



DECARBONIZING SHIPPING

Getting to Zero Coalition

ACCELERATING THE DEVELOPMENT AND DEPLOYMENT OF ZERO EMISSION VESSELS BY 2030

This document presents an overview of the Getting to Zero Coalition, a partnership between the Global Maritime Forum, the Friends of Ocean Action, and the World Economic Forum. Any questions regarding the Getting to Zero Coalition can be directed to Louise Dobler (ldo@globalmaritimeforum.org).

The challenge

Shipping made a breakthrough on climate change in 2018, when governments at the UN's International Maritime Organization (IMO) agreed on an ambitious plan to at least halve the sector's greenhouse gas emissions by 2050 and to pursue efforts towards phasing them out entirely. Meanwhile, the latest Intergovernmental Panel on Climate Change (IPCC) science suggests a need for full decarbonization by 2050 across all sectors. This will clearly require not just significant improvements in the energy efficiency of ships and engines, but a switch to zero carbon energy sources¹. To do this, a deeper understanding of zero-emission fuels is required by the industry, as well as engagement across fuel supply chains and collaboration on the necessary health and safety aspects of new fuels and their use in shipping.

The opportunity

Whether the industry is to achieve 50% - or a more ambitious 100% - decarbonization by 2050, the first steps are the same: there is a need to push innovation and research from the drawing board into the water to enable demonstration projects operating at scale as soon as possible. This initiative supports the view that making deep-sea zero emissions vessels (ZEVs) a commercially viable and scalable reality by 2030 is an important step on the way to the IMO ambitions and full decarbonization. Scalable ZEV demonstrations by 2030 will pave the way for an efficient rollout of decarbonization solutions to enable a rapid shift towards zero carbon energy sources for shipping through the 2030s and 2040s. Shipping's need for zero emission fuels can also support the wider energy transition and provide an impetus for decarbonization efforts across the maritime value chain including in ports.

An Industry Roadmap for Zero Emissions Vessels by 2030

Making ZEVs commercially viable and scalable by 2030, will require a systems view and the active involvement of all the different parts of the future value chain. Coordination between the Global Maritime Forum champions, the mobility and oil & gas communities of the World Economic Forum, and the Friends of Ocean Action will bring stakeholders across the maritime spectrum, the energy sector, other related industries as well as academics, think tanks and policy makers together to create a shared Industry Roadmap, identifying the technologies, investments and actions needed to get commercially viable ZEVs operating on the water by 2030.

¹The term zero carbon energy sources in this document should be understood as including zero carbon and net zero carbon energy sources, as defined here: https://www.globalmaritimeforum.org/content/2019/09/Getting-to-Zero-Coalition_Zero-carbon-energy-sources.pdf



Areas of exploration will include:

- **Fuels:** Analysis of demand for new fuel and energy solutions and deep engagement with the suppliers, infrastructure owners, ports, and bunkering companies across the fuels and energy supply chains of today and tomorrow;
- **Ships:** Exploration of enablers and accelerators of zero emission deep sea vessels involving shipowners, shipyards, engine manufacturers, maritime service providers and other relevant parts of the full supply chains;
- **Market drivers:** The transition to ZEVs will require market drivers involving lenders and investors as well as customers to finance and de-risk the development and deployment of these technologies and to make supply-side solutions investable;
- **Policies:** The policies, geopolitics, and enabling environment that is needed at a local, national, regional and global level.

In addition to creating a common framework and a common understanding of what is needed to deliver commercially viable zero-emission vessels by 2030, the road map will also contain concrete actions that can accelerate their deployment. The actions in the initial phase until 2021 are foreseen to focus on providing visible and transformational leadership, developing a shared knowledge base and catalysing concrete demonstrations and pilot projects.

Outputs

By January 2021, this Coalition will seek to deliver the following:

- **A committed community.** The Getting to Zero Coalition will be a community of ambitious stakeholders from across the maritime spectrum, the energy sector and other stakeholder groups, who are committed to the decarbonization of shipping, and to working together in a collaborative manner - as opposed to a transactional manner - to deliver commercially viable ZEVs by 2030.
- **Visible transformational leadership.** Leaders of the participating companies and organizations will use the Coalition as a platform to advocate and actively influence their peers and policymakers to support ambitious decarbonization of the shipping industry and its supply chain. Specific events aligned with various international processes will be used as launch points, including the UNSG's Climate Action Summit in September. The public leadership will continue to gain momentum through other high-profile events as noted above.
- **Shared knowledge base.** The Coalition will deliver targeted synthesis reports required to advance the work of the Coalition and the decarbonization of shipping in general. These will help drive sector-wide alignment on availability of zero emission fuels and technologies as well as health and safety standards and regulations that will be needed for their successful implementation. This will include synthesis of existing research for specific audiences and events - business executives, financiers, insurers, as well as regulators and governments - building on the many excellent reports that have been published by the partners and many others over the past 6-12 months. Additionally, there is a need for new analyses that map demand for new fuels over time so that fuel suppliers can respond, and analysis that aggregates this demand across multiple industries (e.g. hard-to-abate sectors) that will undergo similar changes in energy supply.
- **Demonstrations and pilots.** Finally, there is a need for more demonstrations, pilot projects, and testing. By bringing stakeholders together and sparking conversations with innovators, the



Coalition will seek to catalyse demonstrations across industries, along value chains, including knowledge sharing and associated case studies, and pre-competitive lessons from the wide range of existing pilots to inform what is possible – and what is not.

