

Industry roadmap

GETTING TO ZERO COALITION

Over the next decade, many stars need to align for commercially viable zero emission vessels (ZEVs) and an associated supply of zero carbon energy sources to become a reality. Achieving this moon-shot requires a broad range of stakeholders to work together and strong private sector leadership to give confidence to local, national, and international policies and regulations to follow suit.

This decade of ambition, leadership and innovation can be broken down into four phases. The focus of the current project work is on Phase 1, which builds the foundations for broader change over the subsequent years. The following roadmap is indicative of a collective timeline and milestones, and not a commitment to any of these milestones by individual Coalition members.

Phase 1: 2019-2020 Building and expanding the Coalition base

By the end of 2020 we aim to have established a broad-based cross-industry coalition with global reach committed to ZEV 2030, supported by a shared knowledge base outlining the pathway to achieve this including the most promising fuel options, as well as the results of the first demonstration projects.

2019-2020: Key expected achievements

- Raise awareness through visible leadership and public commitments to make commercially viable ZEVs possible by 2030, enabled by collaboration across industries and with public sector actors.
- Build and expand the coalition and ensure the right representation from across value chains, industries, stakeholder groups, and geographies.
- Develop a shared knowledge base to create alignment across the coalition on elements needed to make commercially viable ZEVs a reality in 2030, and identification of the most promising pathways to achieving this, including the zero-carbon energy sources.
- Facilitate the sharing of key findings from existing initiatives to amplify their impact and catalyse collaborations around R&D as well as access to public innovation funding.

Phase 2: 2021-2023 Developing the solutions and the enabling environment

By the end of 2023, it is expected that the possibility of commercially viable ZEV operations by 2030 is generally accepted among key stakeholder groups beyond the Coalition. It is expected that ships running safely on zero carbon energy sources will have been demonstrated, and that the production of the associated marine fuels can be scaled and produced at a price that will make the transition economically feasible. Work on engaging ports and establishing trade corridors for ZEV operations is expected to be well underway and progress made on expanding access to finance that can help de-risk the transition. New business models and economic incentives are also expected to have been developed, involving customers, financial institutions, insurers and classification societies.

2021-2023: Key expected achievements

- Leverage the knowledge base and pilot projects and demonstrations to continue to expand the coalition and spread the message that commercially viable ZEVs and associated zero carbon marine fuels are both needed and possible.
- Expand the shared knowledge base and fill out gaps needed to make ZEVs possible, including developing shared standards and definitions where relevant.
- Catalyse flagship pilot projects such as trials of smaller ships running on new fuels, the establishment of trade corridors where ZEVs could operate, establishment of smaller scale production facilities for new zero emission maritime fuels, and facilitation of the sharing of best practices and key findings from these pilots to amplify their impact.
- Catalyse access to finance including soft financing and blended finance to support and de-risk the initial investments to lower the transition cost for ships, infrastructure and fuel production.
- Explore new business models and market drivers that could generate market-based incentives to transition to zero emission ships involving customers, finance and other stakeholders.

Phase 3: 2024-2027 Testing and putting the enabling environment in place

By the end of 2027, it is expected that the policy environment needed to facilitate the deployment of ZEVs has been established, making commercial investments in ZEVs bankable. It has been demonstrated that large deep-sea vessels can be run safely on the new maritime fuels, and the first trading corridors with easy access to zero emission fuels are operational. It is expected that the production of new maritime fuels has increased substantially as prices are coming down due to technological improvements and economies of scale. New business models and economic incentives for the deployment of ZEVs have started to spread among key stakeholder groups and access to finance is being made available.

2024-2027: Key expected achievements

- Industry leadership and cross-industry collaboration demonstrate tangible progress towards making commercially viable zero emissions vessels possible by 2030 allowing for the right regulatory and policy environment to follow the private sector lead.
- Catalyse full scale tests of larger deep-sea vessels including necessary supporting infrastructure and continue development of ZEV ready-trade corridors and catalyse investment in production facilities for zero emission maritime fuels and facilitate the sharing of best practices and key findings from these initiatives to amplify their impact.
- Catalyse the expansion of access to finance including soft financing and blended finance that could support and de-risk the initial investments that could help bring down the cost of the transition both in terms of ships, infrastructure and fuel production.
- Catalyse and raise awareness about new business models/market drivers that could generate market incentives to transition to zero emission ships involving for instance customers, finance and other stakeholders.

Phase 4: 2028-2030 Getting ready for roll-out

By the end of 2030 the first commercially viable ZEVs are operating on key trade corridors, and additional corridors are being added to the network through investments in infrastructure. Production capacity of zero carbon energy sources is continuously being expanded, allowing production to match the rise of the ZEV fleet, and ZEVs are starting to become the preferred option when ordering tonnage to replace existing ships paving the way for achieving the IMO emission reduction targets and the full decarbonization of shipping.

- Continue to spread the message that commercially viable zero emissions vessels are ready to be put into operation by 2030.
- Expand development of ZEV corridors and catalyse investment in production facilities for zero carbon maritime fuels.
- Facilitate the sharing of best practices and key findings from these initiatives to amplify their impact, which will support the commercial ordering of ZEVs to be delivered by 2030.