Framing the Future of Transportation

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BACKGROUND

3 PILLARS

Q & A

Safe Drivers · Safe Vehicles · Secure Identities · Saving Lives
3 Pillars

Start

Q & A

3 Pillars

Safe Drivers · Safe Vehicles · Secure Identities · Saving Lives
New Mobility ecosystem will emerge delivering seamless intermodal transportation faster, cheaper and safer than today.

Taxation and public revenues shift from a fixed model to a more dynamic one.

Comprehensive strategy to shift public attitudes about transportation.

Decrease in personally owned vehicles and shift from personal liability insurance to catastrophic systems failure insurance.

**New Mobility Ecosystem**

- **MOBILITY ADVISOR**
  - Relationship Management
  - Predictive Analytics
  - User Control
  - Mobility Data Collection

- **IN-TRANSIT VEHICLE EXPERIENCE**
  - Content Creation
  - In-Vehicle Services
  - Predictive Content Analytics

- **FLEET OPERATIONS**
  - Procurement
  - Vehicle Tracking
  - Vehicle Finance & Insurance
  - Setup, Scheduling & Allocation

**Physical Infrastructure**

**Energy Infrastructure**

**Vehicles**

**Transport Hub**

**Railways**

**Retail**

**OFFICE**

**START**

**ROADS & BIKE PATHS**

**ROADS**

**SHOPPING**

**FINISH**

**Safe Drivers • Safe Vehicles • Secure Identities • Saving Lives**
Mobility: What will the future hold?

- Must envision our transportation future 10, 20 and even 30 years from now and start planning for it.

- Opportunity for AAMVA to work on a coordinated multi-jurisdictional approach to address these challenges.

- Our attitudes must shift so that we are more proactive in embracing technology, rather than reactive.

- How does this fit into work already underway?
ROAD SAFETY

Key Objective: Reduce death and injury on our roads by developing, evaluating, promoting and participating in road user safety programs.

APPROACH
Circular and cumulative approach to road safety.

LEADERSHIP
Strives to be a world leader in moving people and goods safely, efficiently and sustainably.

PARTNERSHIPS
Relies on partnerships to promote and regulate of responsible driving behaviours; licensing; vehicle registration.

About Our Ministry

Safe Drivers · Safe Vehicles · Secure Identities · Saving Lives
2017: Who Do We Serve?

9.8 M LICENSED DRIVERS

12.3 M REGISTERED VEHICLES

1.5 M COMMERCIAL VEHICLES
2020, 2030, 2040: Who Will We Serve?

- **Licensed Drivers**: 10.5M, 11.8M, 13M
- **Registered Vehicles**: 13.6M, 16.3M, 19M
- **Commercial Vehicles**: 1.6M, 1.9M, 2.2M

Safe Drivers · Safe Vehicles · Secure Identities · Saving Lives
58,000 truck and bus businesses known as Carriers

12,000 Motor Vehicle Inspection Station

3,400 medical reports received weekly

5,250 collision reports received weekly

Over 302,550 calls received at our Driver Improvement Office annually

84,000 driver licence cards and 3,400 photo cards issued weekly

Over 475,000 licenced commercial drivers in Ontario

14,200 road and 11,500 written tests administered weekly

170 senior driver group education sessions held weekly

246 demerit interviews conducted weekly

110,000 commercial motor vehicles and drivers are inspected annually

Who Do We Serve?
3 PILLARS

BACKGROUND

Q & A
Ontario looks forward to maintaining its road safety record, in the future, by focusing on **three pillars**:

- **TECHNOLOGY**
- **RESEARCH**
- **MODERNIZATION**

**NATIONAL APPROACH**
Ontario looks forward to maintaining its road safety record, in the future, by focusing on **three pillars:**

- **TECHNOLOGY**
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- **MODERNIZATION**
1. Modifying driver behaviour requires a multifaceted approach.

2. Telematics are readily available on the market, but their potential for use in MTO’s programs requires further exploration.

3. Pilot Program: MTO is interested in exploring implementation of telematics into existing programs.
2. Automated Traffic Enforcement

**Landscape**

01: In the past ten years, Ontario’s population has increased by 9% and the number of licenced drivers in Ontario by 11%.

02: More expansive road networks.

03: Greater demands on law enforcement than ever before.

**Opportunity**

01: Multi-lane, long distance vehicle tracking

02: Enforcement by vehicle type

03: Enforcement of speed, intersections violations, tailgating, illegal turns, lane violations

Improvement in automated enforcement technologies.
3. Automated Vehicles

Challenges:

- Governments need to keep pace with advances in AV/CV technology
- How can we work together across Canada/US in an effort to share information and address requests from AV manufacturers that there are consistent regulations/legislation across Canada/US?

Automated Vehicle Adoption Timeline

- **2017**
  - Audi announcement that level 3 by end of the year.
  - Tesla CEO Elon Musk estimates that all Tesla's automated vehicles will be equipped with full self-driving hardware.

- **2020**
  - Automakers such as Ford, GM, BMW and Nissan executives predict fully automated (Level 5) vehicles will be available to consumers.

