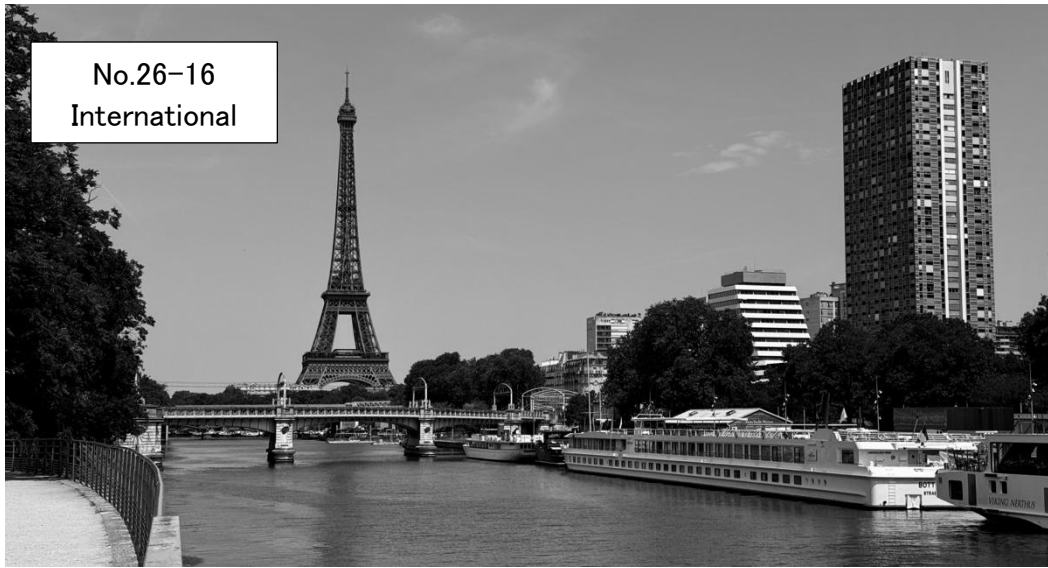




The Eiffel Tower and the River Seine, Paris, France.

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The Former Autonomous Ship Expo Report

– Autonomous Vessel Technology within the European Maritime Industry –

In June 2026, the author attended the Advanced Maritime Technology Expo & Conference, held at RAI Amsterdam in Amsterdam, the Netherlands, to examine current trends in advanced maritime technology in Europe.

The event most clearly indicated that autonomous vessel technology has not yet reached the stage of forming a market as a standalone product or service. Rather, its implementation is being explored as part of practical market demand underpinned by electrification and decarbonisation. The exhibits and presentations centred on the electrification of vessels and ports as well as charging infrastructure.

Overall, the event underlined the importance of an integrated approach in which autonomous vessel technology is implemented not in isolation but in conjunction with electrification, port infrastructure, logistics efficiency, regulation and certification, and finance.

Key Points

1. Overview of the Event

- Attended a maritime technology exhibition and international conference held in Amsterdam, the Netherlands, in June 2026
- The event integrated the previously separate exhibitions on the electrification of vessels and on autonomous vessels

2. On-Site Observations

- Most exhibits related to vessel and port electrification, including batteries and charging equipment, while relatively few companies featured autonomous vessel technology as their principal offering.
- The conference was organised around four themes: electrification, autonomous vessel technology, port infrastructure, and regulation and finance. The overall

direction suggested was the combination of multiple technologies on the foundation of decarbonisation.

3. Key Observations

- In Europe, market demand for electrification is emerging against the background of EU fuel regulations.
- Autonomous vessel technology is not yet developing primarily as a standalone commercial proposition; rather, it is at a stage where practical value is created through combination with electrification, logistics efficiency and related fields.
- The interface between electrification and automation warrants continued monitoring.

Main Text

1. Introduction

In June 2026, the [Advanced Maritime Technology Expo & Conference](#) was held at RAI Amsterdam in the Netherlands, and the author attended this event. This report outlines the event and summarises the exhibition, conference sessions and observations obtained through attendance.



This event was created by consolidating and reorganising the Electric & Hybrid Marine Expo Europe and the Autonomous Ship Expo / Conference, both of which had previously been held at the same venue. It is positioned as an exhibition and conference covering a broad range of fields, including vessel electrification, hybridisation, decarbonisation, automation and autonomy, port infrastructure, regulation and finance.

By way of background, the Electric & Hybrid Marine series had been held in Amsterdam since around 2014 as a specialist event in the field of vessel electrification and decarbonisation. It focused on electric propulsion, hybrid propulsion, batteries, fuel cells, shore power and charging equipment. By contrast, the Autonomous Ship series had been held since around 2017 as an event covering autonomous vessels, remote operation, smart ships, navigation automation, sensors, communications and cybersecurity.

