Transportation in Canada



Annual Report





Transport Transports Canada Canada



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Introduction

Minister's Message

I am pleased to present Transportation in Canada 2024, which provides an overview of Canada's transportation network at work.

Since 1936, Transport Canada has been helping people and goods move safely and efficiently across our vast country home to the world's longest coastline and spanning 10 million square kilometres. The transportation and warehousing sector directly contributed more than \$96 billion to the Canadian economy in 2024, and the sector facilitates trillions of dollars of domestic and international trade along key corridors each year. In 2024, the transportation network and critical supply chains faced a number of challenges, from wildfires, labour disputes, and geopolitical instability. Despite these challenges, the system showed strong resilience, with passengers and goods continuing to move reliably across the country.

Improving the traveler experience remained a top priority. In May, Transport Canada co-hosted the first National Air Accessibility Summit, opening an important dialogue between industry and people with disabilities. And air travel grew again this year by nearly 6%, with more Canadians taking to the skies.

We also made progress on modernizing passenger rail. We announced a transformational High-Speed Rail project which will revolutionize travel through the Québec City to Toronto Corridor. At the same time, the Passenger Rail Transportation Security Program continued to strengthen rail safety.

Canadian transportation networks also support trade and our economy, and strengthening our robust supply chains is one of our top priorities. In 2024, cargo volumes increased by air, rail, and sea. The National Supply Chain Office continued to work with industry and other levels of government to keep goods flowing quickly and reliably. We invested in technology and infrastructure to keep supply chains strong and efficient, including more than \$700 million in projects across the country.

We also took a stand against auto theft. We joined other federal partners to participate in a national summit and launched a National Action Plan. We've committed to modernizing Canadian safety standards and have funded innovative projects to develop theft prevention technologies.

The sustainability of transportation remains a guiding principle. Through programs like green shipping corridors, we're investing in cleaner transportation options and building low- and zero-emission maritime routes between ports. In a shifting global context, a safe, sustainable, and reliable transportation network is essential to Canada's economic strength. The progress we made in 2024 will provide a critical foundation for a strong future.

Sincerely,

The Honourable Chrystia Freeland Minister of Transport and Internal Trade

Transport Canada's Role

Transportation is a crucial contributor to Canada's economy and plays an essential role in supporting the well-being of Canadians. It enables the movement of people and goods across the country and internationally, and underpins key sectors such as manufacturing, natural resources, and tourism.

Efficient and reliable transportation links communities, urban centres, provinces, territories, and global markets. It ensures Canadian businesses have access to the materials and inputs they need to operate and helps deliver Canadian goods to consumers around the world.

Transport Canada (TC) is the federal department responsible for developing and implementing transportation policies and programs. In collaboration with its partners across the transportation portfolio, TC works to promote a transportation system that is safe, secure, efficient, and environmentally responsible.

Given Canada's vast geography, low population density in many regions, and diverse weather conditions, moving goods and passengers safety, securely and efficiently is a complex and ongoing task. In this context, Transport Canada plays a central role in monitoring, analyzing, and reporting on the state of the national transportation system. It shares data and insights with Canadians through regular reporting to support transparency, accountability, and evidence-based decisionmaking.

Transport Canada undertakes a wide range of activities to improve Canada's transportation system, including:

- Advancing major infrastructure initiatives and strategic projects;
- Investing in and supporting transportation networks through targeted funding programs;
- Conducting research, analysis, and policy development to inform transportation strategies and frameworks;
- Administering grants and contributions to improve transportation infrastructure across all modes;
- Developing and updating legislation, regulations, and national standards to maintain and improve safety, security, and environmental sustainability;
- Collaborating with stakeholders through engagement forums and partnerships to identify challenges and share best practices;
- Implementing inspection, enforcement, and oversight programs to make sure that goods and passengers move safely and efficiently across the country.
- Through these activities, Transport Canada helps build a modern, resilient, and forward-looking transportation system that meets the evolving needs of Canadians and the economy.

Specific initiatives and accomplishments from 2024 are highlighted throughout this report.

Purpose of Report

This report provides an overview of how Canada's national transportation network is performing, evolving, and responding to current and emerging challenges. It gives a system-level view of transportation trends and results across modes of transportation, focusing on safety, fluidity, accessibility, sustainability, and economic performance.

