
Advice: Promoting last mile delivery of goods sustainably

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With increasing amounts of goods being ordered online, local authorities need to promote the use of hubs to ensure deliveries are kept to a minimum and low carbon vehicles are used, finds Ben Kochan.



Delivery companies like Amazon are increasingly setting up local hubs in urban areas for delivery by cargo bike (PIC Amazon UK)

The Covid pandemic boosted the growth of online shopping and it has continued to rise. “This has meant more vans on the roads to deliver the goods and pick up returns, contributing to air pollution and congestion,” says Darren Briggs, associate director at planning consultancy Arup. “Many retailers now promise customers that they will receive their goods within two or four hours,” he points out. “This means more deliveries and vehicles are traveling empty a lot of the time.”

A report by think tank Centre for London, published in December 2022, estimates that in the capital home deliveries generated around 100 million kg of carbon dioxide in 2020-21. “The level of emissions is set to increase, unless deliveries are rationalised or low carbon transport is used,” says Millie Mitchell, senior researcher at the centre and co-author of the report.

Delivery companies are increasingly interested in logistics hubs in urban areas because they help to reduce the number of delivery vehicle trips. “Low carbon vehicles can also be used for

the last mile deliveries, such as electric vans or bikes,” says Chris Schiele, associate director at planning consultancy Turley.

Here are five points local authorities and other public agencies should consider so that last mile deliveries can be made sustainably.

1. Identify hubs within local plans and transport plans

Local plans need to ensure a supply of sites for hubs. “The delivery companies can work out of a wide range of sites, such as car parks, railway arches or other available space,” says Paulo Ancaes, senior researcher at the Bartlett School of Environment, Energy and Resources at University College London, who recently completed a strategy for developing low-carbon urban logistic hubs in London. He says, “Hubs need to be conveniently located in urban areas on major road networks for vans bringing in goods from regional or sub-regional warehouses on the edge of towns.”

At the hubs the goods are transferred to smaller vehicles for delivery. “These hubs generally work in inner urban areas, such as central London where the population is quite dense or there is a large office population,” he says. They can come in a variety of sizes, from large warehouses through to a couple of spaces in an underground car park.

“Innovative delivery methods are being considered, like the use of boats on the River Thames, but wharves would need to be protected for delivery hubs,” points out Tim Ward, chief executive of architect Chetwoods.

“Larger hubs work well if they’re located in industrial areas,” says Nick Green, planning director at consultancy Savills. “Local authorities need to protect their industrial areas from redevelopment for housing or other uses so that they can be used for hubs,” he says. “Hubs can command quite a high land value, but they find it hard to compete with housing development, unless the sites are protected for industrial uses.”

Arup’s Briggs says that councils agree with developers as part of the planning application process a delivery and servicing plan for the development. “Councils agree how and when deliveries are made to a development,” he says. “Councils should consider how they can be used to manage last mile deliveries particularly to office developments.”

2. Plan for online deliveries at a very local level

“Planning for last mile delivery needs to happen at a very local level,” says Centre for London’s Mitchell. “Consumers should not be further than 250 metres from a collection point and they should be encouraged to walk to pick up the goods which they ordered online,” she says. “Lockers to pick up goods need to be integrated into the street scenes, positioned at strategic corners.”

“Masterplans for new neighbourhoods need to include a hub, to which goods can be offloaded before they are picked up by the customer,” say Turley’s Schiele. “Ideally the hubs should be central in the neighbourhood and the customer can walk to pick them up. But the housing development will need to be quite dense to make the hubs viable,” he cautions.

3. Design streets and hubs to encourage the use of cargo bikes

“Delivery companies, like Amazon are setting up hubs in major cities and increasingly using electric cargo bikes, because they are not slowed down by congestion in dense urban areas,” says Daniela Paddeu, senior research fellow at the Centre for Transport and Society, University of the West of England, who wrote a guide for local authorities on understanding the future of last mile deliveries. “Cargo bikes are a low carbon way for making last mile deliveries, and councils can encourage their use,” she says.

A comprehensive network of cycle lanes would encourage their greater use. “The cycle lanes need to be wider to suit cargo bikes because they tend to be larger than conventional bikes,” says Paddeu. The hubs also have to be adapted to the needs of cyclists including charging points for their electric bikes and rest areas, says Mitchell.

4. Promote the reuse of car parks

There are underused car parks in many city centres that could be reused for hubs. Mike Best, head of logistics at developer British Land points to the former NCP underground car park on Finsbury Square in the City of London.

“The company has bought the car park, which it plans to extend and break up into distribution hubs for different delivery companies,” he says.

5. Integrate logistics hubs with other uses

“Hubs can be part of larger buildings, including housing and other uses,” says Schiele.

“But access needs to be carefully designed to keep the different occupiers separate”, points out Chetwoods’ Ward. Student housing works well alongside a logistics hub, but Ward says that, “if they are in the same building the different spaces require different grid structures.” It works better if the logistics hubs are in a separate building from flats on the same site, he points out.

British Land is planning a multi-storey logistics hub on the Old Kent Road in south east London, says Best. The ground floor would be used for vehicle loading, while the first floor would be taken up with storage and the top floor with offices and other related uses.