

From niche to mainstream?


The role of a mobility hotel in advancing the commercial use of cargo bikes

TØI Report 2080/2025 • Authors: Howard T. Weir IV, Toril Presttun, Sidsel Ahlmann Jensen, Cyriac George
• Oslo 2025 • 6060 pages

- Mobility hotels can contribute to reduced car use by offering services removing barriers for commercial use of cargo bikes, especially for on-site mobile services and on-demand transport.
- Critical barriers for cargo bike use are: unreliable and fragile bikes, organizational burden, and high implementation costs. There are indications of technological maturity of cargo bikes improving, and this could become an important driver for cargo bike adoption.
- KAIA Mobility Hotel provides services that can remove or reduce critical operational barriers for last mile, mobile and on-demand services. The combination of leasing and maintenance of bikes is especially important.
- The City of Oslo has a critical role in shielding and nurturing the cargo bike niche towards becoming a mainstream part of the urban logistics regime. Supportive policies are needed, and backing initiatives like KAIA Mobility Hotel can help strengthen the cargo bike niche.
- A strategic approach to supporting cargo bike adoption should include a combination of measures, such as procurement policies, land use planning, financial incentives, urban infrastructure, and the integration of cargo bikes in municipal operations.

The mobility hotel KAIA was established in 2024 as part of the Horizon 2020 MOVE21 project, coordinated by the City of Oslo. Located at Filipstad in the center of Oslo, KAIA provides services that support the commercial use of cargo bikes with the aim of reducing the reliance on vans and other motorized transport. This report assesses how the services provided by a mobility hotel can address barriers to cargo bike adoption, facilitate operational efficiencies, and contribute to broader transitions in urban logistics. The report is set in the context of Transitions Theory, which can be used to look at how niche innovations can become more mainstream and thus be more widely adopted.

Urban logistics systems remain dominated by vans and trucks, despite growing concerns over congestion, emissions, and limited urban space. Cargo bikes present a potential alternative for some last-mile deliveries, mobile services, and on-demand transport, offering increased accessibility and parking flexibility. On-site mobile services and on-demand transport are considered especially promising to replace vehicle trips with cargo bikes due to the short distances, limited volumes of equipment/goods and the accessibility requirements for parking. However, a wider adoption of cargo bikes faces significant barriers. KAIA Mobility Hotel seeks



to mitigate some of these barriers by offering integrated services for cargo bikes, including leasing, maintenance, parking, and charging.

The case study of KAIA involves three types of commercial cargo bike users: last-mile distribution (Posten), on-demand delivery (Wolt), and on-site mobile services (Trippel). Each of these have unique requirements, influencing service demand at KAIA. However, a strong service agreement and access to a workshop has proven critical in ensuring cargo bike uptime, a major concern for commercial users.

The report identifies three critical barriers to the broader adoption of cargo bikes:

1. Robustness/reliability – Many cargo bike models remain immature, requiring frequent maintenance, which impacts operational feasibility due to down time.
2. Organizational effort – Businesses integrating cargo bikes must reconfigure logistics operations, spending time and effort to develop and adopt new routines
3. Implementation costs – Initial costs, including costs of acquiring bikes, equipment, and space in dense urban areas, pose a financial barrier.

KAIA Mobility Hotel's service offerings directly address these barriers by providing:

- Leasing and Maintenance Services – Reducing the financial risk of cargo bike adoption while ensuring operational reliability.
- Charging and Parking Facilities – Enabling overnight storage and readiness for daily operations.

As of January 2025, KAIA was also in the process of implementing battery swapping and a mini-warehouse into their service offering which is expected to further address barriers to cargo bike adoption.

Mobility hotels like KAIA are a relatively new phenomenon. The services offered by KAIA are able to reduce barriers to the use of cargo bikes and it is likely that upscaling these services would lead to expanded use of cargo bikes. However, financial sustainability for mobility hotels remains uncertain. Policy measures could be implemented to support KAIA and similar mobility hotels and include:

- Extending financial support beyond the initial pilot phase.
- Incentivizing cargo bike use through procurement policies, urban logistics planning, and integration into municipal operations.
- Improving urban infrastructure to prioritize cargo bikes, using modal filters or other access restrictions to larger vehicles

By addressing critical operational barriers, KAIA Mobility Hotel shows potential to facilitate cargo bike adoption. It enhances the commercial feasibility of cargo bikes for logistics and service industries. However, continued public support and strategic policy interventions are necessary to ensure cargo bikes transition from the niche to a more mainstream position in commercial operations. The findings suggest that sustained municipal engagement will be crucial for upscaling cargo bike logistics in Oslo.