



Reaching the tipping Doint





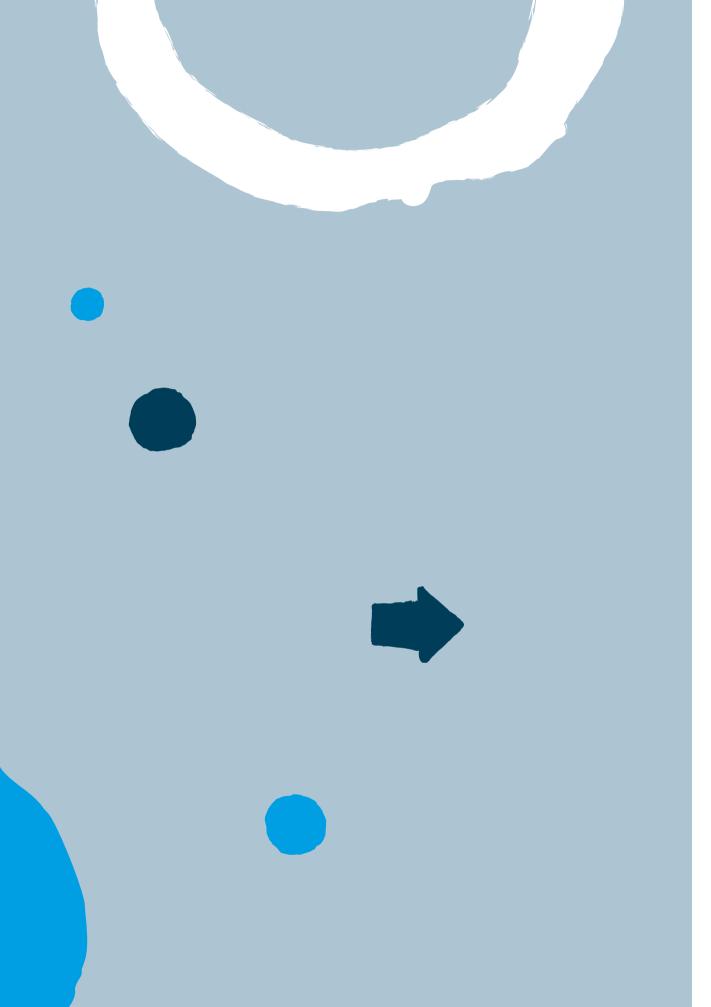
Global Maritime Forum
Annual Summit



Virtual interactive sessions | 20-21 October 2021 London | 27-28 October 2021









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Global Maritime Forum Annual Summit

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Foreword



At the Global Maritime Forum's Annual Summit 2021, some 200 high-level leaders came together virtually and in London to shape the future of global seaborne trade.

Discussions addressed the major challenges that the maritime industry faces, with the first virtual and in-person days focusing on **decarbonization** and the second days tackling issues connected to the industry's **license to operate**. Participants worked collaboratively on identifying the actions needed to make progress in both areas.

Three themes emerged during the course of the Summit.

The first was a clear sense that the maritime industry is attracting **increasing media attention**, with the crew change crisis and supply chain disruptions catapulting international shipping into the public consciousness. Conversations focused on how we can build on this to raise the profile of the maritime industry for instance by increasing transparency and better demonstrating the actions we are taking to increase our positive contribution to society.

Secondly, many participants highlighted how the maritime industry will need to rethink its **social contract** – one that is based on low taxation, limited transparency and minimal engagement with governments and other stakeholders – if it is to tackle systemic challenges such as decarbonizing seaborne transport and the welfare of seafarers.

Lastly, an increased focus on **human sustainability** was seen as vital to attracting the talent of the future and ensuring that shipping's energy transition is just and equitable.

I would like to extend my sincerest gratitude to our partners for their continued support and to the government of the United Kingdom for its instrumental role as host of this year's Annual Summit.

The high quality of conversations and commitment from participants gives me great confidence that, collectively, we can tackle the challenges that we face. However, there is much that still needs to be done to put us on the path towards **the future we want to see**. As ever, the Global Maritime Forum stands ready to assist on this journey of turning ambitions into action.

Peter Stokes Chairman Global Maritime Forum



Over the past two years the industry has made tremendous strides on coming together to address the challenges that it faces.

Initiatives like the **Call to Action for Shipping Decarbonization** and **The Neptune Declaration on Seafarer Wellbeing and Crew Change** have shown an unprecedented willingness amongst stakeholders across the maritime value chain to work together, to align on a set of common objectives and establish a common voice. Nevertheless, the industry still faces **immense pressure** to address several systemic challenges, with this year's Summit providing a forum for the full maritime value chain to come together to address them.

Decarbonizing shipping

In discussions on addressing shipping's climate impacts, participants particularly looked to increase efforts in several key areas.

Taking immediate actions to reduce emissions from international shipping emerged strongly as a common thread, with participants discussing the importance of taking advantage of known and available technologies and operational measures while also tackling systemic challenges that impair energy efficiency across the sector. In addition to the immediate benefits of decreasing emissions today, this would help to reduce the overall volumes of fuels required to decarbonize the global fleet thus reducing the cost of the transition.

Another recommendation was establishing **green corridors** – specific routes enabling the demonstration and deployment of zero-emission shipping – to overcome complexity and encourage the companies and governments who are willing to move first. This could also allow for trialing technologies, collaborations and regulatory frameworks, and build momentum towards achieving a critical mass of zero-emission vessels and fuels.

The need to work with governments was also widely addressed, with support needed to accelerate the roll out of zero-emission fuels. In particular, the need for subsidies to stimulate pilot and demonstration projects and a setting a global price on carbon were seen as clear areas where governments could provide incentives for maritime decarbonization.

Ensuring that the transition is **just and equitable** was further seen as a key issue, so that the costs of the transition to zero-emission fuels are not unfairly distributed.

A license to operate

Through the framing of the industry's license to operate, the second day of the Summit looked at the other **Environmental**, **Social and Governance pressures** facing the industry.

Understanding how to improve the human sustainability of the industry was explored throughout the Summit, focusing on diversity, equity, and inclusion as well as seafarer wellbeing and attraction. This was seen as particularly important considering the need for the industry to attract new streams of talent capable of meeting future challenges.

The **increased scrutiny** that the industry is currently experiencing was another area discussed, with participants citing the crew change crisis and Suez blockage as propelling international shipping into the public imagination. The need for the industry to adapt to this new reality and better connect to wider society was explored. Concrete actions on **data sharing and transparency** were seen as essential to bridging this gap.

Lastly, participants engaged in emergent conversations on ways to enhance the circularity of international shipping. Discussions focused on ways to improve coordination between different players, bringing increased alignment between stakeholders on the design of ships, use of materials and recycling practices.



Bringing it all together

From these topics, the following cross-cutting themes emerged:

- Firstly, there is a need for the maritime industry to continue to increase collaboration to meet the collective challenges it faces.
- Secondly, there is a clear need to raise ambitions further across all ESG issues, setting a clear direction of travel and raising the bar for what is achievable.
- Lastly, there was a clear demand for action, identifying what needs to be done now to make these ambitions come into reality.

Despite the limitations presented by the Covid-19 pandemic, the energy and drive shown at this year's Summit provide hope that leaders from across the maritime sector can come together to tackle collective challenges, develop tangible solutions and push even further towards the future that they want to see.

Our shared journey



Decarbonizing shipping



License to operate

During the second virtual session, participants worked together in groups on three topics: The future of seafaring, Diversity, equity, and inclusion, and Shipping's circular economy.



Decarbonizing shipping

The first virtual day of the Annual Summit focused on maritime decarbonization, with participants working in groups on three action areas: Moving first, Getting to scale, and Making the transition just.



A zero-emission maritime industry by 2050

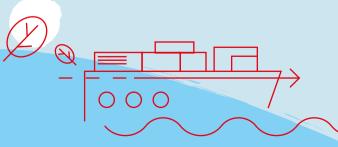
The first in-person day of the Annual Summit, taking place in London, was opened by **Peter Stokes**, Chairman of the Global Maritime Forum and **Robert Courts**, Parliamentary Under Secretary of State at the UK Department for Transport.

The welcome remarks were followed by a panel of **top-level leaders** who set the scene for the Annual Summit, outlining the ambitious actions being taken by industry and calling on governments for increased support to make the transition possible.



Framing the possibilities

In working groups, participants explored the many facets of maritime decarbonization, collaboratively defining what needs to be achieved, and what it will take to get there. These discussions addressed Short term actions, Managing transition risks, Aggregating demand, Green corridors, Global policy, Just policy and Just opportunities.





Learning from others

The participants were then joined by experts who presented new research, ideas, concepts, and practices, and invited participants to reflect on how these could help the maritime industry to address its challenges.



License to operate



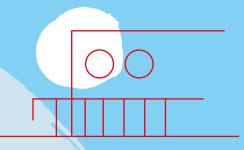
A moonshot guide to changing capitalism

On the second in-person day of the Annual Summit, the focus of discussions shifted to the actions that need to be taken by the industry to retain its license to operate in the future.



A maritime industry fit for the future

The participants then came together to share their findings in a final fishbowl plenary, with the Annual Summit being concluded with closing remarks from **Peter Stokes**.





Bringing it all together

After a second round of work in groups, during which participants shared back from the learning sessions, all groups gathered for a fishbowl discussion to share their outcomes, reflections, and suggested ways forward.



Shaping the future

In working groups, the participants sought to develop actionable ideas, focusing on how to improve the Wellbeing of seafarers, increase Diversity, equity, and inclusion, address Transparency and data sharing, explore the Circular economy, and identify ways of Promoting the industry.



Broadening the horizon

In seven parallel chat rooms, participants listened to expert presentations on new ideas, concepts, and practices that could help to impact the future of the global maritime industry.



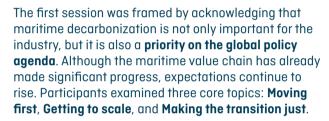






The virtual sessions of the Global Maritime Forum's Annual Summit took place on 20-21 October. Here, participants came together to scope issue areas, doing an initial scan of topics and setting the agenda for the in-person Summit in London. Both virtual sessions highlighted the potential benefits of deeper engagement with all parts of the maritime value chain from end-customers to policy makers.

Decarbonizing shipping



Across all three topics, there was broad agreement that although policy support and regulation through the International Maritime Organization (IMO) and governments is important, industry can take a leadership position to drive progress. Specifically, participants noted the need for greater transparency and measurement in the shipping industry, while also encouraging targeted industry collaboration to demonstrate solutions and build momentum.

