

# SMART MOBILITY IN THE FUTURE CITY



ICTC Smart Cities Roundtable  
on Smart Mobility in Canada

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## Preface

The Information and Communications Technology Council (ICTC) is a not-for-profit, national centre of expertise for strengthening Canada’s digital advantage in a global economy. Through trusted research, practical policy advice, and creative capacity-building programs, ICTC fosters globally competitive Canadian industries enabled by innovative and diverse digital talent. In partnership with an expansive network of industry leaders, academic partners, and policy makers from across Canada, ICTC has empowered a robust and inclusive digital economy for over 25 years.

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**Marie-France Laurin**<sup>2</sup>, Director of Business Development at Stantec GenerationAV™

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1 For speaker biographies of Graham, please refer to Appendix A at the end of this brief.

2 For speaker biographies of Marie-France please refer to Appendix A at the end of this brief.

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## INTRODUCTION

ICTC's Smart Mobility in the Future City Roundtable, held on February 2<sup>nd</sup>, 2021, and was the third event in a series on creating a vibrant and inclusive smart economy for Canada. The event engagement comprised two parts: presentations on Smart Mobility in Canada; and an invitation-only roundtable discussion.

Graham Cavanagh, Senior Planner at TransLink, and Marie-France Laurin, Director of Business Development at Stantec GenerationAV, presented during the first part of the event on smart mobility in the context of future urban spaces. Graham's presentation focused on the evolution of public transit, and Marie-France's touched on the many ways that autonomous vehicles can change the way we live, get around, and access goods and services. In the event's second hour, a group of 30+ thought leaders from across Canada engaged in a roundtable discussion. Roundtable attendees came from industry, the public sector and local government, academic institutions, and the civil sector.

To ensure a fruitful and fulsome conversation, roundtable participants were broken into three smaller discussion groups and provided with series of challenge-based questions. Questions focused on three core categories, namely data, technology and infrastructure, and the human experience. Two key insights derived from this discussion are the following: data is the fulcrum of smart mobility for fuelling the development of products and services, and securing citizen engagement and adoption; there also exists a need for a national smart mobility roadmap and a framework to explore public and private partnerships. This brief distills the priorities outlined during this roundtable event and the implications and considerations for future mobility in Canada.



# Setting the Stage

## Insights from Smart Mobility Expert Speakers

The smart mobility event kicked off with two keynote presentations delivered by TransLink's Graham Cavanaugh and Stantec's Marie-France Laurin.

### **TransLink: New Mobility Policies and Strategies**

TransLink is the regional transportation authority for Metro Vancouver in British Columbia. In 2020, TransLink received an American Public Transportation Association's Outstanding Public Transportation System Achievement award in the category of providing 20 million or more annual passenger trips. TransLink has several key initiatives that focus on "new mobility" policies and strategies, including *Transport 2050*, the *Open Call for Innovation*, pilot demonstration projects, and the *New Mobility Lab*. Each of these programs has an integrated COVID-19 response, including measures to provide safe public transit services and rebuild ridership during and after the pandemic.

#### **Transportation "Vision"**

Transportation and mobility play a vital role in the everyday life of a city dweller. City transit and transportation strategies are designed to meet people's needs and address challenges such as urbanization, population growth, climate change, and digitization. To best develop those strategies and address these needs, it is important to ask city residents how they live, how they move, and how their mobility can be improved. Public engagement is a common practice in the European Union<sup>3</sup> and is gaining in popularity in Canada.<sup>4</sup>

<sup>3</sup> "Public consultations," ec.europa.eu, 2021, accessed April 9, 2021, [https://ec.europa.eu/transport/news\\_en](https://ec.europa.eu/transport/news_en)

<sup>4</sup> "Public consultation on the future of mobility in the region," Ville Chateauguay, November 10, 2020, <https://ville.chateauguay.qc.ca/en/news/public-consultation-on-the-future-of-mobility-in-the-region/>

