



Cowlines

# Canada's first integrated mobility pilot

Preliminary results for the Cowlines Mobility-as-a-Service (MaaS) beta program across Metro Vancouver and the Fraser Valley, Canada.



**Greenlines**  
Sustainable urban mobility, globally.

# About Greenlines Technology

Greenlines Technology is a Vancouver-based technology company founded in 2017. Our team works tirelessly to aid the transition towards a more sustainable transportation system.

Greenlines has developed a multimodal transportation platform and iOS app called ‘Cowlines’ that combines multiple public and private transport providers into a single seamless trip. The app helps users find their optimal way within cities while helping them track, measure, and reduce their CO<sub>2</sub> emissions, and compares them to an equivalent private vehicle trip. The app combines public transit, bike sharing, car sharing, ride sharing, and taxis into a single multimodal trip, providing users with the ‘fastest’, ‘cheapest’, and ‘recommended’ routes to their destination.

Greenlines has been testing the app in Metro Vancouver and the Fraser Valley region together with regional public transit agencies (TransLink, West Coast Express, and BC Transit), bike sharing (Mobi bikes), car sharing (Modo car coop), and taxis. During a four-week period, Greenlines invited users to sign up to test the app while traveling around the region. The results of the beta and some key learnings are listed in the following pages.

Greenlines is grateful for the support received from both public and private institutions, not only in British Columbia but across Canada and the world. Governments have identified multimodal transportation as one of the most cost-effective ways to reduce both congestion and emissions in cities. At the Federal level, the Smart Cities Challenge is a prime example of the vision and efforts our government is investing in providing its citizens with a better quality of life. The European Commission recently named 2018 the “Year of

Multimodality”, and the British Parliament launched an inquiry to explore “Multimodal transport solutions”.

Over the next months, Greenlines plans to expand its coverage across the US & Canada with over 250 integrated transportation vendors, providing millions of people across the continent with the transportation choices they need to get there faster, save money, and minimize their carbon footprint. We couldn’t be more excited about the next steps!



**“I’m blown away. I think it [Cowlines app] will have a positive impact on the environment”.**

- **ANDREA REIMER**

*Councillor City of Vancouver and leader of the Greenest City 2020 Action Plan*

**“In our view, the answer lies in designing a seamless integrated mobility system that connects and integrates different modes of transport”.**

- **JOHN MOAVENZADEH**

*Head of Mobility Industries and System Initiative  
Member of the Executive Committee  
World Economic Forum*

# The Cowlines App

Cowlines is a free iOS trip planning app that provides users with the optimal way around cities by combining any form of transport available.

In Metro Vancouver and the Fraser Valley, Cowlines integrates public transit (TransLink, West Coast Express and BC Transit), and private providers (Mobi bikes, Modo Car Coop, False Creek Ferries, Aquabus Ferries and taxicabs). Across North America, hundreds of transportation providers are already integrated and will be available as the Cowlines app expands in other cities.

Cowlines was built from the ground up to enable people to find the optimal way around their cities, anywhere in the world. Most importantly, Cowlines is the only app of its kind that reduces verifiable CO2 emissions for every user.



## Key features

### Multimodal trip planning

Mix & match any form of transport in a single trip by combining any form of transport available in a single trip.

### All modes in one place

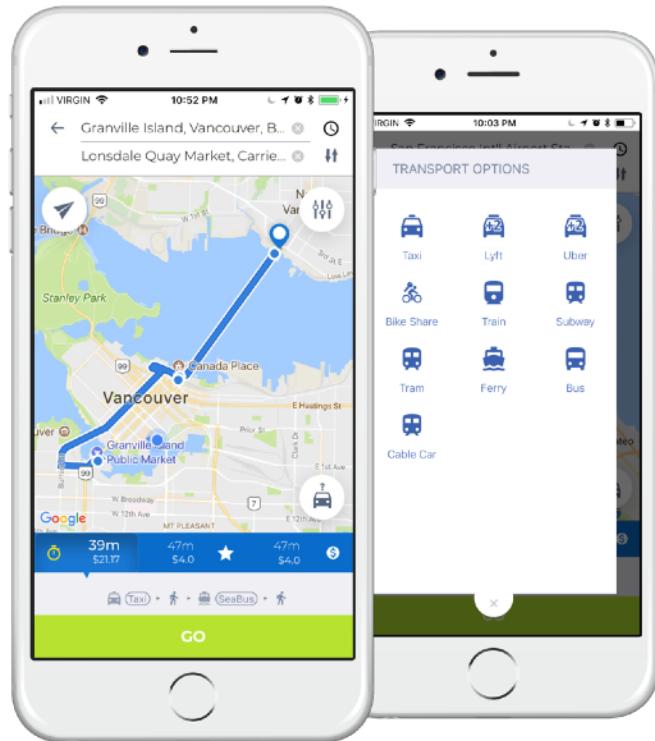
Select any form of transport you like to make up your route from the transport modes screen.