"Based on our conversations today what is the most important area for us to make progress on during this year's Summit?"



Creating an efficient link between the industry and governments, regarding availability of renewable energy for the production of green fuels.



Channeling our enthusiasm and energy into tangible action.



Sharing knowledge and good practices within the industry to help in the transition and to create demand for more green shipping.



What are the true scale effects and what levers do we need to focus on to enable scaling up a response to the decarbonization challenge?



A united position on carbon tax.



Map out the infrastructure and other requirements for developing countries to fully partake in the benefits of the energy transition.



Step towards more granular approach to decarbonization where we distinguish between segments and look for synergies rather than a one size fits all approach.



How can we convince enough developing countries of the opportunities for economic development which will come from maritime decarbonization?



Clarity in a collective industry position as to what we need to accelerate the transition and why lack of a global approach will severely hinder that transition.



To ensure every stakeholder, including governments and the energy sector is aligned and takes a collaborative approach towards finding green solutions.

A license to operate

The second day of virtual sessions focused on building and maintaining a license to operate in the shipping industry. The opening discussion outlined how international shipping has become more visible to the public and policy makers which brings with it expectation but also opportunity. Topics for discussion included Diversity, equity, and inclusion, The future of seafaring, and Shipping's circular economy.

A main takeaway from the discussions was the need to build capacity in terms of both the workforce and infrastructure to meet the future needs of the industry. Participants emphasized that better conditions for seafarers and initiatives to promote diversity, equity, and inclusion throughout the industry and across geographies will be essential to the maritime industry in the coming years.

At the end of the sessions, participants were asked:

"Based on our conversations today what is the most important area for us to make progress on during this year's Summit?"



To obtain a common understanding of why diversity and inclusion is important to succeed for this industry.



Agreeing how the value of shipping can be promoted and recognized to build the influence and image we need for a modern shipping industry.



How can we make maritime sexy again? If we can lead in the decarbonization agenda, perhaps we can reinvent ourselves and become sexy again for the next generation to embrace the maritime sector.



We need very tangible ACTION towards care for the seafarers - not a statement of intent, but action.

In a largely business to business industry, what we are doing on a well to wake



















How can we take concrete action to hold governments accountable to allow for crew changes within their jurisdictions?



How to enhance the global image of the shipping industry and promote all the good it does to the global economy and society in general. This will greatly enable our license to operate and our ability to attract talent.



How can cross-sector collaboration lead to increased circularity of the industry?



I can learn to drive a truck in three weeks and earn as much as a Captain whilst being classed as a key worker. Is it any wonder people don't want to go to sea?



how can we make consumers aware of basis on emissions and our commitment to addressing social and governance issues, so that companies committed to decarbonization, recycling, diversity, seafarer wellbeing are rewarded.





Inperson day

Decarbonizing shipping

The first in-person day of the Annual Summit focused on maritime decarbonization. The maritime sector has made its first steps towards a low-carbon future, emerging as a leader among harder-to-abate sectors. However, transformative action is still needed to meet the urgency of the climate crisis.

Participants spent the majority of the day collaborating on addressing these challenges, exploring the different short and long-term actions that the maritime value chain needs to take to ensure that international shipping reaches zero emissions by 2050.

Welcome remarks

Global shipping has a rich history but its best days truly do lie ahead. By working together we can, and we will, safeguard the future of this industry.

> Robert Courts, Parliamentary Under Secretary of State, **UK Department for Transport**



Robert Courts, Parliamentary Under Secretary of State at the UK Department for Transport opened the day by welcoming the Call to Action for Shipping **Decarbonization**, underlining that the UK stands ready to heed the call on governments to support maritime decarbonization. The Minister congratulated the industry on its remarkable unity around zero-emission **shipping**, highlighting how the UK government intends to champion this cause at COP26 and beyond.

The Minister continued by laying out how **industry** and governments both have a role to play in maritime decarbonization, stating that effective public-private cooperation is critical to achieve a zero-emission shipping industry. Regulation or technology alone would not be enough to achieve this goal, with both industry and governments being unable to achieve their objectives in isolation.

The Minister concluded by highlighting the need for the maritime industry to ensure that it also improves human sustainability alongside its efforts on decarbonization.

To do this, partnering with governments and focusing on the human implications of this transformation will be a top priority. To support the uptake of new green technologies, there is a strong need to focus on education, training, and seafarer wellbeing to attract the talent necessary to address the challenges of tomorrow.





FOR

A zero-emission maritime industry by 2050

We will have abundant green hydrogen and ammonia and the fuels ready to roll by 2030. We, the shipping industry, can lead the industrial world out of global warming.

Andrew Forrest



The plenary continued with a high-level panel, moderated by author and broadcaster Gabrielle Walker, who led participants through two days of collaboration. Gabrielle Walker opened the session by asking the panelists about how to achieve maritime decarbonization, inviting the panel to explore what needs to be done now to reach a significant tipping point before 2030.

The panelists all agreed that there is an urgent need to move from words to action, with Alexander Saverys, Chief Executive Officer, Compagnie Maritime Belge, outlining how pilot and demonstration projects can show that real steps are being taken on the path to a zero-emission maritime industry. Instead of waiting for others to develop the perfect concepts, it is important to push forward with new and ambitious ideas, being willing to take risks and fail in pursuit of achieving objectives.

To ensure that there is a common direction for these short-term actions, **Carol Howle**, Executive Vice President, Trading and Shipping, BP, spoke about the importance of having **long term net-zero targets** to work towards. This should set the impetus for industry groups to **co-invest in new technologies and relationships**, spreading risk across the value chain and better aligning the supply and demand of zero-emission fuels.

Andrew Forrest, Chairman,
Fortescue Metals Group, continued
by stressing the need for targets
to be seriously ambitious, with
industrial transformations being
driven by those aiming highest.
These remarks outlined the
immense growth opportunity
connected to future global
demand for green hydrogen,
with companies like Fortescue
Metals Group moving quickly to
take advantage of these new
opportunities.

Allard Castelein, President and Chief Executive Officer, Port of Rotterdam Authority, highlighted the Port of Rotterdam's role in bringing together the players that are prepared to create the value chains of the future. He spoke about ports' ability to spark this collaboration, stressing the need for regulation to support supply and demand creation, and stimulate the emergence of these value chains.

Andreas Sohmen-Pao, Chairman BW Group, concluded by highlighting how only a few years ago, the industry was still "fumbling in the dark" regarding knowing what the fuels of the future might be. Now it is clear that the technologies are feasible, the industry needs to work together with governments and the IMO and make efforts to support action and innovation.

Felipe Calderón, former President of Mexico, made a short intervention, speaking about the need for industry to support governments with information and concrete proposals. Particularly developing countries will need a clear understanding of how maritime decarbonization can create benefits for their people if they are to offer support for more ambitious policy action.

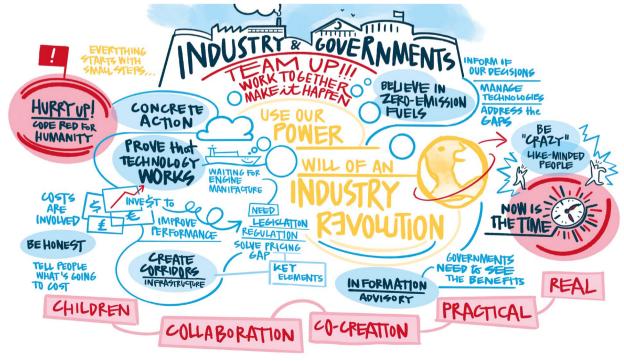
In closing, Gabrielle Walker asked the panelists for one word that they associate with the journey that lies ahead. The answers were: Children - we are doing this for our children; collaboration - we cannot do this by ourselves; practical - we need practical, implementable solutions; co-creation - all relevant actors need to add their ideas; real - this isn't just thinking anymore, it must become a reality.

Visit our YouTube channel
to learn more about the session.

If you want to do things now, you need crazy people! Seeing is believing. If you do things, you can prove to others that this is really possible.

Alexander Saverys











During the day, participants each took part in a learning session, receiving input from experts on wider trends and perspectives related to maritime decarbonization.

The three sessions addressed **how to manage transition risks, the global politics of the energy transition** and **how transitions happen**.

Expert presentations

Managing climate risks: Planning for long-term success

How can businesses and organizations understand the risks associated with managing the transition to a net-zero global economy?

Ben Caldecott, Director, Oxford Sustainable Finance Group, Smith School of Enterprise and the Environment, University of Oxford





MANAGING RISK

To ensure that businesses and organizations can navigate the transition to a net-zero global economy, Ben Caldecott outlined the importance of **being "on the edge" and not at the "straggler's end"** of efforts to combat climate change. While rapid action on climate change, facilitated by policy and innovation can bring transition risks, businesses and financial institutions have several tools at their disposal to mitigate these risks.

Ben Caldecott proposed developing and implementing long-term business strategies, including advocating for better regulation, investing in innovation, and creating new social norms and consumer preferences. Adopting these strategies enables organizations to better manage risk, **better utilize their resources and capabilities**, and demonstrate their green credentials to customers, shareholders, and investors.

GREEN FINANCE

Ben Caldecott continued by addressing the role of green finance in expanding the consideration of environmental risks in decision-making, pointing to the emergence of new forms of green KPI's where loans are linked to an **organization's sustainability performance**.

To further improve an organization's climate preparedness, accessing green finance can help to make institutions more aware of climate risk through encouraging them to adopt new strategies, for example

sustainability disclosure requirements or net-zero transition plans. This can further lead to a rise of supervisory expectations, where climate risks are better considered, and senior management can make decisions based on these risks.

THE TIME IS NOW

In discussion, participants raised concerns around the **risks of inaction** for companies who do not adopt long term sustainable strategies. These could take the form of stranded assets, net-zero arbitration clauses and negative stigma impacting industries' license to operate. If the industry chooses not to act now, going forward there may be increasingly fewer opportunities in addition to greater exposure to such risks.