Graham introduced the *Transport 2050* public engagement initiative, with a 30-year vision for transportation expansion and improvement strategy in Metro Vancouver.<sup>5</sup> Transport 2050 is the organization's largest public engagement to date with over 150,000 consultations, 30,000 survey responses, and 300 events in seven languages. Together, this culminated in more than 4,000 unique ideas that are now being developed into strategies and actions to address broad regional themes that include access, convenience and reliability, affordability, health and safety, and emissions-free transportation options. Examples of new mobility concepts include car sharing, ride hailing, automated connected electric and shared (ACES) vehicles, mobility-as-a-service (MaaS), urban aerial mobility (UAM), and zero emission ferry services. The first phase of the Transport 2050 was finalized in September of 2019, and the top priority identified during the first phase of public engagement was transit movement and expansion. Residents of Metro Vancouver area envision their future transportation system as one that is efficient, cost-effective, and environmentally friendly.<sup>6</sup>

The *Open Call for Innovation* is another new mobility program that invites the private sector to submit ideas for initiatives that address transportation challenges and enhance livability in Metro Vancouver.<sup>7</sup> Past themes of this program include Seamless Mobility (2018), Customer Services and Amenities (2019), and Our Region's Recovery (2020). Awarded partnerships have led to pilot demonstration projects such as the Shared Mobility Compass Card that integrates transit services with bike and car sharing on a single payment platform (as a first step toward MaaS).<sup>8</sup> Another example is the Pigeon Box<sup>9</sup> package consolidation lockers at transit stations. Responding to the need for enhanced safety protocols during the COVID-19 pandemic, TransLink developed an innovative, and "low-tech" pilot demonstration project that introduced copper coating for high-touch surfaces on transit vehicles.<sup>10</sup> With copper acting as a natural antimicrobial, the purpose of this initiative is to reduce the spread of bacteria and viruses in public transit, which may prove invaluable in rebuilding ridership during and after the pandemic.

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5 Transport 2050, <https://www.transport2050.ca/>

6 "Shaping our Transportation Future, Together," TransLink, 2020, <https://view.publitas.com/translink/transport-2050-phase-1-report-stakeholders/page/6-7>

7 K. Chan, "TransLink is asking the public to submit innovative ideas to improve transport," DailyHive.com, June 7, 2018, <https://dailyhive.com/vancouver/translink-tomorrow-open-innovation-call-2018>

8 "Compass Card Taps Into New Modes Of Transport," TransLink, October 24, 2019, <https://buzzer.translink.ca/2019/10/compass-card-taps-into-new-modes-of-transport/>

9 Pigeon Box, <https://www.pigeonbox.ca/lockers>

10 M. Hall, "Teck to test antimicrobial copper on Vancouver transit network," Mining Technology, November 12, 2020, <https://www.mining-technology.com/news/teck-antimicrobial-copper-test-vancouver/>

## New Mobility Lab

Transportation authorities are constantly developing new mobility programs or expanding existing ones, and they often involve academia when they do not have internal capacity or expertise. Academia is equipped to conduct high-quality research and explore new mobility themes relevant to the region. As an example, the Mobility Innovation Lab of the Fraunhofer Institute for Industrial Engineering IAO in Germany focuses on a wide range of research areas to gain a holistic understanding of the mobility systems of tomorrow.<sup>11</sup>

Graham closed the presentation with a discussion on TransLink's New Mobility Lab. An academic engagement portal for university professors, PhD researchers, and master's students, the lab provides up to \$50,000 of grant funding over two-year engagements for research on a broad range of topics and themes related to new mobility. Topics like planning, urban design, policy, computer science, environmental and resource science, and behavioural sciences all fall under the mobility lab's mandate.<sup>12</sup>

TransLink works closely with community, academic, and regional partners in support of regional goals, such as public health, safety, access, equity and environment. Graham concluded by highlighting that new mobility solutions need not be high tech: solutions like copper coating high-touch surfaces and supporting active transit are all sustainable and easily implementable solutions to improve our transit system and citizen wellbeing. As he noted, these solutions can often be achieved without significant spending and technology investment, requiring little more than "political will and orange cones."