Stakeholders

The Getting to Zero Coalition will include the most ambitious stakeholders from across the maritime spectrum, the energy sector, think tanks, and governments.

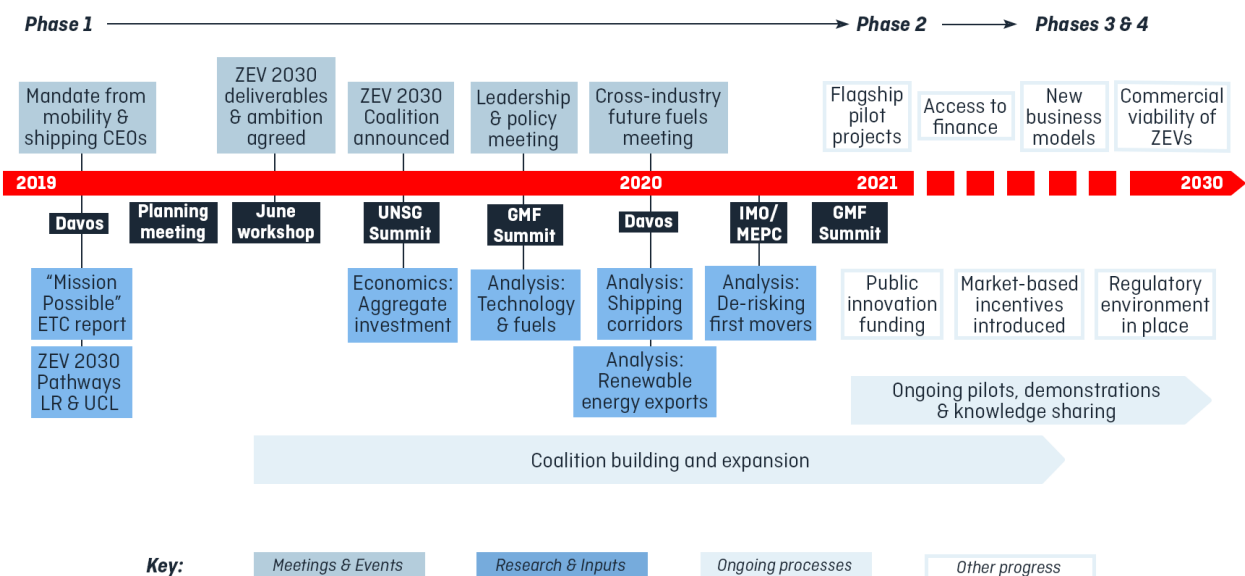
- Oil & gas incumbents
- Electrical utilities
- Renewable energy technology suppliers
- Infrastructure companies
- Port authorities
- Ship builders
- Engine manufacturers
- Shipowners
- Charterers
- Customers
- Financial institutions
- Relevant NGOs and think tanks
- Policy makers, governments and IGOs

This concept lays the foundations for an action plan that will engage stakeholders from across the maritime, fuels, and infrastructure value chains committed to making the vision of decarbonized shipping a reality by focusing on getting ZEVs into operation at scale by 2030.

Timeline

The Getting to Zero Coalition is intended to be a multi-year initiative that will run through 2023 in two phases, with two further phases mapped out to 2030². These are as follows:

- **Phase 1: 2019-2020** - Building and expanding the Coalition base
- **Phase 2: 2021-2023** - Developing the solutions and the enabling environment
- **Phase 3: 2024-2027** - Testing and putting the enabling environment in place
- **Phase 4: 2028-2030** - Getting ready for roll-out



² See Industry Roadmap: https://www.globalmaritimeforum.org/content/2019/09/Getting-to-Zero-Coalition_Industry-Roadmap.pdf



Governance

The Getting to Zero Coalition is an industry-led platform for collaboration organized as a partnership between the Global Maritime Forum, the World Economic Forum and Friends of Ocean Action. The partners are supported by knowledge partners such as UCL Energy Institute, Environmental Defense Fund Europe, the Energy Transitions Commission, and Material Economics, with others to be added.

The Coalition itself is inclusive and open to all relevant actors with an appropriately high level of ambition. It is estimated that, in its first year, the Coalition will engage upwards of 100 members. An initial industry leadership group representing different sectors, stakeholders and geographies has been established to provide strategic direction to the work of the Coalition. In addition, smaller working groups may be established as needed to drive forward specific action items.

How to join

Coalition members must commit to contribute actively to the work of the Coalition in line with the Industry Roadmap³. The impact and activity of the Coalition will be dependent on the active support of its members in terms of engagement and active participation, in-kind contributions, as well as funding some pieces of the Coalition's work. To become a member of the Coalition a company or organization must adhere to the ambition and core principles of the Coalition⁴ as outlined below, building on commitments of the Call to Action⁵.

³ See Industry Roadmap: <https://www.globalmaritimeforum.org/content/2019/09/Getting-to-Zero-Coalition-Industry-Roadmap.pdf>

⁴ See Ambition statement: https://www.globalmaritimeforum.org/content/2019/09/Getting-to-Zero-Coalition-Ambition-statement_230919.pdf

⁵ See Call to Action: <https://www.globalmaritimeforum.org/content/2018/11/Call-to-action-in-support-of-decarbonization.pdf>