Hong Kong Convention
What is the impact of the long-awaited Convention?

Proman
Andrew Craig explains why methanol is a key fuel for the future of the maritime industry

Sustainable Maritime Fuels
Exploring the fuels of the future: biofuels, ammonia, nuclear

Buquebus
Horacio Martire talks to HFW about launching the world’s largest fully electric ferry

Charity Partner Focus
Human Rights at Sea
Welcome to the latest HFW Sustainability Quarterly.

This first shipping edition of SQ offers a collection of insightful conversations and sustainability updates from across the shipping industry. In the wake of COP28, this shipping edition focusses on low carbon and sustainable fuel pathways presenting themselves to the shipping industry as it strives towards decarbonisation.

We are fortunate to feature two exclusive client interviews, exploring the significance of methanol as a future sustainable maritime fuel with Andrew Craig, Executive Director of Corporate Finance at natural gas products leader Proman, and discussing challenges and opportunities of sustainable innovation with Horacio Martire, Managing Director of zero-emissions ferry operator Buquebus.

HFW associates Alex Andreou, Joseph Malpas and Johanna Ohlman provide valuable insights into the evolving landscape of alternative sustainable maritime fuels, focusing on Ammonia, Biofuels and Nuclear propulsion, while HFW Partner William MacLachlan and CAR Brazilian maritime lawyer Carolina França discuss the complex ship recycling regulatory framework and the future entry into force of the Hong Kong Convention.

Finally, we hear from HFW’s charity partner, Human Rights at Sea, sharing perspectives on advocacy, fundamental rights, and the increasing importance of championing equality at sea.

We hope you enjoy this issue and share our enthusiasm for a multi-fuel landscape that supports sustainable practices in the shipping industry.

My thanks to the HFW authors and client interviewees, as well as the editorial team and those working behind the scenes to publish this shipping focussed edition.

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What is the impact of the long-awaited arrival of the Hong Kong Convention?

On 26 June 2023, Bangladesh and Liberia acceded to the Hong Kong Convention for the Safe and Environmentally Sound Recycling of Ships, 2009 (the HKC). In doing so they enabled the HKC to meet the criteria for its entry into force some 14 years after its adoption and, consequently, the IMO has confirmed that the HKC will come into force on 26 June 2025.

This was a seminal moment for the HKC and both the ship recycling industry and wider shipping industry. At the time of the HKC’s adoption, a particularly complex set of criteria for entry into force was agreed and, for many years, it has looked like these criteria might not be met. Now that it has, what impact is it likely to have?

It is the aim of the HKC to ensure that end of life ships, when recycled, do not pose an unnecessary risk to human health and safety or to the environment. The HKC’s coming into force impacts both ship owners and their flag states as well as the ship recyclers and the jurisdictions in which they operate.

Once in force, ships flying the flag of a Contracting State must carry a valid Certificate of Compliance. This effectively applies the standards of the HKC’s Contracting States (currently principally Turkey, India and Bangladesh) will take on responsibility for ensuring compliance with the HKC of their ship recycling facilities and downstream waste management arrangements.

The HKC has the potential to bring about the broad application of at least a minimum standard when it comes to the safe and environmentally sustainable recycling of end-of-life ships. However, the extent to which it succeeds in doing so depends heavily on how fairly and effectively it is enforced by flag state authorities.

For ship owners and their flag states, the HKC introduces a number of requirements and restrictions, including the need to ensure that ships meeting specific criteria are recycled in the EU, or in a Contracting State that meets certain conditions. This is enforced by flag states, port states and ship recycling facilities for their voluntary participation.

The HKC also faces the challenge of its interpretation of the standards. If the standards are not properly upheld, as some are predicted to be, vessel owners and their flag states will need to meet the HKC’s criteria for its entry into force.

In 2015, tired of waiting for the HKC, the EU adopted its own version in the form of the Ship Recycling Regulation (the SRR). This effectively applies the standards of the Basel Convention to all ships registered in a Contracting State, which has a stated aim of growing its ship recycling industry, are not signatories to the HKC. This means that ships recycling in their jurisdictions are regulated by scattered legislation, both domestic and international, including the Basel Convention. Brazil’s failure to become a signatory to the HKC results in a regulatory void which might, in part, be filled by application of the Basel Convention. However, this may result in a tension between the application by Brazil of the Basel Convention and its domestic laws, and the application of the HKC by a vessel’s flag state.

Confusion is inevitable and the ship owner will be caught in the middle. How this plays out and whether the HKC becomes the global ship recycling regulation it was hoped for remains to be seen. What is certain, is that all ship owners must continue to take ownership of their ship recycling projects and take seriously the risk of a breach under any of the competing regimes.