## Stantec: Preparing for Automated Mobility

As automated vehicle (AV) technologies continue to evolve and advance, industry insiders have been continually seeking out experts to better harness this emerging technology and develop centralized tools that can help to fill gaps, remove the barriers to adoption, and accelerate of AV deployment.

Stantec GenerationAV™ is a full consulting program dedicated to advancing automated mobility systems that create a safer, cleaner, more equitable world for future generations. GenerationAV™ focuses on removing the barriers to AV programs, including selecting technology suppliers, addressing regulatory requirements, and building an efficient roadmap to safe deployment. Stantec GenerationAV™ works with industry partners to help clients deploy automated vehicles safely and for the good of their communities.

<sup>11</sup> "Mobility Innovation Lab," Fraunhofer IAO, accessed April 9, 2021, <https://www.muse.iao.fraunhofer.de/en/ueber-uns/mobility-innovation-lab.html>

<sup>12</sup> The project results are disseminated at an annual Research Dialogue event and published in a compendium document—publicly accessible via the TransLink Tomorrow webpage: <https://www.translink.ca/plans-and-projects/programs-and-studies/translink-tomorrow>



The ideal future of mobility, defined by Marie-France, is where getting from point A to point B is safe, equitable, and sustainable, where automated mobility harnesses technology for the benefit of all. In other words, future mobility should improve the way people move. Yet, for this to succeed, it is important to understand how AVs will work and prepare cities and passengers for AVs.

Marie-France demonstrated numerous applications for AVs, including moving people, delivering food, medicine and other goods, and providing services like cleaning, inspection, and security. Irrespective of the use case, implementing a new technology always comes with inherent risk, and often there is no clear path to managing that risk in an efficient manner. Marie-France stressed that deploying automated systems is a complicated process filled with hurdles, trials and the potential for errors. This process requires a clearly defined program management process. From evaluation to integration of new technology with existing infrastructure, there are many steps on the journey to bringing an AV project to life.

Launching and operating AV technology in a community can potentially have wide-ranging implications on individuals, cities, infrastructure, businesses, and governments. There is a need for guidance that can help stakeholders plan the necessary steps to achieve successful AV deployment. As an example, the “Preparing Communities for Autonomous Vehicles”<sup>13</sup> report by the American Planning Association has a checklist for AV planning. To mitigate some challenges with the AV planning and deployment process in Canada, Marie-France concluded by presenting an AV Deployment Playbook. This guide leads users through common questions and a fully developed methodology designed to accelerate the journey to safe AV deployment, irrespective of case or vehicle platform.<sup>14</sup>

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13 J. Henaghan, “Preparing Communities for Autonomous Vehicles,” American Planning Association (APA), February 23, 2018, <https://www.planning.org/publications/document/9144551/>

14 “AV Deployment Playbook,” Stantec, accessed April 9, 2021, <https://www.stantec.com/en/markets/transportation/smart-mobility/stantec-generation-av/av-deployment-playbook>

# ICTC Smart Mobility and the Future City Roundtable Discussion

## Key Takeaways and Recommendations

Following the guest presentations, invited attendees joined in a roundtable discussion under the Chatham House Rule. The roundtable discussion was broken into three topics: Data, Infrastructure and Technology, and the Human Experience. Each group was given time to explore and discuss each of these topics, resulting in unique perspectives on smart mobility and its impacts.



