THE GREEN HORIZON WE SEE BEYOND THE BIG BLUE

HOW SEAFARERS WILL LEAD THE JUST TRANSITION NEEDED FOR A SUSTAINABLE SHIPPING FUTURE

SUSTAINABLE SHIPPING POSITION PAPER
ITF SEAFARERS' SECTION
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INTERNATIONAL TRANSPORT WORKERS' FEDERATION

TRANSPORT WORKERS HAVE THE PASSION, EXPERTISE AND IDEAS TO HELP SECURE A SAFE CLIMATE FUTURE FOR US ALL

I have great pleasure in releasing the ITF's *Sustainable Shipping Position Paper*.

Its release comes at a critical time as global leaders begin to descend upon Glasgow for COP26. The world needs to see commitment by industry, governments and workers to the structural changes necessary to decarbonise the shipping sector. The decisions made by leaders over the coming weeks – about shipping and all transport sectors – will be crucial to preventing irreversible climate change in the future. As working people, we deserve a planet that is safe to live on.

The transition will only happen if seafarers are meaningfully engaged in the process at every level. There is a reason why a just transition for workers was included in the Paris Agreement – there can be no climate justice without labour justice. We must make sure that the burden for this transition does not fall on seafarers' shoulders, but that instead we ensure this remains a profession that workers the world over are proud to call their own.

Speaking to workers and union leaders across our hundreds of affiliates, one thing is clear: Transport workers have the passion, expertise and ideas to move our industries toward sustainable futures that we need. Their vision of a zero-carbon world is one rich in secure jobs with safe work for all those who want it – and reliable, decent pay.

To be part of any movement for change, workers need to be part of the conversations which affect them, from the very outset. Workers will drive the urgent transformation of the global economy, and seafarers will drive the transformation in shipping. From the bridge of a vessel, or a port health and safety committee, all the way up to the corridors of power, finance and business: Workers need to be heard, listened to and be driving the decarbonisation of our industries and the global economy.

Stephen Cotton
ITF General Secretary

TURNING THIS SHIP AROUND WON'T BE EASY. IT WILL TAKE A SYSTEM-WIDE SHIFT SEAFARERS ARE READY FOR THE CHALLENGE

Widespread and systemic change is needed to speed up the maritime industry's transition to a zero-carbon future.

Seafarers are already seeing the dangers of climate change. We are on the front line of the climate emergency. It's often seafarers who are the ones pulling people from floodwaters. It's seafarers rescuing climate refugees from our oceans in growing numbers, who may be fleeing climate change-driven droughts, famines, fires and rising sea levels.

Seafarers see these impacts and we want shipping to be part of the solution. We want to be proud of the action taken by our industry. We want to lead the transition.

To deliver the sustainable shipping industry that is needed for a safe climate for future generations, workers – and explicitly seafarers – must be at the table from the very outset. The industry is well-advised to draw on the extensive experience and expertise of seafarers in developing their various plans for decarbonisation.

Rising to the challenge before us means that we have once-in-a-generation opportunities to build an even more skilled workforce, supported by a more coordinated sector. Seafarers in partnership with industry can set the course for our collective future for the decades to come.

We can afford to be bold in our ambition in the speed and scale of the push to zero-carbon shipping by 2050, providing we live up to the Principles in this document. That means ensuring it is an equitable transition, without workers falling behind. A safe transition, without shortcuts being taken in fuels or technologies that risk seafarers' health and safety. Let's make sure it's a smart transition, with plenty of training options to build us up into an even higher-skilled profession.

And, of course – let's always be mindful that it is a shared transition to sustainability: None of us can do this alone. In that spirit, let's get to work.

David W. Heindel
ITF Seafarers' Section Chair
Sustainable Shipping Working Group Chair

FUNDAMENTAL PRINCIPLES FOR A JUST TRANSITION TO SUSTAINABLE SHIPPING

1. **The transition must be ambitious: Workers must have a planet that is safe to live on**
   - All policy initiatives adopted must secure a safe planet for workers.

