supplier of fixed fire-fighting; fire, smoke and flood detection; HVAC and chilled water plant solutions for naval warships and submarines.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Fire Protection Equipment and Systems.



### Kawasaki Precision Machinery (UK) Ltd Ernesettle Lane, Ernesettle, Plymouth,

Devon PL5 2SA

**Contact:** John Boote, Business Development Director

Email: jboote@kawasakihydraulics.

Tel: +44 1752 364394

Web: www.kawasakihydraulics.com

Summary: Kawasaki Precision Machinery is a total systems engineering company, leading the way in hydraulics and supplying equipment for a huge range of demanding applications with systems manufactured in the UK. Kawasaki was founded 120 years ago in Japan as a shipbuilding company, and has maintained a presence in the marine industry ever since. The first Kawasaki hydraulic pump was developed in 1916 for a ship steering system, and more than 100 years later the Kawasaki brand is synonymous with quality and innovation in hydraulic pumps, motors, valves and complete systems across a vast range of applications.

Capabilities: Hydraulics – Systems and Equipment.



### Kinsetsu

Unit A4 Harbour Estate, 5 Heron Road, Belfast, Antrim BT3 9HB

Contact: Owen Miller, Marketing Manager

Email: owen.miller@kinsetsu.co.uk

Tel: +44 28 9521 9091 Web: www.kinsetsu.co.uk

Summary: Kinsetsu helps organisations maximise asset utilisation with real-time visualisation. Using sensors, they seamlessly locate, manage and track physical assets on their platform ktrack®.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Data Acquisition and Analysis; Logistics and Supply Chain Solutions Port Connectivity and Information Systems; Software and IT Solutions.



### **Kort Propulsion Co Ltd**

The Boat House, 20 High Street, Erith, Kent, DA8 1QY

Contact: Ann-Marie Kearns, Marketing Manager Tel: +44 1322 346346

**Email:** annmarie@kortpropulsion.com **Web:** www.kortpropulsion.com

Summary: Kort Propulsion is renowned for developing and supplying outstanding propulsion packages for the marine industry. We design and supply various nozzle profiles, selection of propellers, conventional and high lift rudders, bearings, shafting, steering and stern gear.

Capabilities: Consulting Services and Design Engineering; Hatches, Hatch Covers and Equipment; Propulsion Systems, Water Jet, Propellers and Equipment; Steering Systems and Equipment; Seal and bearings



### KONGSBERG

### **Kongsberg Maritime Ltd**

Thermopylae House, Prospect Road, Arnhall, Aberdeen AB32 6FE

Contact: Kongsberg Maritime Sales Tel: +44 1224 278 300

**Email:** km.sales@km.kongsberg.com **Web:** www.kongsberg.com/maritime

Summary: Kongsberg Maritime is a world leader in marine technology. With an extensive portfolio of innovative and integrated products and solutions, Kongsberg Maritime delivers efficiency, reliability, flexibility, and environmental sustainability to enhance the business of its customers. Our approach to product design maximises performance by providing the full picture.

Capabilities: Above Water Sensors and Radars; Navigation and Bridge Systems – Compasses, Gyros, Instrumentation and ECDIS; Replenishment at Sea Systems; Stabilisers and Motion Control; Steering – Systems and Equipment.





### L3Harris MAPPS Ltd

Unit 2 Clayton Manor, Victoria Gardens, Burgess Hill, West Sussex RH15 9NB

Contact: Neil Howard, Head of Business Development Tel: +44 7824 435054 Email: neil.howard@l3harris.com and jennifer.dowle@l3harris.com Web: www.l3harris.com

Summary: L3Harris MAPPS Ltd excels in the provision, training and support of state-of-the-art platform management and simulation solutions, utilising latest technology, for both the commercial and military sectors.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Communication Systems – Satcoms, Civil and Naval; Navigation and Bridge Systems – Compasses, Gyros, Instrumentation and ECDIS; Propulsion – Electric Motors and Systems; Training and Simulation Systems.



### Leonardo UK Ltd

One Eagle Place, London SW1Y 6AF

Contact: Iain Breckenridge, Key Account Manager - Maritime Email:

iain.breckenridge@leonardo.com Tel: +44 785 837 4956

Web: https://uk.leonardo.com/en

Summary: Leonardo designs, develops and manufactures a full range of capability and services across multimission rotary and fixed-wing aircraft, uncrewed platforms, systems and sensors, providing integrated solutions and support in the maritime, space and cyber/electromagnetic domains.

Capabilities: Above Water Sensors and Radars; Communication Systems – Satcoms, Civil and Naval; Cyber Security and Data Management; Electronic Warfare Systems; Underwater Sensors and Sonar.



### Liberty Collins Ltd

28 Queen Street, London EC4R 1BB

Contact: Ele Theochari, Director and Head of Consultancy Tel: +44 20 8088 2880 Email: advice@libertycollins.com Web: www.libertycollins.com

Summary: Liberty Collins is renowned for its expertise in R&D tax relief and covers many sectors from technology, life sciences, construction to Al. Liberty Collins provides a personal approach to R&D tax credits.

Capabilities: Business Services

- Finance, Tax, Audit, Legal and
Insurance; Consulting Services and
Design Engineering.



### **Liverpool John Moores University**

Liverpool Maritime Academy, School of Maritime and Mechanical Engineering, James Parsons Building, Byrom Street, Liverpool, Merseyside L3 3AF

Contact: Ian Jenkinson, Director of School Tel: +44 1512 312011 Email: maritime@ljmu.ac.uk Web: www.ljmu.ac.uk/eng

Summary: The Liverpool Maritime Academy brings together: the school's internationally recognised research in marine and offshore engineering; undergraduate and postgraduate programmes and professional training for the maritime and port industries.

**Capabilities:** University, College and Research Institution.



### Lloyd's Register

71 Fenchurch Street, London EC3M 4BS

Contact: Dominic Miller, Strategic Business Partner Email: dominic.miller@lr.org Tel: +44 33 0414 0400 Web: www.lr.org

**Summary:** Trusted maritime advisers, partnering with clients to drive performance across the ocean economy.

Capabilities: Classification Societies, Regulatory and Registry; Consulting Services and Design Engineering; Inspection and Surveys; Ocean Data Solutions, Environmental Monitoring and Analysis; Regulatory Compliance and Certification.



### Lockheed Martin UK Holdings Ltd 40 Grosvenor Place. London SWIX 7AW

Contact: Adam Clink, Head of Maritime Strategic Engagement Tel: +44 20 7823 0700 Email: sales@lmco.com Web: www.lockheedmartin.co.uk

Summary: Development, integration and sustainment of advanced technology platforms, systems, products and support services in space, air, land, sea environments with increasing focus on technologies in the marine and maritime sector, including environmental sustainability considerations.

**Capabilities:** Consulting Services and Design Engineering; Cyber Security and Data Management.



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T: +44 20 7628 2555





Macduff Ship Design Ltd Low Shore, Macduff, Aberdeen AB44 IRE

Contact: Ian Ellis, Managing Director Tel: +44 1261 833825

Web: www.macduffshipdesign.com

Summary: Naval Architecture and Marine Surveyors to the commercial marine industry for new and existing vessels. Vessels including work boats, tugs, fishing vessels, ferries, pilot boats, patrol boats, dredgers, research vessels and multipurpose vessels.

Capabilities: Design – Naval Architecture.



### MacTaggart, Scott & Company Ltd

15 Hunter Avenue, Loanhead, Edinburgh, Midlothian EH20 9SP

Contact: Simon Withington, Business Development Manager Tel: +44 1314 400311

Email: simon.withington@mactag.com Web: www.mactag.com

Summary: MacTaggart Scott, formed in 1898, designs, manufactures and sustains a wide range of 'electrohydraulic' mission critical systems for naval submarines and surface ships.

Capabilities: Cables – Systems and Equipment; Deck Equipment and Machinery; Hatches, Hatch Covers and Equipment; Submarines – Build, Systems, Equipment and Design.

# **Malin** Group

### **Malin Group**

South Rotunda, Pacific Quay, 100 Govan Road, Glasgow G51 1AY

Contact: Helenor Fisher Email: h.fisher@malingroup.com Tel: +44 141 221 3075 Web: www.malingroup.com

Summary: Malin Group of companies service the shipbuilding, heavy lift, renewables, nuclear, oil and gas and marine sectors offering detailed design and consultancy services, marine operations and shipping, specialist welding, finishing, installation and site maintenance services.