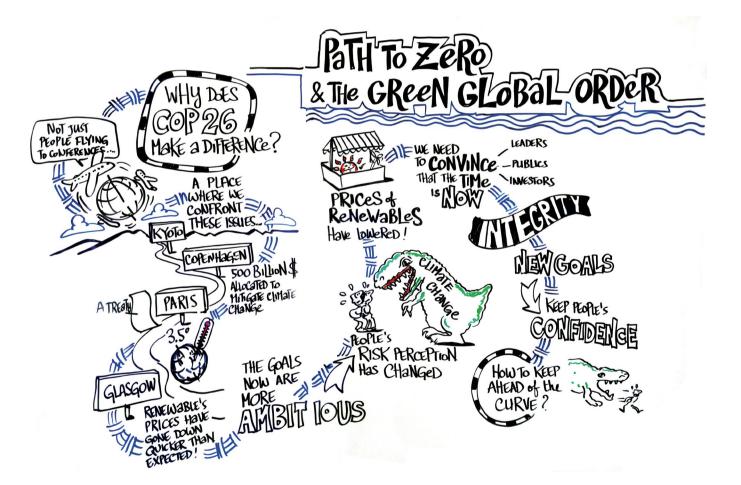
Currently, large-scale organizational transformations are underway across industries and especially hard-to-abate sectors will have to undergo an unprecedented transition. To do this at the speed and scale required, Ben Caldecott concluded by saying that the maritime industry has a window of opportunity to act and support this transition. This can be achieved by aligning corporate strategy with climate imperatives, engaging with governments to increase the pace of change, and rethinking corporate purpose for the long term.

Expert presentations

Paths to zero and the green global order

What are the economic and geographical implications of the transition to new sources of zero-emission energy?

Nick Mabey, Chief Executive and founding director of E3G Katharine Palmer, Shipping Lead, UNFCCC High-Level Climate Champions Felipe Calderón, former President of Mexico





GLOBAL EFFORTS AROUND COP26

Nick Mabey kicked off the session by highlighting the importance of COP26 in enabling the world to collectively take major decisions and further climate action across the global economy.

The Paris Agreement was drawn upon as an important milestone to this end, **setting a global direction for climate action** and building confidence among decision-makers and investors. With this framework established, Nick Mabey emphasized several important developments since Paris, which could be significant to achieving progress at COP26.

The first development is alignment on a 1.5 degree target, with climate commitments across industries and nations becoming more embedded and ambitious. There has further been a dramatic shift in climate risk assessments, with the **impacts of climate** change happening earlier, faster, and more acutely than previously predicted. Lastly, new pricing and investment decision-making processes have been developed, improving the ability of the private sector to adopt more ambitious climate targets and, consequently, actions.

There is an opportunity for significant steps to be made, with COP26's outcomes setting important expectations for the global economy to further curtail its emissions. To conclude, Nick Mabey pointed at four outcomes he hopes to come out of this year's talks:

- Keeping the target of 1.5 degrees alive and ensure that different actors see this target as achievable;
- Set new targets with end points coming earlier than previously set targets;
- Convince leaders, the public and investors that the time to act is now;
- Maintain and build confidence among investors.

INTERNATIONAL SHIPPING AT COP26

Following Nick Mabey's remarks, **Katharine Palmer** discussed the importance of making international shipping a central issue at COP26. **Countries cannot achieve their net-zero targets without their transport sectors, including shipping**. Participants discussed the importance of showcasing non-state actor commitments like the Call to Action for Shipping Decarbonization at COP26, implementing a narrative of industry action among countries and governments to encourage them to increase their ambition.

WORKING WITH GOVERNMENTS

Lastly, the session closed with an intervention from the former President of Mexico, Felipe Calderón. He emphasized that we must create a new narrative for people and leaders that is built not upon the peoples' fear of climate change, but on the opportunities. He pointed at the need to provide the right signals to the market by expressing a clear orientation towards a green transition. For this, a new regulatory framework that can promote the right economic incentives in infrastructure and innovation is essential.

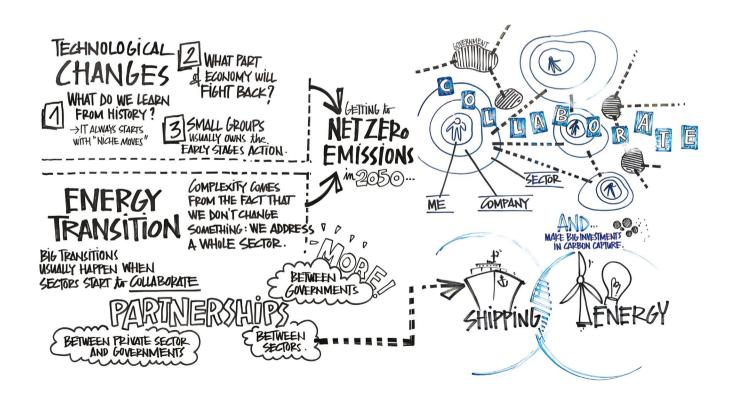
Expert presentations

Reinventing the system: Lessons from the business of change

How do large-scale system transformations come about? What are the structural dimensions necessary to support industrial transitions?

David Victor, Professor of innovation and public policy at the School of Global Policy and Strategy, University of California

Faustine Delasalle, Director, Energy Transitions Commission and Co-Executive Director, Mission Possible Partnership





S-CURVE THINKING

When looking at industrial transitions, **David Victor** addressed how rates of technological change can be seen in terms of an S-curve. The S-curve is split into an initial emergence phase, with early adopters and first movers and is followed by a rapid diffusion phase, where an industry sees **exponential growth in the adoption of new technologies**.

Shipping still finds itself in the emergence phase, where it is making progress compared to sectors like aviation and steel but has yet to reach the tipping point of widespread market adoption. To move further towards diffusion, shipping needs to increasingly **demonstrate the potential of zero-emission technologies**, in addition to pursuing increased collaboration across the value chain and with other sectors.

PARTNERING WITH OTHER SECTORS

Faustine Delasalle highlighted how one way to support efforts towards this tipping point is to focus on partnering with industries further along the curve. This will make it easier to aggregate demand across industries, reducing the price of uptake and ensuring more emergent industries are also able to speed up their transition.

When looking across the hard-to-abate sectors it is clear that it will be necessary to stimulate a massive increase in green hydrogen production over the next decades. The widespread demand for green hydrogen, however, is not yet a reality, and investment in its production comes at a considerable risk to the energy

sector. Showing concrete **demand for green fuels** from heavy industries like shipping would reduce this risk and lead to more supply, in turn further increasing adoption across the maritime industry and beyond.

Some participants raised the point that to enhance this collaboration across sectors, it is necessary to ensure progress in **transparency**, **data sharing**, **and the setting of common standards**. This would allow for different sectors to better align efforts and work together on areas like setting common metrics for determining the sustainability credentials of zero-emission fuels.

WORKING WITH GOVERNMENTS

The technological solution, however, will not be the only piece of the puzzle; political, regulatory, and social innovations will also need to be considered. Faustine Delasalle addressed this by demonstrating how governments are important co-creators of these processes, helping to create an environment capable of sustaining industrial transformations.

If governments are left on their own to design regulations and support structures, David Victor continued, there is a risk that these will create more problems than they solve. Consequently, the private sector needs to engage with governments, and enter partnerships with an open mind and willingness to cooperate. One example raised was to work on **green corridors** between ports and using these to develop new ways for governments to regulate and support zero-emission shipping projects.



Drawing on the input and suggestions from the virtual sessions, participants were invited to choose a working group topic focusing on an area of maritime decarbonization.

Participants spent a significant part of the day in their working groups, where they discussed how the maritime industry can reduce its emissions through **cross-industry collaboration and action**.

In the following pages, the outcomes of the working groups are presented in a summarized form, intended to give a flavor of the different discussions that took place in these sessions.

Short-term actions

Many technical and operational solutions are readily available to companies to reduce shipping emissions in the short term. But there is an urgent need to address systemic barriers to improving efficiency, for example in relation to charter-party contracts and voyage planning and optimization.

Three working groups discussed short-term actions for shipping decarbonization. All groups focused on what shipowners, operators, managers, charterers, and ports can do over the next few years, both individually and collectively, with a particular focus on the need for systemic change.

GOING FOR THE 'QUICK WINS'

The groups identified several main themes, commenting on the need for not just wider industry collaboration but also in-house collaboration and shared climate targets between divisions. One theme explored was taking advantage of known and available solutions like retrofitting, modern hull paints, and air bubble lubrication systems. Here, the groups suggested that efforts focus on identifying quick wins and targeting investments towards these solutions.

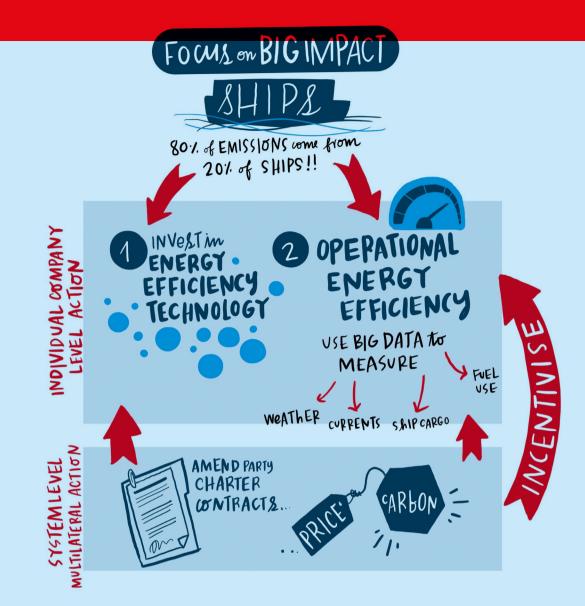
Participants also drew attention to blending in alternative zero- or low-carbon fuels, such as biofuels, into the fuel mix. While biofuels are still quite expensive today, bunkering alternative fuel blends not only saves greenhouse gas (GHG) emissions today, but also can prepare bunkering supply chains for the switch to 100% zero-emission fuels in the long term.

One group suggested that efforts should focus on the biggest ships in the short term and invest in making these as energy efficient as possible. This group identified a barrier to this in current regulations and energy efficiency rating systems, which do not incentivize action on bigger ships.

MAKING A SYSTEMIC IMPACT

A key systemic challenge explored was how charter-party contracts currently incentivize unnecessarily high speeds, leading to higher consumption, emissions, and engine wear. As shipping emissions grow exponentially with speed, even a small reduction in average speed could lead to a significant emissions reduction. This is coupled with a situation where vessels are speeding up to arrive early at congested ports, having to wait and burn additional fuel waiting at anchor. The groups proposed a rethink of charter-party contracts to allow for increased operational flexibility and reduced speeds, which would immediately reduce emissions without any additional investments.