2. **The transition must be timely: Shipping must pull its weight and commit to zero emissions by 2050**
   - Emissions reduction targets for international shipping must be aligned with the Paris Agreement goals to limit global temperature increases to 1.5 degrees Celsius.
   - Regulation of shipping emissions must be set either through a binding target at the International Maritime Organization (IMO) or by the addition of international shipping in states' Nationally Determined Contributions (NDCs) under the Paris Agreement.

3. **The transition must be democratic: Maritime workers must have a say on the future**
   - Workers' must be represented on all key bodies driving the maritime industry's transition to a zero-carbon future at international and national levels.

4. **The transition must improve seafarers' working lives: Protecting jobs, working conditions and safety**
   - Decarbonisation of the sector must be a just transition. Seafarers must be front and centre in the challenges that decarbonisation brings to retraining, health and safety, workforce development and for career pathways for seafarers.
   - Commitment must be made to safe operational crewing levels, and where new technology is introduced, efficiency gains must be shared by the workforce through safer practices and working conditions for all those on board.

5. **The transition must be safe: Support a health and safety-first approach**
   - Ensure that new technologies involving high levels of toxicity, such as ammonia propulsion systems, are thoroughly lab- and field-tested before being introduced into service. This includes consulting seafarers' unions on the technology's intended use and product life cycle.
   - Recognise that an active voice for seafarers in health and safety management is the most effective guarantee of health and safety on board.

6. **The transition must be equitable: Training must be fully funded for all seafarers**
   - Seafarers should not bear the costs of any retraining requirements. Training must be funded by governments, employers, or both.
   - The new training system should be not-for-profit, taking a tripartite approach. Public, trade union, and employer-union partnered training institutions should be prioritised to ensure seafarers and fee-paying employers are not exploited by private operators.

7. **The transition must be diverse: Promotion of women and young workers**
   - The transition to zero-carbon shipping must go hand in hand with an active policy to create good jobs for women and young seafarers.
   - This must include measures that ensure women and young workers have full access to training and career development as part of a just transition.

8. **The transition must be funded: Public regulation and funding must drive decarbonisation**
   - Decarbonisation of the shipping sector requires system-wide transformation. Governments must set regulations to align emissions targets with the Paris Agreement timetable and fund publicly owned infrastructure.
   - International funding must enable countries in the Global South to transition their fleets and infrastructure, and invest in renewable energy.

1. THERE'S A CLIMATE EMERGENCY AND SHIPPING IS FALLING BEHIND

Bush and forest fires, floods, heatwaves, extreme storms and rising sea levels – the life-threatening events which herald dangerous climate change are already taking place around us with increasing frequency. Scientists are clear that humans' impact on the Earth's climate is reaching a tipping point beyond which a safe climate is in doubt.

At the heart of the problem is our reliance on greenhouse gas-producing fossil fuels to power industries like shipping, a reliance with a long history. On a global level, international cargo shipping is responsible for about three percent of global greenhouse gas emissions. From the early 1800s, coal was used to fire steam boilers for paddle steamers, which was switched to oil variants when technology improved. Fast forward to today and billions of litres of fossil fuels are used every year to power over 50,000 vessels that keep the world's supply chain moving.

A Panamax container ship, an averaged sized cargo vessel, consumes about **63,000 gallons (286,403 litres)** of marine fuel per day travelling at between 20 and 25 knots.

The global shipping industry must break its dependency on fossil fuels. The rapid expansion of international shipping over the past 50 years has been enabled by the reliance on cheap heavy fuel oil, known as bunker fuel. Key players in the industry have lobbied against restrictions on its use, despite it being one of the most polluting of all fossil fuels.

