



Photo: Courtesy of The Drop

Cyclelogistics for businesses

Businesses today need to move goods both efficiently and sustainably. This means making informed decisions about new delivery models that respond to rapid changes in how and when customers want to receive the goods — electronics, mail, books, clothing or more — they ordered online. One such change that many urban businesses are considering is using cargo cycles (cyclelogistics). This guide presents essential information for business that want to test and adopt cyclelogistics in their delivery operations.

Why now?

E-commerce activity — and associated customer demand for same-day and home delivery — is rapidly growing in Canada. This will put more trucks on our highways and local roads, contributing to increased greenhouse gas emissions, traffic congestion, street noise, and greater conflicts and competition with other users for space on roads, sidewalks and boulevards.

In addition, Canadian businesses are recognizing the importance of incorporating sustainability in their business practices. More businesses are setting ambitious targets for reducing their carbon footprint, and are exploring initiatives including incorporating low- to zero-emission vehicles in their commercial delivery fleets.

Cyclelogistics can help businesses address both efficiency and sustainability in their delivery operations.

What is cyclelogistics?

Cyclelogistics uses bicycles, tricycles, or other multi-wheeled cycles to move goods. Under the right business and public policy conditions, cyclelogistics can be a productive, efficient, and cost-effective way for deliveries to customers or other businesses.

Recognize the potential competitive advantages and benefits

The Pembina Institute report *Delivering Last-Mile Solutions* models a variety of delivery scenarios and identifies several potential advantages of cyclelogistics:

More efficient – Last-mile delivery operations can be done in approximately 20-30% less time.

More productive (better asset utilization) – One cargo cycle could replace one conventional delivery vehicle.

Cheaper – Total last-mile delivery costs could be reduced by approximately 60%.

Greener – With zero tailpipe emissions, and potential reductions of up to 24 to 52 kg of carbon emissions per day, cargo cycle use can help businesses reduce their carbon footprint and achieve their sustainability goals.

Cyclelogistics deliveries can be made even more efficient by distributing goods out of microhubs or other types of micro-consolidation centres located near (within 1 to 5 km of) the final delivery destination. Microhubs can be shared with other business for even greater effectiveness.

Could cyclelogistics work for your business?

Using cargo cycles for deliveries can work particularly well for businesses that:

- deliver small and medium-sized parcels
- deliver in densely populated urban areas
- deliver a lot of parcels in a small area (high delivery density)
- can set up a microhub for consolidation, either alone or shared with other businesses

Choose the right cargo cycle to meet your business needs

In the past, cargo cycles had low payload volume and weight, and were therefore limited in what they could carry. However, cargo cycle technology is increasingly sophisticated and diverse, and even includes electric bikes for higher speeds and power. Payload volumes now range from approximately 300–2,000 L and can have a weight capacity up to 180–500 kg. Although it is easy to load a cargo cycle with regularly shaped small- to medium-sized packages, businesses in Europe are using cyclelogistics to deliver a wide variety of goods including linen and dry cleaning, catering, electronics and appliances.

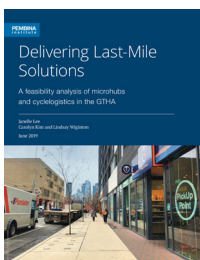
Policy and infrastructure conditions needed

The use of cargo cycles and other innovative alternative delivery systems for goods movement requires a supportive regulatory and policy framework, which includes:

- Cycling infrastructure for the safe integration of cargo bikes with other road users
- Policies such as low-emission delivery zones and congestion pricing that encourage the use of low- or zero-emission vehicles in dense urban areas
- Modernization of regulations that allow the use of e-assist bikes and cargo cycles for goods movement

Businesses can be important partners with public and non-profit organizations in helping to put supportive policies like these into practice.

Businesses should contact local and international cargo cycle manufacturers to understand the different technologies available on the market and select the most appropriate cargo cycle model for their delivery operations.



For more information and detailed references, see:

Delivering Last-Mile Solutions
www.pembina.org/pub/delivering-last-mile-solutions

Other related publications

Modernizing Urban Freight Deliveries with Cargo Cycles
www.pembina.org/pub/modernizing-urban-freight-deliveries

Cyclelogistics: Opportunities for moving goods by bicycle in Toronto
www.pembina.org/pub/cyclelogistics

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