Waterway logistics hubs

What: Waterway logistics hubs are distribution centers that float on inland waterways such as rivers, lakes, or canals. Operating like a microhub boat that follows a set route along the waterway, parcels are delivered to the hub and are sorted on board for cargo bike couriers to pick them up for the last-mile delivery to their destination.

Why: Integrating waterways into logistics infrastructure allows cities to reduce the pressure of rising parcel volumes on their road networks. They take advantage of unused water space to enable more reliable service by delivering packages faster and providing more flexible delivery and pick-up times. Besides reducing congestion and improving reliability, waterway logistics hubs can also reduce freight transportation emissions by taking delivery trucks off the road, using smaller, cleaner delivery vehicles, and running the floating hub on clean or renewable fuels.

Testing grounds: In 1997, courier DHL launched the first floating distribution center on Amsterdam’s canals to improve DHL’s operations in the city. It was part of a multi-modal supply chain made up of the canal boat hub, and electric vans and cargo bikes that made the last-mile deliveries in the city. When it launched, the boat took 10 delivery vans off the road, saving 120,000 liters (31,700 gallons) of fuel every year and was still able to increase the number of deliveries made from five to six deliveries an hour to 17 deliveries an hour. In 2018, the boat was replaced with one with an electric motor to align with Amsterdam’s zero-emissions-by-2025 target.

Driven by severe inefficiencies in New York City’s highway-based freight system such as congested interchanges and degrading highways, the U.S. Coastal Service launched as a shipping start-up that views the New York Harbor as an underutilized asset in the city. The company offers waterway logistics services that bypass the limitations of the road networks. One of the services offered is door-to-door delivery of palletized (stackable) freight, where most of the delivery trip happens on water, and the last-mile delivery is done using electric box-trucks. This practice reduces door-to-door delivery to only a few on-road zero-emission miles.