SHIPPING'S EMISSIONS COMPARED

The 50,000+ vessels which make up the global cargo shipping fleet emit roughly as much climate change-causing greenhouse gas into our atmosphere every year as the emissions of Germany or Japan. That includes their heavy industry, transportation, manufacturing and energy sectors.

GERMANY
83 MILLION PEOPLE

JAPAN
123 MILLION PEOPLE

SHIPPING
ONLY 50,000 VESSELS

While it is true that international shipping has low carbon intensity – that is emissions per unit of moved cargo – the total emissions of the industry is very high due to the sheer volume of global maritime shipping. Until now, the focus on carbon intensity as opposed to total carbon emissions has led to false confidence about the carbon footprint of the industry compared to other sectors.

Now that more people are understanding the impact shipping is having on our climate, our industry's reputation is being damaged. Seafarers want to be able to tell their friends and family that they're part of a sector taking real and equitable action to curb dangerous climate change. It's time to act.

SHIPPING NEEDS TO BE MORE AMBITIOUS IT CAN PULL ITS WEIGHT

Targets for emissions reductions in the shipping industry must be brought into line with the rest of the global economy. Unlike almost every other industry, shipping effectively sets its own rules.

Emissions from domestic industries are covered by the UN's Paris Agreement, a binding agreement that commits signatories to limit global temperature increases to 1.5 degrees Celsius, compared to pre-industrial levels.

However, the UN has delegated authority for international shipping emissions to the IMO. But since 2016, when the Paris Agreement came into force, IMO member states and shipowners have failed to act to set an ambitious pathway to reduce emissions from the sector.

In fact, the IMO has adopted emissions reduction targets that are lower and slower than those agreed in the Paris Agreement. The IMO targets as they currently stand would be **insufficient in limiting global temperature increases** in line with the goals of the Paris Agreement. A clear gap exists between current action on climate change in shipping and what is required to meet existing global targets to avert catastrophic climate change impacts.

In light of the latest report labelled 'a code red for humanity' from the Intergovernmental Panel of Climate Change (IPCC), the United Nations body responsible for assessing the science related to climate change, shipping can no longer set its own rules. Either IMO targets must be brought into line with the Paris Agreement, or international shipping must be integrated into NDCs, which are country's reporting responsibilities under the Paris Agreement.

Shipping needs a more ambitious response that involves every stakeholder in the industry, governments, employers and workers.

IT'S GETTING WORSE. EMISSIONS FROM SHIPPING ROSE ALMOST 10% FROM 2012 – 18

The greenhouse gas (GHG) emissions – including carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O), expressed in CO2e – of total shipping (international, domestic and fishing) increased from 977 million tonnes in 2012 to 1,076 million tonnes in 2018 (9.6% increase). In 2012, 962 million tonnes were CO2 emissions, while in 2018 this amount grew 9.3% to 1,056 million tonnes of CO2 emissions.

Fourth Greenhouse Gas Study (IMO, 2020)

2. SHIPPING NEEDS A SYSTEM-WIDE SHIFT TO RISE TO THE CHALLENGE

The challenge of decarbonising the shipping industry requires comprehensive structural change, a system-wide shift. The coronavirus pandemic has demonstrated that the industry is woefully ill equipped to address systemic global challenges. The crew change crisis, which saw seafarers stranded on vessels for months over their contract terms, is a stark example of this dysfunction. The climate crisis is an even bigger challenge. We urgently need system-wide action.

THE FLEET OF THE FUTURE IS NEEDED NOW. WE NEED AMBITION, INVESTMENT AND CLEAR TARGETS

The industry needs to rapidly switch to lower carbon and ultimately zero-carbon ships. A range of alternative technologies exist or are in development. Alternative propulsion methods based on ammonia, hydrogen and methanol have the potential to radically reduce shipping emissions. And improvements in ship design can also lower emissions through more efficient hydrodynamics. However, none of these new technologies are currently being produced on the scale we need.