### Mode-by-mode routing

Automatically guides you from one mode to the next all the way to your destination.

### Fully user-customizable

Adjustable walking time, driving on/off, mode selection, and much more, available to all users.



### Fights Climate Change

Tracking and reporting of verifiable CO2 emissions per trip, for every user. Direct impact on reduction of CO2 emissions per user.

### Powerful routing algorithm

Combine cost, time, CO2 emissions, transfers, walking time and more to find the best way around.

### All information in your hand

Combined trip fare, total time and CO2 emissions for each trip, included in the displayed information.

### Real-time scheduling & live-traffic

Real-time scheduling for those available services. Embedded live-traffic for calculating the best route.

## Compare to a private vehicle

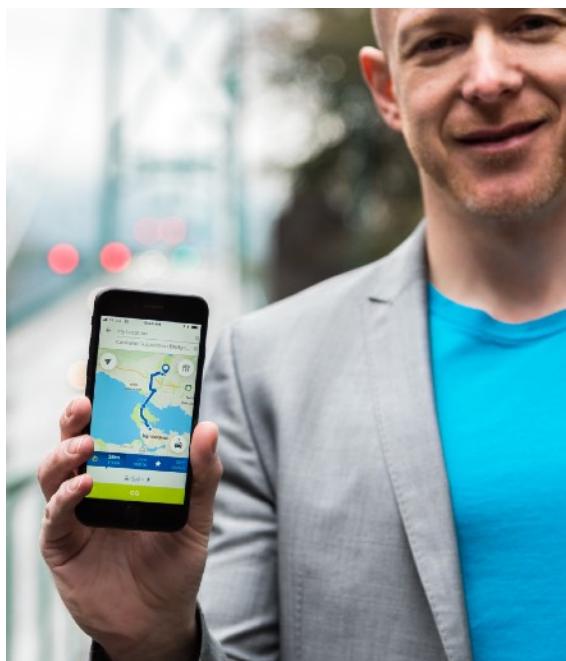
Direct side-by-side comparison to an equivalent private vehicle trip, including TCO (Total Cost of Ownership for Compact, Average and Light Truck vehicles), total trip time, and total emissions.

## Simple and beautiful design

Cowlines features a simple yet powerful design. Simply searching for a destination takes the user to the routing view. No need for complex decisions.

## The Pilot

Greenlines launched an invite-only private beta from March 5th to March 31st, 2018. During this four-week period, anyone visiting the app's site [www.cowlines.com](http://www.cowlines.com) was able to sign up for free and receive an invite via email to download the Cowlines app in testing mode.



The primary goal of the private beta program was to validate the functionality of the app, understand user behaviour and obtain preliminary data as to how people move around Metro Vancouver and the Fraser Valley, in Canada. Overall, we achieved

these goals while regularly improving and updating the platform and the Cowlines app.

Over 400 individuals signed up to test our app. The rate of sign ups accelerated exponentially over the course of the month once the word-of-mouth started, and has only continued to expand after March 31st.

Overall, 37 organizations signed up to the beta, including representatives from:

- 7 Canadian Municipalities
- 4 Transit Agencies
- 2 Federal Agencies
- 4 Economic Development Institutions
- 3 International Organizations
- 1 Political party
- 3 Venture Capitalists
- 3 leading Universities
- 3 Bike and EV Organizations
- 7 Major Private Companies

The Cowlines private beta program concluded on March 31st. Greenlines has been updating the system and iOS app and is now available for free on the App Store.

## Regional Coverage

The pilot covered the Metro Vancouver and the Fraser Valley regions, commonly called 'Lower Mainland', in British Columbia, Canada. This region includes 27 municipalities with over 2.7 million residents. It also receives over 10 million visitors each year from around the world.



# Modes of transport

During the pilot, Cowlines integrated public and private transport providers which provide coverage to over 80% of the journeys in the region.