Capabilities: Consulting Services and Design Engineering; Design – Naval Architecture; Hatches, Hatch Covers and Equipment; Logistics and Supply Chain Solutions; Painting and Coatings.



### **Marico Marine Group**

Marico House, Bramshaw, Southampton, Hampshire SO43 7JB

Contact: André Cocuccio, UK Director Tel: +44 2380 811133 Email:

andre.cocuccio@maricogroup.com **Web:** www.maricogroup.com

Summary: Marico Marine is an independent marine consultancy and technology company providing solutions for ports, harbours and offshore energy sectors worldwide. We offer a wealth of experience and technical innovation with a solid reputation built on integrity and competence.

**Capabilities:** Port Automation and Terminal Management Systems.



### **Marine Components International Ltd**

Unit 1, Benridge Business Park, Holyrood Close, Poole, Dorset BH17 7BD

### Contact: David Ellis Email:

sales@marinecomponents.co.uk Tel: +44 1202 624244 Web: www.marinecomponents.co.uk

Summary: Global distributors of marine equipment: BSB Fire Dampers, Lasdrop Shaft Seals, Groco Marine Hardware, Seacocks/Inline Valves, Pumps and Fittings, EchoPilot FLS Sonar, Bennett Trim Tabs, Dr Shrink 100% virgin resin shrink wrap and Calypso Anemometers.

Capabilities: Fire Protection Equipment and Systems; Instrumentation and Sensor Technology; Seals and Bearings; Spare Parts and Components Suppliers; Steering – Systems and Equipment.



### **Marine Data Systems**

Vittlefields Technology Centre, Forest Road, Newport, Isle of Wight PO30 4LY

Contact: Sales Department Tel: +44 1983 822180

**Email:** sales@marine-data.co.uk **Web:** www.marine-data.co.uk

Summary: Marine Data Systems is a British multi award-winning manufacturer of marine navigation systems, including Automatic Identification Systems (AIS), compass and heading displays, transmitting heading devices, rudder instrumentation, navigation displays and power and data distribution.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Navigation and Bridge Systems – Compasses, Gyros, Instrumentation and ECDIS.

### MEMBERS' DIRECTORY





### **Marine Resources Recruitment**

Hamble River Boat Yard, Bridge Road Swanwick, Southampton SO31 7EB

Contact: Preslava McCarthy Tel: +44 2380 633399 Email: hi@marineresources.co.uk Web: www.marineresources.co.uk

Summary: Marine Resources offers fully managed bespoke recruitment and headhunting services. All consultants have a genuine passion and knowledge for the marine industry. The team use their expertise to source exceptional talent within the shore-based leisure and superyacht industry. Marine Resources also supply contract staff solutions for short to long term projects.

Capabilities: Recruitment and Staffing.



### moffatt & nichol

### **Moffatt & Nichol**

2nd Floor, 93 Southwark Street, London SE1 OHX

Contact: Karen Levy, Business Development Manager Tel: +44 203 984 7491 Email: klevy@moffattnichol.com Web: www.moffattnichol.com

Summary: A global infrastructure advisory company, Moffatt & Nichol provides engineering and consulting services to clients in the marine terminal, energy, renewable energy, environmental and urban development markets around the world.

Capabilities: Civil Engineering
Consultancy; Consulting Services and
Design Engineering; Engineering
Services, Fabrication and Assembly;
Port and Terminal – Infrastructure
Master Planning, Design and
Construction.



### MPCC UK Ltd

Unit 1 & 2, Millshaw, Leeds, West Yorkshire LS11 0LX

Contact: Joshua Bray, Sales Director Tel: +44 113 2890281 Email: sales@mpcc.co.uk Web: www.mpcc.co.uk

Summary: Founded in 1988 by ex-Shell tankers engineer Tony Bray. MPCC has been supplying the marine, oil and gas, concrete, tarmac and sewage industries with quality spare parts. With warehouses in the UK and Singapore, our pump and compressor spares can reach your vessels on time.

Capabilities: Deck Equipment and Machinery; Spare Parts and Components Suppliers; Waste Water Treatment.



### **National Oceanography Centre**

European Way, Southampton, Hampshire SO14 3ZH

Contact: Mark Hamson, Innovation Centre Manager Email: mark.hamson@noc.ac.uk Tel: +44 2380 596 666 Web: https://noc.ac.uk

Summary: NOC is a leader on ocean science. Their subsidiary, NOC Innovations, provides a vital link between science and business, enabling technology and research to transfer to industry and revenue generated to support their charitable purposes.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Marine Science – Equipment, Sensors and Systems; Temperature and Pressure Calibrators; Underwater Sensors and Sonar; University, College and Research Institution.



### **Navantia UK LTD**

First Floor, 28-29 Threadneedle Street, London EC2R 8AY

Contact: Emiliano Matesanz, Business Development Director Email: ematesanz@navantia.es Tel: +44 7436 827329 Web: www.navantia.es

Summary: A UK company, subsidiary of Spanish Navantia, working with UK industrial partners in shipbuilding, defence and offshore wind. Navantia is a world reference in naval design, building, integration, life cycle support and Transfer of Technology.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Design – Naval Architecture; Shipyards – Newbuilding, Repair and Conversion; Submarines – Build, Systems, Equipment and Design; Training and Simulation Systems.



### **Navitron Systems Ltd**

17 The Tanneries, Brockhampton Lane, Havant, Hampshire PO9 IJB

Contact: Richard Hunt, Joint Managing Director Tel: +44 2392 498740 Email: sales@navitron.co.uk Web: www.navitron.co.uk

Summary: Design and manufacture of MED wheelmarked type-approved heading control systems and classapproved main steering systems including rudder indicators, electronic inclinometers analogue and digital heading repeaters and power steer controls.

Capabilities: Electrical Control, Batteries and Power Management Systems; Navigation and Bridge Systems – Compasses, Gyros, Instrumentation and ECDIS; Steering – Systems and Equipment.





### **NAVSYSTEMS IOM Ltd**

Commerce Chambers, Bowring Road, Ramsey, Isle of Man IM8 2LQ

Contact: Dave Hussey, Director Tel: +44 1624 818611 Email: sales@bluespider.im Web: www.bluespider.com

**Summary:** NAVSYSTEMS is an independent software vendor focusing primarily on the marine sector.

Capabilities: Marine Science – Equipment, Sensors and Systems.



### **Nectar Group Ltd**

1 Ashton Gate, Ashton Road, Romford, Essex, RM3 8UF

Contact: Guy Wilkes, Commercial Director Tel: +44 1708 386555 Email: commercial@nectar.co.uk Web: www.nectargroup.co.uk

Summary: Nectar Group, a global leader in bulk and break bulk handling services, operates and manages a number of terminals around the world. The group also specialises in consultancy projects, bagging services, maintenance contracts and equipment sales.

Capabilities: Cargo Handling Equipment and Control Systems; Consulting Services and Design Engineering; Port and Terminal – Crane and Handling Equipment Suppliers.



### **Newcastle University**

Queen Victoria Road, Newcastle Upon Tyne, Tyne and Wear NEI 7RU

Contact: Proffessor Zhiqiang Hu, Lloyds Prof of Offshore Engineering Tel: +44 191 208 6750 Email: zhiqiang.hu@ncl.ac.uk

Web: www.ncl.ac.uk/engineering

Summary: Teaching and research in naval architecture, marine engineering, offshore engineering, subsea engineering, pipeline engineering, shipping and logistics.

**Capabilities:** University, College and Research Institution.



### **Nivalis-Tech Limited**

Unit 202c, Burcott Road, Bristol BS11 8AP

Contact: Sean Ashton, Commercial Director Email: info@nivalis-tech.com Tel: +44 117 462 2090 Web: https://nivalis-tech.com

Summary: Nivalis Ice Pigging – transforming the way pipes are cleaned. They are the pioneers in the design and build of equipment and implementation of Ice Pigging.

Capabilities: Anti-Fouling/Bio-Fouling and Anti-Corrosion Systems; Engineering Services, Fabrication and Assembly; Marine Science – Equipment, Sensors and Systems; Piping and Plumbing Systems; Shipyards – Newbuilding, Repair and Conversion.



