

# Advances in Community Transportation

*by*

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# Transportation and Communities





# Transportation problems

*We currently have no public transit, but **we are growing** and may need to consider introducing a bus service.*

*We have an aging population, with a growing number of **seniors** who are no longer able to drive.*

*Businesses in our downtown core feel there is a **shortage of parking**.*

*Many of our roads are too busy for **children** to walk or bike along safely. Youth often depend on their parents for transportation.*

*Our **traffic** would improve if more people commuted by bus or train, but there isn't enough parking at the station.*



# Transit

in small / sparse communities?

Low ridership  
Infrequent service  
Expensive





# RIDE-HAILING

Services expanding in Canada

**UBER**

**17** cities since **2012**

**lyft**

**9** cities since **2017**



**Alternatives to Driving = Improved Mobility**

# Ride-hailing partnerships

## Example: **Innisfil, ON**

- Ride-hailing subsidies as alternative to bus
- City estimates it saved millions
- Targeted support for community locations

30+ more examples across  
North America

- Becoming more targeted
- E.g., seniors, underserved areas

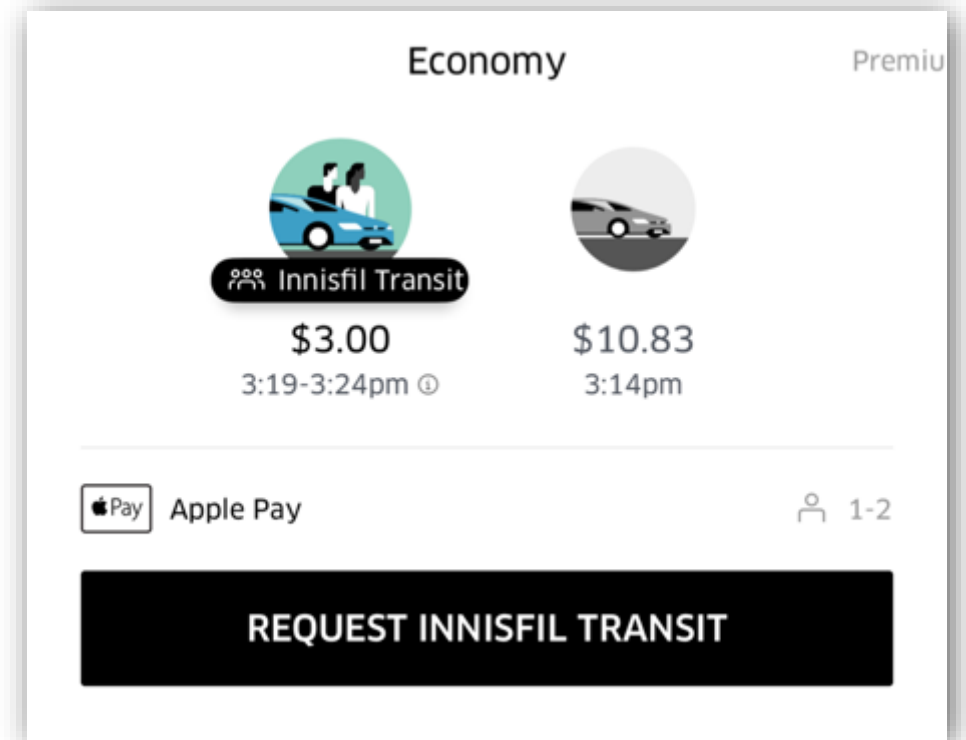


Image: [Innisfil.ca/living/transit](https://innisfil.ca/living/transit)

Next-Gen Partnerships  
being developed by



# ON-DEMAND SHUTTLES & BUSES

## Adding a digital layer to transit

- Bus location visible to riders
- Direct routes instead of fixed routes
- Scheduled pick ups and on-demand requests