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1. For more information on the HKC and its background, see Recycling of ships (imo.org) 
4. For more information on Basel Convention » Implementation » Legal Matters » Ban Amendment » Overview

In 2015, tired of waiting for the HKC, the EU adopted its own version in the form of the Ship Recycling Regulation (the SRR). This effectively applies the standards of the Basel Convention to all ships registered in a Contracting State, which has a stated aim of growing its ship recycling industry, are not signatories to the HKC. This means that ships recycling in their jurisdictions are regulated by scattered legislation, both domestic and international, including the Basel Convention. Brazil’s failure to become a signatory to the HKC results in a regulatory void which might, in part, be filled by application of the Basel Convention. However, this may result in a tension between the application by Brazil of the Basel Convention and its domestic laws, and the application of the HKC by a vessel’s flag state. Confusion is inevitable and the ship owner will be caught in the middle. How this plays out and whether the HKC becomes the global ship recycling regulation it was hoped for remains to be seen. What is certain, is that all ship owners must continue to take ownership of their ship recycling projects and take seriously the risk of a breach under any of the competing regimes.
It’s become clear that one of Proman’s main objectives is to have a positive impact on communities, economies and the environment. How do you go about achieving this? We very much focus on tangible action and not just words. It is a cornerstone of our sustainability approach. We need to think in months and years rather than decades if we are to have a chance of reducing overall GHG emissions as soon as possible. We took an early decision to invest in methanol-fuelled ships, and also chose to invest early on in developing a world-scale and hugely innovative waste-to-methanol plant, which is now in construction in Varennes, Canada. On top of that we are launching, along with Stena Bulk, the Low Emission Methanol Shipping Company (LEMSCO) as an Article-9 compliant investment fund to enable others to invest in bridging the energy transition funding gap to reduce emissions for global shipping.

When we started our operations in Trinidad & Tobago over 35 years ago we decided to put a major focus on long-term skills development. We invested in a company which would train and develop a pipeline of talented local process engineers and operators to run our world-scale plants. Now the country has best in class process plant operations personnel and our operational teams have worked on managing and commissioning industry-leading plants around the world. Long-term investment in local content and businesses is in our business DNA. Where are we in the transition away from traditional fossil fuel in the shipping industry of today? The shipping industry has a hugely important role as it represents three percent of all global GHG emissions. Both consumer and regulators expect better, but we must acknowledge it is still the most efficient means of transporting goods around the world, surpassing planes, trains and cars.

The industry is looking at lots of solutions, such as slow steaming or on-board carbon capture. However, the only thing that will get shipping emissions down to zero is alternative fuels. Right now we are starting from a very low base. The previous generation of bunker fuels were very energy dense but hugely polluting ‘bottom of the barrel’ products. There have been improvements but there is still a long way to go. There is – rightly – a big focus on CO2, but shipping generates a massive amount of other pollutants including black carbon or soot, nitrogen oxides and sulphur oxides, which all have an even greater environmental and health impact. We need to urgently look at driving down the full suite of shipping emissions. The objective is net zero but the imperative is to reduce emissions as much as possible, as soon as possible.

As an industry we recognise that methanol is a key marine fuel of the future. What role does it play in shipping’s long term path to becoming a sustainable industry both in terms of climate and human health? There is no perfect solution to the shipping transition, and no silver bullet. We support all solutions. As a major ammonia producer, we have a significant role in creating a decarbonised fuel source in the future. Methanol is the best of the solutions available right now as it delivers immediate major GHG reductions and a pathway to net zero. Methanol can reduce sulphur oxides and particulate emissions significantly compared to conventional marine fuels. Blending in greater quantities of blue and green methanol will increase as production ramps up and these products become more available and cost-competitive. It is also technology proven, simple to use, and inexpensive to adapt storage infrastructure since methanol is, like conventional fuel, liquid at ambient temperatures. This is evidenced by both the rate of methanol new build and retrofit orders, and the variety – there has been growth across all vessel classes.

How far have you seen the infrastructure for the production and distribution of methanol as a marine fuel develop globally, and where do you foresee further growth? The infrastructure for the production and distribution of methanol as a marine fuel is not a major blocker, because it is already a liquid fuel like current bunker fuels. As an example, we recently completed a methanol barge-to-ship bunkering in Antwerp, which took just three days from request to completion. Lots of ports are looking into alternative fuelling and methanol is one of the easiest to manage. There has also been significant development in standards and protocols, with methanol bunkering completed in a number of major ports globally including Singapore, Rotterdam, Antwerp, Ulsan, Houston, and Gothenburg. Across Europe, ports...
have alternative fuels infrastructure regulation (AFIR) mandates which will play a role in driving investment here. How can investors gain access to this space, and how far is investment into this area growing in momentum? Currently, the options for investors in the methanol marine fuel space are somewhat limited. The industry, while growing, hasn’t seen associated investment opportunities open up. The methanol market itself is quite concentrated and we have a lot of specialist knowledge at Proman, which together with Stena’s experience in shipping, places us uniquely. While we’re aware of a handful of investment vehicles trying to break into this space, LEMSCO has a unique advantage in that it has a guaranteed methanol supply from Proman, ensuring that vessels in the fund operate on low-emission fuel.

How far has regulation affected the growth of the industry? How important has working with HFW been in the process of creating a suitable contractual framework? Regulation is a major driver. The EU is leading the way, but the International Maritime Organisation plays the most important role. Targets must be set, but country-level policy frameworks need to exist to incentivise investment into lower-carbon and green fuel. There is a major delta between green fuel demand and availability, and blue methanol can play a huge role in meeting it. But it is important to remember that installing Carbon Capture, Usage and Storage (CCUS) technology on a plant is a $100m ticket at least. We need policies to incentivise that investment and then enable the use of those products to develop the market. Reliable mechanisms to certify those reduced emissions from cleaner fuels are essential, especially for compliance markets like shipping and transport.