It is welcome that some shipowners have announced plans to cut their emissions more quickly than the IMO targets require and are ordering a new generation of lower emissions vessels. But many shipowners continue to lobby against more ambitious emissions targets at the IMO and for the industry overall.

The order books of shipbuilders are still dominated by engines that run on fossil fuels, which is a major problem. Ships take years to build once ordered, and shipowners generally expect them to be in service for decades. Ordering ships that run on bunker fuel now locks in the use of fossil fuels for years to come.

The transition to a zero-carbon shipping sector is a structural challenge that cannot be resolved by individual shipowners or even individual governments. The shift from one form of energy to others requires significant planning, coordination and collaboration from all industry stakeholders.

Clear targets need to be set for the shipping industry to make the transition to zero carbon, either by the IMO, or the UNFCCC through the Paris Agreement. These targets must be backed by better standards for ship design and bunkering infrastructure based on renewable fuels. 2050 must be the ultimate deadline for the transition to zero carbon. Interim targets are also required by 2030.

CARBON PRICING MECHANISMS MUST MEET STRICT CONDITIONS

The container shipping industry is currently making some of the highest profits in the entire transport industry. It is imperative that these profits are not invested into yet more ships powered by fossil fuels, but are directed into the zero-carbon fleet of the future.

Carbon pricing is a widely discussed mechanism for shifting shipping industry investment, such as a tax on every unit of carbon dioxide that is emitted. But market-based solutions are insufficient on their own. Three conditions must be met before market-based mechanisms are introduced.

Firstly, a comprehensive regulatory plan is required to make sure that the infrastructure for zero-carbon vessels, such as production of alternative fuels and bunkering in ports, is being invested in. Secondly, all funds raised by the shipping sector must be reinvested in decarbonisation research and development and infrastructure. Thirdly, workers must be represented on oversight mechanisms for all bodies and funds to ensure that the issues and expertise of seafarers and other maritime workers are properly taken into account.

CARGO OWNERS AND INVESTORS MUST TAKE RESPONSIBILITY

Cargo owners and investors also have a critical responsibility. Cargo owners, including some of the world's biggest brands, are the major drivers of shipping demand across global supply chains. And investors have ultimate economic responsibility for the shipping companies they invest in.

Both cargo owners and investors must ensure they conduct environmental and human rights due diligence on shipping companies, in line with their responsibilities in international law, to ensure that they are pursuing decarbonisation and a just transition for shipping.

THE TRANSITION REQUIRES GOVERNMENT ACTION ACROSS THE SHIPPING SUPPLY CHAIN

Scaling up the production of lower carbon ships presents a number of chicken-and-egg problems that only comprehensive public regulation and government action can resolve.

The production and supply of alternative fuels such as ammonia, hydrogen, and methanol is a critical challenge. To genuinely bring down shipping emissions, these fuels need to be produced on a large scale, using renewable production methods. This will require specialised production facilities, as well as an adequate supply of renewable energy further up the energy supply chain. At present, conventional production processes for fuels such as ammonia and hydrogen could ultimately have a higher carbon footprint than bunker fuel. This has to change.

Ships that run on alternative fuels also need to refuel. A new global bunkering (or refuelling) infrastructure in ports is necessary. This will involve the construction of specialised facilities across the world's ports and will require significant fixed capital investment.

Economic equality for the Global South is a key part of the picture. All countries need access to finance in order to invest in decarbonisation infrastructure, including shipping fleets, renewable energy production and bunkering infrastructure. Studies show that there are major employment opportunities in renewable energy production in many countries in the Global South. However, we need a public financing model to ensure that all countries have access to investment on the necessary scale.

SHIPPING MUST BE RECOGNISED AS A PUBLIC GOOD

Decarbonising shipping involves action from all industry stakeholders – it requires a tripartite approach and action from governments and the private sector, ranging from shipowners, cargo owners and investors, as well workers and their unions.

