A Climate-Smart, Sustainable and Resilient Maritime Sector

At COP26 in Glasgow, nations reaffirmed their commitment towards the Paris Agreement temperature goal through the Glasgow Climate Pact. Decarbonizing global shipping is a critical part of reaching the Paris Agreement target of limiting global warming to 1.5°C and building zero emissions, resilient global supply chains that billions of people rely on for food, energy, medicine and multiple other critical societal needs.

Today the shipping industry is the backbone of the world’s logistical supply chains, responsible for around 80% of all global trade and supported by 2 million seafarers. Accounting for 3% of global greenhouse gas (GHG) emissions which is expected to rise by 90-130% of 2008 emissions by 2050 without further action.

Shipping is currently in the emerging stages of its transition from fossil fuels to zero-emission energy sources, with over 200 pilot and demonstration projects in the pipeline. However, this is not enough and we need to rapidly scale up our actions by the middle of this decade to make zero-emission ships the default choice by 2030 or before. We need at least 5% scalable zero-emission fuels in international shipping by 2030 in order to meet this as set out in the UN-backed Race to Zero campaign and 2030 Breakthroughs. Rapid growth in the use of zero-emission fuels must accelerate throughout the 2040s to achieve zero emissions aligned to IPCC science.

Solely focusing on decarbonizing the shipping industry is insufficient. A truly sustainable path forward for the sector is a systemic challenge and requires a whole-system approach that considers social and planetary boundaries. This means it must be just and equitable for workers, communities, consumers, and countries and take into account the varied and unpredictable impacts of a changing climate on vulnerable states, other natural disasters and sources of geopolitical uncertainty that have profound impacts on infrastructure, global supply chains, and, ultimately, people. These impacts are particularly acute for Small Island Developing States (SIDS) and Least Developed Countries (LDCs), therefore we must build the resilience of coastal and port infrastructure, natural ecosystems and the communities who are already being impacted.

Collectively, we are taking this whole-system approach to climate action by bringing together all levels of State and non-State actors from across the maritime ecosystem to radically collaborate and develop the technology, policies and incentives that are needed to enhance climate resilience, create decent work, ensure social inclusion and unlock inclusive sustainable economic growth.

1 The definition of zero emission fuels is consistent with the definition laid out in the following brief https://www.globalmaritimeforum.org/content/2019/09/Getting-to-Zero-Coalition_Zero-carbon-energy-sources.pdf
All actors and initiatives play their part in shipping’s transition and collectively come together to achieve a common goal to decarbonize shipping in line with the 1.5°C trajectory of the Paris Agreement.

Supply and Demand Signals:

The maritime industry has sent a strong signal through the Getting to Zero Coalition, calling for commercially-viable, zero-emission vessels operating on deep-seas by 2030, and full decarbonization by 2050. Many cargo owners, retailers and brands, and cargo owner initiatives are increasingly demanding greener supply chains and making commitments to reduce (scope 3) emissions across their operations. These collective demand signals have the potential to accelerate technology development and full value chain pilots and demonstrations, like Green Corridors. Initiatives like the First Movers Coalition, where carriers and cargo owners are committing to using zero emission fuels in newbuild and retrofitted zero emission vessels and Cargo Owners for Zero Emission Vessels (coZEV), through which cargo owners are aiming to decarbonize all of their ocean freight purchases by 2040, are key to underpinning the business case for scaling up and commercializing zero-emission shipping. On the Charterers’ side, the Sea Cargo Charter provides tools for measuring and reporting the alignment of ships charterers’ activities with climate goals and access to new data, allowing them to work with business partners in driving carbon efficiency.

Rapid ramping up of the production and use of scalable zero-emission fuels is of utmost importance to ensure the maritime sector can decarbonize at a pace compatible with the 1.5°C objective. Initiatives like the Green Hydrogen Catapult are pivotal for the massive scale-up needed.