## Public Transit

- TransLink
- West Coast Express
- BC Transit

## Bikesharing

- Mobi bikes by Shaw

## Carsharing

- Modo Car Coop

## Taxis

- 35 taxicab companies were integrated without identification of service providers.

Since the pilot ended, Cowlines has also integrated the following local providers:

- Aquabus Ferries
- False Creek Ferries

Cowlines currently integrates ride-hailing providers such as Uber and Lyft, and will be available across the region in the Cowlines app as soon as the BC Government allows their services.

# Contest Winners

Among the users that participated in the Cowlines pilot during March. The top users with the highest logged mileage received a MEC gift card. These are the winners of the Beta Contest. Congratulations!

- Kurt P.
- Ted L.
- Navroop S.
- Alex S.
- Alejandro M.
- Tim D.
- Molly M.
- Fred R.
- Aaron C.
- Herbert C.
- Daniel F.



# What's next

Once the pilot was complete, Greenlines's team worked to implement numerous improvements in our platform based on feedback from users and transportation vendors and governments. The team also integrated new transportation vendors, made substantial improvements to the underlying technology and improved the accuracy of the app when detecting movements of users.

Since then, Greenlines has received a large number of requests from cities from around the world to study the implementation of the Cowlines platform in those cities. As we gear towards the North American roll-out over the next months, we couldn't be more excited about the interest from all corners of the world.

# Key Learnings

The private beta program helped Greenlines develop a deep understanding of how people move around the city, and critical needs that would ultimately allow users to go car-free. These learnings came from both the data collected as well as customer feedback.



## People have very long commutes

The average traveling distance among beta users was 12.6 km, while the average traveling time was over 30 minutes. Some users reported commuting distances of over 35 km!



## 52% CO<sub>2</sub> savings vs private vehicles

Users saved an average 52% of CO<sub>2</sub> emissions compared to equivalent private vehicle trips when using Cowlines. The average user reduced their carbon footprint by 2 kg CO<sub>2</sub> per trip.



## People are hungry for (transportation) choices

No single transport mode was clearly preferred, but users requested (even) more providers. The rate of signups to the beta program accelerated exponentially once the word got out.



## Multimodal transportation rocks

Combining different transport modes (e.g. taxi & bus, bikeshare & bus, etc) regularly delivered up to 40% faster traveling times than single-mode apps.



## The status quo is not okay

Users indicated that existing transportation options across the region are unsustainable. Private vehicles and public transit can't solve the mobility challenge by themselves, thus combining forces among all providers 'just makes sense'.



## People move in unexpected ways

People's movements around the city do not necessarily fit regular patterns; trips are many times unexpected and unpredictable, which makes transportation planning extraordinarily complex.



## People want to go car-free

Users reported using their private vehicle less often once they were aware of their transport options. Others were actively looking to get rid of their cars, or to become a single-car family.



## (Open) Data is everything

We are able to provide users with transport options thanks to our partners. More is needed, both in terms of providers sharing their data as well as better data, to enable new services, or enhance existing ones.



## Transportation is deeply personal

Every user's needs are unique (e.g. price-sensitive, disabled, active lifestyle, etc). Users requested even more route choices, and to be able to fully customize their trips.



## Visitors need directions too!

Vancouver's more than 10 million tourists and newcomers require easy access to the different existing transportation options, making Cowlines a key tool to enable freedom of movement.



## Privacy is a must

Users indicated that privacy is a primary concern. Cowlines only collects the necessary anonymized data to provide the service to users, and users appreciate that.

# User Engagement



## Transport mode



## CO2 Emissions per transport mode



## Average Speed (km/h)



# Results of the Cowlines Beta Program

Relevant results of the Cowlines Private Beta Program\* can be found below. Please contact us if you would like to know more, or for media inquiries please contact [press@cowlines.com](mailto:press@cowlines.com).