# CHALLENGE ONE: DATA

## Privacy Literacy Needed Among General Population

Research shows that data privacy, in the context of smart cities, is a key concern for Canadians.<sup>15</sup> According to a 2018-2019 Survey of Canadians on Privacy, 64% of Canadians rated their general knowledge of privacy rights as good or very good. According to the same survey, 48% of Canadians felt confident that they have enough information about how new technologies might affect their personal privacy. Yet, 92% of Canadians still expressed some level of concern about the protection of their privacy.<sup>16</sup> Many participants of the roundtable said that despite this self-assessment, the general public has a low level of awareness, knowledge and understanding of what data is being collected from them, how it is being collected, and how and by whom it is being used. Notably, the participants noted a gap between technology development and the public's general understanding of how their data is being used. Canadians need accessible resources and information on data and privacy for the success and acceptance of smart cities and their numerous components (such as smart mobility).

*"Privacy issues can come up where you least expect them, and if you haven't been thinking about privacy from the beginning, you've got a real issue by the time you actually get into the project."*

## Data Lives on a Spectrum of Openness

Several key points arose on data privacy and its uses. A consensus formed, acknowledging the importance of data use but also the need to find a compromise between open data (fully public) and completely private. (Ownership concerns often centred on monetization.) On the mobility front, some auto manufacturers anticipate that in the future they will earn less revenue by manufacturing cars but could recoup these losses by monetizing the data they collect.<sup>17</sup>

As is often the case, the public must consider the trade-off between convenience and loss of privacy, and users should be able to "opt in" for services that utilize personal

<sup>15</sup> "Canadians are rightly worried about invasion of privacy in smart cities," The Conversation, February 6, 2019, <https://theconversation.com/canadians-are-rightly-worried-about-invasion-of-privacy-in-smart-cities-110091>

<sup>16</sup> "2018-19 Survey of Canadians on Privacy," Office of the Privacy Commissioner of Canada, March 11, 2019, [https://www.priv.gc.ca/en/opc-actions-and-decisions/research/explore-privacy-research/2019/por\\_2019\\_ca/](https://www.priv.gc.ca/en/opc-actions-and-decisions/research/explore-privacy-research/2019/por_2019_ca/)

<sup>17</sup> M. Bertonecello, C. Martens, T. Möller, and T. Schneiderbauer, "Unlocking the full life-cycle value from connected-car data," McKinsey and Company, February 11, 2021, <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/unlocking-the-full-life-cycle-value-from-connected-car-data>

data. The Nexus card<sup>18</sup> can be viewed as a prime example of this trade-off: it allows expedited travel for Canadian and US residents across borders, but the price of admission is providing additional personal and biometric information to customs and border services agencies in both countries. Opting into a smart mobility program may mean opting into a whole smart mobility platform with a suite of services. Citizens need accurate information on the trade-offs of providing informed consent. This involves triangulation, identification, and considerations about the motivations of different parties developing and deploying such services.

*"We don't want fully open data, nor do we want the Googles of the world owning all the data. There has to be some kind of compromise in the middle."*

### **Mobility Data is Key to Urban Planning, but There are Limitations in Collection**

Roundtable participants noted a tension between cities that require data to make informed planning decisions and the private companies that generate this data: a city's mobility data combines public and private data sources, and although it can be used to find city-wide usage patterns, it can identify personal activity as well. In Ontario, if a municipality is seeking to develop a new type of mobility program that has an impact on citizen privacy, it is required to conduct a privacy impact assessment. Although roundtable participants regarded this as a crucial step in the process of launching such a project, they noted that receiving the necessary guidance and information to move forward was not always clear or straightforward. A few participants said that while many cities have not yet run into the same privacy challenges that the private sector has, they should be adequately informed and prepared for when they inevitably arise.

*"I think the focus needs to be on local governments and their capacity to deal with everything related to smart cities, infrastructure, including data. Not all cities are created equal by any measure."*

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<sup>18</sup> NEXUS is a joint Canada Border Services Agency and U.S. Customs and Border Protection-operated Trusted Traveler and expedited border control program designed for pre-approved, low-risk travelers.