The engagement with HFW has been more than just a client-law firm relationship. It’s been a partnership in the true sense, driving innovation and ensuring growth in the face of evolving challenges. They have been nothing short of excellent in their support and strategic input. They showcased remarkable flexibility and an ability to think outside the box. This innovative approach resulted in solutions that ensured our vessels operated seamlessly within a Luxembourg fund structure. HFW played a pivotal role in this first of its kind structuring, ensuring that the fund could significantly benefit from a share in the returns from the methanol supply.
Interest in biofuels has grown significantly within the maritime sector as it strives to decarbonise.

Biofuels – defined as liquid or gaseous transport fuels, such as biodiesel and bioethanol, made from sustainable biomass or bio-waste – have a number of advantages as a medium to long-term lower carbon alternative to traditional marine fuel oils. For example, biofuels can be carbon neutral if derived from biologically-renewable resources, have non-toxic and biodegradable properties (advantageous in the event of a fuel spill), and result in fewer greenhouse gas (GHG) emissions when burned.

Importantly, biofuels can also be used as a ‘drop-in’ (i.e. replacement) fuel as they are compatible with current ship engines, or alternatively can be blended with conventional marine fuels. Such blends are usually categorised by their biofuel content – for example, a commonly used blend, B24, contains a biofuel content of 24%.

Regulatory frameworks for biofuels are also developing. For example, in June 2022 the IMO approved a Unified Interpretation (UI) of MARPOL Annex VI which clarifies that: (i) fuels with a biofuel content of up to 30% (B30) do not require additional testing for nitrous oxide before being used on vessels; and (ii) fuels of B30 and above can be used with certified engines, subject to approvals. In September 2023, the IMO also published guidance on the carbon conversion factor for biofuels for the Data Collection System (DCS) and carbon intensity indicator (CII) calculations, provided the biofuel in question delivers a well-to-wake emissions reduction of at least 65% compared to fossil marine gas oil (MGO), and subject to flag state implementation.

Notwithstanding the above, challenges remain for the widespread adoption of biofuels in the maritime sector. Leaving aside significant practical issues, like the higher cost associated with biofuels, limited production capability, and competition for their use from other sectors, there are a number of technical, commercial and legal risks for maritime sector participants to consider.

In terms of technical challenges, the use of biofuels and biofuel blends (as biological products) could potentially lead to bacteria and mould growth clogging filters and piping, as well as corrosion/degradation of certain types of hoses, gaskets and rubber sealings. Deposits might also form in engines/piping, leading to reduced operational performance.

As to commercial and legal risks, a key issue is a lack of standardisation. Whilst there are accepted fuel quality standards for the use of biofuels in diesel engines, such as EN 14214-2012, there are no specific standards for the use of biofuels as an alternative shipping fuel, which may lead to contractual uncertainty. Other potential issues/risks that may need to be addressed when considering the use of biofuels and biofuel blends include: (i) approvals from engine manufacturers/flag state/classification societies; (ii) provision of stable and homogeneous fuel by bunker suppliers or time charterers, and relevant allocation of liabilities; (iii) sampling and testing regimes; (iv) on-board fuel management, including any involvement/oversight of this by charterers; and (v) allocation of liability in case of performance reductions caused by consuming biofuel.

In summary, biofuels present an exciting opportunity for shipping’s path to decarbonisation, but like other sustainable marine fuels, challenges remain. HFW are currently assisting clients with bespoke contractual solutions to ensure that these challenges are adequately managed.

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BIOFUELS – exciting opportunities and remaining challenges
AMMONIA – fuel of the future or toxic waste?

Ammonia fuel has already hit the industry press. A number of major shipowners, working with ship builders and classification societies, have announced plans to develop ammonia fuelled engines. While there are no ammonia fuelled vessels currently in operation, in the coming years this innovative technology may become a reality. This article considers some of the challenges the shipping industry faces.

Ammonia’s base chemicals are nitrogen and hydrogen, and it is commonly produced by taking natural gas, air and water and applying high temperature and a catalyst. Efficient ammonia combustion produces nitrogen and water, so, on a “tank-to-wake” basis, it is green. However, on a “well-to-wake” basis, assessing ammonia’s “green credentials” is more challenging and ammonia is categorised as either brown (production from fossil fuels), blue (production from fossil fuels with carbon capture), or green (where the base chemicals and the ammonia production are derived from renewable sources). Brown ammonia is already cheap and widely traded, with coking coal being used for the ammonia production.

Despite this green potential, there are significant challenges and uncertainties with ammonia fuels, with regard to chemical characteristics, infrastructure, and regulatory frameworks.

To store ammonia in a liquid state requires either pressure (one atmosphere) or refrigeration (−33°C). This means that ammonia fuel tanks will require either pressurised, semi-refrigerated, or fully refrigerated tanks/lines. Ammonia also has a much lower energy density than fuel oils and other liquefied gases, so far greater quantities (nearly 5 times as much) will be required onboard compared to conventional heavy fuel oil to obtain the same energy output. This has implications for tank storage space and bunkering frequency.

There are, also, far greater health/hazard issues with ammonia compared to liquid petroleum gas or liquid natural gas (LNG). In its gas state, ammonia is highly toxic and is caustic and corrosive, burning organic material and corroding metals. At 5,000 parts per million, it is fatal to humans, compared to LNG which has health effects for humans at 50,000 parts per million.