The report is published as required by subsection 52(1) of the *Canada Transportation Act*, which requires the Minister of Transport to report to Parliament every year on the state of transportation in Canada.

The report is meant to support evidence-based decision making by presenting key indicators and analysis in a clear, accessible way. While it may reference federal actions where relevant to national outcomes, it is not a report on the department's performance. Information on Transport Canada's programs, results, and spending can be found in the <u>Departmental Plan</u>, <u>Departmental Results Report</u>, and <u>GC InfoBase</u>.

For readers seeking more detailed, disaggregated, or timely data, the <u>Transportation Data and Information Hub</u>—a collaboration between Transport Canada and Statistics Canada—has open access to interactive tools, datasets, and statistics that complement this report. Supplementary data tables containing data found in this report will be published on the hub following the report's publication online.

By consolidating high-level insights from across the system, this report aims to inform Parliament, industry stakeholders, researchers, and the public on the key trends shaping transportation in Canada.

2024 Highlights

Supporting Trade

In 2024, Canada's five key trade corridors—Pacific, Prairie, Central, Atlantic, and Northern—collectively supported \$1.55 trillion in merchandise trade¹, underscoring the role the national transportation network plays in supporting economic activity across domestic and global markets.

Supporting Communities, Businesses and Travelers

The Canadian transportation network demonstrated resiliency in 2024. It continued to support communities and businesses across the country in an efficient, safe, secure and environmentally sustainable way. Passenger volumes continued to improve, and in some cases, returned to pre-pandemic levels in 2024. Most notably:

- 57 million air passengers passed through pre-board security screening at Canada's 8 largest airports in 2024, a
 5.8% increase over 2023, and 2.7% more than in 2019. These same airports reached the service level target of
 95% of passengers being screened within 15 minutes.
- In 2024, VIA Rail transported about 4.4 million passengers across the country—a 7% increase over 2023, (88% of 2019 levels).
- Urban transit systems across Canada continued to recover in 2024. Over the year, Canadians took approximately 1.6 billion trips on public transit—an increase from 1.5 billion in 2023 (84.2% of pre-pandemic levels).

Growth in Freight Volumes

Freight activity levels grew in line with modest economic growth, with notable increases across multiple modes:

- Air cargo volumes reached 1.58 million tonnes, a 4.4% increase over 2023, driven by rising e-commerce and expanded flight routes.
- Containerized cargo throughput at Canada's four largest container ports rose by 4.6%, reflecting strong international trade performance.

¹ Source: <u>https://ised-isde.canada.ca/site/trade-data-online/en</u>

• Rail shipments saw year-over-year increases of 2.8% in Western Canada and 1.6% in Central Canada.

System Disruptions and Resilience

Despite several disruptions—including wildfires across Canada, increased security-related threats to airlines, air cargo incendiary concerns, the CrowdStrike cyber outage, labour disputes (at Class I rail carriers and key ports), the Port of Baltimore bridge collapse, and global instability (e.g., Red Sea shipping risks, repatriation flights from the Middle East)— Canada's transportation system demonstrated strong resilience. However, several challenges, such as high economic and trade volatility, an uncertain geopolitical environment, low productivity, insufficient investment and technology adoption, a high regulatory burden, and reduced connectivity in the transportation network will continue to prevent a full return to pre-pandemic performance in the near future.

Reducing Emissions

New emissions data for 2023 shows that while transportation-related greenhouse gas emissions have risen since the pandemic, they remain 12 megatonnes below 2019 levels. This progress reflects gains in vehicle efficiency, growing adoption of zero-emission vehicles, and increased use of cleaner fuels.

Modernization and Innovation Initiatives

In 2024, Transport Canada led and supported a wide range of initiatives that advanced transportation safety, innovation, accessibility, and environmental sustainability across all modes. Key accomplishments included:

Air

- Launch of the Air Right Touch (ART) initiative, testing facial recognition and digital identity tools for faster and more secure passenger processing at airports.
- Launched the Pre-load Air Cargo Targeting system, leveraging machine learning to enhance air cargo security and support economic resilience.
- Expanded drone operations and advanced the Drone Strategy to 2025, including steps toward beyond visual lineof-sight (BVLOS) integration and drone traffic management systems.
- First National Air Accessibility Summit, resulting in key commitments to improve air travel for persons with disabilities.