### **Nortek UK**

Ground Floor, Endeavour House, Meridians Cross, 7 Ocean Way, Ocean Village, Southampton SO14 3TJ

Contact: Scott Gray, Managing Director Tel: +44 2380 236855 Email: inquiry@nortekgroup.com Web: www.nortekgroup.com

Summary: Nortek designs, develops and produces scientific instruments that apply the Doppler principle to underwater acoustics in order to measure water in motion, such as currents and waves. Providing class leading DVLs and ADCPs.

Capabilities: Marine Science – Equipment, Sensors and Systems.

# NORTHROP GRUMMAN

### **Northrop Grumman**

Burlington Road, New Malden, Greater London KT3 4NR

Contact: Matt Osler Tel: +44 20 8329 2000

Web: www.northropgrumman.com

Summary: Northrop Grumman is a close-knit community of big thinkers collaborating to keep the world safe. Northrop Grumman's passion, creativity and expertise bring nextlevel technology solutions to life in autonomous systems, cyber, C4ISR, strike, space, and logistics and modernisation for their customers around the globe.

Capabilities: Communication Systems – Satcoms, Civil and Naval; Cyber Security and Data Management; Electronic Warfare Systems; Mine Countermeasure and Anti-Submarine Warfare (ASW) Systems; Navigation and Bridge Systems – Compasses, Gyros, Instrumentation and ECDIS; Submarines – Build, Systems, Equipment and Design; Underwater Sensors and Sonar.



### O.S. Energy

Unit 33, North Tyne Ind Estate, Newcastle Upon Tyne NE12 9SZ

Contact: Martin Nuernberg, Managing Director Email: martin.nuernberg@os-energy.de Tel: +44 191 308 5341 Web: www.os-energy.uk

Summary: O.S. Energy owns and operates highly specialised offshore support vessels and provides engineering consultancy for innovative offshore renewable energy projects.

Capabilities: Consulting Services and Design Engineering; Data Acquisition and Analysis; Design – Naval Architecture; Inspection and Surveys; Vessel – Owner/Operator.







# OCEA Shipbuilding (UK) Ltd / Wight Shipyard Company Ltd

1 Britannia Chambers South, Town Quay, Southampton SOI4 2AQ

Contact: Ken Houlberg, Chief Executive Email: khoulberg@ocea-uk.com Tel: +44 796 649 5845

Tel: +44 796 649 5845 Web: www.ocea.fr www.wightshipyard.com

Summary: As the UK subsidiary of the multi-national shipbuilder, OCEA, WSC specialises in the design, manufacture and support of aluminium fast ferries, offshore renewable and urban mobility vessels for both the UK and international export markets.

Capabilities: Design – Naval Architecture; Shipyards – Newbuilding, Repair and Conversion.



### **Ocean Business**

The Brinell Building, 30 Station Street, Brighton BN1 4RB

Contact: Cheri Arvonio, Portfolio Director Email: carvonio@divcom.co.uk

Tel: +44 1273 645110

Web: www.oceanbusiness.com

Summary: The hands-on ocean science and technology exhibition of 350+ world leading companies with 5,000+ attendees, incorporating in-classroom and on-water training and demonstration sessions showcasing the equipment live and in action, and conferences.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Data Acquisition and Analysis; Marine Science – Equipment, Sensors and Systems; Ocean Data Solutions, Environmental Monitoring and Analysis; Underwater Sensors and Sonar.



### **Oceanic Engineering Consultants**

C1, Incuhive, Hursley Park Road, Hursley, Winchester, Hampshire SO21 2JN

Contact: Thisara Kodagoda, Managing Director Tel: +44 7540 126012

Email: info@oceanic-eng.co.uk Web: www.oec-eng.co.uk

Summary: Oceanic Engineering Consultants provide electrical, control and instrumentation, and mechanical engineering consultancy services in marine, offshore, renewable energy, oil and gas, defence and industrial sectors.

Capabilities: Consulting Services and Design Engineering; Electrical Control, Batteries and Power Management Systems.



### **Oceanology International**

28 The Quadrant, London TW9 1DN

Tel: +44 20 8439 5126
Contact: Michael Enser,
Marketing Manager
Email: michael.enser@rxglobal.com
Web: www.oceanologyinternational.com

Summary: Oceanology International presents two global trade shows, Oceanology International and Oceanology International Americas. These global events are targeted at all those involved in exploring, protecting and sustainably operating in the world's oceans and waterways. Both events deliver access to comprehensive, innovative solutions, content and expertise. The exhibit floors show the full spectrum of ocean technology developments from connectors to AUV's.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Data Acquisition and Analysis; Marine Science – Equipment, Sensors and Systems; Underwater Sensors and Sonar.



### OceanWise Limited

6-7 Delta Park, Wilsom Road, Alton, Hampshire GU34 2RQ

Contact: Katie Eades Email: katie.eades@oceanwise.eu Tel: +44 1420 768262 Web: www.oceanwise.eu

Summary: OceanWise provides applications, services and tools that enable safer and smarter management of marine operations. They specialise in marine environmental monitoring; are the leading provider of marine mapping data worldwide; and are the experts in marine data management.

Capabilities: Above Water Sensors and Radars; Data Acquisition and Analysis Instrumentation and Sensor Technology; Marine Science – Equipment, Sensors and Systems; Port Connectivity and Information Systems.



Offshore Operations Ltd
Office 15, Eagle House, Chelmsford,
Essex CM1 1BD

**Contact:** Joshua Brennan, Managing Director

Email: jb@offshore-operations.com

Tel: +44 204 558 0920

Web: https://offshore-operations.com

Summary: Offshore Operations' manning and recruitment services are provided by a dedicated team of experienced recruitment and HR professionals, with an extensive talent pool prepared to mobilise at short notice.

**Capabilities:** Recruitment, Staffing and Training.





### **P&S Automation Ltd**

Unit 22C&D, West Station Industrial Estate, Maldon, Essex CM9 8PN

Contact: Paul Edwards, Managing Director Tel: +44 1245 322777 Email:

paul.edwards@pandsautomation.com Web: www.pandsautomation.com

Summary: We can provide a one stop shop for marine control and automation systems, calibration, service, repair, design, supply, installation, commissioning and upgrades.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Electrical Control, Batteries and Power Management Systems; Tank Level – Measuring and Alarms.



### **PG Products Ltd**

1 Folgatye Road, Lyngate Industrial Estate, North Walsham, Norfolk NR28 OAJ

Contact: Dennis Simpson, Chief Executive Tel: +44 1692 500390 Email: info@pgproducts.com Web: www.pgproducts.com

**Summary:** We are a manufacturer of MED and SOLAS certified fire safety and chemical safety clothing. Opertating for 30 years in marine industry.

**Capabilities:** Fire Protection Equipment and Systems.



### **Pilgrim International Ltd**

The Etherow Suite, Earl Business Centre, Oldham, Greater Manchester OL8 2PF

Contact: Dominic D'Adamo, Regional Sales Manager Tel: +44 161 785 7700 Email:

sales@pilgrim-international.co.uk

Web: www.pilgrim-international.co.uk

Summary: Pilgrim International Limited is the leading global supplier of controlled bolting and positioning systems, tensioning systems and drive-up systems with over 60 years experience.

**Capabilities:** Deck Equipment and Machinery.



### **Planet Ocean Ltd**

Unit 16, Camberley Business Centre, Bracebridge, Camberley, Surrey GU15 3DP

Contact: Terry Sloane, Managing Director Tel: +44 845 1081457 Email: sales@planet-ocean.co.uk Web: www.planet-ocean.co.uk

**Summary:** Specialist in the provision of gold standard, marine scientific instruments for research, survey and operations support.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Marine Science – Equipment, Sensors and Systems.



### **PML Applications Ltd**

Monomark House, 27 Old Gloucester Street, London WC1N 3AX

Contact: Icarus Allen, Chief Executive Tel: +44 1752 633412 Email: jia@pml.ac.uk

Web: www.pml-applications.co.uk

Summary: A marine science consultancy and service provider, focusing primarily on coastal technologies testing, biofouling, marine environmental services and geospatial applications.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems.



### **Polaris Public Relations**

The Glasshouse, Alderley Park, Congleton Road, Nether Alderley SK10 4ZE

Contact: Ben Pinnington, Managing Director Tel: +44 151 550 4710

**Email:** news@polarismedia.co.uk **Web:** www.polarismedia.co.uk

Summary: Public and media relations, social media, crisis, copy writing, film, websites, design, production of marketing materials.

