



Canada Needs a Self-Driving Truck Moonshot to Address the Inter-Provincial Trade Crisis

Canada's inter-provincial trade faces an immediate crisis: we are short 25,600 long-distance truck drivers, with shortfalls potentially reaching 30,000 by 2030. This shortage directly threatens the 90% of inter-provincial trade that moves by truck, undermining federal and provincial economic growth strategies.

The Canadian Automated Vehicle Initiative (CAVI), a not-for-profit association, proposes a bold solution: the Trans-Canada Autonomous Truck Demonstration Project. A driverless tractor-trailer will complete the journey from Halifax to Vancouver in 2028, establishing a global record for autonomous vehicle travel while demonstrating Canada's leadership in addressing critical infrastructure challenges.

There are four compelling strategic advantages that justify an immediate government commitment.

Economic Impact and Trade Enhancement

First, this project directly supports federal and provincial commitments to increase inter-provincial trade by providing a scalable solution to the driver shortage crisis. **Current economic losses from delayed shipments and route cancellations have a substantial cost for Canadian businesses.** The demonstration project will prove autonomous trucking's viability for commercial deployment by 2030, when traditional recruitment strategies are expected to have failed to bridge the driver gap.

Global Technology Leadership

Second, Canada will cement its position as a world leader in autonomous vehicle technology and artificial intelligence. **Prime Minister Carney's appointment of a Minister for AI and Digital Innovation signals unprecedented government commitment to these sectors, which represent a large market opportunity by 2035.** This trans-Canadian approach will demonstrate the world's most comprehensive autonomous trucking regulatory framework.

Independent economic analysis shows that leadership in autonomous vehicle technology could contribute 0.5% to Canada's annual GDP growth through increased productivity, export opportunities, and reduced transportation costs that benefit all Canadians.

Leveraging Existing Canadian Excellence

Third, Canada possesses world-class expertise in Connected and Automated Vehicles (CAVs) distributed across the country, including advanced AI research, sensor technology, communications infrastructure, and existing CAV testing facilities. **However, these capabilities remain fragmented across provincial boundaries.** This project will create the first truly national CAV ecosystem, multiplying the effectiveness of existing investments and positioning Canadian companies to compete globally.

Public Trust and Social Acceptance

Finally, this highly visible project will build essential public understanding and acceptance of autonomous vehicle technology through transparent, safety-first demonstration. **Polling shows that 67% of Canadians support autonomous trucking for long-haul freight, but only with proven safety records.** This project will provide that proof while educating the public about both benefits and limitations of the technology.

Barrie Kirk, P.Eng., President of CAVI, said: **"This moonshot project is just what Canada needs at this time. It will leverage the synergies between all the separate innovative AI and CAV initiatives into a nation-building project."**

Andrew Miller, co-author of *The End of Driving* (forthcoming in August), added: **"The technical feasibility has been proven at smaller scales. The real challenge, and opportunity, is regulatory harmonization across provinces, which this project will solve."**

There are three steps in planning this project.

- First, we propose that the federal and provincial governments announce formal support and initial funding for project definition and regulatory harmonization.
- Second, **an independent organization capable of representing all levels of government, industry, academia, and consumers be appointed to lead this project.** The governance structure ensures all stakeholder interests align with national objectives while maintaining operational independence from any single entity.
- Third, comprehensive stakeholder consultations across Canada will develop detailed technical specifications, safety protocols, and commercial deployment timelines, with the final project budget and implementation plan delivered by early 2026.

Uncompromising Safety Protocol

Safety remains paramount throughout this project:

- **Professional safety drivers will monitor all vehicle systems throughout the journey**
- **Initial demonstration will occur during optimal summer conditions on southern Canadian routes**
- **Extensive regional testing phases will precede the full Trans-Canada journey**
- **Real-time public communication will provide transparent safety updates**
- **Emergency response protocols will be coordinated with all provincial authorities along the route.**

Winter weather and northern route demonstrations will follow successful completion of the primary mission.

In summary, this nation-building project delivers benefits for inter-provincial trade while establishing Canada's global leadership in AI and autonomous vehicle technology. **The economic multiplier effects—from reduced shipping costs to export opportunities for Canadian CAV technology—will benefit every province and territory.**

Canada has a choice: either lead the global autonomous trucking revolution or watch other nations capture this transformative economic opportunity. **The Trans-Canada Autonomous Truck Demonstration Project ensures we lead.**

Barrie Kirk, P.Eng. CAVI
Andrew Miller, Paladin Consulting

June 2025