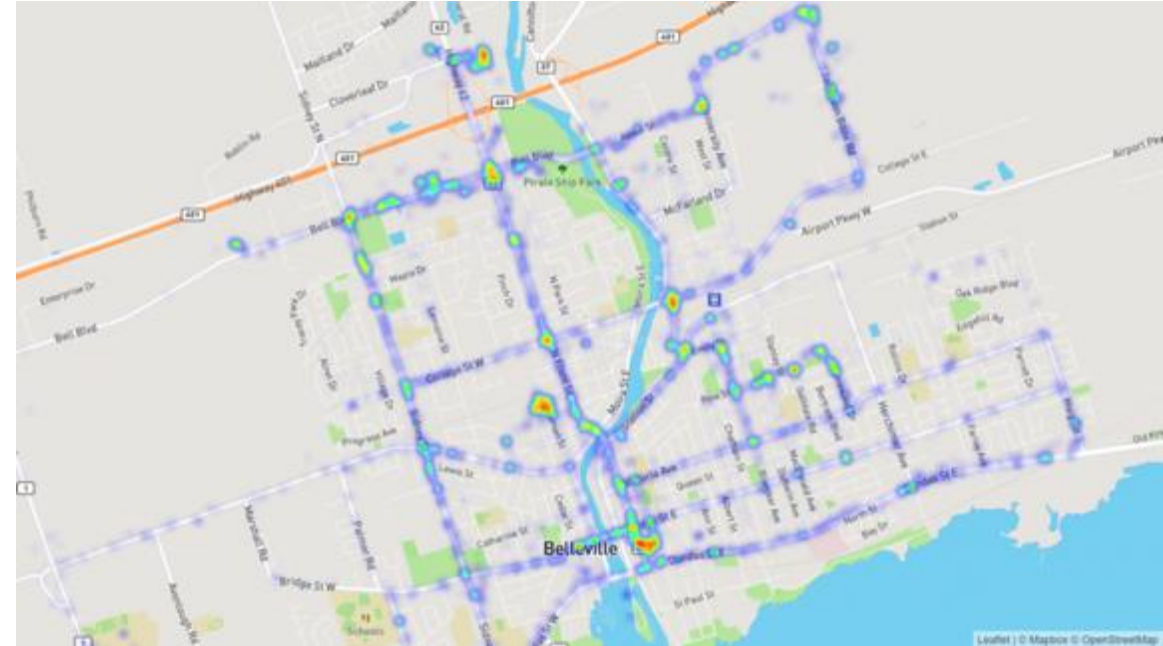


Image: Pantonium.com

**Connected Transit = Improved Services**

# On-demand transit

## Example: **Belleville, ON**

- Pilot to improve night-bus service
- 1 fixed-route, 1 on-demand
- 300% increase in ridership



Image: City of Belleville

## Many more examples around the world

- Can be public or private
- More responsive than Dial-a-Ride services



# MOBILITY-AS-A-SERVICE

## Connecting all the options

- Apps provide clear comparisons
- More choice / better service for riders
- Reduces car dependence
- Potential for partnerships

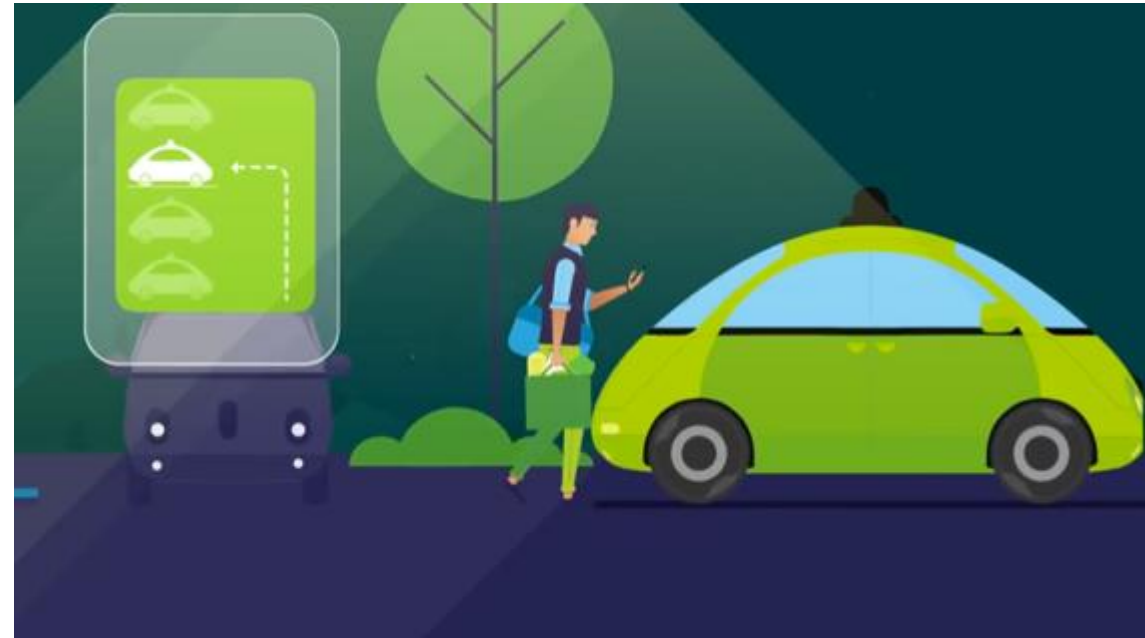


Image: Deloitte

**All-in-one Access = Improved Usefulness**

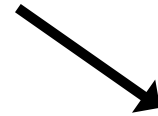
# Potential for more ride-buying

NOW

Personal Vehicle

Taxi

TNC



**MaaS makes it even easier to use car-alternatives**



# VEHICLE AUTOMATION



**Beneficial?**



**Problematic?**

# VEHICLE AUTOMATION

...can mean  
different things



**Temporarily take  
over driving**

*Tesla, Volvo, Mercedes,  
Cadillac*



**Fully “driverless”,  
for limited uses**

*AV shuttles, Waymo*



**Fully “driverless”,  
can go anywhere**

*ETA unknown*

**All could bring dramatic improvements in **safety****



# VEHICLE AUTOMATION

...will come  
in two forms

## Vehicle-buying



*Personal AVs*

## Ride-buying



*Shared AV Fleets*

Automated Vehicles will...