Another solution discussed was the use of data collaboration to optimize schedules, drawing on big data analysis to optimize operational efficiency. Some participants suggested developing a coalition on global data standards to integrate digitalization efforts at the systemic level. This would allow for enhanced optimization of the global fleet, giving everybody access to reliable, comparable, and standardized data.





Managing transition risks

Visible leadership, collective commitments, transparency, and a focus on optionality identified as actions that industry can take individually and collectively to reduce exposure to transition risks.

Two working groups assessed the risks inherent in the transition to a zero-emission future for the maritime industry. Identified risks included investment risk, stranded asset risk, technology risk, supply chain risks, industry fragmentation, and many more nuanced risks across the value chain. Conversations identified a series of actions that can be taken by individual companies, collectively as an industry, and through public-private collaboration to act now in the face of such risks.

INDIVIDUAL ACTION

Participants stressed the important role of first movers in sending a message to other stakeholders in the value chain, and in raising the ambition of regulators. Companies can start with **public commitments**, such as supporting the Call to Action for Shipping Decarbonization or making public commitments to order zero-emission ready vessels. Within companies, a clear ambition and a **defined timeline** allows internal efforts to be aligned with external messages, while transparency manages investor expectations around the cost of the transition. Participants pointed out that this will be especially important with the prospect of more expensive vessels and fuels in the future.

COLLECTIVE ACTION

There was a consensus within the groups that the greater the number of companies that decide to show their support for and invest in shipping decarbonization, the less risk there is for each of them individually. With **sufficient participation**, it becomes safer for individual companies to take a chance. Knowing how to share risks and costs would increase the willingness of individual stakeholders and help get the whole industry past the tipping point. One key area explored for operationalizing this was through increased digitalization, particularly in the context of **data sharing and transparency**.

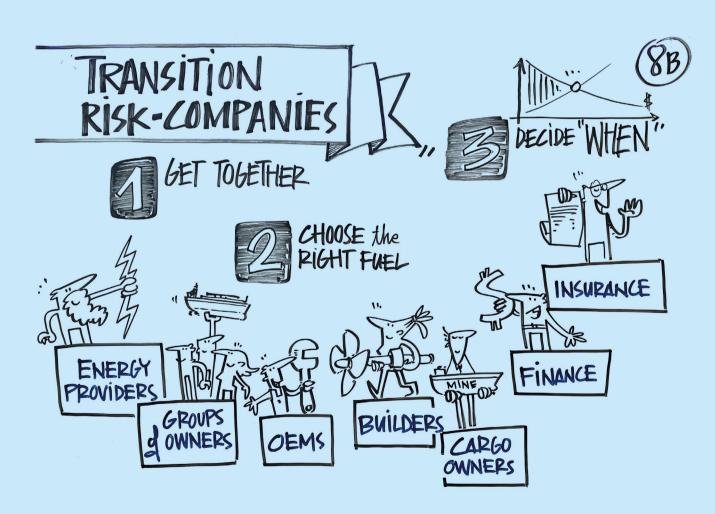
OPTIONALITY

With the inherent uncertainty of future fuel pathways and the need to navigate several fuel options, the working group emphasized the need for companies to align on options and a supporting narrative for collaborative actions. Therefore, an additional enabler is embracing **optionality**, for example through collaboratively designed dual-fuel vessels, thus reducing the risk of stranded assets.

GOVERNMENT ACTION

Finally, participants emphasized the **role** of **governments and regulators in minimizing risks for first movers**. This could come in the form of national or regional financial support for innovation, favorable lending rates for zero-emission ship building, or supporting venture costs. Industry has a role in ensuring it represents a coherent voice as a first step in calling for such support.





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Aggregating demand

An opportunity exists to accelerate investment into zero-emission fuel supply if the maritime industry and its customers can signal demand for clean energy and zero-emission end-products.

The maritime industry's energy transition requires zero-emission fuel production to reach a scale which provides steady supply at competitive prices. The two working groups examined opportunities to signal for investment into zero-emission fuel production and associated infrastructure and were split into two focused discussions:

Aggregating energy demand and aggregating demand from customers.

AGGREGATING ENERGY DEMAND

This discussion explored how the shipping industry and adjacent sectors can best **aggregate their demand for clean energy**. The group highlighted top-down demand signals such as commitments from the shipping industry to medium- and long-term zero-emission shipping commitments. Additionally, a bottom-up approach to demand aggregation could be implemented by identifying the quantity of zero-emission fuels required on specific routes, to ascertain how much, when, and where fuel supply will be needed.

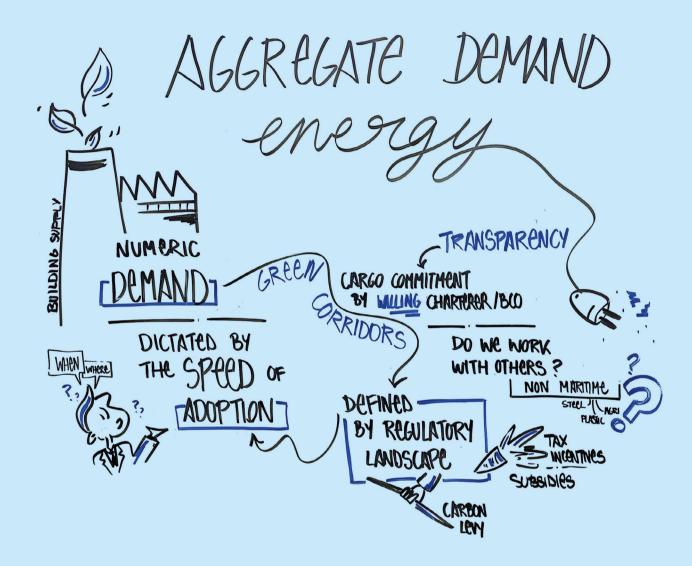
Participants agreed that collaboration within the shipping industry is essential to **signaling demand** for zero-emission fuels. However, the group noted that although project collaborations with other sectors such as aviation, agriculture, and trucking could accelerate investment into zero-emission fuel production, these sectors will also compete with shipping for fuel supply.

Carbon pricing was also discussed as a mechanism for signalling demand for zero-emission fuels. Participants noted that carbon pricing for shipping fuels would rapidly accelerate demand for zero-emission fuels and signal the need for more investment in production and associated infrastructure.

AGGREGATING CUSTOMER DEMAND

The group outlined the importance of **transparency in measuring and accounting for emissions** in the shipping sector to maximize customer driven demand signals. Participants noted that certifying the emissions status of end-products is key to engaging customers in the transition to zero-emission fuels. However, engaging customers requires that they have the option to choose zero-emission products, and that they can distinguish zero-emission products from other products in a clear and trustworthy way.

Participants also saw an opportunity to use **emissions transparency as a competitive advantage** if products were labelled as zero-emission. The group highlighted that promoting zero-emission supply chains for products could spur competition between consumer companies to offer zero-emission products and in turn push demand for greater transparency along the value chain. The intended result would be zero-emission supply chain targets such as those announced by companies like Amazon and Ikea, or cargo commitments from companies towards a specific fuel type on a specific route.





Implementing green shipping corridors

Green corridors – specific trade routes enabling the demonstration and deployment of zero-emission shipping – can be a tool for overcoming complexity and encouraging the companies and governments who are willing to move first.

The working group discussed how green corridors can be developed to **accelerate the development and deployment of zero-emission shipping**. Participants considered how specific actors along a route can contribute, but also what is needed in the form of cross-cutting analysis, collaboration, and policy.

BRINGING THE ECOSYSTEM TOGETHER

The group proposed that the design and implementation of green corridors should be tackled with an **ecosystem approach**, engaging all essential stakeholders along the value chain. While this could make green corridor initiatives complex, the group pointed to comparatively simpler starting points, for example ferry or container routes at a local or regional level.

Green corridors can also serve as a starting point for action by gathering **coalitions of the willing**. These corridor-specific coalitions can align around the right fuel pathways, technologies, and safety standards. Planning for infrastructure and policy development that will allow future scale-up will be important for building confidence in the broader applicability of corridor-specific solutions.

As is often the case with first mover activities, not all companies have the same ability to take risks and invest in new solutions. The group discussed whether green corridors can be designed in a way that **creates a level playing field** for participation by smaller companies and new entrants to ensure broader relevance.

CRITICAL BUILDING BLOCKS

The group referred to <u>The Next Wave</u> report and suggested the general findings needed to be widely shared and that the approach to analyzing specific corridors established in the report could be replicated to many more cases, serving as a framework to take the first steps. In terms of more practical action, the group pointed to the need to **pilot and demonstrate the relevant technologies** on green corridors. This can further serve as an arena for the standardization of green fuel use, and establishment of safety procedures related to new fuels.

Governments could reduce risks through **policies and subsidies or by providing targeted tax relief that can lower the threshold for first movers**. However, participants argued that government action would not be forthcoming unless industry stakeholders are clear about the concrete needs and actions. Moving forward, all parties need to consider an increase in the sharing of information on ongoing projects to support productive public-private collaboration.

GREEN CORPIDORS

HOW TO MAKE 'EM HAPPEN... WHERE do WE START?



COALITIONS



PORTS
PUBLIC-PRIVATE
INTERFACE

COLABORATION
between willing
STAKEHOLDERS



MINDSET READY to FAIL/ READY to LEARN



BOOK & CLAIM
PLATFORM
FOR COUNTAINER SHIPS



INSPIRE OTHERS





Aligning on global policy to support shipping's energy transition

For a global price on carbon to be adopted by the IMO, there is a clear need to ensure that the industry better aligns with governments on their shared objectives.

The starting point for discussions in the working group was the consensus view that global policy measures are needed to decarbonize international shipping and that industry stakeholders have a crucial role to play in making this happen.

BUILDING SUPPORT

Participants agreed that the preferred solution is **global regulation adopted at the IMO**. It was however clear that there is a significant risk that this might not happen fast enough to put the industry on track for zero emissions by 2050. It is therefore also necessary to engage with national and regional regulators, who can be first movers and **start building the critical mass of support** that can lead to global regulations rather than just wait for a global consensus to arise.

ENGAGING WITH GOVERNMENTS

The group discussed three main approaches for **how to engage** with governments: Public-private cooperation, going granular, and carbon taxation.

- **Public-private partnership** and dialogue is necessary to get industry action and regulation aligned, especially as first movers forge ahead of policymakers.
- There is a need to go granular to build support for global regulation as countries will have different opportunities
 and concerns in relation to the decarbonization of shipping. This will be especially important in engaging
 with developing countries as they can have very different challenges and opportunities that will need to be
 addressed.
- Carbon taxation is a powerful tool of global policy that can both help close the competitiveness gap between
 fossil fuels and zero-emission fuels and raise funds that can de-risk first movers, fund infrastructure
 development, and support developing countries.