The toxicity of ammonia therefore raises specific handling risks. Ammonia fuel will require highly specialised equipment to ensure safe bunkering operations. This would fall under the responsibility of the owner/vessel, which means increased responsibilities and greater know-how and training will be required on the part of the owner/vessel crew to mitigate the handling and safety issues.

As for quality and quantity issues, we see parallels between ammonia and LNG. The quality/price of LNG fuel is assessed by reference to the mass and calorific content. More methane in the LNG means that there is less energy output and lower quality. Ammonia fuel is likely to be assessed similarly by reference to water content, with lower value ammonia containing more water. This is unlike traditional fuel oils, where off-spec issues can arise days later due to sedimentation. Ammonia fuel supply is likely to use gas chromatographs (i.e. separating the gas into its compounds to analyse content) on board the bunker barges, which will provide in-real-time evidence of the quality of ammonia bunkers provided.

In terms of infrastructure, the transition to ammonia fuel will require (i) specialist fuel tanks and engines; (ii) ammonia bunkering vessels; and (iii) terminals/storage capacity ashore for ammonia.

There are presently no international regulations governing the use of ammonia as fuel. Instead, it is the classification societies who are leading developments with their rule notes for ammonia carriage and ammonia fuels.

In theory, ammonia is a prohibited fuel. Instead, it is the classification societies who are leading developments with their rule notes for ammonia carriage and ammonia fuels. Notwithstanding the various challenges, shipbuilders and classification societies are pressing ahead and developing ammonia fuelled vessels. Certain markets may be appropriate for green ammonia fuelled vessels, and South East Asia looks particularly promising. To achieve this, work will be required to develop the right kinds of contractual frameworks which address the specific challenges raised by ammonia fuels, in particular, novel agreements covering supplier-shipowner bunkering terms and provisions in charterparties.

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Taking the NUCLEAR option

Alongside sustainable maritime fuels such as hydrogen, methanol and ammonia, nuclear power is gaining increasing interest across the maritime industry. The International Maritime Organization (IMO) agreed on 7 July 2023 to set a goal of net zero greenhouse-gas emissions for global shipping “by or around 2050.”

This means either cutting off all sources of these emissions or finding ways to balance them out, such as using carbon removal. In order to meet these net zero targets many commentators are now starting to accept that nuclear power should be part of the fuel mix. In this article we focus on the legal and practical issues that will need to change to accommodate nuclear powered vessels into mainstream commercial operation.

A July 2023 feasibility study of advanced modular reactor technology for commercial marine propulsion commissioned by ABS, and an October 2023 economic case study for nuclear propulsion conducted by DNV both reveal that nuclear ships may be a reality in a few years time.

It is important to bear in mind that nuclear technology and its application for ship propulsion is not new. It has been used for decades in naval vessels and during the 1960s and 1970s several experimental nuclear merchant vessels were developed and sailed globally including the American NS Savannah, German Otto Hahn and Japanese Mutsu. What is new, however, are the designs of the reactors themselves and the technology used to control them. The development of Small Modular Reactors (SMRs) has gained pace in several countries and the use of nuclear material suspended in molten salt, for example, is set to potentially put modern nuclear ships on a platform that can compete with alternative sustainable maritime fuel options in the race to net zero.

The current regulatory framework and how nuclear shipping would be regulated in environmental regulations

At the international level, Chapter VIII of the International Convention for the Safety of Life at Sea (SOLAS) and the Safety Code for Nuclear Ships (res. A.491.XII) [Nuclear Code] set out criteria for nuclear vessel design, operation, safety and decommissioning.

At the national level, the UK has recently taken steps to transpose SOLAS Chapter VIII and the Nuclear Code into binding national legislation by way of the Merchant Shipping (Nuclear Ships) Regulations (the UK Nuclear Ships Regulations) and MGN 679(M) [Nuclear Ships] (the MGN).

The IMO’s and EU’s emissions regulations (including the EEXI and CII measures under MARPOL and the EU’s MRV Regulation, EU ETS Directive and FuelEU Maritime Regulation) do not explicitly refer to or seek to regulate nuclear propulsion as a means of compliance. The IMO’s measures generally do not mandate a particular method of compliance, whereas it is unclear how (if at all) emissions from a nuclear ship would be monitored, verified and reported under the EU MRV Regulation and in turn how the EU ETS and FuelEU Maritime would apply to nuclear vessels.

Practical requirements and safety concerns

Infrastructure

The design and construction of the engine room and the power plant will require specialist skills and potential regulation to ensure that shipyards can build and install reactors to adequately high standards. As discussed above, the development of SMRs will hopefully allow nuclear ship construction to be more standardised and may even allow retrofitting of SMRs on existing vessels.

Training

Specific crew training will be necessary, and the requirements are set out in detail in the UK Nuclear Ships Regulations and Nuclear Code. This is likely to require engineers to be trained to operate and maintain the reactors but also in the use and maintenance of steam turbines (assuming that the reactors will be low pressure reactors that turn heat into steam that is then used either as direct propulsion or to generate electricity to indirectly power the vessel).

Specialist knowledge in the fields of salvage and wreck removal would also be required in the event of a casualty involving a nuclear ship. But this in itself is not new – the nuclear submarine Kursk was successfully raised and the sealed by a Dutch consortium from Mammoet and SMIT over 23 years ago, in October 2001. Russia has also announced that it plans to recover four reactors by 2030 – two on the submarine K-159 and two on the K-27.