**Capabilities:** Business Services – PR and Marketing.



### **Port of Tyne**

Maritime House, South Shields, Tyne and Wear NE34 9PT

Contact: Danny Jarvis Email: danny.jarvis@portoftyne.co.uk Tel: +44 191 455 2671 Web: www. portoftyne.co.uk

Summary: Port of Tyne is a modern deep-sea port in North East England that handles cargoes across five continents with top-of-the-line facilities and a customer-centric approach to improve supply chain and business growth.

Capabilities: Port and Terminal – Operators, Public and Private Harbour Authorities.





Portia Management Services Ltd Maritime Centre, Port of Liverpool, Merseyside L21 1LA

Tel: +44 151 949 6262
Email: admin@portiamanagement.com
Web: www.portiamanagement.com

Summary: Portia was established in 1978 and has successfully delivered over 350 assignments in ports and terminal management and operations, training and consulting around the world. Portia delivers independent expertise, combining hands-on support and practical experience.

Capabilities: Port and Terminal –
Infrastructure Master Planning, Design
and Construction; Port and Terminal –
Operators, Public and Private Harbour
Authorities.



### **Primary Networks**

Monomark House, 27 Old Gloucester Street, London WC1N 3AX

Contact: Chris Brown, Commercial Director Tel: +44 7770 325072 Email: cb@pnpuk.co.uk

Web: www.primarynetworks.co.uk

Summary: A UK company specialising in the naval sector who design and manufacture custom computers for comms to meet the recognised defence standards for naval ships and submarines.

Capabilities: Cyber Security and Data Management; Navigation and Bridge Systems - Compasses, Gyros, Instrumentation and ECDIS.



### **Protea Ltd**

10 Prosperity Court, Midpoint 18, Middlewich, Cheshire CW10 0GD

Contact: Karen Canham, Commercial Director Tel: +44 1270 887200 Email: sales@protea.ltd.uk Web: www.protea.ltd.uk

Summary: Specialists in design, manufacture and supply of integrated continuous emissions monitoring and process analyser systems for all types of industrial applications. Protea utilises its own unique advanced technologies to meet customer requirements.

Capabilities: Above Water Sensors and Radars; Engine Emissions Monitoring and Exhaust Aftertreatment; Ocean Data Solutions, Environmental Monitoring and Analysis.



### PSM Instrumentation Ltd

3 Burrell Road, Haywards Heath RH16 1TW

Contact: Mark Jones, Sales Director Email: mark.jones@psmmarine.com Tel: +44 1444 410040 Web: www.psmmarine.com

Summary: Marine approved tank level monitoring and control solutions for all vessel types. Intelligent programmable tank and draught level transmitters and alarm switches, with display options from local gauges to centralised and distributed customised screen presentation.

Capabilities: Instrumentation and Sensor Technology; Tank Level – Measuring and Alarms.

# **QINETIQ**

### **QinetiQ**

Haslar Marine Technology Park; Gosport, Hampshire PO12 2AG

Contact: Ben Sutton, Head of Business Development, Maritime Email: bsutton@qinetiq.com Tel: +44 23 9231 2279 Web: www.qinetiq.com

**Summary:** QinetiQ is an integrated global defence and security company focused on mission-led innovation.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Data Acquisition and Analysis; Safety, Life Saving Equipment and Systems; Submarines - Build, Systems, Equipment and Design; Training and Simulation Systems.



### Quality Monitoring Instruments Ltd 4 East Barnet Road, London EN4 8RW

Contact: Josh Smith, Managing Director Tel: +44 20 7328 3121 Email: josh@oilmist.com Web: www.oilmist.com

Summary: Quality Monitoring Instruments Ltd oil mist detection systems have protected engines and machinery spaces since 1984. Designed and manufactured to ISO standards in the UK, its equipment is respected globally for reliability and robust design.

**Capabilities:** Automation, Control and Alarm Condition Monitoring Systems.





### **RAB Microfluidics**

Unit 9-10, Energy Development Centre, Claymore Drive, Aberdeen Energy Park, Aberdeen AB23 8GD

Contact: Rotimi Alabi Tel: +44 20 7328 3121

**Email:** enquiries@rab-microfluidics.co.uk **Web:** www.oilmist.com

Summary: Microfluidics provide real-time oil analysis, delivering critical laboratory quality data and actionable insights for asset condition management, at a fraction of current costs, anywhere in the world, using lab-on-a-chip technology.

Capabilities: Electronic Instruments and Equipment, Marine Science -Equipment, Sensors and Systems, Ocean Data Solutions; Smart Environmental Monitoring.

# RIVERTRACE

### **Rivertrace Limited**

Unit P Kingsfield Business Centre, Philanthropic Road, Redhill, Surrey RHI 4DP

Contact: Gillian Lovering, Commercial Manager Email: glovering@rivertrace.com Tel: +44 7850 301348 Web: https://rivertrace.com

Summary: An ISO9001 qualityassured company with over 40 years' experience of oil-in-water monitoring technology for a range of applications to not only meet, but go beyond the requirements of tightening environmental legislation.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems; Engine Emissions Monitoring and Exhaust Aftertreatment; Fuels - Fuel Systems and Equipment; Instrumentation and Sensor Technology; Waste Water Treatment.



### **Robosys Automation**

Office W1/38, National Oceanography Centre, European Way, Southampton SO14 3ZH

Contact: Nigel Lee, CSO Email:

nigel.lee@robosysautomation.com

Tel: +44 7500 276555

Web: www.robosysautomation.com

Summary: Robosys is a leading developer of Al driven autonomous marine systems with advanced autonomous navigation for commercial vessels, government and smartshipping. Collision avoidance, dynamic route optimisation, advanced perception, remote / autonomous platform and payload control.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Autonomous Vessels, Remote Operated Vehicles and Robotics; Navigation and Bridge Systems – Compasses, Gyros, Instrumentation and ECDIS.



### **Rockabill Marine Design**

33 Queens Terrace, Southampton, SO14 3BQ

Contact: Ruairi Grimes, Managing Director Tel: +44 755 201 0108

**Email:** rg@rockabillmarine.com **Web:** https://rockabillmarine.com

Summary: RMD combines industryleading concepts with innovative solutions for a smarter approach to vessel design. Services include structural design and naval architecture.

Capabilities: Design – Naval Architecture.



### **Rolls-Royce PLC**

PO Box 3, Filton, Bristol BS34 7QE

Contact: Karen Doble, Marketing Communications Officer Tel: +44 1332 242424 Email:

defenseservicedesk@rolls-royce.com **Web:** www.rolls-royce.com

Summary: Pioneering cutting-edge technologies that deliver the cleanest, safest and most competitive solutions for our planet's vital power needs. Serving 160 armed forces worldwide, we provide mission-critical power and support solutions for naval and submarine fleets.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Cables – Systems and Equipment; Electrical Control, Batteries and Power Management Systems; Fire Protection Equipment and Systems; Port Energy and Power Systems.



### **Roxtec Ltd**

First Floor, Power House, Mason Street, Bury BL9 ORH

Contact: Richard Keith, Divisional Manager – Marine and Offshore Email: richard.keith@roxtec.com Tel: +44 161 761 5280 Web: www.roxtec.com/uk

Summary: Roxtec cable and pipe sealing solutions, certified by Lloyd's Register, DNV, Bureau Veritas, ABS and others, reduce the risks of water ingress, fire, blast and other operational hazards.

Capabilities: Cables – Systems and Equipment; Consulting Services and Design Engineering; Design – Naval Architecture; Fire Protection Equipment and Systems; Seals and Bearings.





### Royal HaskoningDHV UK Limited

Rightwell House, Bretton, Peterborough, Cambridgeshire, PE3 8DW

Contact: Stuart White, Business Unit Director Maritime & Aviation Tel: +44 1444 458551

Email: info@rhdhv.com

Web: www.royalhaskoningdhv.com

Summary: Royal HaskoningDHV is an independent international engineering and project management consultancy leading the way in sustainable development and innovation of maritime infrastructure and operations.

Capabilities: Civil Engineering Consultancy; Port and Terminal – Infrastructure Master Planning, Design and Construction.