However, it is governments that can play the decisive role in making structural change happen. Only governments, both at the national and multilaterally at the international level, are capable of co-ordinating and mobilising the resources to drive the ambitious decarbonisation that the sector requires.

Governments will also need to make a conscious choice to dedicate renewable energy supplies to the shipping industry, in a scenario where there will be great demand for renewable energy from the wider economy, including transport, manufacturing and public services.

This is why governments must recognise shipping as a public good. This involves explicitly recognising the value that shipping delivers for societies and economies.

3. PUTTING DECARBONISATION INTO PRACTICE: SEAFARERS LEADING THE TRANSITION

The scale of the changes required are vast and can only happen with the active engagement of the world's 1.9 million seafarers. Seafarers can see the impacts of climate change. And they want action.

Seafarers see first-hand the effects that fossil fuel-based shipping has on the health of our planet. Seafarers are already on the front line of responses to climate disasters, including evacuating people during wildfires and rescuing climate refugees at sea, both likely to become more regular in years to come. Seafarers are professionally and legally obliged to render assistance to those in distress at sea, including climate refugees.

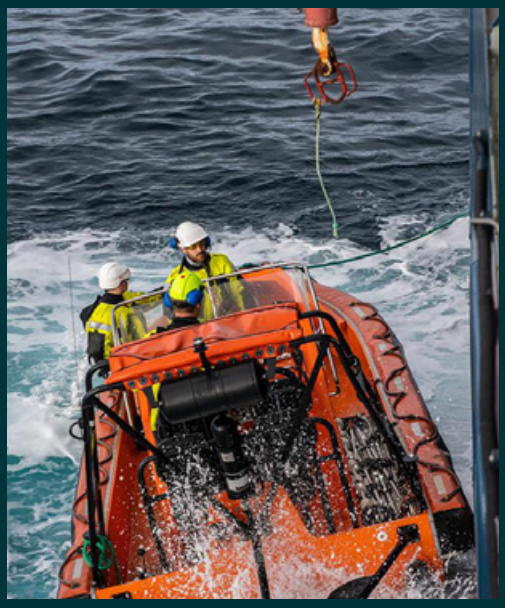
They also see climate impact at home. Many seafarers come from countries which are witnessing volatile weather events with increasing frequency. Yet more hail from countries where global temperature increases could mean their home town, province, state, or entire nation is submerged or rendered perpetually dry. Many of these countries happen to be in the Global South, with limited resources available to mitigate and adapt to the impacts of these changes.

For seafarers, sustainable shipping is not a mere slogan, because addressing climate change is a necessity to have a planet that is safe to live on, for them and their communities.

SEAFARERS ARE FUNDAMENTAL TO THE SOLUTION

The transition will require widespread changes, including in ship design, engine types, and operational procedures. Implementing these changes will be a massive effort, and work and passion of seafarers in particular will be essential. It is seafarers who will sail new generations of lower-carbon vessels, feeding back on what designs and procedures are most effective. It is seafarers who will be problem solvers when problems inevitably arise at sea. On thousands of vessels around the world, it is seafarers that will be driving the transformation to a zero-carbon industry on a daily basis.

As the industry looks to draw on the knowledge, expertise, and passion of seafarers, it is vital that their employment, working conditions, and health and safety are guaranteed. The costs of the transition must not be placed on seafarers. Seafarers must suffer no loss of employment. Where decarbonisation does lead to existing seafarers' jobs being displaced, seafarers must be the offered the opportunity to retrain for other positions without any loss of pay or job quality – either on board, or in the new shore-based jobs including in renewable energy production and bunkering.



HEALTH AND SAFETY AT THE HEART OF THE TRANSITION

Stronger standards are also required for safe operational crewing. Competent crews of adequate number on board vessels provide resilience. Resilience reduces risks to crew, vessels and the environment. Improved resilience will be vital as the industry enters into the higher pressure situations created by the coronavirus pandemic and climate change.