## Prioritizing Public Engagement and Securing Data

Regarding experimental sandboxes such as Sidewalk Labs, a prevailing feeling among roundtable participants was that early public engagement is needed to understand community needs and perspectives. Emphasis on public education is critical to ensure transparency and explain to the public about why the data is being collected and to what end.

Since a smart city inherently relies on the collection, processing, and analysis of huge volumes of data, the question of data ownership was an important topic in the roundtable discussion. Participants lamented that while crucial, data ownership remains unresolved in Canada.<sup>19</sup> According to the participants, Canada does not currently have a policy in place that makes government the final owner of the data collected in municipal or private company projects; however, Canada operates according to a general standard that requires all data collected from such projects to be domestically stored.<sup>20</sup>

*“Communication campaigns are really important to engage with the public as well as surveys that engage peoples’ perspectives ahead of a project... SidewalkLabs could have much earlier engaged with their communities and learned a lot from that.”*

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<sup>19</sup> M. McKiernan, “Development project raises questions around smart cities,” Law Times, April 2019, <https://www.lawtimesnews.com/news/legal-analysis/development-project-raises-questions-around-smart-cities/263507>

<sup>20</sup> K. Grieman, “Smart City Privacy in Canada,” CIPPIC, January 2019, [https://iapp.org/media/pdf/resource\\_center/Smart\\_Cities\\_OPC\\_2019.pdf](https://iapp.org/media/pdf/resource_center/Smart_Cities_OPC_2019.pdf)



## CHALLENGE TWO: INFRASTRUCTURE AND TECHNOLOGY

### A Need for Greater Overall Preparedness; Adopt Lessons from Beyond Canadian Borders

According to roundtable participants, Canada is not yet fully prepared to truly lead the implementation of smart mobility technologies on a large scale. Many felt that it will follow behind other countries driving this transition and that it will pursue necessary due diligence and research to make informed decisions. This includes collecting use cases and adopting approaches from several different countries to determine what will best suit Canada's unique climate and geography.

One area of slow progress is connected-autonomous vehicles (CAV). Globally, Canada is ranked #12 on the CAV preparedness index<sup>21</sup> and currently lacks a clear and concrete strategy or roadmap for CAV deployment, adoption, and scaling. Cities that lead the race for CAV deployment around the world include Singapore (which has a strong long-term vision for smart cities in general), and Los Angeles (the mayor has established an innovation zone that even includes aerial mobility).<sup>22</sup> A holistic Canadian CAV framework would assess numerous mobility business models and reflect Canadian needs, its climate, and geographic realities.

*"There are interesting things going on around the world. In the Netherlands there are interesting techniques for procurement where different parties come together to create terms of reference around these conversations. Canada will follow the lead of what is going on in the world ... take the best from different places all around the world and stitch together this conversation as we see fit for our context and customizations."*

21 L. Sarabia, "Canada improves but other countries keep pace in KPMG's 2020 AV readiness index," Electric Autonomy, July 7, 2020, <https://electricautonomy.ca/2020/07/07/kpmg-2020-autonomous-vehicles-readiness-index/>

22 A.Z. Hand, "Urban MOBILITY in a Digital Age," City of Los Angeles, Office of the Mayor and Department of Transportation, August 2016, [https://ladot.lacity.org/sites/default/files/2020-03/transportationtechnologystrategy\\_2016.pdf](https://ladot.lacity.org/sites/default/files/2020-03/transportationtechnologystrategy_2016.pdf)

## The Challenges Facing Small Municipalities

Different municipalities are at different levels of smart mobility readiness, meaning that regional approaches will be key to successful implementation. Roundtable participants saw Canada as prepared to implement some smart mobility technologies (excluding CAVs in the short-term) but mainly in larger municipalities such as Toronto, Vancouver, Calgary, or Montreal. Unfortunately, numerous unique challenges face smaller municipalities and threaten to delay their smart mobility implementation. These include insufficient internet and connectivity infrastructure, and a lack of digitally skilled talent required to drive forward smart mobility initiatives. At this time, it is projected to take several years for smart mobility technology to be rolled out to most Canadian municipalities.<sup>23</sup>