### RS Aqua

21/22 The Slipway, Port Solent PO6 4TR

Contact: Martin Stemp Managing Director Tel: +44 2394 004540 Email: info@rsaqua.co.uk Web: www.rsaqua.co.uk

Summary: RS Aqua is an ocean technology provider of powerful and innovative sensors, systems, and platforms that enable ground-breaking science and discovery. Operating in the UK and globally for more than 40 years, we are dedicated to supporting ocean scientists, engineers and the maritime industries.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Design – Naval Architecture; Fire Protection Equipment and Systems; Underwater Sensors and Sonar.

# Safeguard Engineering

integrating safety into systems

### **Safeguard Engineering**

Suite 401 QC30, 30 Queen Charlotte St, Bristol BS1 4HJ

Contact: Darren Matthews, Chief Business Development Officer Email:

enquiries@safeguardengineering.co.uk Tel: +44 7951 820 800

Web: www.safeguardengineering.co.uk

Summary: Safeguard Engineering are a leading specialist provider of safety and environmental consultancy to the Ministry of Defence and their defence industry partners.

Capabilities: Above Water Sensors and Radars; Classification Societies, Regulatory and Registry; Consulting Services and Design Engineering; Navigation and Bridge Systems - Compasses, Gyros, Instrumentation and ECDIS; Regulatory Compliance and Certification.



▲Redefining the way we work offshore

### Sea-Kit International Limited

Blackwater House, Woodrolfe Road, Tollesbury, Essex CM9 8SE

Contact: James Hopper, Business Development Manager Tel: +44 1206 625180 Email: info@sea-kit.com Web: www.sea-kit.com

Summary: SEA-KIT International designs and builds hi-tech, uncrewed surface vessels (USVs) for a range of applications, including maritime logistics, environmental management, security and surveillance, offshore asset monitoring, marine inspection and efficient survey of the ocean floor.

**Capabilities:** Autonomous – Vessels, Design and Equipment.



### SeaBot Maritime Ltd

National Oceanography Centre, Southampton SO14 3ZH

Contact: Gordon Meadow, CEO Tel: +44 7831 411794

Email: info@seabotmaritime.com Web: www.seabotmaritime.com

Summary: SeaBot Maritime provides people-technology integration solutions, with a particular focus on maritime sector skills, training and digital transformation. This enables smarter, cleaner and safer operations, such as SeaBot Maritime's MASS Certified Professional Training Scheme.

Capabilities: Training and Simulation.



### Seawork

Spinnaker House, Waterside Gardens, Fareham PO16 8SD

Contact: Fay Reeve, Exhibition Manager Email: sales@seawork.com Tel: +44 1329 825335 Web: www.seawork.com

Summary: Seawork 2024 is the 25th edition of the leading European commercial marine exhibition and conference. The exhibition runs 11-13 June 2024 in Southampton and is open for business 365 days a year on Seawork.com

**Capabilities:** Publishers, Event Organisers and Event logistics.







### Seetru Ltd

Albion Dockside Works, Bristol BS1 6UT

Contact: Larita Prescott/Edward Flint, Sales Managers

Tel: +44 117 930 6100 Email: sales@seetru.com Web: www.seetru.com

Summary: Seetru is a manufacturer of safety relief and other special purpose ancillary valves for a wide range of applications. It also manufactures liquid level gauges, primarily of two types: sight gauges and magnetic float by-pass gauges.

Capabilities: Engineering Services, Fabrication and Assembly; Fuels – Fuel Systems and Equipment; Instrumentation and Sensor Technology; Safety, Life Saving Equipment and Systems; Tank Level – Measuring and Alarms; Valves, Systems and High Pressure.



### Serco Ltd

Serco House, 11 Bartley Wood Business Park, Bartley Way, Hook, RG27 9UY

Contact: Jamie Black, Strategic Development Director Email: jamie.black@serco.com Tel: +44 7736 089457 Web: www.serco.com/uk/sectorexpertise/defence/maritime

Summary: Serco specialise in the delivery of essential public services to government departments and agencies. Employing around 30,000 people in the UK and employs over 50,000 globally in defence, transport, justice, immigration, healthcare and other citizen services across our four regions: UK & Europe, North America, Asia Pacific and Middle East.

Capabilities: Design – Naval Architecture; Vessel – Owner/Operator.



### **Solar Solve Limited**

7 Waldridge Way, Simonside East Ind. Park, South Shields NE34 9PZ

Contact: Paul Hopkins, Sales & Marketing Executive Email: sales@solasolv.com Tel: +44 191 454 8595 Web: www.solasolv.com

**Summary:** SOLASOLV anti-glare, heat rejecting roller screens for navigation bridge windows.

Capabilities: Accommodation – Systems and Equipment; Interior Design and Furnishing; Windows, Blinds, Frame and Wiper Systems.



### Somers Forge Ltd

Somers Forge, Prospect Road, Halesowen, West Midlands B62 8DZ

Contact: Sales Team Tel: +44 121 585 5959 Email: sales@somersforge.com Web: www.somersforge.com

Summary: Somers Forge Ltd manufacture open die forgings in all types of materials, from 1 kgs-80 tonnes. Specialising in forgings for naval and commercial vessels with lengths of up to 23 m.

Capabilities: Propulsion Systems – Water Jet, Propellers and Equipment; Steering – Systems and Equipment; Submarines – Build, Systems, Equipment and Design.



### **Sonardyne International Ltd**

Ocean House, Blackbushe Business Park, Yateley GU46 6GD

Contact: Graham Brown, Managing Director Email: sales@sonardyne.com Tel: +44 1252 872 288 Web: www.sonardyne.com

Summary: Sonardyne make underwater work. Navigating, positioning, communicating, imaging and measuring; at any depth, for any duration; from any platform – crewed or robotic; safely and responsibly.

Capabilities: Instrumentation and Sensor Technology; Marine Science – Equipment, Sensors and Systems; Ocean Data Solutions, Environmental Monitoring and Analysis; Underwater Sensors and Sonar.



### **NRG Marine Ltd (Sonihull)**

Sonihull House, 11 Mercia Business Village, Torwood Close, Coventry CV4 8HX

Contact: Darren Rowlands, CEO
Tel: +44 2476 101510
Email: office@sonihull.com
Web: www.sonihull.com

# NRG Marine General Trading LLC Sonihull Operation Centre

Block C1, Business Park, ICAD 3, Abu Dhabi, PO Box 9820 Tel: +971 2 546 5463 Email: info@sonihull.com Web: www.sonihull.com

Summary: Sonihull provides a range of fit-and-forget ultrasonic antifouling systems for any surface that is exposed to raw seawater. Sonihull can protect all parts of the vessel including hulls, propellers, and other niche areas.

Capabilities: Anti-Fouling/Bio-Fouling and Anti-Corrosion Systems; Fire Protection Equipment and Systems; Propulsion Systems – Water Jet, Propellers and Equipment; Submarines – Build, Systems, Equipment and Design.





# Southampton Marine and Maritime Institute

University of Southampton, Building 176, Boldrewood Innovation Campus, Southampton SO16 7QF

Contact: Carin Reisinger, Institute Coordinator Email: smmi@southampton.ac.uk Tel: +44 2380 592316 Web: www.southampton.ac.uk/ research/institutes-centres/marinemaritime-institute

Summary: Southampton Marine and Maritime Institute work with partner organisations to tackle global marine and maritime challenges. From developing green technologies to influencing government policy, their experts from across the University of Southampton improve quality of life and the environment.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Data Acquisition and Analysis; Fuels – Fuel Systems and Equipment; Noise and Vibration Control; University, College and Research Institution.



### **Stehr Consulting Ltd**

7/8 Avon Reach, Monkton Hill, Chippenham, Wiltshire SN15 1EE

Contact: Ashley Stehr,
Director and Principal Consultant
Email: enquiries@stehrconsulting.co.uk
Tel: +44 7584 039 085
Web: www.linkedin.com/company/
stehr-consulting-ltd

Summary: Stehr Consulting Ltd is a dynamic and forward-thinking Technology and Engineering Consultancy with a bold vision to "change the world by unlocking the potential of innovative technology". Their focus revolves around Decarbonisation, Digitalisation and Disruption.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Classification Societies, Regulatory and Registry; Consulting Services and Design Engineering; Regulatory Compliance and Certification; Shipping Business Intelligence and Analysis.