Marine

- Continued implementation of the Oceans Protection Plan (OPP), including expanded Arctic surveillance, marine infrastructure upgrades in Northern communities, and strengthened spill response regulations.
- Increased Indigenous participation in marine safety and management, supported by over 40 partnership agreements and new investments in training, equipment, and data systems.
- Adoption of Canada's proposal for an Arctic Emissions Control Area by the International Maritime Organization, supporting marine emissions reductions.

Rail

• Significant progress on Canada's High-Speed Rail initiative, with the procurement phase completed and the project entering co-development in 2025.

Road

- National Summit on Combatting Auto Theft and release of a federal action plan, leading to a 25% national reduction in vehicle theft rates.
- Major strides in Connected and Automated Vehicles (CAV) research, including vehicle-to-everything (V2X) testing by academic partners.

Multimodal

- Over 4,200 inspections conducted under the Transportation of Dangerous Goods (TDG) Program, resulting in more than 6,000 enforcement actions and full completion of the Commissioner of the Environment and Sustainable Development audit action plan.
- Active engagement by the National Supply Chain Office (NSCO), including coordination during wildfire disruptions and efforts to address port bottlenecks and enhance digital infrastructure.

Role of Canada's Transportation Network

Canada's transportation network is a cornerstone of the national economy, helping to seamlessly move people, goods, and materials across the country and to international markets. The transportation and warehousing sector supports nearly a million direct and indirect jobs² and connects rural and urban communities across provinces, territories, and borders.

² Source: <u>https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410020201</u>

Canada's Transportation and Warehousing Sector \$96.5 billion (4.3%) direct contribution to Canada's GDP in 2024 An increase of 2.6% compared to 2023 Lethbridg Regional Gross Domestic Product (GDP) Supports almost Value (millions) Transportation Network 1 - 10.000 National Railway Net one million National Highway System 10.001 - 50.000 50.001 - 100.000 Kilometers Canadian jobs each 100,001 - 250,000 Note: Statistics Canada has estimated GDP by 250.001 - 385.000 Sources: Transport Canada, Statistics Canada Census-Metropolitan Area and Provincial Residua Transports Transport Canada

In 2024, the sector directly contributed \$96.5 billion to Canada's economy, representing 4.3% of the country's gross domestic product (GDP), reflecting a 2.6% increase over the previous year. More broadly, the Canadian transportation

movement of trillions of dollars in trade through Canada's key transportation corridors each year, underscoring its key role in national prosperity and global competitiveness.

system supports the

Infrastructure That Supports Trade and Mobility Corridors

In 2024, Canada's international merchandise trade reached roughly \$1.55 trillion³. By mode of transport, 46% of this trade value was moved by road, 21.1% by marine, 11.6% by air, 10.5% by rail, and 10.8% by other modes—including pipelines, couriers and mail, and electricity transmission. These flows were supported by complex, multimodal transportation networks operating within Canada's Pacific, Prairie, Central, Atlantic, and Northern Trade Corridors.

Beyond trade, the transportation network also plays a key role in supporting inclusive and accessible mobility, a growing priority as Canada's population continues to expand. In 2024, the population increased by over 700,000 people, reaching approximately 41 million—an annual growth rate of about 1.8%. This made Canada the fastest-growing population among

³ <u>https://ised-isde.canada.ca/site/trade-data-online/en</u>

G7 nations. Immigration was the primary driver of this growth, adding to demands on public transit, urban infrastructure, and intercity transportation networks⁴.

Pacific Corridor



⁴ Source: <u>https://www150.statcan.gc.ca/n1/daily-quotidien/250319/dq250319a-eng.htm</u>

The Pacific Corridor is the gateway for Canada's trade and transportation with the Asia-Pacific region and to access key emerging markets in Southeast Asia, anchored by a highly integrated network of marine, rail, road, and air infrastructure. At its core are the Ports of Vancouver and Prince Rupert, which serve as critical export points for key Canadian commodities like coal, grain, and potash, and crucial arrival points for imports to be used across Canada. The Corridor not only supports British Columbia's economy, but also serves as a national trade asset—enabling the export of over \$67 billion in goods from other provinces and \$48 billion from within B.C. in 2024⁵.