RETHINKING THE RELATIONSHIP

Participants outlined how a carbon price would serve to **fundamentally change the social contract** for the industry, going from a situation where the maritime sector is based on (almost) no taxation to a model where the industry could potentially fund its own decarbonization, while preserving a level playing field. Achieving this will require further developing the details of carbon tax schemes, including how the revenue raised should be used to achieve maximum impact and ensure that funds also flow to developing countries.





35 | GLOBAL MARITIME FORUM Reaching the tipping point | 36

Making global policy just

Global policies must be designed in a way that considers the needs of developing countries if they are to be adopted.

The members of the working group discussed the need for policy to support a just transition, highlighting how maritime decarbonization presents different challenges to countries around the globe. This is especially true for developing countries whose economies are highly dependent on shipping and who have not historically polluted as heavily as developed countries.

UNDERSTANDING IMPACTS

The group acknowledged that climate mitigation presents a particular challenge for countries like Small Island Developing States, who are vulnerable to climate change and so want high ambitious climate targets, yet any measures for shipping risk having adverse impacts to their domestic economies through, for example, **higher transport costs**.

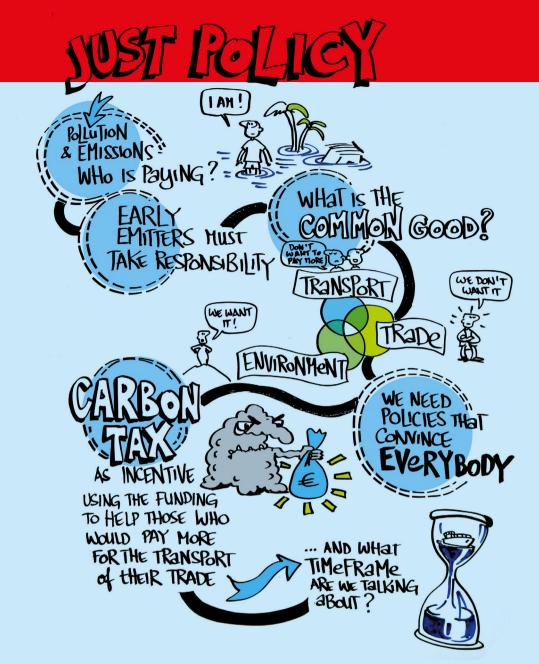
Participants focused on how just policies must thus be implemented to support these countries to ensure that **no one is left behind** and that they can take advantage of opportunities related to maritime decarbonization. They acknowledged that these policies could be formulated and implemented at both the regional and global level. It was agreed that developing countries must be empowered and that better understanding is needed of the holistic impacts that policies would have on their domestic economies.

ENGAGING IN REGULATION

Some participants pointed out that there is currently minimal representation from developing countries at the IMO, proposing to focus efforts on supporting these countries in being represented at the negotiating table and articulating their needs.

A potential solution explored was to apply a carbon tax to all and that a portion of the **revenues be channeled to developing countries**. This revenue could be directed towards projects which could provide other societal and economic benefits for example by helping to decarbonize other parts of the economy, job creation, energy security, and public health.

The group ultimately proposed to set up a **dedicated task force** to identify research, analysis, and dialogue that could help unlock progress at the IMO and direct industry efforts in addressing equity and justice in the transition to a zero-emission future. The task force could create an inclusive participatory process and be composed of influential voices from each region along with IGOs and other experts.





Opportunities for a just transition

To ensure that no one is left behind in shipping's energy transition, the industry needs to demonstrate how decarbonization can provide benefits for developing countries.

This working group discussed how for the maritime industry's transition to meet collective decarbonization goals, it is necessary to work with developing countries to ensure that the transition is **truly global**.

REALIZING THE OPPORTUNITIES

Participants highlighted how many developing and middle-income countries have access to **abundant**, **low-cost**, **renewable resources** that could be leveraged to produce zero-emission fuels. The sheer volume of green fuels that will be required for shipping and other sectors presents a tremendous opportunity for these countries. However, realizing the opportunities will require government and political support, especially in countries where maritime decarbonization is seen as posing a risk to economic and social development. The group suggested to engage with national governments and their respective ministries to explore these benefits and better understand how to ensure that these are realized from **different national perspectives**.

CREATING VALUE

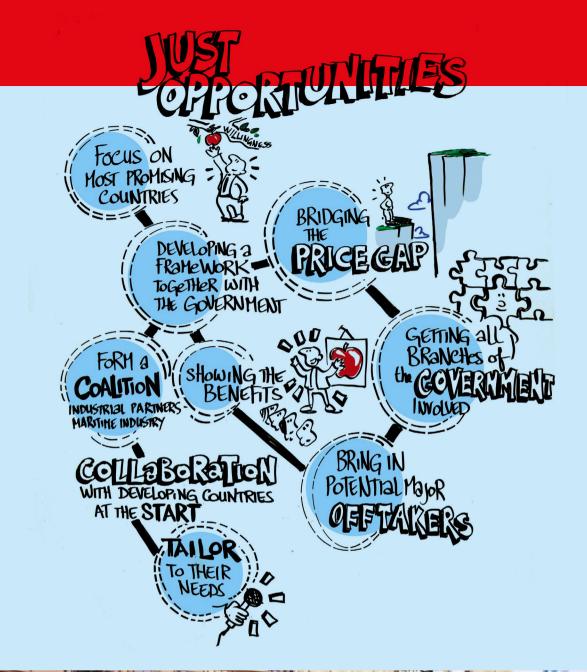
Furthermore, participants agreed that the energy transition will not just be about developing and scaling fuel infrastructure but also about developing the necessary **skills and capacity**. One working group member shared that countries like Ghana and Cuba are already moving forward on this front, preparing to adapt seafarer capabilities, training, and skills.

REDUCING COSTS

The discussion also focused on how the energy transition will present **financial costs** across a range of areas (increased fuel costs, trade costs, and loss of export revenues) that must be carefully considered. Developing countries may resist this transition unless there's **adequate financing available to offset these costs**. Participants noted that a carbon levy adopted by the IMO could help developing countries' willingness to engage, especially if collected funds were channeled back into land-based projects benefitting these countries.

NEXT STEPS

The working group proposed as immediate next steps to focus efforts on the most promising countries with abundant renewables, engage in dialogue to demonstrate the benefits and opportunities associated with the energy transition, forming coalitions of industry stakeholders, including off-takers, tailored to each country, and leverage existing financing mechanisms to reduce the high-cost risk of investing in developing countries.





An urgent call to action

"We need to be ready to fail forwards and adapt if we are going to move quickly." "Digitalization offers opportunities for measuring and reporting on carbon emissions which could be harnessed to improve transparency in the shipping industry."

"How do we communicate the outcomes from here to those who are not in the room yet?"

"No one company can do this on their own."

"We need to create a proposal that governments can adopt and then set about brokering relationships between governments to secure agreement." "We need to engage those stakeholders who are not currently part of the decarbonization conversation to increase support and avoid creating an echo chamber."

Synthesis session

The closing synthesis conversation brought together all Summit participants to share insights from the working groups. An energetic conversation emerged, with participants bringing in a broad range of new ideas and perspectives.

Several interventions focused on how the maritime industry needs to take control over its decarbonization journey through identifying the actions that each part of the value chain can take today. Others addressed the importance of engaging with governments, ensuring that the right incentive structures are in place to stimulate the uptake of zero-emission fuels. Some participants proposed to bring new voices into the conversation, both from other industries and from new geographies. Lastly, the need to guarantee that the transition is just and equitable was emphasized, with many participants seeing this as imperative to making progress at the IMO.

"To manage the risk of the transition, we need to make actions bite sized."

"This is a code red for humanity."

"Climate risk means that maintaining the status quo carries even more risk than the transition to a decarbonized shipping industry."

"How can we use transparency to accelerate the goals that we've been working towards today?" "To solve the puzzle, we need to work out who's working on the borders, who's sorting the pieces. We need a process to make collaboration work."



"There are many developing countries that could be worse off under a carbon pricing system, meaning it is important that carbon pricing is designed to both incentivize and compensate those countries." "We need to work on green corridors and find these pockets of the future in the present."

"Unfortunately, we don't have the luxury of time."

"The three teams focused on short-term actions had very consistent solutions. Which shows that as a group we are aware of what needs to be done and there is no excuse for not doing it. We don't need to educate; we just need to execute."







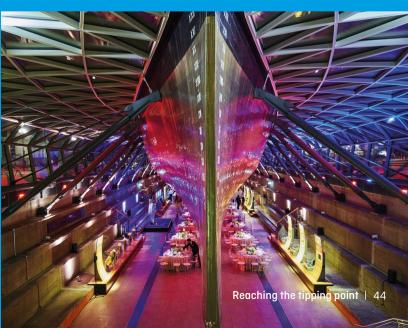


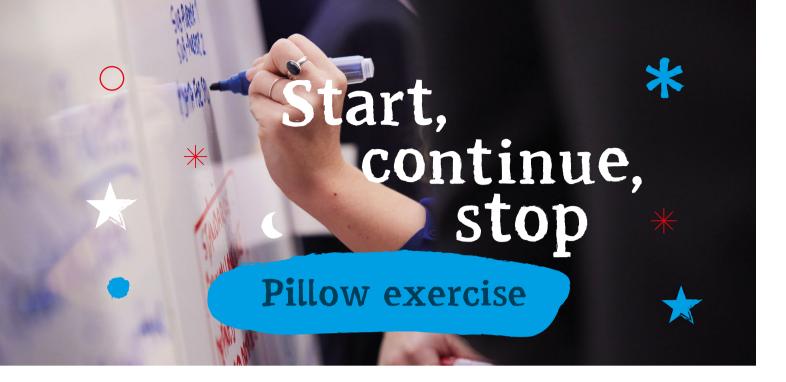












As the first day of the Summit in London drew to a close, leaders were asked to reflect on what they think the maritime industry should start, continue, and stop doing. They shared their reflections at the beginning of day two.



Start



Start being crazy!

Take action! Figure out what concrete bite-sized chunks can be within your realm of control and do it!