### **STS Marine Solutions**

1 The Cloisters, Sunderland SR2 7BD

Contact: Andrew Wheatley, Head Of Operations, Business Development & Marketing Email: enquiries@stsms.com Tel: +44 191 568 1820 Web: www.stsmarinesolutions.com

Summary: STS Marine Solutions Ltd are the industries go to company for their marine requirements for ship to ship transfers and energy supply chain solutions.

Capabilities: Cargo Handling Equipment and Control Systems; Logistics and Supply Chain Solutions.



### SubSea Craft Ltd

The Camber, East Street, Portsmouth POI 2JJ

Contact: Lee Herron, Senior Business Development Manager Email: Iherron@subseacraft.com Tel: +44 7469 444252 Web: https://subseacraft.com

Summary: SubSea Craft is a UK based technology SME with a mission to deliver the competitive edge in maritime technology. We are not a requirements-based company, rather a product-focused enterprise delivering what the market needs.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Design – Naval Architecture; Vessel – Build Materials.

# spinlock

### Spinlock Ltd

Birmingham Road, Cowes, PO31 7BH

Contact: James Hall, Sales & Marketing Manager Email: james@spinlock.co.uk Tel: +44 1983 295555 Web: www.spinlock.co.uk

Summary: Based in Cowes, Isle of Wight, UK Spinlock is a manufacturer of personal protective equipment including lifejackets, PFD's harnesses and accompanying equipment for the industrial marine user. Manufactured in the UK, the Spinlock range is exported to over 65 countries, supporting users in a wide range of industrial applications.

**Capabilities:** Safety, Life Saving Equipment and Systems.



### **Stone Marine Propulsion**

Dock Road, Birkenhead, Merseyside CH41 1DT

Contact: Jonathan Shaw, Managing Director Email: js@smpropulsion.com Tel: +44 151 652 2372 Web: www.stonemarinepropulsion.com

Summary: Stone Marine Propulsion is one of the world's leading designers and manufacturers of ship propellers. Their latest design, the NPT, reduces fuel consumption and emissions and is already being proven in service on many vessels.

**Capabilities:** Propulsion Systems – Water Jet, Propellers and Equipment.





### SyScada Dynamic Engineering

Unit 4, Kiln Park, Middleton Little Road, Allerton Bywater WF10 2FX

Contact: Mark Sinclair, PA to MD Email: mark.sinclair@syscadade.com Tel: +44 1977 516163 Web: www.syscadade.com

Summary: Decarbonisation Technology; Specialist Engineering Consultants in Design; Systems Integration; Control and Automation; Lloyd's Design Assured Alarm Management System with Monitoring Capabilities for Workboats; Commercial and Navy Vessels; Retrofit and Newbuild.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Autonomous Vessels, Remote Operated Vehicles and Robotics; Consulting Services and Design Engineering; Fuels – Fuel Systems and Equipment; Shipyards – Newbuilding, Repair and Conversion.



# Systems Engineering & Assessment Limited (SEA)

Pottington Business Park, Riverside Rd, Barnstaple EX31 1LY

Contact: Alice Moore, Marketing Manager Email: alice.moore@sea.co.uk Tel: +44 1271 337 500 Web: https://sea.co.uk

Summary: Developing and delivering advanced Defence and Transport Management solutions to make the world safer, cleaner and more efficient.

Capabilities: Data Acquisition and Analysis; Engineering Services, Fabrication and Assembly; Instrumentation and Sensor Technology; Mine Countermeasure and Anti-Submarine Warfare (ASW) Systems; Underwater Sensors and Sonar.



### Teignbridge Propellers Int Ltd

Forde Road, Newton Abbot, Devon TQ12 4AW

Contact: Mark Phare, Managing Director Tel: 01626 333377

Email: sales@teignbridge.co.uk Web: www.teignbridge.co.uk

Summary: World leading designer and manufacturer of high performance propellers, shaftlines and rudders for motor yachts, superyachts, commercial and military vessels.

**Capabilities:** Propulsion Systems – Water Jet, Propellers and Equipment.



### Templar Executives

83 Victoria Street, London SW1H 0HW

Contact: Anu Khurmi, Managing Director - Global Services Tel: +44 20 3542 9075 Email: enquiries@templarexecs.com Web: www.templarexecs.com/mcert

Summary: Providing cyber security consultancy, products and services, including the maritime cyber emergency response team (MCERT), cyber risk assessments and education and training courses, enabling proactive operational resilience for organisations and vessels.

**Capabilities:** Consulting Services, Cyber Risk Management.

# THALES Building a future we can all trust

### **Thales**

350 Longwater Avenue, Green Park, Reading RG2 6GF

Contact: Julie Martin, Senior Account Director – Royal Navy & Babcock International Email:

Julie.Martin@uk.thalesgroup.com Tel: +44 7976 123156

Web: www.thalesgroup.com/uk

Summary: Thales equips over 50 navies with world-class technologies, empowering them to protect national interests whilst keeping their people safe, above and below the waves. Our solutions make a difference on nearly every platform in service.

Capabilities: Above Water Sensors and Radars; Autonomous Vessels, Remote Operated Vehicles and Robotics; Submarines – Build, Systems, Equipment and Design; Underwater Sensors and Sonar.



### **Tony Team Ltd**

Unit 6, Station Road, Bakewell Derbyshire DE45 1GE

Contact: Victoria Head, Managing Director Tel: +44 1629 813859 Email: sales@tonyteam.co.uk Web: www.tonyteam.co.uk

**Summary:** Manufacturer of marine waste management equipment-waste compactors, card balers, glasscrushers and food waste solutions.

and lood waste solutions.

Capabilities: Galley – Systems and Equipment.



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### **Tor Group**

9 Hadley Road, Enfield, Middlesex EN2 8JT

Email: info@tor-group.net Web: www.tor-group.net

Summary: Tor Group is a trusted shipbuilder applying deep engineering knowledge and innovation to provide high quality, sustainable vessels. Tor Group has also diversified into vessel ownership and the provision of flexible maritime finance solutions.

Capabilities: Shipyards - Newbuilding, Repair and Conversion; Vessel -Owner/Operator.



### **Twiflex Limited**

Ampthill Road, Bedford MK42 9RD

Contact: Andy Smith, Market Manager - Marine & Offshore Systems Email: andy.smith@regalrexnord.com Tel: +44 1234 324 305 Web: www.wichita.co.uk www.twiflex.com

**Summary:** Designs and manufactures a wide range of pneumatic and hydraulic clutches, brakes and controls, suitable for main propulsion, auxiliary drives and deck machinery applications.

Capabilities: Deck Equipment and Machinery; Fire Protection Equipment and Systems; Propulsion - Auxiliary Wind Propulsion, Systems and Equipment; Propulsion - Electric Motors and Systems; Propulsion Systems - Water Jet, Propellers and Equipment.



### **UK Hydrographic Office**

Admiralty Way, Taunton TA1 2DN

Contact: Leo McLeman Email: customerservices@ukho.gov.uk Tel: +44 1823 484 444

Web: www.admiralty.co.uk/about-us

**Summary:** The UK Hydrographic Office is a world-leading centre for hydrography, providing data and expertise to support safe, secure and thriving oceans.

Capabilities: Cyber Security and Data Management; Data Acquisition and Analysis; Logistics and Supply Chain Solutions; Ocean Data Solutions, **Environmental Monitoring and** Analysis; Software and IT Solutions.



### **Ultimate Boats**

8 St. George's Street, Douglas, IM1 1AH, Isle of Man

Contact: Jason Purvey, Director, Sales & Business Development Email: marketing@ultimate-boats.com Tel: +44 141 941 04477 Web: www.ultimate-boats.com

Summary: Ultimate Boats is an innovative maritime technologies and manufacturing company headquartered in Douglas, Isle of Man. They exist to develop the world's most advanced high-performance craft for commercial, military, tactical and law enforcement operations. Their dedication to advanced naval architecture, marine and ocean engineering has instilled in their company a set of values that have become engrained in their way of doing things. The Ultimate Boat Company is continually improving and upgrading its product range, and this relentless pace of innovation informs the wider organisation.

Capabilities: Design - Naval Architecture; Shipyards -Newbuilding, Repair and Conversion; Vessel - Build Materials.



### **University College London**

The Marine Research Group, The Department of Mechanical Engineering, London WC1E 7JE

Contact: Richard Bucknall, Professor of Marine Systems Tel: +44 7679 3777 Email: ucemrwb@ucl.ac.uk Web: www.ucl.ac.uk/mechanicalengineering/research/marine

Summary: Marine research and education.