## Explore Partnerships and Collaboration Between the Private and Public Sector

Embracing partnerships between the public and private sector was seen by roundtable attendees as critical to future success. In Europe, public-private partnerships (PPPs) are relatively common and considered as effective in bridging the gap between public service delivery and innovation.<sup>24</sup> That being said, one Canadian success story is Innisfil, Ontario: instead of planning for and developing traditional and expensive bus service (time consuming to establish, with uncertain return on investment, given the small population), the town offered subsidized Uber rides to its citizens.<sup>25</sup>

Innovation labs are another method of bridging the technology gap between the public and private sector. Participants saw these as important means to effectively test concepts that can later be deployed in larger projects.

*“With regard to funding, it’s not just limited funding, but also capital flows in Canada in general and the limited scope of the funding that exists. It’s people in their own bubbles trying to fight for funding for their projects but there is [not enough] to piece together everything and work in coordination.”*

Collaboration between the public and private sector is crucial. However, it is important to remember that the private sector often has experience and knowledge that is not matched by the public sector. To effectively partner with the private sector and deploy projects that support citizen wellbeing, cities still need to develop a certain level of technical or digital proficiency and in-house expertise.

23 D. Pittis, “They promised us driverless cars. What happened?” CBC News, September 2020, <https://www.cbc.ca/news/business/driverless-cars-pittis-1.5739153>

24 “Public Private Partnerships,” European Commission, accessed on April 14, 2021, <https://ec.europa.eu/digital-single-market/en/public-private-partnerships>

25 “Riding in Innisfil,” Uber, accessed on April 14, 2021, <https://www.uber.com/ca/en/u/innisfil/>



## CHALLENGE THREE: HUMAN EXPERIENCE

### Ensure Equitable Access—Technology Should Not Be a Barrier

Underpinning Smart Mobility is the presumption that users have access to technology—the least of which is a smartphone. Yet, roundtable attendees pointed out that not all Canadians have equitable access to the base technology needed to leverage smart mobility offerings and generate large-scale adoption. A second barrier is the potential lack of fundamental digital skills to leverage the services available. Some participants suggested community libraries be reinvigorated and expanded to act as hubs for essential services. Since libraries are geographically dispersed across the city, they could provide access points to mobility services (i.e., assisting people with their Compass Cards, route planning, access to internet-based mobility platforms, etc.).

*“Libraries and the library format are one of our essential services—people in the downtown east side of Vancouver need to get access to the internet there, and it’s a huge accessibility factor.”*

Participants also felt that truly “smart” mobility would serve to break down accessibility



barriers. That is, innovations would take into account different abilities and needs of the entire population and be driven by the concepts of universal design and measurement.

*“If done right, smart mobility has the ability to create a level playing field. We can think about people who use smart canes, apps for navigation, etc. A phrase I like is that we want people with mobility challenges to ‘have adventures.’”*

*“Make sure that mobility-as-a-service platforms do not become walled gardens. We need shared services as an equity issue.”*

## **Responding to Labour Market Shifts**

The deployment of smart mobility tools and initiatives inevitably have an impact on the labour market. Smart mobility technologies will affect a significant number of traditional occupations such as truck drivers and public transit drivers, and will impact adjacent occupations that are not necessarily transportation-based. This echoes studies that have classified transport truck driving in the class of occupations that are at a greater risk of automation.<sup>26,27</sup>

Although this change will not happen overnight, roundtable participants stressed that certain members of the workforce will need to be upskilled to take on new tasks within their existing occupations or reskill to new roles entirely. Adapting to this future shift requires developing sustainable workforce skilling strategies today.