Marine and Rail Infrastructure

In total, there are over 30 ports, including small craft harbours and marinas along the B.C. Coast.

Pacific Corridor Infrastructure Marine

- Over 100 ports along this coastal region
- Four Canadian Port Authorities (Vancouver, Prince Rupert, Nanaimo, and Port Alberni)

Rail

 Major railways - CN, CPKC and Burlington Northern Santa Fe (BNSF)

Road

- Highways: Trans-Canada (1), Highway 97, Yellowhead (16), Highway 37
- Two border crossings (Pacific Highway and Huntingdon)

Air

 36 certified and four major airports (Vancouver, Victoria, Prince George, Kelowna)

The Port of Vancouver—Canada's largest port—is a major multi-modal hub directly connected to the national Class I rail network⁶, facilitating the efficient movement of goods across the country. A key component of this connection is the Second Narrows Rail Bridge, which links the port's terminals to inland markets via Canadian National Railway (CN) and other railways (Canadian Pacific Kansas City (CPKC) and BNSF Railway), enabling high-capacity freight transfers across the Burrard Inlet. With over 3,100 annual vessel arrivals, the port is central to Canada's global supply chains. In 2024, it handled 158 million tonnes of cargo, 3.5 million twenty-foot equivalent units (TEUs), and managed \$240 billion in imports and exports—representing one-third of Canada's trade in goods outside North America.

The Port of Prince Rupert, Canada's third-largest port by trade value, is the closest North American port to Asia, which gives Canada a competitive advantage in transit times. It also connects to the Class I rail network, which gives containers and bulk commodities direct inland access. In 2024, it handled 23.5 million tonnes of cargo and 700,000 TEUs. The port also supports tourism, serving as a stop for large cruise ships, with roughly 59,000 cruise passengers arriving in 2024.

The Ports of Nanaimo and Alberni serve Vancouver Island, delivering goods and people to their final destinations.

British Columbia's ferry system, primarily operated by BC Ferries, is one of the largest and most extensive in the world. With over 25 routes and nearly 50 terminals, it is essential for moving both passengers and goods across the province's rugged coastline. In 2024, passenger and vehicle traffic increased by 1% and 2% respectively⁷. The system links major urban centres like Vancouver and Victoria with smaller, remote communities, and helps transport commercial freight— including food, consumer goods, and industrial supplies—which are critical to the economic well-being of island economies. It also supports tourism, a key industry, by helping travellers access popular destinations along the coast.

⁵ Source: Transport Canada, adapted from Statistics Canada Merchandise Trade Data.

⁶ Note: Canada has two major Class I freight railways, Canadian National (CN) and Canadian Pacific Kansas City (CPKC), which are responsible for most freight rail traffic (Source: <u>https://tc.canada.ca/en/corporate-services/transparency/corporate-management-reporting/transportation-canada-annual-reports/canada-s-rail-network</u>) ⁷ Source: BC Ferries, <u>https://www.bcferries.com/web_image/images/hcd/he1/9034137534494.pdf</u>

Road Infrastructure

The Pacific Corridor features a comprehensive highway network that supports the movement of goods and people across British Columbia's urban, rural, interior, and northern regions. This network is essential for connecting key economic hubs like Metro Vancouver, the Okanagan Valley, and Prince George to ports, border crossings, and the rest of Canada. The Trans-Canada Highway (Highway 1) and Highway 97 are major arteries that provide critical east-west and north-south links for regional trade and the transportation network. In northern B.C., highways like the 16 (the Yellowhead) and 37 connect resource-rich areas to coastal ports, supporting mining, forestry, and energy industries.

Bridges are important infrastructure for both passengers and cargo, particularly in the Lower Mainland where they help move high-volumes of commuter and freight traffic across the Fraser River and Burrard Inlet. The Second Narrows (Ironworkers Memorial) Bridge is a key crossing on Highway 1, which helps move freight and passengers between Vancouver, the North Shore and the rest of the province. Together, the region's bridges and highways form a resilient multimodal network that supports both domestic and international trade.