Capabilities: University, College and Research Institution.



### **University of Plymouth** Drake Circus, Plymouth PL4 8AA

Contact: Kevin Forshaw, Director of Industrial & Strategic Partnerships Email: kevin.forshaw@plymouth.ac.uk Tel: +44 7814 288507 Web: www.plymouth.ac.uk

Summary: The University of Plymouth is globally leading in all aspects of marine and maritime research. They apply specialist facilities and expertise to create thought leadership for a future of safe, sustainable and efficient maritime operations.

Capabilities: Above Water Sensors and Radars; Autonomous Vessels, Remote Operated Vehicles and Robotics; Cyber Security and Data Management; Data Acquisition and Analysis; University, College and Research Institution.





### **University of Strathclyde**

Henry Dyer Building, 100 Montrose Street, Glasgow G4 0LZ

Contact: Evangelos Boulougouris,

Professor

Tel: +44 141 548 4094

Email:

evangelos.boulougouris@strath.ac.uk **Web:** www.strath.ac.uk

Summary: UoS conducts world-leading research, covering a broad-spectrum of topics from ship safety design to oceanography, supported by state-of-the-art research and testing facilities - towing/wave tank, hosts research centres including MarRI-UK, collaborates with a wide-range of external partners.

Capabilities: Consulting Services and Design Engineering; Data Acquisition and Analysis; Design – Naval Architecture; Training and Simulation Systems; University, College and Research Institution.



### **Valeport**

Valeport Limited, St. Peter's Quay, Totnes, Devon TQ9 5EW

Contact: Kevin Edwards, Chief Commercial Operations Email: sales@valeport.co.uk Tel: +44 1803 869 292 Web: www.valeport.co.uk

Summary: Established in 1969, Valeport designs and manufactures instrumentation for the oceanographic, hydrographic and hydrometric communities, with a worldwide customer base.

Capabilities: Above Water Sensors and Radars; Marine Science – Equipment, Sensors and Systems; Ocean Data Solutions, Environmental Monitoring and Analysis; Underwater Sensors and Sonar.



### Valmet Ltd

3 Elmwood, Chineham Business Park, Basingstoke RG24 8WG

Contact: Chris Heywood, Country Manager (UK & Ireland) Tel: +44 1256 376200

Email: uk\_automation@valmet.com Web: www.valmet.com

WWW.vairrice.com

Summary: Our Valmet DNA system is modular, flexible, scalable for a wide range of ship types and application tasks. Valmet sets a new standard in ship automation by offering condition-based vibration monitoring and energy management systems fully integrated into the automation system. Valmet is also the first company to introduce a dual water hybrid scrubber to the marine market. The hybrid scrubber is a combination of an open and closed loop scrubber where airborne emissions can be kept within regulatory limits in a costefficient way.

Capabilities: Automation, Control and Alarm Condition Monitoring Systems; Ballast Water, Scrubbers, Separators and Oil in Water Systems; Ocean Data Solutions, Environmental Monitoring and Analysis.



### **Varivane Industries Ltd**

Unit 4, Nursteed Industrial Estate, Wiltshire SN10 3EW

Contact: Martin Brown, Managing Director Tel: +44 1380 723624 Email: info@varivane.com Web: www.varivane.com

Summary: Varivane Industries has been supplying accommodation furniture, soft furnishings, medical equipment and ammunition stowages to Navies across the world for over 50 years. Varivane is currently supplying equipment for Type 26 and Type 31 programmes. Varivane hold the MoD enabling contract for ships furniture and soft furnishings.

Capabilities: Interior Design and Furnishing; Submarines – Build, Systems, Equipment and Design.



### **Victor Marine**

Unit 7, Waterloo Court, Markham Lane, Markham Vale, Chesterfield S44 5HN

Contact: Costas Salatas, Sales & Marketing Manager Email: sales@victormarine.com Tel: +44 1708 899 780 Web: www.victormarine.com

Summary: Victor Marine are specialists in the design and manufacture of Oily Water Separators, Sewage Treatment Plants, Gas Freeing Fans and Tank Washing Machines, supplying standard and bespoke solutions through a global network of Agents.

Capabilities: Ballast Water, Scrubbers, Separators and Oil in Water Systems; Cargo Handling Equipment and Control Systems; Deck Equipment and Machinery; Waste Water Treatment.



### **Voith Turbo Ltd**

6 Beddington Farm Road, Croydon, CRO 4XB

Contact: Tim Boys, Marine Sales

Engineer

Tel: +44 7970 820546 Email: tim.boys@voith.com Web: www.voith.com

Summary: Voith is a manufacturer of electric and mechanical propulsion drives. Its driveline technologies applications are suitable for main and auxiliary propulsion. It can provide a complete thruster solution tailored to meet your demand and needs.

Capabilities: Propulsion – Electric Motors and Systems; Propulsion Systems - Water Jet, Propellers and Equipment.



# VULKAN COUPLINGS

### **VULKAN Couplings**

Archer Road, Armytage Road Industrial Estate, Brighouse, West Yorkshire HD6 1XF

Contact: Adrian Birkin, Managing Director Tel: +44 1484 712273

Email: adrian.birkin@vulkan.com Web: www.vulkan.com

**Summary: VULKAN Couplings is a** division of the globally active VULKAN Group. For more than 130 years we have been developing, producing and marketing innovative system solutions for marine drive technology. We are the market and technology leader in the development of highly flexible couplings for marine engines, shaft systems and elastic mounts.

Capabilities: Engines (HFO/Diesel/ Dual/Alternate) - Servicing and Spare Parts; Port Energy and Power Systems; Propulsion – Electric Motors and Systems; Propulsion Systems - Water Jet, Propellers and Equipment.





### **Warsash Maritime School**

Solent University, East Park Terrace, Southampton SO14 OYN

Contact: Short Course Sales Team Email:

wms.shortcoursesales@solent.ac.uk Tel: +44 23 8201 3074

Web: https://maritime.solent.ac.uk

Summary: Warsash Maritime School is the only maritime training centre of its kind worldwide. It offers over 150 accredited deck, engineering, interior, maritime and offshore safety training courses approved by the MCA and other awarding bodies.

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Consulting Services and Design Engineering; Design – Naval Architecture; Training and Simulation Systems; University, College and Research Institution.



### Wärtsilä Shaft Line Solutions

4 Marples Way, Havant, Hampshire **PO9 1NX** 

Contact: Chris Rowlands. Managing Director Tel: +44 23 9249 2123

Email: spares@wartsiladefence.com

Web: www.wartsila.com

Summary: Wärtsilä is a global leader in innovative technologies and lifecycle solutions for the marine and energy markets. Wärtsilä Shaft Line Solutions provides propulsion shaft line products and systems to naval submarines and ships.

Capabilities: Engineering Services, Fabrication and Assembly; Seals and Bearings; Spare Parts and Components Suppliers; Submarines - Build, Systems, Equipment and Design.



### **Watson Farley & Williams**

15 Appold Street, London, EC2A 2HB

Contact: Meryl Rowlands, Business Development Manager

Tel: +44 203 314 6481 Email: mrowlands@wfw.com Web: www.wfw.com

**Summary:** WFW provides integrated cross-border advice on the key legal issues relevant to the maritime sector, advising in relation to: finance (including ECA lending and debt capital markets), corporate (including private equity, M&A, joint ventures and restructurings), commercial contracts (including charter parties, shipbuilding and off shore construction arrangements), dispute resolution, employment and immigration, tax and regulatory (including ESG and environment).

Capabilities: Business Services - Finance, Tax, Audit, Legal and Insurance

### Welin Lambie



### Welin Lambie Ltd, part of Fairbanks Morse Defense

Britannia House, Old Bush Street, Brierley Hill, West Midlands DY5 1UB

Contact: Sebastian Freeman. Regional Sales Director Email:

sebastian.freeman@FMDefense.co.uk

Tel: +44 13 847 8294

Web: www.fairbanksmorsedefense. com/solutions/uk-davit-systems

Summary: Welin Lambie is part of Fairbanks Morse Defense. Their portfolio includes: Davits, Launch and Recovery Systems, Complex Handling Solutions, Weapons and Cargo Lifts, Elevators, Deck Equipment and Water

Capabilities: Autonomous Vessels, Remote Operated Vehicles and Robotics; Cargo Handling Equipment and Control Systems; Deck Equipment and Machinery; Engineering Services, Fabrication and Assembly; Hatches, Hatch Covers and Equipment.