All new decarbonisation technologies must be subject to robust health and safety procedures. Technological and operational changes to reduce vessel emissions will create new health and safety risks for seafarers. For example, alternative fuels such as ammonia, hydrogen and methanol involve heightened risks of explosion, corrosion and exposure to toxic gases.

An active voice for seafarers in health and safety management is a critical factor in health and safety on board. Health and safety management systems must be based on worker participation and trade union involvement. Elected health and safety representatives, and ITF inspectors in ports, have an important role in keeping seafarers safe. And safety standards for new technologies must be added to all IMO regulations on decarbonisation.

A JUST TRANSITION MEANS TACKLING LONG-STANDING EQUALITY ISSUES

The shipping industry must seize the opportunity to make the industry fairer for all groups, including women and young workers. It is important that the industry addresses its long-standing gender segregation, where women only make up 1.3 percent of the global seafaring workforce. As the industry revamps its training structures, it is vital that the needs of women workers are factored in from the start. And as the industry develops new types of ships, it must also make sure that the new workplace on board is free from violence and abuse.

Just transition also means guaranteeing high quality jobs and a fulfilling career for the next generation of seafarers. Young workers need to be persuaded that the industry will be sustainable in years to come, that shipping is worth committing to as a career. Young seafarers also need to be able to see clear pathways for career development into high quality, safe and highly skilled jobs.

A NEW GLOBAL TRAINING SYSTEM THAT CAN MEET THE CHALLENGE

The industry is moving from a scenario based on one dominant engine and fuel type, to a constantly evolving situation where multiple engine and fuel types are coming on stream. This will require a more multi-skilled workforce, and also a training regime that is fit for purpose.

Seafarers must be supported through the transition. Retraining costs need to be fully funded by either employers or governments, or a mixture of both. There must also be guarantees that seafarers do not have to use their shore leave – crucial for their quality of life after long contracts at sea – to retrain.

Governments will need to play a major role in revamping the new system of seafarer training. The new system should be based on the principle of tripartism, with active engagement from unions and employers with government oversight. It is crucial that a new, fully standardised system is operated on a not-for-profit basis so that seafarers and new trainees are not exploited by poor quality training institutions with inadequate expertise. Trade union training schools, government-run institutes and properly accredited not-for-profit institutes must form the basis of the new system.

An international body will need to oversee the system and ensure it is globally standardised. Although the revision to the STCW is due to come into force in 2035, as 2030 is the first important deadline for bringing down shipping emissions, change needs to happen much more quickly.