The Corridor also includes major land border crossings that support trade with the U.S. In 2024, the Pacific Corridor saw an average of 2,300 truck crossings per day, accounting for about 9% of all Canadian land border movements. The Pacific Highway crossing is especially critical. Ranked as the 5th busiest in Canada, with 2,000 daily commercial vehicle movements facilitating high-value, time-sensitive trade between British Columbia and U.S. markets. There were also nearly 3 million personal vehicle movements between B.C. and Blaine, Washington in 2024⁸, which shows the Corridor's significance for international passenger movement.

Air Infrastructure

The Pacific Corridor is home to approximately 36 airports that provide domestic and international air services to businesses that buy goods from B.C., and which deliver merchandise to buyers within the Corridor.

Vancouver International Airport serves as a major passenger hub⁹, handling over 2.8 million air travellers per month. It connects Canada to destinations like the U.S., Mexico, Japan, Hong Kong, and the United Kingdom. Victoria International Airport also plays a significant regional role, handling 1.8 million mostly domestic passengers in 2024.

Air transport also plays a key role in moving freight in and out of the province. In 2024, the Pacific Corridor handled an average of over 27,000 tonnes of air freight per month, with Vancouver International Airport (YVR) accounting for 98% of that volume.

⁸ Source: Bureau of Transportation Statistics, <u>https://www.bts.gov/newsroom/border-crossing-data-annual-release-2023-2024</u>

⁹ Note: Major airports are defined as serving at least 200,000 passengers annually, or airports that serve as a regional hub. They are part of the National Airports System (source: https://tc.canada.ca/en/aviation/publications/sharing-skies-guide-management-wildlife-hazards-tp-13549/chapter-6-airports)

Prairie Corridor



The Prairie Corridor, encompassing the provinces of Alberta, Saskatchewan and Manitoba, is a vital part of Canada's national and international transportation networks. The region is rich in natural resources and specializes in oil and gas extraction, grain and agrifoods, and critical minerals like potash and uranium. Together the Prairie provinces exported \$249 billion worth of goods in 2024. Crude oil via pipeline to the U.S. accounts for the largest share of Prairie exports (55% in 2024, or \$137 billion)¹⁰. Exports of other goods to the U.S. mostly travel via regional rail border crossings.

In addition, the Corridor plays a key role in moving both imports and exports across the country. Exports are moved to Pacific ports for shipment to Asia, as well as to Central and Atlantic Canada for export to global markets, making Canada's trade routes more diverse and resilient. The Corridor also moves manufactured goods from Asia – destined for Ontario and the U.S.—through Pacific ports like Vancouver and Prince Rupert.

¹⁰ Source: Transport Canada, adapted from Statistics Canada's International Merchandise Trade Data.

Rail Infrastructure

The Prairie Corridor is served by three Class I railways. CN and CPKC operate an extensive east-west mainline network across the Corridor, representing nearly half of their total rail mileage. BNSF serves Manitoba via a north-south route. Shortline railways complement this system by providing critical feeder services, which allow farmers to bring their products to market and which supply rural and northern communities with vital services. The Hudson Bay Railway provides freight and passenger access to Northern communities in Manitoba.

Major rail crossings align closely with high-volume truck crossings: Emerson (MB), North Portal (SK), and Coutts (AB)—all of which rank among the top 10 rail export points to the U.S.

In 2024, the Prairies Corridor moved significant volumes of diverse commodities to British Columbia ports for overseas export. It also connected to East Coast markets via Thunder Bay

Prairie Corridor Infrastructure Marine

 Proximity to the Port of Thunder Bay connects the Prairies with Central Canada's marine shipping routes

Rail

- Service by CN, CPKC, and BNSF
- Northern Manitoba is serviced by The Hudson Bay Railway

Road

- Two national highways (Trans-Canada and Yellowhead)
- Highways 4, 6, 39, and 75 have border crossings *Air*
- Five National Airports System airports (Edmonton, Calgary, Saskatoon, Regina, and Winnipeg)

through the Great Lakes–St. Lawrence Seaway Marine Corridor and directly by rail to the ports of Montreal and Halifax. Most outbound rail traffic from the Prairies is destined for overseas markets (82 million tonnes), followed by exports to the U.S. (44 million tonnes).

