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MEMORANDUM FOR ACTION

TO:	The Minister of Foreign Affairs
CC:	The Digital Inclusion Lab, Office of Human Rights Freedoms and Inclusion
SUBJECT:	Autonomous Vehicles: Legal Implications & Policy Recommendations

SUMMARY:

This memorandum presents options as to how policymakers should approach the legal and policy implications that arise with society’s adoption of autonomous vehicles (“AVs”). AVs, if implemented correctly, could dramatically improve safety, efficiency and mobility by taking the occupant driver out of the chain and relying on vehicles to navigate themselves through traffic. That said, there are many legal, policy and regulatory issues that require consideration on the path toward complete AV monopoly.

As we approach the advance in technology, public policies, technical standards, regulations and tort laws need to be addressed to prepare the courts and the public for the new realities of transportation. The invention and development of AVs changes many assumptions about automotive travel. Primarily, the legal presumption that a vehicle requires a driver to operate. AV standards change the fundamental portion of vehicular transportation, which creates opportunities and challenges for policymakers, legislators, courts, regulators and industry entities across a broad range of areas. These problems should be addressed through regulations, guidelines, and policies that allow for technological innovation while keeping consumers safe and compensated if harm occurs by apportioning liability properly.

For the scope of this memorandum, the two main questions that should be addressed are:

1. Who should be liable if an autonomous vehicle harms someone?
2. Are our current laws and regulations adequate to control the technology and compensate injured parties fully and appropriately?

RECOMMENDATION(S):

1. As vehicle automation increases, liability should shift from drivers to manufacturers.
2. Early in the process, regulators and lawmakers should take existing law and use it to determine if AVs are at fault, but as AVs become more common, new regulations and agencies should be created to regulate the area.
3. Balance must be struck between proactive policy and allowing companies to innovate.
4. We should create partnerships between academia, government and industry.
5. Research should be done at the intersection of economics, engineering, humanities and law.
6. Canada should consider implementing a Federal Robotics Commission.

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- I wish to discuss
 I concur I do not concur

Minister

BACKGROUND:

1. Liability, policy and regulatory frameworks should be considered and debated as quickly as possible to help reconcile the enormous challenges faced currently around safety, efficiency and mobility in the automobile industry. AVs have the potential to vastly improve the quality of personal and commercial transportation in each of these major areas.

2. While the promise of AVs is, in part, to largely reduce motor vehicle accidents, there are complications that may arise as society moves to full AVs. In a perfect post-human-driver scenario, fatalities due to vehicles will shrink. Practically though, AVs are likely going to create new types of accidents, with new problems, even though they will dramatically reduce accidents overall. It may seem like this would be adding a small new area of liability to reduce a major issue in the current liability context, but this new small area could have large repercussions.

3. Tort, criminal and other areas of law rely on human intent and foreseeability to place blame when harm occurs. Robotics make this apportionment much more difficult. The stakes are significantly raised when robotics displays not only emergent properties, but also cause physical harm. Without discussion amongst government, lawmakers, policymakers and others involved, there may be a major increase in numbers of victims without perpetrators. This could cause dangers for consumers and an increased burden on the legal system. Under current law, people who use robotics, like in AVs, may not be adequately held accountable for the harm the technology does, thus they may deploy said technology more than they should and with less focus on details of safety than it requires. Or, even worse, companies may never deploy potentially helpful systems for fear of uncertainty and the possibility of insurmountable liability.

CONSIDERATIONS:

4. Responsibility for liability concerning AVs is a complicated issue that will take a strategic approach, but as automation increases, liability should shift gradually from drivers to manufacturers. This will shift the law from focusing on driver negligence and focus more on product liability. In the beginning, while vehicles are slowly increasing in automation, it may require a makeshift liability responsibility, but once vehicles become more autonomous, manufacturers should become solely liable for harm caused by their products. As we take the driver out of the driving chain, driver negligence is likely no longer a possible legal argument, thus liability must shift. The most logical answer is make the manufacturer primarily liable.

