PREPARING FOR THE IMPACTS OF TECHNOLOGY ON THE FUTURE OF TRANSPORTATION IN YORK REGION

PREPARED FOR TRANSFORMATIVE TRANSPORTATION ‘18 – iCITY CATTS SYMPOSIUM
1. York Region Quick Facts
2. Planning for Advancements in Transportation Technology
3. Challenges and Opportunities Preparing for the Future of Transportation
4. Participation in iCity CATTS – York Region’s Objectives
5. Questions / Discussion
- Area - 1,776 km²
- ~4,170 lane kilometers of Regional roads
  - ~40% Urban
  - ~60% Rural
- ~890 traffic control signals
- YRT ridership of ~77,000 revenue riders per weekday
- 529 BRT & conventional buses servicing over 5,300 bus stops
The 2016 TMP objectives support an interconnected multi-modal network
PLANNING FOR ADVANCEMENTS IN TRANSPORTATION TECHNOLOGY
TECHNOLOGY ADVANCEMENTS ARE RAPIDLY TRANSFORMING HOW PEOPLE TRAVEL

• Smartphone apps provide real-time traffic information
• On-demand services allows for Mobility-as-a-Service
• Electric and alternative fuel vehicles are increasingly common
• Connected and autonomous vehicles will revolutionize how we travel
TESTING NEW TECHNOLOGIES IN THE FIELD THAT FOCUS ON SAFETY AND ENHANCED OPERATIONS

- YRT bus and signal control pilot Jane Street
- Regional snow plow signal pre-emption on Rapidways
- Electric bus pilot in the Town of Newmarket
Expansion in 2019 to support on-demand service

- iOS, Android App
- First-mile/last-mile connection to existing transit
- Real-time operation updates
- Configurable Service for Agency

Riders may request a trip from any origin to any destination including Toronto
COLLECT REAL-TIME TRAFFIC DATA TO ENHANCE OPERATIONS

- 270 Bluetooth sensors are installed inside the traffic cabinets

- By 2019, ~400 sensors installed providing 1300+ km coverage on 900+ directional segments
• Developing state-of-the practice Activity-Based Model to forecast travel demand
• Captures all-day travel patterns for all modes
• Better understand impacts of emerging trends (e.g. CV/AVs)
• Established YorkNet to improve connectivity and broadband availability in the Region

• Updating transportation vision to reflect new technologies and impacts on land use planning

• Establishing partnerships to be responsive to technology advancements

• Engaging in academic research to better understand possible impacts
CHALLENGES AND OPPORTUNITIES PREPARING FOR THE FUTURE OF TRANSPORTATION
TECHNOLOGY CHANGES ARE GOING TO AFFECT TRANSPORTATION IN THE REGION

- Will autonomous vehicles increase the number of vehicles on the road?

- Will autonomous vehicles increase demand for urban sprawl?

- Will car ownership decrease as residents become more comfortable with the idea of Mobility-as-a-Service?
• Improve travel across the Region and GTHA

• Make non-conventional transit options more viable

• Source additional data sources

• Investment in telecommunications infrastructure
• How are municipalities are using technology?

• Municipalities face complex challenges with new transportation technologies

• York Region has a valuable role to play developing policies, guidelines, standards and regulations to best serve the needs of the travelling public
PARTICIPATING IN i-CITY-CATTS - YORK REGION’S OBJECTIVES
KEY ICT-CATTS OBJECTIVES FOR YORK REGION

• Better understand and respond to technology changes and impacts

• Access to data and research to guide transportation infrastructure decisions and investment

• Use findings to support TMP action plans and future transportation vision
QUESTIONS / DISCUSSION
THANK YOU

For more information
Lauren Crawford  
lauren.crawford@york.ca  
877-464-9675 ext. 73115

Brian Titherington  
brian.titherington@york.ca  
877-464-9675 ext. 75901