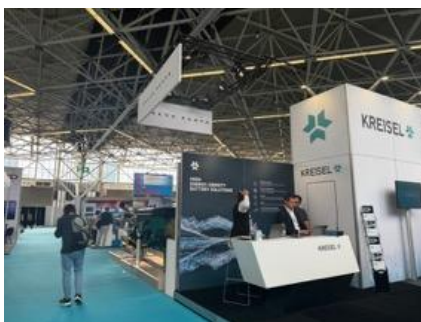
From 2026, these existing events were consolidated under the name Advanced Maritime Technology Expo & Conference and reorganised around four pillars: (1) electrification and hybridisation; (2) automation and autonomy; (3) port and energy infrastructure; and (4) regulation, certification and finance. The RAI Amsterdam materials also describe the event as a comprehensive business-to-business exhibition and conference that addresses these fields as interrelated themes.

This reorganisation should be understood not merely as a renaming of the Autonomous Ship Expo but as the integration of electrification and autonomous vessel technology, which had previously been treated relatively independently, into the broader framework of advanced maritime technology. The official materials likewise explain that, in 2026, the structures of the former Electric & Hybrid Marine Conference and the former Autonomous Ship Conference were developed into a forward-looking event comprising four specialist streams.

This development appears to reflect a broader shift in advanced maritime technology: from a phase in which individual technologies are developed separately, to a phase in which electrification, decarbonisation, port infrastructure, automation, regulation, certification and investment decisions are implemented in combination. In particular, electrification and measures to address greenhouse gas emissions are becoming linked to regulatory requirements and port infrastructure development, and market formation is progressing. By contrast, automation and autonomy technologies appear to be moving towards implementation not as an independent field, but in combination with electrification, port logistics and operational efficiency.

2. The Exhibition

Although the exhibition was broadly framed under the title Advanced Maritime Technology, the actual exhibits were centred on the electrification and decarbonisation of vessels and ports, including batteries, motors, electric propulsion, port electrical equipment, and shore-power installations.



Around 100 exhibitors were identifiable from the official exhibitor list. These included ABB, Corvus Energy, Echandia, EST-Floattech, EVE Energy, Volvo Penta, Wärtsilä, Zinus, Cavotec and CharIN, among others. Many of these companies are active in electric propulsion, batteries, fuel cells, charging, port electrical equipment and propulsion systems.

The exhibits focused on electric propulsion, batteries, energy storage, fuel cells, charging systems, port electrical equipment, power control, cables, and inverters. Broadly, companies involved in vessel and port electrification or energy-related fields were prominent, followed by companies related to propulsion systems, power control, and port infrastructure. By contrast, companies placing autonomous vessel technology or MASS at the forefront of their exhibits were comparatively limited.

Exhibitors also emphasised engagement with battery manufacturers, system integrators, and port stakeholders, as well as collaboration across the electrification supply chain. This suggests that the event was strongly oriented towards practical implementation, with vessel and port electrification at its centre.

As for the visitor profile, the official website states that the event is aimed at shipyards, shipowners, ferry operators, merchant-ship operators, naval and military personnel, coastguard agencies, port stakeholders and port authorities, system integrators, sustainability consultants, naval architects, and terminal operators. According to the visitor data published on the official website, 85 per cent of visitors either hold sole or joint purchasing authority or influence purchasing decisions. This confirms that the event was not intended for the general public, but for professional visitors involved in technology adoption and procurement decisions.



Shore-based charging station



Power cable



Battery



Electric motor

Taken together, the exhibition can be characterised not as a large-scale general maritime exhibition, but as a clearly focused specialist business-to-business event bringing together operators, technology providers and port stakeholders with an interest in vessel electrification, port electrification, charging infrastructure, and energy management.

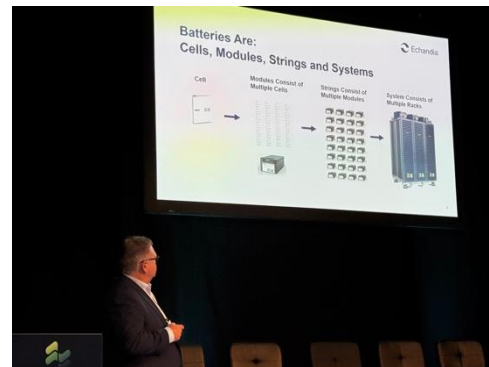
3. Overview of the Conference

As the conference sessions were held simultaneously at three locations within the venue, the sessions that the author was able to attend were limited. This section sets out the main points of discussion based on the sessions selected and attended in light of relevant areas of interest, while also taking into account the overall theme of the event.

Like the exhibition, the conference was organised around the four pillars described above. The sessions attended included presentations on vessel electrification, battery safety, charging systems, port electrification, MASS, autonomous vessel systems, safety assessment, propulsion-system integration, the use of AI and United States policy on autonomous maritime operations.

Overall, the conference did not present automation and autonomy as a standalone technological field. Rather, it indicated a direction in which automation and autonomy, port infrastructure, regulation, certification and finance are combined on the foundation of electrification and decarbonisation, areas in which practical demand is emerging in the European market.