### **Wesco Anixter**

Birmington Road North, Old Whittington, Chesterfield S41 9BE

Contact: Gary Harvey, Senior Manager – Defence & Marine

Email: gary.harvey@wescodist.com

Tel: +44 7795 378066 Web: www.anixter.com

Summary: Wesco Anixter, with over 20 years in the Defence and Marine industry, delivers unrivalled supply chain solutions. Annually delivering 80 million+ products to Marine and Defence, they provide an average 17% savings to their customers.

Capabilities: Cables - Systems and Equipment; Electrical Control -Batteries and Power Management Systems; HVAC - Heating, Air Conditioning, Ventilation, Refrigeration Systems and Ducting; Hydraulics - Systems and Equipment.





Wescom Group Wilne Mill, Draycott, Derby DE72 3QJ

Contact: Sean McCrystal, Marketing Director Email:

sean.mccrystal@wescom-group.com Tel: +44 1332 871100

Web: https://wescom-group.com

Summary: Wescom Group is the leading manufacturer of marine survival solutions including pyrotechnic and electronic distress signals, marine medical kits and emergency rations and water for the commercial marine market, supplying worldwide through its distributor network.

Capabilities: Safety, Life Saving Equipment and Systems.



### **Whippendell Marine Limited**

3 Bradbourne Drive, Tilbrook, Milton Keynes MK7 8AJ

Contact: Farrell Mossop Email: sales@whippendell.co.uk Tel: +44 1923 228201

Web: https://whippendell-marine.co.uk

**Summary:** Whippendell Marine provides electrical solutions for harsh environments, examples include:

- Embarked Aviation Ground Power Systems
- Ruggedised Cabinets, Racks and Enclosures
- · Operator Consoles
- Motor Starters
- · Power and Distribution Panels

Capabilities: Electrical Control, Batteries and Power Management Systems; Engineering Services, Fabrication and Assembly.



Xylem Analytics UK Ltd Unit 7 Dunham's Court, Letchworth SG6 IWB

Contact: David Goldsmith,
Director of Ocean & Coastal Business
Email: sales.uk@xylem.com

Tel: +44 1462 673581

Web: www.xylem.com/en-uk

Summary: Xylem is a major global manufacturer of market leading brands including YSI, SonTek, and Aanderaa. Providing oceanographic and water quality instrumentation and systems for real-time continuous monitoring in the marine environment.

Capabilities: Above Water Sensors and Radars; Instrumentation and Sensor Technology; Marine Science – Equipment, Sensors and Systems; Ocean Data Solutions, Environmental Monitoring and Analysis; Underwater Sensors and Sonar.



Westley Group Ltd PO Box 1, Doulton Road, Cradley Heath B64 5QS

Contact: Chris Rowlands, Chief Technical Officer Email:

chris.rowlands@westleygroup.co.uk
Tel: +44 1384 410111

Web: www.westleygroup.co.uk

**Summary:** Trusted supplier of complex castings and machining for critical naval and marine metal ware.

Capabilities: Propulsion Systems – Water Jet, Propellers and Equipment Seals and Bearings; Spare Parts and Components Suppliers; Submarines – Build, Systems, Equipment and Design; Valves, Systems and High Pressure.



Windship Technology Ltd
1 Silk Street, London EC2Y 8HQ

Contact: Graham Harvey, CEO
Tel: +44 1590 672000
Email: info@windshiptechnology.com
Web: www.windshiptechnology.com

Summary: Windship Technology is a provider of WAP and emissions reduction technology including wind rigs, modular diesel electric drive trains, solar panels and carbon capture systems which in combination can provide zero CO<sub>2</sub> emissions ships.

Capabilities: Propulsion – Auxiliary Wind Propulsion and Systems Equipment.



### Zizo

8 Douglas House, 32-34 Simpson Road, Milton Keynes, Buckinghamshire MK1 1BA

Contact: Matthew Napleton, Chief Commercial Officer Tel: +44 1908 366662 Email: sales@zizo.co.uk Web: www.zizo.co.uk

Summary: Zizo provide data engineering and analytics solutions, solving complex problems through consulting and technology. We focus on internet of things and Edge computing across the maritime space.

Capabilities: Above Water Sensors and Radars; Cyber Security and Data Management; Data Acquisition and Analysis; Deck Equipment and Machinery; Navigation and Bridge Systems – Compasses, Gyros, Instrumentation and ECDIS; Ocean Data Solutions, Environmental Monitoring and Analysis.



TO SEE YOUR ENTRY IN THE 2025 DIRECTORY THEN PLEASE CONTACT...

T: +44 20 7628 2555



# Building connections and growing support

We help our members to connect with new partners, clients and suppliers, both in the UK and internationally, via a busy programme of face to face and online events

The Annual SMI conference and dinner brings together leaders and innovators from across the maritime sector for networking, business partnerships and ideas exchange to drive the industry forward













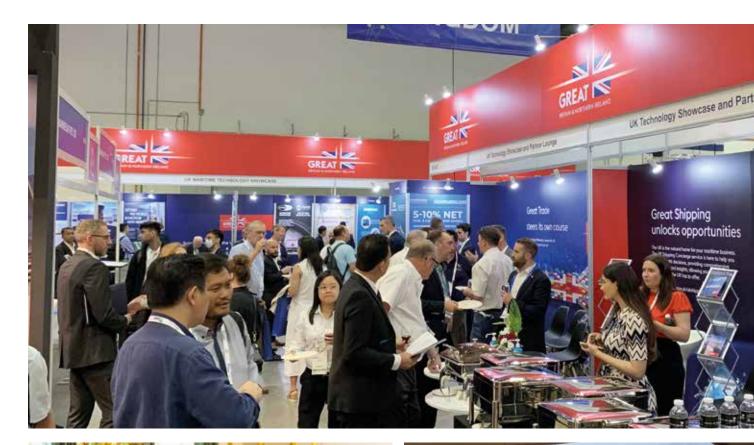






# Did you see us?

Here is a selection from 2023







SMI actively promotes member interests globally at industry exhibitions and conferences



SMI exhibition booths always attract global interest. Our team connects international buyers with UK industry











### WHO'S WHO AT SMI







John Howie MBE President



Brian Johnson Chair



**Sheldon Ryan** SMI & Maritime UK Innovation Manager



**Ryan Mowat** MSTG Council Chair



**David O'Sullivan** MASG Council Chair



Richard Powell OBE MDSG Council Chair



Gordon Rankine PTG Council Chair



**Kevin Robertson** CMG Council Chair



# Maritime UK is proud to work with the SMI to champion and enable a thriving maritime sector

Maritime UK National Priorities



## **People**

We want to attract, train and retain the next generation of workers to build a solid pipeline of homegrown talent, enabling us to preserve the UK's maritime heritage and drive business growth.



### **Innovation**

We want to promote deliverable solutions to the main challenges facing our maritime industries by facilitating collaboration between stakeholders from industry, government and academia.



# Regions

We want to build a Coastal Powerhouse that will unleash economic prosperity and drive social mobility by creating a network of regional maritime clusters that foster cooperation between industry, local government and educational institutions.



### **Infrastructure**

We want to build the infrastructure required to supply the next generation of green vessels and maximise our sector's contribution to the development of offshore wind, speeding up maritime decarbonisation and increasing UK energy security in the process.



# **Environment**

We want to bring about the deployment of green fuels and speed up the decarbonisation of the maritime sector, enabling the UK to reach Net Zero before the middle of the twenty-first century.



# KNOWLEDGE THROUGH RESEARCH

# SOUTHAMPTON MARINE & MARITIME INSTITUTE

The Southampton Marine and Maritime
Institute has an international pedigree across
the spectrum of ocean science and engineering,
maritime law and maritime archaeology,
focused around five research themes. We also
offer a diverse range of education opportunities
across the marine and maritime space.

THEMES



Climate & Environment



Energy & Resources



Trade & Transport

# Find out more

For more details about marine and maritime capabilities and opportunities at the University of Southampton, visit: www.southampton.ac.uk/smmi or email: smmi@southampton.ac.uk



Society & Government



Heritage & Culture