*“The elephant in the room is job transition strategies. In the US, freight and bus services make up a big portion of workers. It’s important to think about a ‘just transition’ and job transition strategies.”*

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<sup>26</sup> “World Trade Report 2017: Trade, Technology and Jobs,” World Trade Organization, September 27, 2017, [https://www.wto-ilibrary.org/trade-monitoring/world-trade-report-2017\\_50d27d62-en](https://www.wto-ilibrary.org/trade-monitoring/world-trade-report-2017_50d27d62-en)

<sup>27</sup> S. Kilcarr, “Report: Driverless trucks will eliminate millions of jobs,” FleetOwner, May 31, 2017, <https://www.fleetowner.com/technology/article/21696130/report-driverless-trucks-will-eliminate-millions-of-jobs>

# CONCLUSION

Smart Mobility is a cornerstone of future cities, both large and small. Some smart mobility projects may be relatively “low tech” in nature such as separated bike lanes, while others, like connected and autonomous vehicles, necessitate the utilization of advanced technologies and sophisticated infrastructure. Both are key to smart urban planning and future proofing cities, and both rely on the effective use of data. However, communicating the implications of data collection to the average citizen is critical to delivering innovative initiatives that are backed by public trust and acceptance. At the same time, exploring public-private partnerships (PPPs) is advantageous but requires that municipalities develop their own base-level expertise to guide these projects and ensure that they truly serve citizen wellbeing.

Overall, Canadian readiness for smart mobility is difficult to measure: municipalities exhibit different levels of readiness. Some are driving successful and digitally centred initiatives, while others currently lack the necessary physical and digital infrastructure to support such advancements. Going forward it will be crucial to guarantee accessibility to services irrespective of socioeconomic factors or physical ability. Finally, smart mobility deployment will undoubtedly impact the labour market, bringing to the forefront the demand for new occupations alongside shifting skill needs in existing roles. This shift is not limited to the mobility-related roles either; it will be evident in adjacent occupations and, eventually, across the entire economy. Equity, inclusivity, accessibility, and continuous skill development must be at the core of Canada’s smart mobility revolution.

ICTC’s third roundtable in a series of six Smart City Policy Roundtables took place in February 2021. The topic of Smart Mobility and the Future City engaged thought leaders from across Canada to produce this brief. The following ICTC roundtable (fourth in the series) took place in March 2021 on the topic of Smart Government.

# Appendix A

## Speaker Biographies

**Graham Cavanagh** is a Senior Planner at TransLink, the transportation authority for Metro Vancouver in British Columbia. At TransLink, Graham works on new mobility policy and strategy within the Strategic Planning and Policy division, where he drafted sections of the organization's 30-year vision, *Transport 2050* and oversees a Canadian academic partnership and funding program called the New Mobility Lab. The lab supports pilot demonstration projects such as the Shared Mobility Compass Card, an on-demand microtransit and a digital governance strategy for the region. Graham has a decade of planning experience in the public, private, and non-profit sectors. He has previously contributed to the Complete Streets project in New York City under Commissioner Sadik-Khan and Mayor Bloomberg. He also led transportation master plan consulting with Sam Schwartz Engineering (as an Alexander von Humboldt German Chancellor Fellow in Germany) and contributed toward bus rapid transit development with the not-for-profit organization Institute for Transportation and Development Policy.

**Marie-France Laurin** leads business development activities for GenerationAV™, Stantec's autonomous vehicle consulting arm focused on accelerating AV adoption. Passionate about new mobility, she has spent most of her career exploring mobility trends, technologies and providers, and synergies between them to help people bring ideas to life. Previous work in AV technology, ride sharing, the internet of things (IoT), and smartphone tech have prepared Marie-France for the next big mobility revolution. She believes in the power of AVs and the new mobility ecosystem to enhance communities through improved accessibility and affordability. Building on industry best practices, she knows people are what ultimately drives the success of any mobility program.