Late life disposal

After a nuclear vessel has reached the end of its useful life it will need to be safely and securely decommissioned. The safe handling of the reactor and any waste will need to be dealt with in line with the Nuclear Code and other relevant regulations. However, the maritime industry can learn from the oil and gas sector, and classification societies can ensure that any new ship that is built is designed with its safe decommissioning in mind to ensure this can be done in a cost-effective manner.

Change of mindset

Ultimately, the public perception as to the safety of nuclear reactors is likely to be a significant part of the concerns and practical operation of nuclear ships, in particular with regard to port access. The images of Three Mile Island in 1979, Chernobyl in 1986 or Fukushima in 2011 will be prevalent until people are convinced and reassured that the new smaller reactors fitted to nuclear ships are more advanced and operate at lower temperatures, distinguishing them from the risks and reputation of the commercial reactors of the 1970s, 80s and 90s.

Insurance and financial viability

The up-front capital expenditure for a shipowner investing in nuclear power is likely to be high, but this needs to be offset against the fact that a nuclear ship may only need to refuel once in its operational lifetime, if at all. This makes them impervious to market fluctuations for fuel costs which are often the largest component of operating a vessel. The cost of the reactors themselves will need to be lower to compete with other sustainable maritime fuel solutions and so reduce the operating expenses to an amount that is equivalent to or less than a vessel using hydrogen, methanol, ammonia or conventional bunker fuels.

The Vienna Convention on Civil Liability for Nuclear Damage applies strict and exclusive liability of the operator of a nuclear installation for any damage caused, regardless of fault. To make nuclear ships financially viable, operators would therefore need to take out affordable third party liability insurance.

At present, damage caused by nuclear fuel, nuclear waste or from combustion of nuclear fuel is excluded from most marine insurance policies, including P&I cover. Consequently, a merchant nuclear vessel is effectively impossible to insure commercially and this will impact its financial viability.

Conclusion – is nuclear power a viable option for shipping?

Although the regulatory framework for designing and constructing nuclear ships already exists, the practical requirements and cost factors must be further considered to determine when and where nuclear shipping will be a viable option as the maritime industry seeks to decarbonise. What remains clear is that nuclear power can and must have a role if the shipping industry hopes to reach the net zero targets set by the IMO.

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On the cusp of launching the world’s largest, lightweight, fully electric zero emissions ferry, ferry operator Buquebus is at the vanguard of the electric ferry market. We hear from Managing Director Horacio Martínez in his own words about this huge step forward for the industry and what the future holds.

Sustainability is central to our business. Fifteen years ago the technology wasn’t readily available, but we knew even then that we needed to move in the right direction and cut pollution from our fleet down to zero. This began in earnest when we built the Francisco in 2013. This ferry is powered by liquefied natural gas (LNG) and is still currently the fastest passenger ship in service. It is propelled by two General Electric gas turbines, which allow the vessel to burn both diesel and LNG. It was a challenge as LNG was not then readily available in Argentina, so we had to build our own facilities and then develop the regulatory aspects. But our experience with the Francisco was extremely successful from every point of view.

Then, when we started to think about building new vessels, we knew that from a sustainability remit, it would be much better to build one bigger vessel with the capacity to transport the same number of passengers, than two or three smaller ones. At that point in time, going fully electric was not an option. Then Covid hit, and we started having conversations with the shipyard about the possibility of making it happen. They decided that they were willing to accept the challenge and proceeded to put together a complete set of engines, water jets, batteries and everything connected with moving to an electric ship. And that’s how the Chiza Zorrilla, our newest electric zero emissions ferry, came to be.

Our industry has been ready to embrace the change. We have received lots of support from local authorities, but there is no doubt that, from a technological point of view, it is sometimes difficult to be the first. Once you take the risk and you demonstrate that it is possible, then everybody’s willing to follow. I had a conversation with a batteries manufacturer who said they had one battery powered ship, much smaller of course, which has been running for 10 years. So they knew the technology was sound. They just said that they had been waiting for this moment, for somebody to run the risk. It was a matter of finding an entrepreneur brave enough to take the first step. And I am completely sure that after us, there will be many other operators who will follow suit.

There is no doubt this is a hugely significant step. Obviously this means it comes with its own set of challenges. As LNG became more and more popular, the number of ports which had capacity to provide it grew. At the moment, there aren’t many global ports with the facilities necessary to charge batteries of this size. And if you don’t have the electricity you cannot operate the fleet. But there is no doubt this will change and more ports will have the capacity. It has been proven that the batteries can last decades. So, despite the challenges, we are confident that we are making the right move. The new vessel has been designed to run so as not to affect operations. It will offer the same fast sailing times and seamless experience.

There are always risks associated with new technology. In terms of the risks and reward balance, if you’re talking purely economically, it makes no sense to be the first one to make the move. But if every company thinks this way, we will never progress as an industry. Somebody has to do it to prove it is possible. The same thing happened with cars. They’ve been talking about electric cars for decades, but high price points and lack of available technology were big hurdles that had to be overcome first. Then that changed, and the only thing that had to happen was for a company to be ready to step forward. That’s what our company did in our own industry. Aside from economics, the rewards are also reflected, of course, in the substantial benefits to the environment and to human populations.