Ride-buying

# bring down costs of ride-hailing

Market-2

Pros:

- Could make transportation **more affordable** for those who can't drive

Cons:

- Could **increase traffic**
- Will likely **compete** with public transit, if it exists



Automated Vehicles will...

Vehicle-buying

# make commuting less painful

Market-1

Pros:

- Could **reduce stress** and **add free time**

Cons:

- Could increase “**bedroom community**” newcomers
- Could increase **traffic**

# Potential for more ride-buying (with AVs)

NOW

Personal Vehicle

Taxi

TNC

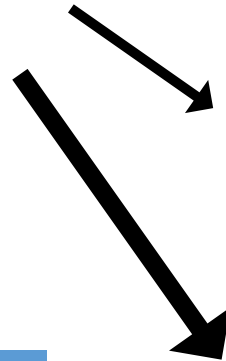
FUTURE

Personal Automated  
Vehicle

Shared AV  
Fleets

M-1

M-2





# AVs and Communities

Coming sooner than you think!  
(as robotaxis & delivery services)

Communities need to establish clear guidelines now  
– at the **local** level

“We **welcome** these innovations, if they are regulated to align with our goals.”



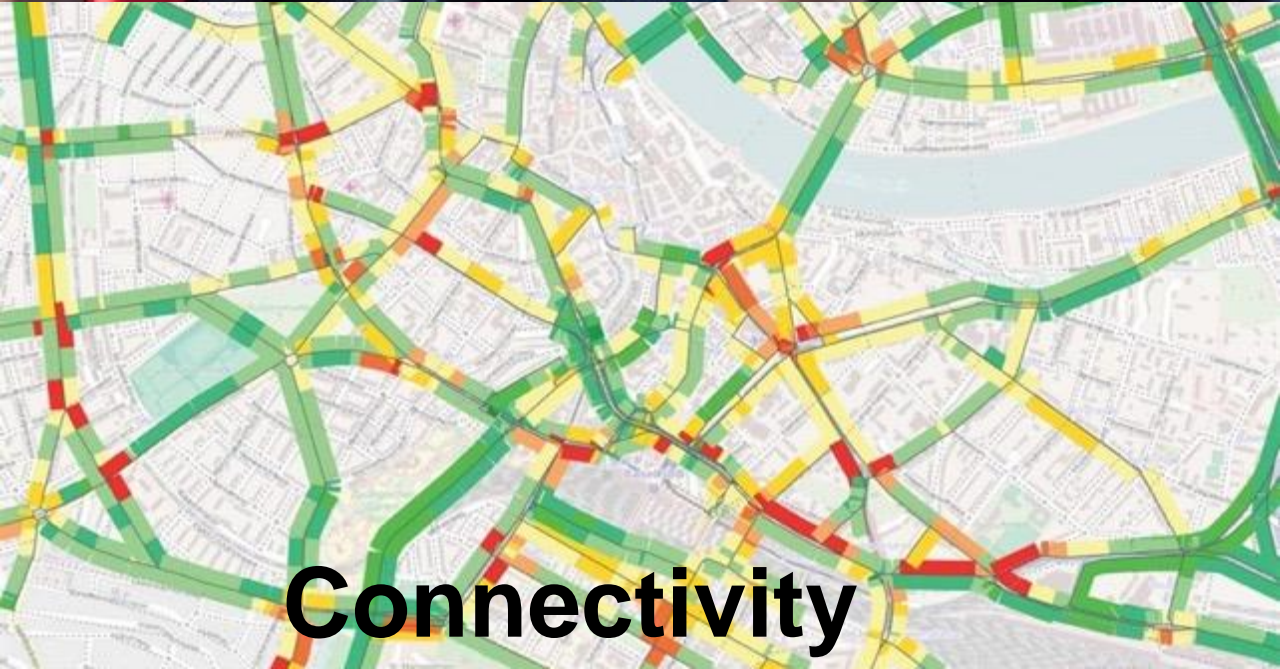
# INNOVATION MEGATRENDS



**Automation**



**Electrification**



**Connectivity**



**New ways of Sharing**



# But communities must start with their long-term goals:

## **SOCIAL**

Automation

human connections?  
quality of life?  
equity?

## **ENVIRONMENTAL**

Electrification

energy needs?  
emissions?  
impact on landscape?

## **ECONOMIC**

Connectivity

healthy local businesses?  
manageable costs to taxpayers?

New ways of Sharing

# The Road Ahead

Innovations are growing rapidly, and driverless solutions will be appearing soon

Wait-and-see is not a good plan - getting the results you want means taking action

YOU are in the driver's seat  
when it comes to your community's future



# Thank you!

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