The first pillar, electrification and hybridisation, focused on vessel electrification, batteries, charging systems, and zero-emission vessels. Presentations addressed LFP-based solid-state batteries, megawatt charging systems, large battery-powered Ro-Pax vessels and electric uncrewed inland vessels. The safety challenges accompanying the advance of electrification were also examined in concrete terms, including battery fires, thermal runaway, ventilation, firefighting, and coordination with local fire services.



The second pillar, automation and autonomy, covered MASS, autonomous vessel systems, remote operation, and offshore automation. A session on the IMO MASS Code explained the status of the Code, the experience-building period, the sharing of operational experience through flag States, and the possibility of a future mandatory Code. In the offshore sector, it was shown that

automation is advancing incrementally, encompassing dynamic-positioning (DP) control, remote equipment monitoring, condition-based maintenance, sensor support, and remote operation centres, rather than through fully autonomous operation. On the certification of MASS and uncrewed surface vessels (USVs), the importance of the concept of operations (ConOps), safety assessment, full-scale sea trials, and the use of simulation was highlighted.

The third pillar, port and energy infrastructure, addressed port electrification, onshore power supply (OPS), rapid-charging facilities, in-port battery energy storage systems (BESS), smart grids and the automation of port logistics. The conference indicated that, as vessel electrification advances, high-capacity power supply, charging infrastructure, maintenance



arrangements, and energy management on the port side become increasingly important. A 'Kiss and Ride' logistics concept using autonomous electric barges at the Port of Rotterdam was also presented, with discussion of the efficiency of in-port logistics, automated mooring, autonomous berthing and unberthing, and positioning control.

The fourth pillar, regulation, certification and finance, dealt with regulation, certification, liability, investment, insurance, and policy support. The experience-building period of the MASS Code, certification by classification societies, the management of AI and software updates, and the allocation of liability in the event of an accident were discussed as institutional challenges for the implementation of autonomously operated vessels. A presentation on the United States' 2026 maritime action plan explained that, while autonomous and remotely operated technologies are positioned in terms of national competitiveness and security, their commercial use will require clarification of existing regulations, crewing requirements, the location of remote operation centres, operator qualifications and export controls.

In addition, presentations on the economics of electric vessels discussed concrete approaches to investment recovery and financing. Examples included the FuelEU Maritime pooling mechanism, under which an electric vessel that exceeds the regulatory target can sell its surplus compliance value to a vessel that falls short, and the 'Battery as a Business' model, which commercialises onboard batteries as a revenue source.

* See also London Research Office report [26-04-1. Publication of the EU Port Strategy and the EU Maritime Industrial Strategy.](#)

AI was also positioned as a theme cutting across all four pillars. The closing panel took the view that AI should not replace human judgement but should be used as a tool to support design, verification, operation and logistics optimisation. At the same time, because software is continually updated, the panel identified classification-society certification, update management, the allocation of liability and the development of a regulatory framework as important challenges for the future.

4. Summary and Observations

Based on the exhibition and conference, vessel electrification, port electrification, charging infrastructure and energy management are being treated as important themes in the European maritime technology business against the background of measures to address greenhouse gas emissions. Interest in practical implementation in these fields appears to be increasing.

In Europe, FuelEU Maritime requires vessels above a certain size calling at ports in the EU and EEA to reduce, in stages, the greenhouse gas intensity of the fuel and energy they use. Shipping companies and port stakeholders are therefore required to address low-carbon fuels, shore power, charging equipment and energy management. This appears to be supporting market demand related to vessel and port electrification.

By contrast, autonomous technologies appear to be acquiring practical value not primarily through deployment as standalone products or services, but through linkage with electrification, port electrification, logistics efficiency, reduced crewing and energy management. In other words, this exhibition is best understood not as a venue demonstrating the independent expansion of MASS and autonomous technologies, but as one illustrating how the implementation potential of autonomous technologies is being explored within a broader movement centred on electrification and decarbonisation.

In this respect, attendance at the event was valuable. It provided an opportunity not only to follow the latest trends in autonomous-related technologies, but also to observe how autonomous vessel technology is positioned within the European maritime sector as a whole, and how close it is to practical implementation within the broader trends of electrification, decarbonisation, port infrastructure and logistics efficiency.

In particular, unlike events dealing exclusively with autonomous vessel technology, this event was distinctive in allowing autonomous vessel technology to be understood in relation to fields closer to immediate market demand, such as batteries, electric propulsion, port electrification, measures to address greenhouse gas emissions and charging infrastructure. Autonomous vessel technology is positioned as a technological element supporting vessel operational efficiency, reduced crewing, energy management and the optimisation of port logistics. It is considered likely to acquire more concrete implementation value when combined with electrification and decarbonisation.

Taken together, the event provided a valuable opportunity to monitor implementation trends in advanced maritime technology in Europe, particularly the interface between electrification and decarbonisation on the one hand, and automation and autonomy on the other. It will therefore be worthwhile to continue monitoring this field and, where appropriate, to attend similar events in order to follow the direction of technological implementation in the European maritime market.

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A canal flowing through the city of Amsterdam