We had to develop important new infrastructure, which involved designing and installing special battery chargers on the waterside capable of providing the huge amounts of electricity needed to power the vessel during turnaround. This needed significant investment. Unfortunately, in both Argentina and Uruguay there is no government support in terms of financing in order to develop this technology. In terms of private investment, we’ve talked with banks about the possibility of financing projects connected with these sorts of environmentally friendly technologies, but haven’t seen it happen on any sort of significant scale yet.

In terms of the future, the key is battery technology. Right now, the technology is not quite ready for longer routes, but in time this will be possible. We’ve achieved zero pollution by going electric. In countries where regulators are faced with tackling pollution problems, they will be able to oblige operators to make the move to cleaner energies. We’ve demonstrated the technology is there. It’s up to the companies, the markets and the regulators to make this happen. And it will happen. If you have the choice to sail in a diesel engine vessel with all the noise, smoke, vibrations and pollution that entails, or in a 100 percent clean energy vessel, there is really no real decision to be made. New generations will reap the rewards of us having overcome the challenges to get to this point.

“Our industry has been ready to embrace the change. We have received lots of support from local authorities, but there is no doubt that, from a technological point of view, it is sometimes difficult to be the first.”

Expert Opinion

HFW Partner Gudmund Bernitz offers a snapshot of the electric shipping market and advice for investors

Buoyed by new technology, the growth in more commercially viable sustainable marine fuel and ambitious global decarbonisation goals, industry stakeholders are eyeing the electric shipping market with increasing interest. Significant investment growth, mostly focused within short sea shipping segments, shows no signs of abating and is predicted to grow at a faster pace in coming years.

Regulation is developing alongside rising investment levels, but it is important to remember that this is still a ground-breaking area. There is no such thing as “buying off the shelf”, and every contract requires in-depth consideration and analysis. For example, technology risk is a crucial factor. From a buyer’s perspective, it would be expected that the shipyard reviews a vessel design and then gives the buyer appropriate warranties as naval architects or design consultants with whom the shipyard wouldn’t necessarily have had prior experience.

There are considerations over levels of liability and the allocation of risk. The bottom line is that this is a fast moving industry and the importance of a proper contractual review cannot be underestimated.
Human Rights at Sea

In this issue, Human Rights At Sea’s Charlotte Rumbol discusses advocacy, respecting fundamental rights and why championing equality at sea is more important than ever.

How did Human Rights At Sea originally come into being?

In 2013, while practising as Counsel, our CEO was asked by a client what the future was for human rights at sea, which led to the realisation that there was a civil society gap in developing the topic for seeking justice for victims of abuse at sea. At the core of the organisation is advocating for victims of human rights violations at sea. How do you go about doing this successfully?

We take a comprehensive approach that combines research, lobbying, education and collaboration. Firstly, we continuously raise awareness about human rights abuses at sea through extensive research and investigation. By sharing the stories of those affected, we humanise this often-overlooked issue. We also actively engage with governments, international organisations, the maritime industry, states and governments for changes in policies and regulations. We offer support to victims of abuse and for constructive and productive and ethical conduct. Our actions are the cornerstone of fairness, justice and accountability. An unbiased approach and interactions.

Why is this so important?

You are unbiased in your approach and interactions. Why is this so important?

We proudly stand by our charity values; transparency, clarity and accountability. An unbiased approach is the cornerstone of fairness, justice and ethical conduct. Our actions are not influenced by personal interests or hidden agendas, which is essential for constructive and productive relationships. Whether between governments and individuals, businesses and consumers, or organisations and their members, trust is the foundation of effective collaboration and is paramount for achieving just solutions.

To fulfil our mission, we must prioritise long-term sustainability. Our approach not only builds trust, fairness and justice but also acts as a shield against discrimination and an advocate for ethical behaviour across diverse contexts. It forms the bedrock of our quest for enduring positive change for people at sea.

Universal human rights are protected in international law, so why is effective enforcement not always universal?

It’s due to a complex interplay of factors. These include competing jurisdictions, weak institutions, resource limitations, cultural and social influences, political interests, global power dynamics, and a lack of awareness. Addressing these challenges requires international cooperation and advocacy, capacity-building and efforts to hold violators accountable. It is an ongoing endeavour.

How does your law and policy programme help develop and strengthen international law?

Our Law Reform and Policy Programme is at the heart of our mission to protect and defend the rights of all people living, working and transiting across the world’s seas and oceans. We are dedicated to developing and strengthening international law to ensure fundamental rights are fully respected and protected.

We actively engage in research to identify gaps and areas of concern within international law. Through rigorous investigations we build a compelling case for legal reforms and improvements. We firmly believe in the strength of collaboration to effect change, and with support from international law firms, including HFW, The Geneva Declaration on Human Rights at Sea (GDHRAS) was conceived. This consolidates existing international law into a comprehensive document, setting a clear course to address the persistent issue of human rights abuses in maritime environments and providing practical guidance on detecting, rectifying, and ultimately ending abuses. It marks a significant stride forward and solidifies the commitment to equal rights for all, regardless of their location.

We understand the power of knowledge. Educating the public, stakeholders, and policymakers is a cornerstone of our efforts, and we work tirelessly to shed light on the specific human rights challenges faced by those at sea. Part of our programme is a commitment to support victims, which involves offering assistance in pursuing legal action against those who perpetrate abuses and advocating for justice.

Why should arbitration be readily available for victims of abuse at sea?

