

Cyclelogistics

Opportunities for moving goods by bicycle in Toronto

Cyclelogistics is the integration of bicycles into the goods movement network to improve the efficiency of deliveries in congested urban areas. Cyclelogistics includes use of any bicycles to move goods, including a rider wearing a backpack, a bicycle with panniers, or cargo bikes and cargo tricycles.

Cyclelogistics is well established in Europe with major carriers like DHL and UPS operating their own cargo bicycle fleets, or partnering with cyclelogistics companies to complete “last mile” segments of deliveries. In Toronto, however, moving goods by bicycle is just beginning to catch on, and has huge potential. While there are many companies that use regular bicycles for on-demand courier services, Toronto has yet to take full advantage of larger capacity bicycles to replace delivery vehicles.

As we work to get the most people moving in the most congested parts of Toronto, we need complementary ways to move goods along the last mile to their destination. Urban deliveries frequently face challenges including congestion, circling in traffic looking for legal parking leading to late deliveries, or getting parking tickets. Due

to these issues, urban freight delivery is a big contributor to local air emissions impacts, as well as GHG emissions more broadly.

Switching more goods movement onto bicycles would lead towards three big wins:

- It would expand the demand, increase visibility of cycling, and thus continue to support advocacy for better cycling infrastructure across the city.
- It would directly help reduce emissions and local air impacts by taking deliveries off of fossil fuel consuming trucks and vans and moving them onto bicycles.
- It would help indirectly reduce emissions through reducing congestion on our streets.

Current barriers

Our research shows that the major barriers to the expansion of cyclelogistics in Toronto are:

Low profile

There is a general lack of awareness of the possibilities for using bicycles to deliver goods. Businesses receiving shipments may not know that goods can be refrigerated or kept cool on a bicycle, or that a bicycle can have a large weight capacity. Shippers may not be aware of potential cost savings and competitive delivery times cargo bikes can offer in congested areas of cities.

Regulations for e-bikes

The Ontario Highway Traffic Act prohibits electric cargo bikes that exceed 120 kg from travelling on public roads.

This may prevent larger carriers from considering cargo bikes for last mile deliveries, as they would need larger bicycles to meet the requirements of their operations.

Logistics data

There is currently no framework in place to facilitate the transfer of packages from one company to another. Carriers do not often partner to deliver a package. There is no common information system (e.g. package bar codes) that would allow multiple companies to fulfill the delivery of a package, and there is no forum that would connect carriers to cyclelogistics companies to complete last mile deliveries.

Recommendations

The major solutions relate to expanding the use of electric-assist cargo bikes in Toronto, as this type of bicycle would make it easier to replace a delivery van with a bicycle. While a full list can be found in our report, here are key recommendations to support the expansion of cyclelogistics in Toronto:

Regulations

The Province of Ontario should work towards classifying electric cargo bikes of various weights and identifying how they can be used on public roads. Currently electric bikes that weigh more than 120 kg are prohibited from operating on Ontario roads. This law should be revisited in order to allow the production and use of larger electric cargo bikes that have a weight capacity suitable for replacing delivery vans.

Walking the talk

The City of Toronto should consider or investigate replacing some of their vehicle fleet with cargo bikes where appropriate. In other jurisdictions cargo bikes are used for park maintenance or street cleaning activities. This is a good strategy for increasing the visibility of cyclelogistics and demonstrating the capacity of bikes, as well as a way to lower city operational costs.

Awareness of consolidation benefits

Increase awareness of the environmental benefits and cost savings of consolidating deliveries among businesses and chain retail stores. Whether a bicycle or motorized van is used for deliveries, support of a delivery system that consolidates deliveries based on geography means fewer delivery vehicles on the road and fewer vehicle-kilometres traveled.

Awareness of economic benefits

Increase awareness among larger carriers of the economic benefits of either investing in a cargo bike fleet or partnering with a third-party cyclelogistics company to complete last mile segment of shipments in congested urban areas.

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This report was prepared by the Pembina Institute for the Pembina Foundation for Environmental Research and Education. The Pembina Foundation wishes to thank the Metcalf Foundation for their generous support which enabled the preparation of this publication.

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Nithya Vijayakumar
October 2017

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