## Key Stats

**400+**

Beta Program Signups

**1,700+**

Trip queries logged

**1.9**

Avg transport modes per trip

**2kg**

Avg CO<sub>2</sub> savings per trip

**142g**

Avg CO<sub>2</sub> emissions / km

**52%**

CO<sub>2</sub> Savings vs Private Car

**12.6km**

Avg commuting distance

**622m**

Avg trip walking distance

**14.6kmh**

Avg Cowlines trip speed

**31min**

Avg trip duration  
(incl. idle time)

**18km/h**

Avg bus & bike speeds

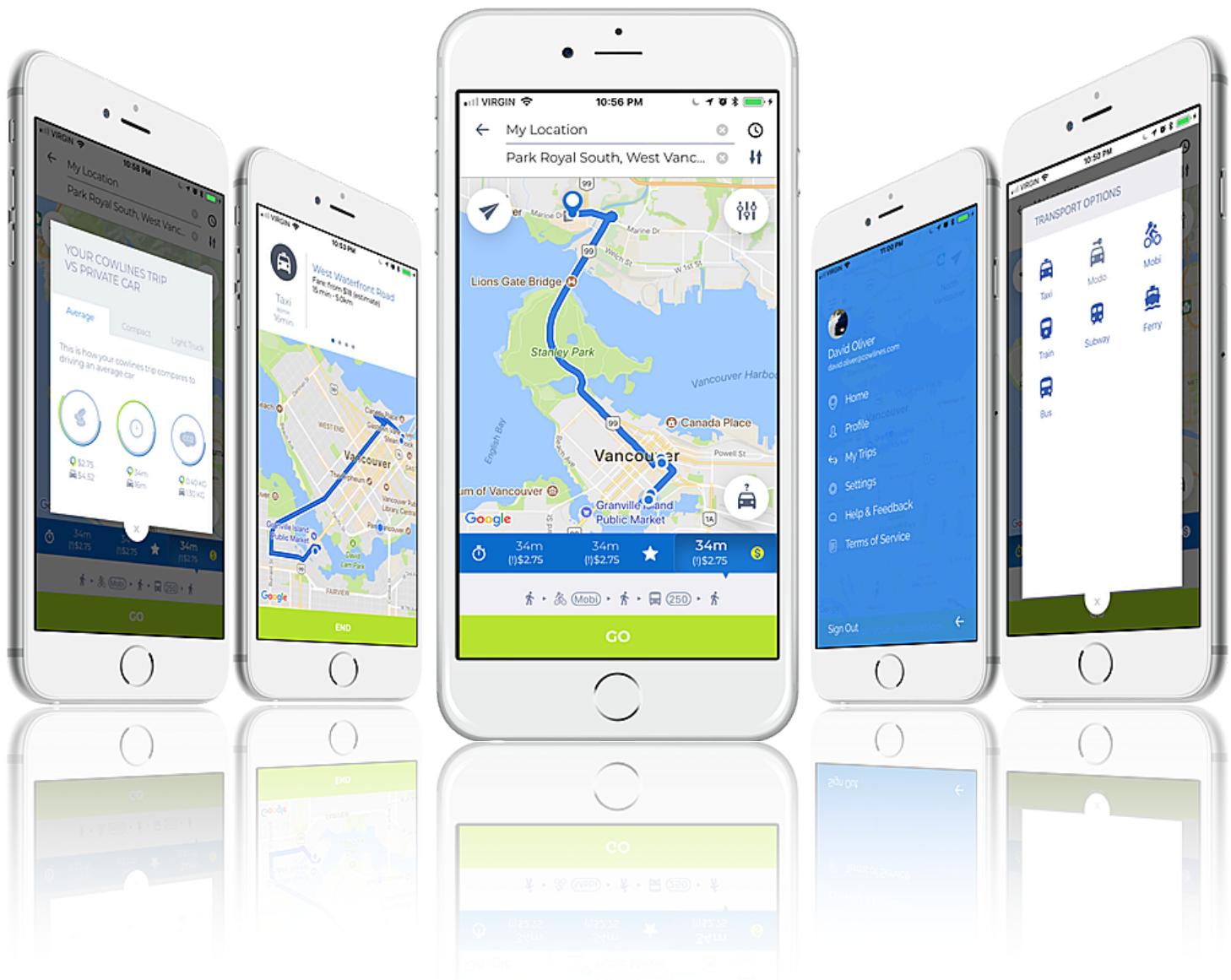
**40%**

Traveling time reduction  
(up to)

NOTE: The Cowlines Beta Program ran from March 5th to March 31st across Metro Vancouver and the Fraser Valley, Canada. A private invite-only program was put in place to limit the number of users and ensure a controlled environment to test the performance of the app and Greenlines' system. Greenlines Technology has made every effort to ensure accuracy of the information presented in this report. No private user information was collected to produce this report.



# Cowlines



## Media Enquiries

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