



First autonomous trial voyage with zero-emission cargo barge through Amsterdam city centre

Press release

Amsterdam, 1 July 2026 – On 30 June, Amsterdam hosted its first trial voyage with a zero-emission, autonomously sailing cargo barge. During the demonstration, the electric barge sailed autonomously with a Roboat autonomy system from the Marineterrein to Nieuwmarkt. At the destination, Zoev City Boxes will be placed on the quay using an integrated crane system.

With this trial voyage, initiated as part of the European project metaCCAZE, an innovative form of sustainable urban distribution by water was demonstrated in practice. From bundling and loading goods outside the city to transporting and delivering them in the city centre, a full logistics process has been tested.

Autonomous sailing as part of sustainable urban logistics

The autonomous cargo barge demonstrates how smart sailing technology and logistics by water can contribute to a more sustainable, efficient and liveable city. The system independently determines its course and speed and navigates using advanced sensors, cameras, GPS technology and smart software. The trial voyage took place under controlled conditions, with a skipper on board who supervised the operation,

The autonomous system has been developed by [Roboat](#). The application of this technology in zero-emission urban logistics has been realised by [Zoev City](#) and is co-funded by the European Union. During the trial voyage, the technology was tested in a busy urban waterway environment. The



demonstration assessed the technical performance of the vessel, and explored its applicability within future logistics processes.

The trial voyage is being carried out within the European metaCCAZE project by project partner Zoev City, Roboat, and in collaboration with CTP as a logistics partner.

Innovation in autonomous sailing

By investing in the development of autonomy systems today, we can help ensure that waterborne transport remains affordable, feasible and scalable in the future. Growing staff shortages and high operational costs of transport over water are placing increasing pressure on the sector. At the same time, demand for mobility on urban waterways continues to rise.

This makes it essential to create space now for testing and developing autonomous technology in real-world conditions. Roboat's years of research and technical expertise is now translated into practical solutions, while ensuring that the technology is shaped around the actual needs of the city.

Freight transport by water

During the demonstration, goods were delivered to CTP's distribution centre and loaded into Zoev City Boxes. These boxes are suitable for various goods flows, including chilled and non-chilled products.

For the trial voyage, various goods were transported. This created a realistic urban distribution operation in which products are brought into the city centre by water.

As Amsterdam has an extensive network of waterways, transporting goods by water can reduce pressure on roads, bridges, quays and public space. This creates opportunities for cleaner and more efficient city logistics.

A step towards the city of tomorrow

The demonstration shows how innovative logistics solutions can contribute to a liveable, accessible and sustainable city. By transporting goods and waste flows more intelligently via the waterways, pressure on roads is reduced, emissions are lowered and more space is created in the city centre.

The autonomous cargo barge is therefore not only a technical innovation, but also an important step towards zero-emission urban logistics by water.

It is precisely the combination of autonomous sailing, electric propulsion, smart transshipment and bundled goods flows that makes the concept scalable and applicable in other urban areas. By testing and validating the complete logistics process during the demonstration, the foundation is laid for the further rollout of sustainable urban distribution by water.

More about metaCCAZE Trailblazer City, Amsterdam

This pilot is supported by the European Union, via the metaCCAZE project and aims to contribute to a future-proof logistics network for urban distribution. As part of the project, the City of Amsterdam and their partners are testing various innovative mobility solutions, spanning from zero-emission, autonomously sailing cargo barge to optimising waste collection logistics in urban systems, and from adaptive speed governance for micromobility to tradeable travel credits system.

More about metaCCAZE

The metaCCAZE project, co-funded by the European Union, aims to revolutionise mobility in European cities, serving both passengers and freight, with innovative electric, automated, and connected solutions designed to make transport smarter, net zero, and more efficient for all. In the vibrant streets of four trailblazer cities – Amsterdam, Munich, Limassol, and Tampere – metaCCAZE tests and demonstrates cutting-edge technologies that support shared zero-emission mobility solutions for people and goods, contributing to climate neutrality. Successful technologies and activities are shared and implemented to six follower cities – Athens, Krakow, Gozo, Milan, Miskolc, and Poissy, Yvelines (Paris region).

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