

Modern Rail Freight Transport: Secure, Reliable, Generate Added Value, Climate Friendly

Rail freight transport is the backbone of a modern industry nation focused on sustainable value generation. Driven by industrialization and global market demand, e.g., metals, machinery, chemicals, food, and energy products, strong growth rates in rail freight and intermodal transport show the importance of rail freight transportation. Today, freight rail transports more than half of all export products to markets. In 2023, within the Canadian rail freight network, freight rail transported goods and merchandise in a volume of 375.1 Mio. Tons and with a monetary value > \$380 Bio. Dollars.

The Competitive Advantage of Freight Rail Transportation

Crucial for the transfer of cargo from road to electric rail are the system properties in comparison. With a physical rolling drag (aka. rolling resistance coefficient) $c_{rr} = 0.001-0.002$, the rail-guided, iron railway wheel offers a significant advantage in comparison to a rubber tire running on asphalt $c_{rr} = 0.006-0.010$. The lower friction resistance of the railway wheel as well as the opportunity from rail electrification make rail freight transport particularly cost-effective and low in emissions. The electric rail is the ideal means of transport for delivering goods and merchandise from coast to coast.

Increasing Rail Capacity Utilization, Reduction of Transport Costs per Tonne-Kilometer

More than 50% of total freight transport can be shifted onto freight rail when designed in the structure of an electric, digital double-track rail network. Higher transport volumes leading to low transport costs offer the opportunity to strengthen multi-stage value-generation processes between interconnected B2B partners and industries, forming an economy capable of producing competitive, high-value-added goods and merchandise. With the growing reliability and punctuality of freight rail services, trust and respect in the railway system grows on the side of the manufacturing and processing industries as the main clients. Furthermore, a secure and reliable freight rail transportation system with competitive turnaround times offers opportunities for new, time-sensitive clientele, e.g., retailers operating in e-commerce, food manufacturing, special machine construction, etc. Additionally, the following benefits derive for the state and society from efficient freight rail transportation:

1. Improved traffic flow on highways and streets by shifting trucks 7.5-15 tons onto electric freight rail
2. Reduced CO2 emissions, water and air pollution, wildfires, droughts, etc.
3. Direct employment growth effects due to rail network modernization, expansion of domestic trade
4. Strengthening business location and greater independence within the competitive G7 framework

The digitalization of freight rail infrastructure is transformative and one of the most significant technological revolutions of our time, comparable in meaning to the electrification of the railway.

MEDSTERN CANADA LLP delivers top results. Our Business Mediators facilitate Business-to-Business processes and support successful project collaborations between Leaders active in Advanced Rail Transportation, Digitization, Industry 4.0, and Infrastructure Modernization:

- ★ WOULD YOU LIKE TO EXTEND YOUR BUSINESS NETWORK TO INTERNATIONAL B2B PARTNERS?
- ★ ARE YOU IN NEED OF SPECIFIC EXPERTISE? INTERESTED IN DIGITALIZATION OF RAIL INFRASTRUCTURE?
- ★ DO YOU REQUIRE LIAISON OR BUSINESS MEDIATION SUPPORT FOR YOUR B2B PROJECT?

Please visit us at <https://medstern.ca> or follow us on LinkedIn <https://www.linkedin.com/company/medstern-canada-llp/?viewAsMember=true>

Forward this Post to your #Followers and Receive a **Free Consultation Today!**

<https://medstern.ca/book-a-consultation/>

StatCan, Year in Review 2023