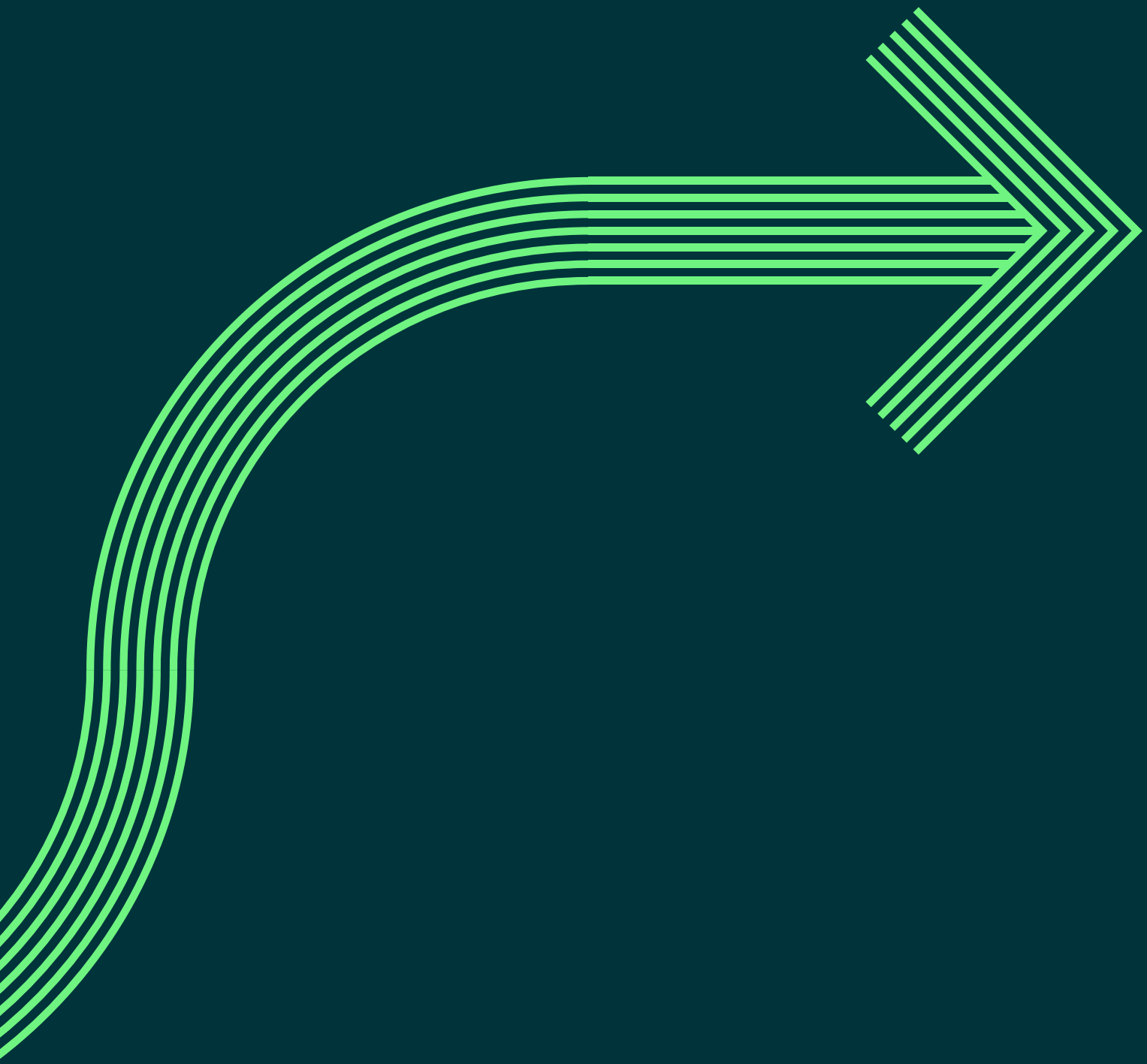
THE TRANSITION IS URGENT. SEAFARERS NEED AN ACTIVE SAY

Big changes are coming, and seafarers need to have a say. The coronavirus pandemic has demonstrated to a global audience the vital role that seafarers play, and the sacrifices they make, to keep essential supplies moving. The crew change crisis has also demonstrated that seafarers' welfare is sacrificed far too quickly. As we move into the even bigger challenge of the shipping industry's response to the climate crisis, never again can the contribution of seafarers be taken for granted and their well being neglected. Governments and employers need to step up, they need to put concrete processes into motion now with a meaningful voice for seafarers.

The first step is to make sure that seafarers' employment, working conditions, and health and safety are protected. Under no circumstances can the burden for the transition be placed on seafarers. This will undermine efforts to maintain the highly skilled, highly motivated workforce that the industry needs.

Seafarers are ready to lead the change. The scale and scope of the changes required are vast. And they will only work in practice with the passion, commitment and skills of the world's nearly two million seafarers. Seafarers are the industry's great problem solvers, accustomed to working miles from shore and thinking on their feet. It is crucial that the seafarers voice is heard at every level – in global and national regulations, on any new training bodies that are being set up, and in day to day operations on board.

The changes required are necessary and urgent, and they will only be successful if there is an active voice for seafarers.



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