Take advantage of current "fame" and communicate our message to the world

Sitting down with our customers to create common ground. When supply and demand is aligned, finance and governments will follow

Leading change, not waiting for it to happen

Research for the fuels, propulsion engines, design improvements that will make zero-carbon energy possible at large, and not just in shipping



Continue



Believing...

- we can re-imagine shipping
- we can drive real change
- we don't need all the answers now
- we can adapt to attract new talent
- we are positioning for success
- we can overcome the challenge



- Next generation of shipping leaders
- Adjacent industries
- Regulators

We must continue to push policy makers for a global carbon levy

Setting measurable goals. Sharing our goals with each other - informal benchmarking. Celebrating our successes while striving for more.

Continue to believe it is possible





Stop



Waiting for others to act first

Waiting for the "perfect" solution for decarbonization and act now

Thinking about the solution as binary: Often it is not either-or but yes-and for instance when it comes to regional vs. global regulation

Making excuses



The second in-person day of the Summit focused on the emerging pressures that the maritime industry is facing to respond to **Environmental**, **Social**, **and Governance** (**ESG**) requirements and to create **sustainable operating models**.

As a driving force of the global economy, the maritime sector plays an important role in the lives of the vast majority of people on the planet. This crucial role brings with it a responsibility to provide its services in a way that is sustainable and fair, and meets expectations and growing scrutiny of governments, investors, customers, and citizens.

Governments are increasingly focused on issues such as corporate taxation and profit shifting. Customers are ramping up calls for due diligence throughout their supply chains on various issues, from environmental performance and resource efficiency to the protection of human rights and decent working conditions. Investors are committing to sustainable finance, all while **public attention on ESG issues is growing**.

Participants took stock of these pressures and explored avenues to improve the sector's ESG performance.

person day

License to operate

A moonshot guide to changing capitalism

The second day of the Annual Summit commenced with a keynote address by Mariana Mazzucato, Professor in the Economics of Innovation and Public Value, University College London. Her remarks focused on the need for different stakeholders, from business to governments, to rethink their purpose in terms of their contribution to wider society. To do this, Mariana Mazzucato opened by inviting participants to consider how the maritime industry can learn from the Moon landings when coordinating efforts around a common "moonshot" goal such as the transition to a zero-emission future.

Expecting to fail

Firstly, stakeholders need a high level of willingness to fail and to learn from and share their failures. Experiments, trials, and errors were necessary parts of the process to reach the Moon. Each success requires a set of failures, which we need to accept as a fact and start working on our goals regardless of the uncertainty this entails.

Working together

Secondly, goals must be shared and addressed collectively. Coordination and collaboration are crucial as they help to **share the risks of innovation** across different stakeholders. To get to the Moon required an enormous collaborative effort among and across different sectors, from materials, nutrition to aerospace. Businesses and government worked together, with businesses welcoming uncertainty and sharing the risks with government to achieve their common objective.

Defining purpose

Thirdly, no single big invention comes without a **clearly defined purpose**. For example, when GPS was invented, the original purpose was not simply to invent GPS, but to get satellites to communicate. Establishing these clear ambitions at the core of public-private partnerships is essential to making sure that efforts are coordinated and serve a defined need.

Facing future challenges

There will be even more challenges in the future and to succeed, we must learn from each other to address them collectively. We need those onboard who are willing to take risks, collaborate, experiment, and fail. In return, we can raise the bar for what can be achieved when we work together.

Visit our YouTube channel to learn more about the session.









The expert knowledge provided in the learning sessions helped inform discussions in subsequent working groups as well as **possible pathways forward**.

Expert presentations

New perspectives, new solutions



What are the benefits of a diverse workforce, and how can an increased focus on inclusion and diversity ensure that the maritime industry is able to attract the talent it needs?

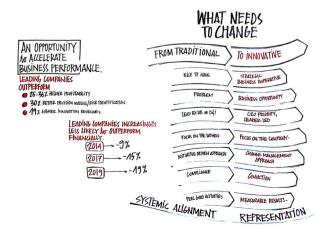
Jennifer Flock, Partner, Heidrick & Struggles

For organizations to retain and attract the talent to sustain their competitiveness, the first area covered was to ensure that they **tap into all available talent pools** by expanding hiring practices to include underrepresented groups. To do this, Jennifer Flock argued that companies will need to challenge their perception of what talent looks like to access people from new backgrounds and geographies.

Jennifer Flock further pointed out that an inclusive working environment which is attentive to the needs of this new talent pool will be required to retain a diverse workforce. Companies not demonstrating action on diversity, equity, and inclusion risk becoming **talent hunting grounds** for those who have been intentionally strategic on creating these conditions.

INNOVATING CULTURE

Diversity, equity, and inclusion are not just important factors in attracting talent, but also in the capacity to innovate and drive business performance. Studies have shown that innovation is greatly improved by having heterogenous teams with a **wide range of perspectives** and ideas to draw upon when approaching a given problem.



According to Jennifer Flock, with this in mind, diversity, equity, and inclusion should be framed and understood as a **business imperative**, led by the executive level, and expressed through organizational structures, with clear targets and measurable ways to demonstrate progress.

Key questions for participants to consider:

- Are your leaders visibly acting as change agents and role models in creating an inclusive culture?
- Is inclusion explicitly part of the expectation of what good leadership looks like in your organization?
- Do you have a deep understanding of people's different experiences of inclusion and belonging?
- Have you sufficiently assessed your policies and processes to ensure that they are accelerating inclusion rather than getting in the way of progress?
- Has visible progress been made in building a mix of representation at all levels and across all parts of the business?



Expert presentations

Bridging the skills gap

How do we ensure that seafarers have the right training and skills to run the greener, and more digitalized, fleet of the future?

Rajesh Unni, Founder and Chief Executive Officer, Synergy Group

With the rapid development in new technologies and growth of global trade, Rajesh Unni explored the need to **address a widening skills gap** in the maritime industry. Young people from countries like the Philippines or India, who have traditionally sought out careers at sea no longer have to leave home for good jobs. Furthermore, education and training has not kept pace with fast changes in technologies and fuels, leading to a large deficit of highly skilled workers, one that is only expected to grow as green technologies, digitalization, and automation take hold across the industry.

CHOOSING A CAREER AT SEA

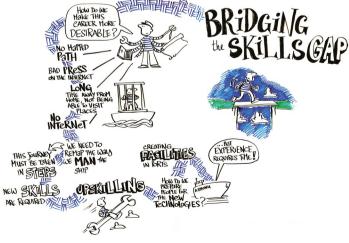
Compared to other industries, shipping is often seen as an **undesirable form of employment**, due to prolonged periods away from home, which has only been compounded by the crew change crisis. These are issues that lead many to decide against shipping, and companies across the maritime value chain are under pressure to rethink how seafarers are employed and treated.

Rajesh Unni highlighted how companies should seek to facilitate seafarers' transition from home to the vessel and back. He also proposed **redefining the model of employment** for instance by replacing the current six-month schedules with schedules as short as eight weeks. While these measures will increase costs in the short term, the benefit of attracting and retaining a happy and willing workforce will stem a larger skills gap emerging over the coming decades.

EDUCATING FOR THE FUTURE

In addition to ensuring the welfare of seafarers, Rajesh Unni focused on knowledge and skills of seafarers, pointing to the need for training programs to match current technologies, in addition to **preparing for new developments**. This is particularly important given that the transition to zero-emission fuels may require different levels of education and skill to handle than traditional fuels.





Expert presentations

Expanding the talent pool – Can Africa supply the seafarers of the future?

Learning sessions

How can the maritime industry attract new streams of talent, particularly from new geographies like Africa?

Eva Rodriguez, Director HR Marine, Bernhard Schulte Shipmanagement

NEW SOURCES OF TALENT

The maritime industry faces a **serious and growing challenge attracting enough seafarers**, seeing their available pool of talent dwindle, as potential seafarers from traditional geographies have far more choice in terms of other career opportunities than previously. To address these challenges, Eva Rodriguez argued that the maritime industry consider the potential of new geographies, especially in Africa, with its growing young population, to provide the seafarers of the future.

CREATING THE RIGHT CONDITIONS

Eva Rodriguez pointed to progress being made on creating the conditions necessary to **attract and retain African seafarers** to the industry. One initiative, for example, saw a group of seafarers from new geographies, including in Africa, being trialed onboard a vessel with the aim of understanding how to successfully include and integrate them into existing teams.

There were cultural challenges, differences in safety understanding and experience with organizational policy, making it necessary to be more detailed in the onboarding processes. However, the management and new cadets ultimately found an effective way to work with one another, identifying and working on the knowledge gaps that existed between them.

CHALLENGING PERCEPTIONS

Despite the success of this trial and the fact that it could be easily scaled, the market is currently not accepting African seafarers. To challenge preferences for seafarers from traditional geographies, Eva Rodriguez emphasized a need to demonstrate and develop the competences of African seafarers by providing for vocational training and ensuring that they have the right skills and knowledge necessary for a career at sea.







Expert presentations

Learnings from the crew change crisis

What can we learn from the crew change crisis and how can these learnings be used to better protect the rights of seafarers in the future?

Stephen Cotton, General Secretary, International Transport Workers' Federation (ITF) **Guy Platten**, Secretary General, International Chamber of Shipping (ICS)

IN THE SPOTLIGHT

The crew change crisis and the inability of the industry and governments to alleviate the most severe impacts on seafarers have led to more attention from wider society on international shipping, increasing pressure to react and adapt.

Guy Platten emphasized that the crew change crisis should also be seen as an opportunity, with ample learnings to be drawn from the experience. With the increased attention on the plight of seafarers, the industry now needs to be prepared to stand up and take action or face further public scrutiny.

AN ONGOING PROBLEM

While the crew change crisis has subsided in Europe and North America, seafarers across Asia-Pacific are still suffering from a lack of coordination between governments. Inconsistencies between national travel rules persist, in some cases requiring seafarers to have three or four vaccines to comply with different restrictions. Despite the success of initiatives like the Neptune Declaration, the industry needs to remain vigilant, making sure that it represents a clear and concise message for governments on what is needed to resolve remaining challenges.

TAKING A STAND

Stephen Cotton concluded by urging the participants to take a stand by avoiding relationships with bad actors whilst showcasing the best practices of responsible shipowners. He emphasized the need for new types of relationships and collaboration between stakeholders along the value chain, engaging in dialogue and identifying new ways of working with one another to ensure seafarer wellbeing.





Expert presentations

Taxation: Taking its toll

Learning sessions

What will ongoing global tax reform mean for the maritime industry?