- **2020 - onward**
  - A transition period from manually-driven vehicles to automated vehicles will take place. Conservative estimates place proliferation of fully automated vehicles on road by the year 2050.
Ontario looks forward to maintaining its road safety record, in the future, by focusing on **three pillars**: 

- **Ministry of Transportation**
- **Research**
- **Modernization**
1. Automation

**CHALLENGES**
Future reliance on vehicle automation; decreasing driver control.

Driver awareness of automated/connected vehicles features and limitations.

**OPPORTUNITIES**
MTO study on how the state of the driver (e.g. distracted, inattentive, alert) affects ability to respond to new in-vehicle stimuli.

National Cooperative Highway Research Program project identifying timeline for harmonizing CV and AV laws.
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2. Drugs

**CHALLENGES**

Federal legislation to legalize marijuana: 
**July 1st, 2018.**

Our understanding of the relationship between cannabis and impairment is still evolving. Research is required to support detection and law enforcement, better understand road safety risk.

**OPPORTUNITIES**

**Supporting Enforcement:**
Research on THC concentrations in the body and relationship to impairment.
Evaluation of Standard Field Sobriety Test.
Evaluation of existing drug driving sanctions.

**Understanding Risks:**
Comparison of roadside alcohol and drug survey with coroner data.
Considering different cannabis consumption methods, interaction with different drugs.
Future road side surveys to monitor prevalence.
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3. Enhanced Road Test

**CHALLENGES**
Senior driver (age 80+) population expected to increase from 345,000 in 2016 to 870,000 in 2040.

Increased safety risk due to senior cognitive impairment (e.g. dementia).

Current road tests were not designed specifically to detect cognitive impairment.

**OPPORTUNITIES**
Exploring the use of an Enhanced Road Test for seniors to screen for potential cognitive impairment.
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- **RESEARCH**
- **MODERNIZATION**
1. Truck Inspection: Pre Clearance

**Challenge**

Commercial vehicles operating on Ontario highways will increase more than 50% by 2031.

Some inspection stations see more than 10,000 trucks pass by per day, most of which are compliant.

Long delays increase costs and strain enforcement resources.

**Opportunity**

In response Ontario is exploring a two-tier program:

Highway mainline pre-clearance system in advance of inspection stations to screen all trucks in all lanes.

Screening technology inside the inspection stations triage commercial vehicles electronically.
2. Electronic Medical Submissions and Processing

**CHALLENGE**

- Medical reports submitted by mail and fax
- Long lead time to process cases
- Drivers lack visibility into case status
- Growing caseload and system limitations cannot support future demands

**OPPORTUNITY**

- 150k drivers
- 50k+ healthcare providers
- Faster resolution through automation
- Drivers check case status online
- Manage workflow based on case complexity

**Get unfit drivers off the road faster**

**Quicker resolution of simple cases to provide mobility to fit drivers**
3. International Registration Plan

Landscape

01 MTO introduced online services for IRP which have been extremely popular with customers (Aug 2015).

02 Approximately 30% (1,314) of carriers have been using online services (services accessible 24/7).

03 Online services allow counter staff to focus on more complex transactions.

Opportunity

Fall 2017: MTO will be introducing four more online transactions:

01 Add Vehicle

02 Replace Vehicle

03 Amend Vehicle with Fees

04 Amend Vehicle without Fees
4. Mobile Driver’s Licence

CURRENT

- MTO DLs and Ontario Photo Cards
- Risk of Fraud
- Limitations on Revenue Generation

FUTURE

- Digital Mobile DL (in addition to DL not in lieu of)
- Fast Secure Digital Access
- Global Trend for Digital Documentation

MTO engaged in 12 month pilot to assess benefits, risks, stakeholder and client impacts which will inform formal public launch.
5. Mandatory Entry Level Training

**CHALLENGES**

- Training not mandatory to obtain a Class A Licence
- Inconsistent training standards for those who take voluntary training
- Industry need for qualified/trained commercial Class A truck drivers

**OPPORTUNITY**

- Mandatory entry level training
- Training must be completed with a MTO approved training provider
- Addresses industry need and improves road safety

Effective July 1, 2017, all new applicants for a commercial full Class A licence must complete mandatory entry-level training prior to attempting a Class A road test.
6. Road User Safety (RUS) Modernization

- Business-driven transformation
- Phased implementation
- Leverage industry-leading technologies
One Client One Record

Hi, I'm Jason!

Hi, I'm Jason. I need to complete my CVOR application.

Hi, I'm Jason. I'd like to renew my driver's licence.

Driver's Licence Renewal

Carrier Fleet

Commercial Vehicle Operator's Registration application
Clients Online Not In Line

How can I help you?
Foundation for Future Modernization

• New business and technology foundation to meet citizen needs for 10, 20 and 30 years from now

• Technology platform that is scalable, flexible, modern and offers depth of capabilities including digital services

• Extend the use of enterprise services that can be leveraged across other provincial ministries
Future Modernization

- Implement Driver and Vehicle lines of business (starting with Driver Medical)
- Extend single client account to Driver and Vehicle lines of business
- Extend use of document management-discontinue microfilming in all lines of business
- Enable use of data and support evidence based policy making
The Future

Be Digital  
Be Client Focused  
Be Agile
Presentation Overview

BACKGROUND

Q & A

3 PILLARS

Start

End

Safe Drivers · Safe Vehicles · Secure Identities · Saving Lives
How Can MTO Help?

- Challenge the norm...
- Continuously improve business processes...
- Embrace changes...
- Think and listen to our clients.