For victims of human rights abuses at sea, victim-led arbitration serves as a pragmatic and effective avenue for seeking justice, bypassing the hurdles and complexities that can obstruct access to remedies and accountability. Currently, when a crew member is subjected to human rights abuse onboard a vessel, where and how they can obtain justice depends on location, corporate structures, the flag of the vessel, and the victim’s nationality. The process of pursuing justice across international boundaries can be incredibly challenging, involving jurisdictional hurdles, resource, language and cultural barriers, logistical challenges and the victim’s well-being. Victims of human rights abuses at sea may endure significant emotional and psychological trauma, and navigating a complex legal process can exacerbate their distress.

Access to arbitration streamlines the path to justice. Instead of grappling with the complexities of multiple legal systems, individuals can have their cases heard by an independent arbitrator who would not be constrained by the rigid rules of evidence that apply in court, simplifying the process and allowing for a more comprehensive consideration of evidence.

How did the partnership with HFW come about, and how have you worked together?

Our collaboration with HFW dates back to early 2011, when our focus was on the use of force at sea, particularly concerning private maritime security companies. Over the years, this partnership has evolved and deepened with the inception of the charity, with HFW consistently demonstrating its commitment to our cause. HFW’s noteworthy contributions include a joint review of GDHRAS, and led to the development of a proposed international soft-law instrument in 2022. The Declaration, a product of three years of intensive research and drafting by a team of experts in public international, humanitarian and refugee law signifies a significant step toward addressing human rights abuses at sea on a global scale.

In a remarkable display of support, HFW has also translated the Declaration into nine different languages. These translations are a testament to HFW’s dedication to our mission and will be invaluable in our efforts to secure the backing of States worldwide. HFW’s partnership goes beyond legal expertise. Partner Alexander Kemp joined as a Trustee in 2020, underscoring the firm’s deep engagement. Their continued
Involvement is vital to advancing our mission, and we extend our heartfelt gratitude for their unwavering and ongoing support.

How far is inequality and discrimination an issue at sea?

Addressing this is an ongoing challenge. The issues are persistent and can be attributed to a range of factors, including nationality, race, gender and social status. For example, women at sea confront various challenges, including gender-based violence, the pay gap, difficulties in career progression, and sexism. Similarly, individuals who identify as LGBTQ+ often experience double discrimination. They may face prejudice and stigmatisation from their fellow crew members, making their work environment more challenging. Furthermore, depending on the flag state of the vessel, they may be at risk of criminalisation for their sexual orientation.

This year, we soft launched our Equality at Sea programme, which is rooted in the idea that all individuals who engage with the maritime environment—whether as seafarers, fishermen, coastal communities, or passengers—should be treated fairly and respectfully. We do this by raising awareness, lobbying for legal reforms, and collaborating with other organisations that focus on human rights to push for greater inclusivity and equal rights.

What role does sustainability play within your organisation?

Our mission goes beyond addressing human rights; it also embraces the broader concept of sustainability, and we actively promote the link between environmental degradation and human sustainability. We champion sustainable maritime practices, especially responsible fishing methods, recognising their vital role in preserving the marine environment. We work in collaboration to ensure fair wages and decent working conditions for seafarers and fishermen. This commitment fosters economic sustainability by supporting livelihoods and equitable compensation.

We also engage in policy advocacy, striving for international measures that promote sustainability. This encompasses preventing illegal, unreported and unregulated fishing, reducing pollution, and safeguarding vulnerable marine species.

A healthy and sustainable environment is a precondition for the enjoyment of human rights. It is intrinsically linked to the well-being and dignity of individuals and communities and a fundamental consideration in the broader framework. Efforts to protect and promote human rights often require concurrent efforts to ensure environmental sustainability.

What are your reflections on how the maritime industry has evolved with respect to human rights in the last decade?

We have seen a notable shift in the global conversation. The human rights at sea concept has gained prominence in stakeholder discussions. The COVID-19 pandemic laid bare vulnerabilities within the maritime industry, particularly in ensuring the rights and well-being of seafarers during crises and highlighted the urgent need for improved conditions and responses. Mental health is now widely recognised as a fundamental human right, and this acknowledgement has led to initiatives to better support it. The maritime industry is also gradually recognising the need for gender equality, and endeavours to promote and support women in maritime roles and address gender-based violence at sea are gaining traction.

These changes represent significant progress, but it’s not enough. There is still significant work to be done to address the complex and interconnected human rights challenges in the maritime industry and beyond, and Human Rights at Sea will continue to drive forward its mission to effect change in an industry that mostly remains out of sight and out of mind.

“We understand the power of knowledge. Educating the public, stakeholders, and policymakers is a cornerstone of our efforts, and we work tirelessly to shed light on the specific human rights challenges faced by those at sea.”
Domestic shipping in the UK Emissions Trading Scheme (UK ETS) – HFW factsheet

Following a consultation, the UK Government has indicated that the UK domestic maritime sector will be included in the UK ETS from 2026 onwards. In light of this significant development, HFW has prepared a factsheet summarising the UK Government’s proposals as they currently stand. In short, the UK ETS will apply to vessels of 5,000 GT and above, and to ‘journeys’ starting and ending at ports in the UK.

However, it is apparent that a number of uncertainties remain, including in respect of responsibility for compliance and the allocation of compliance costs. Further clarification from the UK Government is expected later this year.

Access the factsheet here.