Achim Pross, Head of International Co-operation and Tax Administration Division, Organisation for Economic Co-operation and Development (OECD)

Achim Pross began by outlining the OECD's work on taxation which involves bringing 140 countries together to design rules that support the global economy and trade. Since the global financial crisis, taxation has become a more prominent political issue due to increased focus amongst governments and citizens on creating economic systems that are fair and reduce inequality.

A GLOBAL MINIMUM TAX

This increased attention has culminated in recent agreements to establish a global minimum tax, which will be implemented in 2023. The new tax regime has been agreed to by 136 countries (representing over 90% of global GDP) and will ensure that multinational enterprises will be subject to a minimum 15% tax rate globally.

Significantly, **shipping is the only sector that will be exempt from this new tax**. Achim Pross emphasized

that not all aspects of shipping will be exempt, but rather specific parts of revenue. Additionally, some large and profitable shipping companies will fall under the new regime, which applies to companies that have over EUR 20 billion in annual revenue and profitability above 10%.

Despite shipping's exemption from the new global minimum tax, Achim Pross asserted its relevance to the shipping industry since it is an example of further scrutiny and action towards fairness and equity in the global taxation system. Many other sectors have expressed their dissatisfaction about shipping's exemption, leading to suggestions that shipping may eventually be included in the new tax regime because it is seen as an effective way of levelling the playing field.





Expert presentations

Cybersecurity: Hacking the industry

What is the nature of the cyber threats facing the maritime industry and how can we work together to reduce the risks of major disruptions?

Chronis Kapalidis, Principal, Information Security Forum

THE CYBER THREAT

Chronis Kapalidis outlined the threat that cyber criminals represent to the maritime industry, being capable of **hacking ships** for extortion, for political reasons, or simply for their own amusement. Hackers can for instance tamper with a vessel's GPS system, take control over its primary means of navigation, or target ship-based operational technology systems, gaining access to the vessel's systems, such as the engine.

Despite the potential for such attacks to cause tremendous damage, leading decision-makers across the industry have only recently begun to understand the **importance of cyber security** and adopt measures to protect their operations.

STAYING SECURE

While there is never a guarantee of complete safety from cyber criminals, Chronis Kapalidis proposed steps to help minimize exposure to cyber risk. First, participants were encouraged to listen to their IT departments, to understand their concerns, and act on their advice. Secondly, he recommended that companies establish a **cyber security strategy** centered around people, processes, and technology. This requires focusing on the points at which the system is weakest, understanding that hackers are like water – they take the path of least resistance.

Chronis Kapalidis concluded by outlining that most cyber-attacks are financially, rather than politically, motivated, and typically hackers will not target specific companies, but those that offer the quickest route to a successful payday. This means that in most cases, the best way to protect against cyber crime is simply to have better cyber security practices than the next company in line.





Expert presentations

In the court of public opinion



Like many other sectors, the maritime industry is facing growing public scrutiny. How is the maritime industry perceived and how can it get a fair hearing in the court of public opinion?

Margot Gibbs, Investigative Journalist, International Consortium of Investigative Journalists

INCREASING SCRUTINY

Margot Gibbs opened the session by elaborating on the Black Trail documentary, which she had been involved in creating. The documentary brings an outside perspective on the maritime industry, highlighting key challenges such as the sector's failure to adequately address the climate crisis, tax avoidance, and inability to take responsibility for its actions in line with public expectations. The documentary focuses on the IMO's current emissions trajectory for shipping being out of line with the Paris Agreement, that it uses its status in relation to world trade as an excuse to avoid responsibility for its actions, and its unique ability to operate from low tax jurisdictions as a way of avoiding paying its dues to society.

A GOVERNANCE DEFICIT

According to Margot Gibbs, the root cause for the current situation is a governance deficit in shipping, highlighting the lack of a proper relationship between regulators and the industry as a key issue. This makes it difficult for individual companies to come to grips

with challenges such as the climate crisis. Some participants reacted strongly to the negative depiction of the maritime industry in the documentary, which was seen as biased. The documentary was also seen as not reflecting the complexity and commercial pressures that characterize the industry both when it comes to decarbonization and taxation. Margot Gibbs responded that the industry's fundamental role in global trade is not an excuse for bad practice, and that shipping depends on the world's resources, and should therefore contribute to society through taxation just as other corporations do.

SHOWING THE GOOD SIDE

Other participants felt that the documentary did not portray the industry in a fair and balanced way, but that this was at least partly the industry's own fault. To get a more balanced hearing in the court of public opinion, there is a need to **engage more actively** with journalists and other stakeholders. The onus is on maritime stakeholders to do more to address shortcomings and share the positive actions that are being taken to contribute to society.







Participants then selected working groups focusing on topics addressing the industry's license to operate. Here, groups explored issues relating to seafaring, diversity, equity, and inclusion, circular economy, data and transparency, and promoting the industry. Participants discussed blockers and enablers for making progress on these areas.

Over the following pages the working groups are summarized, outlining participants' discussions, and identified areas for further action.

Creating a diverse, equitable, and inclusive maritime industry

There is an urgent need to raise awareness of the role of diversity, equity, and inclusion in addressing talent attraction and retention in the global maritime industry.

The discussion centered on how investing in diversity, equity, and inclusion can help the industry to address the need not only for attracting and retaining talent, but also for **improved performance and innovation**. Participants also explored challenges connected to implementing these changes within organizations, focusing on a need for diversity, equity, and inclusion to be a strategic objective and a priority for management.

INCLUSIVITY

The group discussed that to attract new employee groups to the maritime industry, there is a need to **make employment cultures more inclusive**, both at sea and on land. This means fostering a culture where people feel seen and heard, and to which they feel a sense of belonging. This was seen as a particularly vital challenge in the face of the current "great resignation", where companies not only struggle to attract new talent but also to retain existing talent.

ATTRACTING YOUTH - AND OTHER NEW EMPLOYEE GROUPS

Participants especially highlighted the challenge of attracting young people to the maritime industry, with the current reputation for being not only "un-cool", but also **old-fashioned**, **hierarchical**, **and homogeneous**. The current visibility of the maritime industry, with the supply chain disruptions and crew change crisis, should be leveraged to improve the overall perception of the industry vis-à-vis young people.

The group argued that the industry needs to define a new value proposition targeting young people, as opposed to "hiding in the shadows". To do this, companies need to **rethink old hiring practices** and start preparing for the employees that they will need in the future.

THE IMPORTANCE OF LEADERSHIP

The working group also discussed the vital role of leadership in successfully ensuring diversity, equity, and inclusion. The group stressed how this only happens when top management becomes the primary driver of change. This could also create wider benefits for organizations at sea and on land, providing for a wider range of perspectives and in turn, better decision-making.





The future of seafaring

Attracting the talent of the future is essential to tackling the systemic challenges that the industry is facing.

This working group focused on the challenges and opportunities that seafarers are experiencing and what is required to make a career as a seafarer attractive.

The starting point for the discussion was the fact that the industry has changed and that the value proposition to seafarers is no longer as strong as it used to be. Events like the crew change crisis and the reality of extended periods away from home, monotonous work and poor conditions on board vessels have contributed to the view of seafaring as **an unattractive proposition**.

The group worked on identifying measures that can make working as a seafarer more attractive. The group discussed current **contract structures** and the pros and cons of reducing contract lengths in addition to issues with providing internet access onboard to make it easier for seafarers to stay connected with friends and family.

UNDERSTANDING CHALLENGES AND NEEDS

Participants discussed the importance of improving conditions, especially considering the increasing need for **talented seafarers** capable of tackling future challenges and opportunities related to new fuels, cybersecurity, and other technological developments. This need for new skills could also offer exciting areas of opportunity for seafarers that could be used to attract new talent to the industry.

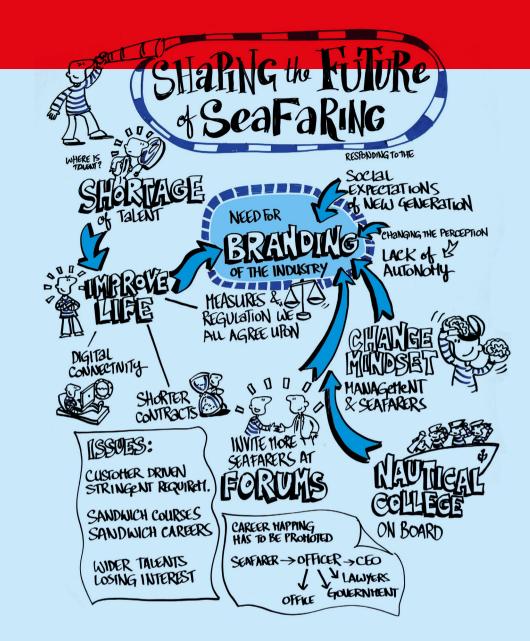
Another important factor highlighted was how seafarers see their opportunities for **development and growth**. Today, seafarers train and prepare for specific roles, and many do not see a job as a seafarer as the beginning of a career in the maritime sector. Focus on personal and professional growth could demonstrate what one can achieve through a career as a seafarer.

In addition to improving the value proposition for seafarers, the group also identified a clear need to communicate more effectively to potential seafarers. Participants suggested that the maritime industry should be branded as **an attractive workplace** with many career opportunities to grow and develop.

To ensure that the voice of seafarers is also present in the discussions at the Global Maritime Forum's Annual Summit, the group suggested that more seafarers should be invited to join in the future.

A REAL CAREER PROSPECT

In summary, the group found that with all the options young people have today, a career as a seafarer is not currently competitive. Participants emphasized the need to create a culture of learning and development, where the focus lies on the opportunities for growth, and **to tell this story effectively**. In doing so, the industry will be able to attract and retain the skilled seafarers it needs.





Treating seafarers right

The crew change crisis has revealed systemic challenges affecting the wellbeing of seafarers, which presents a unique opportunity to understand how to treat seafarers right moving forward.

Participants in this working group started by acknowledging how Covid-19 has revealed the vulnerabilities and risks that seafarers across the world face. Consequently, the group decided to focus on the broader learnings from the crew change crisis and discuss what collaborative **actions could be taken** to ensure that seafarers are consistently treated right.

UNDERSTANDING CONDITIONS

As Covid-19 restrictions were adopted globally, the rights of seafarers were increasingly curtailed with many being unable to leave their ship or return home for prolonged periods of time. Despite the best efforts of many companies and stakeholders the situation was not resolved, having serious implications for the **wellbeing of seafarers**.

