

Working Group Report

Rail Transportation Industry in Canada

On January 17, 2023, the European Union Chamber of Commerce in Canada (EUCCAN), in collaboration with Dominic Gaultier of Roland Berger, organized the initial session of its private working group on the challenges and perspectives of the rail sector in Canada.

This inaugural session offered a platform for European and Canadian companies and stakeholders to introduce their organizations, activities, and commercial interests in the Canadian market. They were also able to offer some initial thoughts on their main concerns and advocacy objectives.

This report outlines the main issues discussed and offers propositions for future action and consideration.

Issue #1: Sustainability

Although transport generates around 20% of [global carbon dioxide emissions](#), rail and freight account for around 1% of total transport emissions, generating significantly fewer emissions per ton of goods than road and air. As such, the rail sector is well-suited to decarbonization goals.

Sustainability is a key transportation consideration as Europe seeks to realize its net zero goals through its [Green Deal](#), and Canada pursues its [Net Zero 2050 Strategy](#).

Working group members are active in sustainable technologies, with several projects in sustainable fuels like hydrogen, alternative propulsion and electrification. Participants discussed the balance between refurbishing existing infrastructure and equipment (more cost-effective) and investing in new greenfield projects (more carbon-efficient).

Electrification

Both electric and hydrogen-powered trains have zero emissions at point of use, and low noise levels. Electric trains can be powered by any source of energy, including renewable. An electric train emits [between 20-35% less carbon](#) per passenger mile than a diesel train. However, electrification entails a higher cost due to the necessity of installing catenaries.

Hydrogen / alternative fuels

Hydrogen trains can run on existing infrastructure and be retrofitted into existing trains and lines. Hydrogen fuel cell trains have a long range and are [up to 20 times faster](#) than battery-powered electric rails . Fuel cells are cost effective and low maintenance, with a lifetime cost comparable to diesel and electrified lines.

Propositions

- 1: Invest in new fuel-efficient technologies, greenfield projects and sustainable infrastructure consistent with reducing emissions in line with Net Zero 2050 and the [Canadian Clean Fuel Regulations](#).
- 2: Promote fuel conservation, increase renewable fuel blends and electrify where technologically and commercially viable.
- 3: Take advantage of government programs and subsidies for green technology and equipment retrofits.
- 4: Diversify and balance portfolio of goods to mitigate the physical and transition risks associated with the low-carbon economy.

Issue #2: Extreme weather events

Extreme weather can disrupt operations, reduce effectiveness of equipment, affect transport times, and damage cargo.

Propositions

- 1: Undertake risk assessments.
- 2: Implement resiliency planning such as extreme weather readiness plans, emergency response programs, inspection programs, and mitigation and adaptation planning.
- 3: Invest in climate-resilient infrastructure and technology.

Issue #3: Digitisation

Digital tools can unlock economic potential and increase efficiencies, such as through automated planning systems and performance tracking; and optimize processes, such as through fleet management and predictive maintenance.

There is a financial cost involved, as digitization can require a larger fixed up-front cost investment followed by incremental financing.

Propositions

- 1: Upgrade or invest in new technological infrastructure.
- 2: Create and standardize planning and tracking systems as much as possible, and streamline platforms such as form mapping and location data.

Issue #4: Standards and Regulatory Environment

Participants expressed the necessity for developing a regulatory and decision-making environment that will facilitate market access, including streamlining relevant standards and the regulation and certification process for new rail systems and technologies (i.e. on traffic operations, efficiency and safety improvements, low-carbon fuels, alternative propulsion and electrification). On this issue, a reference was made to the ongoing work of the [Railway Pathways Initiative](#).

Despite government commitments to improve infrastructure as part of the economic restart post-covid, some participants emphasized the undue complexity and associated costs of the procurement process of the rail sector in Canada, and a need to change the paradigm governing it to allow for the deployment of modern technologies, from a risk-transfer and financial liability focus to one targeting operations and passenger benefits.

Propositions

- 1: Advocate for simple procurement procedures.
- 2: Advocate for a longer-term funding roadmap for government backed projects to enable investments from transit agencies and local authorities.
- 3: Harmonize standards and operating procedures, such as for signaling technology and traffic management, compatible regulations and operating systems.
- 4: Monitor the potential impact of current federal and provincial regulation.

Issue #5: Access to Markets

Under CETA, tariffs are eliminated on all originating products used in infrastructure such as construction materials, power-generating machinery, electrical equipment, ICT products and others. Companies also benefit from improved labour mobility provisions and expanded access to government procurement opportunities.

The [Protocol on the Mutual Acceptance of the Results of Conformity Assessment](#) provides a mechanism to facilitate acceptance by Canada and the EU of test results and product certification from the other party. These provisions could reduce costs and marketing delays for producers.

In March 2022, Canadian Minister of Transport Omar Alghabra launched a request for expressions of interest seeking advice and views from industry on the high frequency rail project through [CanadaBuys](#), the central repository for government procurement.

Public Private Partnerships

Due to Canada's population, passenger rail alone is not profitable. Private sector involvement is essential to provide the necessary financial support, expertise, and efficiency gains from innovation. Partnerships among European and Canadian governments, as well as Canadian provincial governments, industry groups, and other stakeholders, are fundamental, and this is what EUCCAN aims to facilitate to achieve the best possible outcomes.

Access to markets for State-owned enterprise

Some of our participants expressed concern around the competitive environment and investments by foreign state-owned enterprise such as the Chinese government. China is now the largest rolling stock manufacturer in the world, and more than 50% of global high-speed trains are produced in China.

The international business community has expressed concerns over protection of intellectual property, lack of transparency in Chinese trade law and regulations, and lack of reciprocal domestic market access for foreign firms in China.

Propositions

- 1: Facilitate EU access to Canadian rail projects.
- 2: Coordinate joint ventures among CETA members.
- 3: Establish mutual recognition of certifications.