

# Green and smart logistics at work

## Smart zero emission ship



As of 2020, 600 million bottles of beer filling 12,500 trucks per year will go by water on a hydrogen powered vessel. It is a progressive investment into carbon-neutral, digitally connected multi-modal transport.

## All-Electric



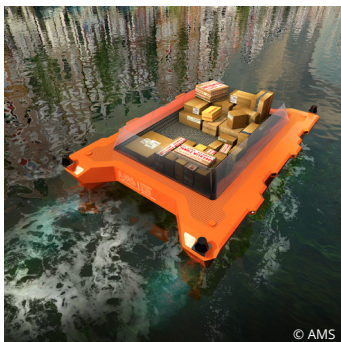
In 2020, the push boat Elektra will sail with green hydrogen and electric power from Berlin to Hamburg. The all-electric, hybrid propulsion is a project of the National Organisation for Hydrogen and Fuel Cell Energy (NOW) and supported by the German Ministry of Transport. The fuel cells are powered by green hydrogen from wind farms.

## Pallets on the water



Next to containers, pallets take the water with finished goods opening new ways for continental transport. A Platina study estimated 87m tonnes of continental cargo could be shifted to waterways, saving 10% transport costs.

## Roboats



Amsterdam Institute for Advanced Metropolitan Solutions works with MIT on fully automated urban boats for goods and people. More waterway managers test technology for unmanned shipping in a real-life environment.

## Solar-powered waterbus



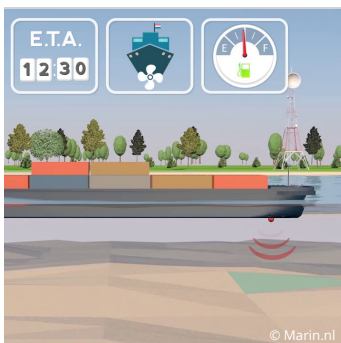
Water transport for passengers regains popularity in several cities along waterways. Electric waterbuses in Berlin and on the Moselle in Luxembourg produce no emissions as they are solar-powered.

## Watertruck+



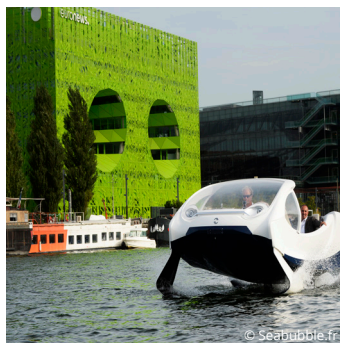
EU cooperation to bring back freight to small European waterways on small, clean, self-propelled standardised barges that can be coupled and uncoupled.

## Cooperative data harvesting



CoVadem harvests waterway depth data from sensor-equipped vessels. The resulting real-time fairways information enables vessel owners and skippers to optimise their cargo volume, sail more efficiently and save on fuel.

## Watertaxi



Europe's waterways cross many cities and urban regions. The problem of congestion leads to new carbon neutral solutions for people to move around swiftly which relieves crowded road arteries and makes transport safer.

## Floating city warehouses



The Ports of Paris work with partners on floating warehouses to ship parcels deep into the city which are then delivered by clean cargo bikes and vans, with the aim to reduce truck movements in the inner city and relieve congestion.