Short-termism was raised by participants as a root cause, seeing seafarers' wellbeing sacrificed to reduce costs in response to a market primarily driven by price. This is coupled with a culture on board ships that relies heavily on hierarchy and discourages discussions on emotions. This creates a risk that even highly skilled seafarers do not feel respected or valued.

ENSURING WELLBEING

The working group agreed the industry needs to do a better job at **looking after seafarers** and working with governments to ensure their rights are upheld.

Participants pointed to the vast volumes of available data on the wellbeing of seafarers as a tool to highlight how, for example, fatigue is linked with an increase in accidents in order to shed light on the cost of not protecting the wellbeing of seafarers.

Another option could be to create an industry-wide code of conduct for seafarer wellbeing. This would consist of **clear principles of seafarer wellbeing**, building on existing best practices that could be included **as contractual obligations** in charter parties, agreements with customers or in financial contracts. Such a code of conduct could help create alignment between business incentives and treating seafarers right, as companies not willing to live up to the code of conduct would lose business.

WORKING WITH GOVERNMENTS

The group recognized that even with these contractual obligations on seafarer wellbeing, governments will still have a crucial role in ensuring that international regulation safeguarding the rights of seafarers is implemented and enforced. There is therefore also a need to continue to **engage with governments** to make sure that they uphold their obligations, with seafarer wellbeing as a prerequisite for functioning global supply chains in the years to come.





Shipping's circular economy

Circular thinking for the maritime industry requires a fundamental change in mindset to fully leverage the opportunities that new circular business models can bring.

This working group explored how to incorporate circular economy principles into the maritime value chain. Drawing on lessons from aviation and the auto industry, the group focused its efforts on what it takes to build, own, and operate a vessel throughout its lifetime with a circular approach. **Standardization and modularity of ships** was seen as key.

ALIGNING INCENTIVES

Participants pointed to a need to **improve the design, adaptability, and retrofitting of ships**. Better data collection and utilization could support circularity, for example by making spare parts traceable. Discussions highlighted challenges related to split incentives between owners and charterers. Shipowners may not have sufficient motivation to switch to a circular system, whereas charterers prefer new ships over old vessels due to safety concerns and energy efficiency.

EXTENDING LIFETIMES

Even if modularity and standardization are supported, there is still a need to **dissociate the age of a ship with its quality**. To this end, participants noted the importance of improving quality assurance and certification of refurbished and modular parts and retrofitted ships to showcase their fit-for-purpose upgrades. If new certifications are provided, charterers may be more likely to select older vessels.

Immediate steps the industry can take focused on opportunities to **retrofit the existing fleet** rather than building new ships. Indeed, participants argued that assets that are constantly being optimized over the course of their lifetime ought to be viewed as a better option than a newbuild.

RECYCLING BEFORE SCRAPPING

Generally, participants agreed that a change in industry mentality is needed. "Recycle" should replace "scrap", with new business models being needed as well as new ways of thinking about ship design, building, and operations. For example, it could be a goal to build ships that have a lifespan of 50 years instead of 25 years. To make this a reality will require collaboration and co-creation to integrate circular thinking in all aspects of the asset's lifespan.



the Moonshot → Extract value from All components

What are the CONCRETE STEPS

We can take now to Make Shipping More circular



MINDSET: COLLABORATION & CO-CREATION - DRIVE FORWARDS

INCLUDING ASSUMPTIONS -

Data and transparency

To de-risk data transparency for companies, data should be aggregated and safely managed by an independent authority and governed by a standardized methodology based on clearly defined purposes.

This working group discussed the importance of promoting transparency as well as ways to improve data sharing and collaboration. Participants identified numerous areas – from decarbonization to safety – where enhanced digitalization could be a driver for progress.

SHARING INFORMATION

Participants explored how creating a **knowledge-sharing environment** is crucial to enable shipping's energy transition and bring in new stakeholders to strengthen efforts on maritime decarbonization. For stakeholders in the maritime value chain, transparency will act as a tool to understand the impact of their choices and create comparability, providing the industry with an imperative to act.

Participants pointed out that one barrier to transparency is a fear that companies will be penalized as a consequence of making information available; they don't trust that it will be used responsibly. To incentivize transparency, **safe governance of data** will be needed.

UTILIZING DATA

One way to de-risk data sharing is to clearly establish the purpose of the data and limit sharing around this common objective. Such a purpose could, for example, be related to environmental, social, or safety issues. The aggregator of data could then create a standardized methodology based on these silos to enable **secure**, **objective**, **and reliable comparison** both within companies and across the industry.

The group further acknowledged that data also need to be **governed effectively**. Data should be actively used based on standardization and systemization, keeping the purpose of data in mind. Protection of data security, commercial interests, and data ownership were seen as prerequisites for data sharing.

ANTICIPATING REGULATION

To improve data transparency, the group identified two potential pathways: Either a coalition of the willing starts voluntarily, or regulators force them into transparency. With either of these options, the group expected regulation to have an impact in the future, particularly from the IMO. The group concluded by discussing how **moving first and sharing data** in advance of these regulations could be an opportunity for the industry and individual companies to enhance their reputations.





Promoting the industry

The maritime industry has never had so much exposure, with now being the time to leverage this interest to better promote the industry.

One of the topics that generated the most interest at the Summit was the need to promote the maritime industry. This group addressed how to raise awareness around the industry's **crucial role in the global economy** as well as the actions that are being taken across the industry to improve its performance on environmental, social, and governance issues.

COMING INTO THE LIGHT

Participants emphasized the importance of promoting the industry because major challenges such as decarbonization or overcoming the crew change crisis cannot be solved without **engaging successfully with other stakeholders**. Raising awareness among young people will also be important to attract the **next generation of talent** both at sea and on land, where the competition from other industries will be fierce.

The working group acknowledged that the starting point for the maritime sector is not great, as it is an industry which is largely **out of public view**. In the few instances where there is a spotlight on the industry, it is often due to supply chain crises, pollution, accidents, or dubious business practices. This led participants to the question: "How can we make maritime sexy again?"

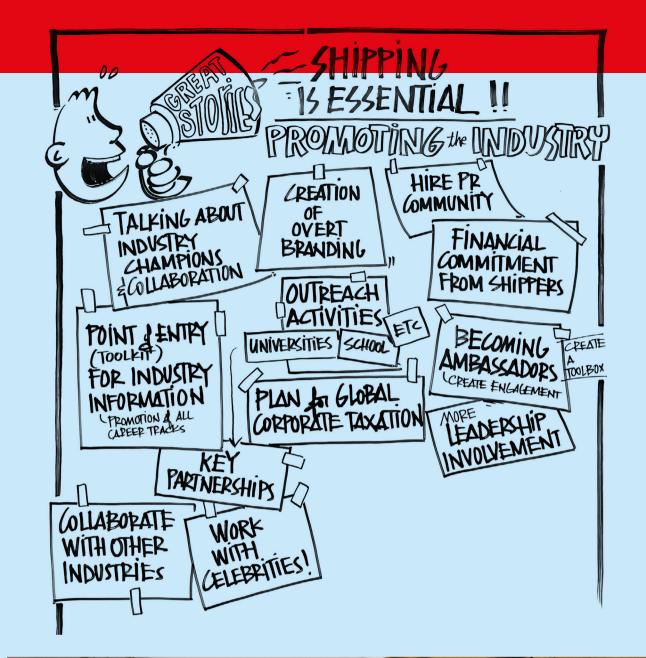
TELLING THE STORY

For the working group, the maritime industry's publicity problem is not due to a lack of good stories to tell. The pandemic has made this clearer than ever: **Shipping is what keeps the world spinning**. Without it, supermarket shelves remain empty and gas pumps stop pumping. Furthermore, shipping is the most environmentally friendly mode of transport available and is determined to decarbonize as soon as possible.

The group discussed different approaches to getting this message across. One idea was to get outside help from PR professionals, who could be hired to create a branding campaign for the industry. This could for instance be in the form of a small "shipped-by-sea" label on goods, which could help raise general awareness and appreciation for the maritime industry.

ATTRACTING THE RIGHT PEOPLE

Another action area was related to **talent attraction**, where it was suggested to better champion the people that make the industry what it is. This would require more collaboration with other industries that are dependent on shipping and more top management involvement. One suggestion was to have shipping executives commit to do outreach activities at schools and universities potentially together with younger role models, for instance young seafarers.







The closing plenary brought together participants to collectively reflect on their work and discussions during the Summit.

Gabrielle Walker framed the closing plenary by asking Summit participants to share their discussions from the various working groups and identify what concrete actions can collectively be taken as next steps. Several participants pointed to supply chain disruptions and the crew change crisis as well as the maritime sector's prominent role in the decarbonization of other sectors and how this has meant that the industry is increasingly coming under scrutiny. Others highlighted the need to rethink the maritime industry's social contract, which is based on low taxation and a low level of support from and engagement with governments.

It was suggested that outlining and being honest about current challenges such as decarbonization, improving the wellbeing of seafarers, and leveraging new digital

technologies presents an opportunity to innovate and reinvent how the industry operates. Many agreed that presenting these challenges as opportunities to make the industry better, would be vital to attracting the talent that the industry needs as many will be motivated by the chance to make a positive impact in an industry that is vital to global trade and prosperity.

The session concluded with participants being invited to rethink the narrative of the maritime industry and offer their proposals on how to make this narrative a reality drawing on the collaborative work at the Summit.

Future of seafaring

"We need a more formal code of conduct for treating seafarers right that is enforceable, auditable and includes feedback from the seafarers."

"We should invite more seafarers into the conversation and carve out a session for them to speak for themselves."

Diversity, equity, and inclusion

"CEO's and corporate leaders need to take more responsibility internally for their organizations, driving change an enhance commitment from the people they employ."

"We need to bring under-represented countries and geographies, such as from Africa, into our conversations."

Shipping's circular economy

"We need to throw away the throw away mentality and replace 'scrapping' with 'recycling'."

Transparency and data

"We are reaching a transparency tipping point where much of this data is going to become available anyway."

Promoting the industry

"What is the story that we want to tell our children and grandchildren?"

"We need to use our recent 'fame' and turn this into an advantage."

"The fact that we can be honest about these problems is exactly why we can turn the industry around and make it exciting."

Decarbonization

"We really have to get to the front of the queue in terms of access to green energy supplies. We can no longer be a hidden industry relying on the bottom end of the refining process."

"If we can ensure that the IMO is successful, we can be a beacon of hope for nation states."



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