In addition, strong political action emphasizing urgency and scale like the Clydebank Declaration and Declaration on zero-emission shipping by 2050 also provide regulatory and demand signals needed to make zero-carbon fuel production commercially viable and investable.
**Investment and Financing:** Both private and public finance are key enablers for shipping’s decarbonization. With the total additional capital needed for shipping’s decarbonization estimated to be around US$1-1.4 trillion with over 80% of this figure upstream, access to finance is also critical. Initiatives and global frameworks such as the UN Global Compact Sustainable Ocean Principles, the UNEP FI Sustainable Blue Economy Finance Principles, Poseidon Principles and Poseidon Principles for Marine Insurance are important initiatives to support sound and viable financial decision making – recognizing that while ship finance cannot – and should not be expected to – decarbonize the shipping industry on its own, it can and should play a significant role through transparent disclosure of environmental impacts of ship finance portfolios. Finance is available, but more clarity about the future business cases is essential to allow full leveraging of the market.

**Resilience:** Maritime transport is at the heart of how goods move around the globe, but this is only possible with resilient systems. By 2050, the global community will face annual climate change-induced costs of over US$1 trillion in coastal areas as a result of the combined effects of rising sea levels and extreme weather events. These impacts are unequally distributed, as SIDS and LDCs are far more exposed and will experience losses in a more extreme manner than other global communities. Building resilience for the maritime sector and coastal communities is essential as we decarbonize shipping, including investing in Resilience4Ports and surrounding communities that will help ensure longevity for these investments and infrastructure.

**Socially just and globally equitable transition:** The transition can also become a strong driver of job creation, job upgrading, social justice and poverty eradication, if properly managed and underpinned by workers’ and community engagement. The work of the Maritime Just Transition Task Force and the Ocean Stewardship Coalition highlights how the maritime workforce, both on and off the water, is a critical part of the just and equitable transition. If well-managed, new opportunities for economic growth and high-quality green jobs could be created across the overall maritime value chain, such as the production of zero-emission fuels, including in developing countries and emerging markets as the P4G-Getting to Zero Coalition Partnership underpins. The global north and south must make this transition together and benefit from the economic opportunities it creates for all.

**Our action across all these areas helps to shape and influence the necessary, effective, and enforceable policy and regulatory frameworks.**
Individual action creates value; collectively, our impact creates whole system change

The multitude of actors across the maritime ecosystem and the interconnectedness of the maritime industry with both land and sea makes it a good source of implementable climate solutions. Progress is currently happening through voluntary initiatives and coalitions but we need to urgently accelerate and scale solutions.

We have seen first signals for industry leadership, collaboration, research and development, pilots and demonstrations and early-stage investment, as well concerted action by public and private sectors and the creation of international coherence, even while exploring different and innovative technology pathways to decarbonization.

This whole-systems approach to climate action requires each of these individual actors, initiatives and coalitions to take effective short-term and long-term actions, becoming more impactful when coordinated and working together to achieve a mutual and needed systemic goal. Whilst individually we each have our own value, our own scopes or practice, and whilst approaches and actors we work with may differ, we all have a role to play and are aligned behind a common systemic goal to achieve zero-emission, resilient and equitable shipping by 2050 at the latest.

This leadership and action across the non-state actors further calls upon Governments to advance ambitious policies that provide the clarity and confidence that the sector needs to unlock further investment in a zero emission, sustainable and resilient maritime sector. We strongly believe that the entire maritime value chain including non-state actors and state actors will work together to meet our ambitious and achievable goals.

Organizations co-hosting and supporting the initiatives

- World Economic Forum - host of the Getting to Zero Coalition and First Movers Coalition
- UN Global Compact - host of the Ocean Stewardship Coalition and co-host of the Maritime Just Transition Task Force (alongside the International Transport Workers’ Federation and the International Chamber of Shipping)
- High Level Climate Champions - leading the Race to Zero, Race to Resilience, and Glasgow Financial Alliance for Net Zero (GFANZ) campaigns
- The Aspen Institute - facilitator, Cargo Owners for Zero Emission Vessels (coZEV)
- Resilience Rising - host of the Resilience4Ports Programme
- Global Centre for Maritime Decarbonisation
- University Maritime Advisory Services