5. Critics of this theory argue that the allocation of liability to manufacturers will be challenging and adjudication methods are not developed enough in this area. These criticisms hold more weight in the US where they do not have a "loser-pays" tort system, which could lead to frivolous lawsuits by users. Product liability law in Canada is sufficient to address the issues. Others argue that if liability is placed on the manufacturers, these companies will take on more risk as a result of product liability. Thus, automakers would pass these liability costs onto consumers which may delay consumer acceptance of the new vehicles. The US government had similar worries in 1993 when automakers were considering introducing advanced systems to help drivers behind the wheel. Since then, automotive manufacturers have widely released many of these systems, and have done so without receiving special exemptions from the generally applicable product liability regimes. While some may view product liability as a potential impediment to the development of AV systems, others view it as a tool to ensure that these systems are responsibly developed and deployed as well as continually improved upon. Some companies already accept this reality. Volvo stated in 2015 that if there is a malfunction to their AV system when operating autonomously, they would accept the product liability.

6. During the period of transition to AVs, new insurance frameworks will be necessary. Expanding public insurance and facilitating greater private insurance could provide benefits. First, this would allow for sufficient compensation to individuals who are injured by AVs and it could relieve some of the pressure on tort systems to provide such remedies. Historically, as new technology emerges, product liability and accident compensation have been controlled via a variety of legal mechanisms including strict liability, negligence, design-defect law, breach of warranty, failure to warn, and more. This has been the system for over 100 years.

7. Second, increased insurance requirements for vehicles could provide a third-party check on the safety of autonomous vehicle systems, especially if combined with increased flexibility in the administration of said insurance. When crashes occur, courts can assign liability to those parties with the most significant knowledge and control over the technology system, which will increasingly be the companies and manufacturers of robotic cars. This will create a standard that if AV manufacturers of the future deploy a fleet of defective robot cars on the road they knew had significant programming issues; courts have the power to enforce them to pay for resulting damage. This leads to those companies needing to invest in better insurance policies to protect against the risk and provide a higher-level standard of care in their development of the tech. Also, such requirements would likely aid in remedying market failures concerning AVs.

8. Early in the process, regulators and lawmakers should take existing law and use it to determine if AVs are at fault, but as AVs become more common, new regulations and agencies should be created to regulate the area. Early regulation, using current laws and regulations, could require changes to the law, but these assessments could be done on a case-by-case basis by applying the existing body of law to the new set of facts. That said, as we progress, governments should create new agencies for regulation, and potentially standalone rules and regulations for AVs, or at least, there should be a mix of old and new.

9. Governments seeking to regulate AVs should carefully examine different avenues and select an appropriate method according to various discussions across the industry. Lawmakers should carefully examine and modify the currently existing law and clarify said law's application to AVs. This could be done by locating each regulatory function in the agency ordinarily assigned to perform said regulation, and then it could seek to apply similar requirements to AVs and their operators as would be applied to all other scenarios. Instead, governments could create a specific group of standalone rules that apply exclusively to vehicle automation. New or existing agencies could be given authority to implement these new rules. Also, these new rules could intentionally differentiate between autonomous and non-autonomous driving concerning particular obligations, rights and liabilities. While the general approach might seem more appropriate as automation continues to develop and becomes more regular, the specific approach is likely a more straightforward method of dealing with emerging technologies.

10. A balance should be struck between proactive policy and allowing the technology industry to innovate. Proactive policy, including specific rules and legislation can provide industry leaders with legal frameworks needed to make investments and AV deployment decisions in a clear manner. Also, these frameworks can allow governments to properly handle automation technologies at each stage of regulation. That said, prematurely codifying requirements can have a "chilling effect" and freeze unrealistically high or low expectations into law in a way that may cause the law to lag behind the technology as opposed to leading it.

COMMUNICATIONS IMPLICATIONS/ACTIONS:

11. It is vital that we address these issues thoroughly before allowing AVs on the road.