EU Batteries Regulation comes into force

The EU Batteries Regulation 2023 came into force on 17 August 2023. It comes into force

EU to label flights according to environmental credentials

In September the EU Parliament formally adopted the ReFuelEU initiative. The new Regulation, which should come into force in January 2024, is subtitled “ensuring a level playing field for sustainable air transport.” It will clarify the definition of SAF (sustainable aviation fuel), impose minimum uptakes for all airlines departing EU airports and require suppliers and airports to facilitate access.

The legislation also contemplates an innovative environmental labelling scheme, to be run by the European Union Aviation Safety Agency (EASA), which will introduce easy-to-understand certification of the sustainability credentials of flights. EASA’s press release promises that “passengers will be seamlessly provided with emission values during the booking process”, empowering them to make choices which will increase consumer pressure to reduce emissions.

New BIMCO CII and Emission Scheme clauses to support shipping industry decarbonisation

HFW continues to support BIMCO in helping the shipping industry navigate the complex CII carbon intensity regulations under the International Convention for the Prevention of Pollution from Ships (MARPOL), and allocate costs and responsibilities relating to ships operating under an emission scheme such as the EU Emissions Trading System (EU ETS). Following HFW’s work drafting BIMCO’s CII clause for time charter parties, as well as several other “game-changing” carbon emissions clauses, HFW green shipping and decarbonisation experts Alessio Straga (Partner, Shipping) and Joseph Malpas (Associate, Shipping) recently formed part of the BIMCO drafting sub-committee for the following new clauses:

• CII Clause for Voyage Charter Parties 2023, which seeks to assist owners and charterers in contractually navigating and managing the CII regulations.
• A suite of three emissions trading scheme clauses for voyage charters, which are intended to provide industry stakeholders with the flexibility to choose a procedure suitable for their specific trade and business:

HFW was the only law firm on the sub-committee. Separately, BIMCO have also recently published a new clause for allocating the costs and responsibilities under emission schemes such as the EU ETS in a ship management context – ETS – SHIPMAN Emissions Trading Scheme Allowances Clause 2023.

Nature positive milestone

The Kunming-Montreal Global Biodiversity Framework agreed at COP15 contains a set of commitments to halt and reverse nature loss. It is increasingly recognised that risk to the natural world is a strategic and financial risk to business and economies. Against this background, the final Taskforce on Nature-related Financial Disclosures (TNFD) Recommendations were published in September 2023. The TNFD Recommendations are similar to the TCFD climate reporting framework, and comprise 14 recommended disclosures and additional guidance. Like TCFD, the aim of the TNFD disclosure framework is to create consistent and comparable reporting by companies on natural world related risk, leading to better decision making by companies and capital providers and therefore in turn a shift of financial flows towards nature-positive outcomes. Voluntary market adoption is encouraged, although it is hoped that TNFD disclosures will become mandatory, as occurred with TCFD in many jurisdictions. It is reported that some companies (including GSK) have already committed to publishing TNFD disclosures.

TNFD disclosures.

The final TNFD recommendations were published in September 2023. The TNFD Recommendations were

TNFD Recommendations.

Edited by Ruth Allan de Maldonado, HFW Knowledge Counsel (Shipping)

Legal Updates

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Global Distance Challenge
Over the course of the month of September, HFW colleagues collaboratively took on a Global Distance Challenge, seeking to cover the distance from our Houston office to our Sydney office, with the route passing through every HFW office in between. The total distance challenge set was 29556.4 miles, and over 280 colleagues from across HFW took part in the challenge, covering an average of more than 102 miles per colleague. Our offices pulled together to compete between each other to cover the most distance, and larger offices organised more intense physical challenges to boost their totals. Our London office arranged a ‘Tour de HFW’ cycle challenge, bringing static bikes in for teams to compete over 4 hours to cover the greatest cumulative distance. Our Geneva team hiked around Lake Geneva, and colleagues in Dubai organised evening team walks to avoid the worst of the heat. We will run another distance challenge in 2024 that will be bigger and better.

Meet our new Scholars
HFW has created a scholarship scheme, offering 2 students from low-income backgrounds a range of support for the duration of their studies. Our students will receive £5000 each per year to help with the financial burden of life at university, as well as having an HFW mentor for the full 3 years of their law degrees, and a place on our new ‘Pathways to Success’ undergraduate work experience scheme launching in December 2024. Our first 2 scholars were selected from a very high standard cohort of applicants, and we are delighted to introduce Carla Rodrigues and Victoria Opaleye.

South Asian Heritage Month
We were delighted to be joined by Lubna Shuja, President of the Law Society of England and Wales, on Tuesday 15th August as part of the firm’s South Asian Heritage month celebrations. Lubna delivered a fantastic talk about her career and journey to becoming the first Asian, first Muslim and seventh female President of the Law Society of England and Wales. The session provided an overview of Lubna’s role and how her South Asian heritage has helped shape her identity and career. Lubna also discussed why celebrating South Asian Heritage Month and diversity & inclusion more generally is vital to the legal sector.

Black History Month
October was UK Black History Month, and we were delighted to be joined by Alexandra Wilson, a barrister, author, and campaigner on Tuesday 17th October who spoke about how she has used her experiences to challenge racial discrimination within the legal profession. She also discussed some of the challenges that lawyers and barristers from ethnic minorities face when navigating careers within the legal profession, and what can be done to address them.