Primary export destinations include the U.S., China, Japan, South Korea, and Mexico, with Saskatchewan playing a key role in supplying potash and legumes to India and Brazil. Additionally, about one-fifth of Class I intermodal shipments are U.S. transshipments that enter Canada through Pacific gateways, move across the Prairies, and re-enter the U.S., highlighting the Corridor's strategic role in continental transportation networks.

Road Infrastructure

The Prairie Corridor is anchored by Canada's National Highway System, with the Trans-Canada Highway (Highway 1) serving as the main east-west arterial route across the region. It connects the Prairies to major markets in Eastern and Western Canada and facilitates high volumes of interprovincial and international trade.

Highway 2, which links Edmonton and Calgary, is the busiest roadway in the Prairies, carrying more than 30,000 vehicles per day, including both passenger and commercial traffic. Urban sections of Highway 2, particularly near Calgary and Edmonton, expand to six lanes to accommodate heavy volumes, while ring roads in both cities are often used by more than 100,000 vehicles per day.

Road border crossings strategically align with major rail crossings. The Prairies have major road crossings on Highways 4, 6, 38, and 75. This alignment enhances the Corridor's effectiveness as a multi-modal trade artery, supporting both domestic distribution and international supply chains.

The Highway 3 Corridor (also known as the Crowsnest Highway) is located across southern Alberta and into British Columbia and plays a strategic role in Canada's East-West transportation and economic framework. It is a critical trade and supply chain route which is part of the CANAMEX Corridor, connecting Alberta to U.S. and Mexican markets. The Corridor supports agriculture, energy, and mining sectors, particularly in southern Alberta and southeastern BC. It serves

as a relief route to the Trans-Canada Highway (Highway 1), especially during congestion, accidents, construction or closures. Highway 3 is undergoing a multi-year twinning project involving upgrading the highway to a four-lane route from the British Columbia border to Medicine Hat, Alberta.

Air Infrastructure

All major cities within the Prairie Corridor are served by international airports which provide crucial connectivity for passengers and cargo. This includes Edmonton, Calgary, Saskatoon, Regina, and Winnipeg, in addition to small, local airports and aerodromes that are not part of the NAS. Calgary International Airport acts as the region's primary air hub and key gateway for international travel. In 2024, Calgary International handled 18.4 million passengers, ranking fourth among Canada's major airports. Most of this traffic (66%) was domestic, followed by transborder (primarily U.S.) travel at 21%, and other international destinations at 13%.

Central Corridor



The Central Corridor spans Ontario and Quebec, where more than 60% of Canada's population lives. It includes the Windsor-Quebec Corridor, one of the country's most vital economic corridors, linking major urban centers from Windsor in the west to Quebec City in the east. Anchored by Toronto and Montreal—Canada's two largest cities—this Corridor plays a central role in the national economy.

Central Corridor Infrastructure

Marine

- Four port authorities in Ontario (Hamilton-Oshawa, Toronto, Thunder Bay, and Windsor)
- Five port authorities in Quebec (Montreal, Quebec, Saguenay, Sept-Îles, and Trois-Rivières), with Montreal being the largest

Rail

 CN and CPKC service, with 11 shortlines in Ontario and many others across Quebec

Road

- The busiest highways are Highway 401 (Ontario) and Autoroutes 20 and 40 (Quebec)
- Air
- 7 National Airport System airports (Thunder Bay, London, Toronto Pearson, Ottawa, Montreal Trudeau, Montreal Mirabel, and Quebec City)

The Corridor houses a significant amount of Canada's air, rail and road passenger travel. Toronto and Montreal are central air hubs for both domestic and international routes.

Together, Ontario and Quebec contribute 70% of Canada's manufacturing GDP¹¹ and are home to a significant portion of the country's service-based economy, including sectors such as wholesale and retail trade, tourism, and finance. This diverse economic base drives substantial demand for commuter and passenger travel throughout the region.

The Corridor facilitates high volumes of domestic and international trade, especially with the U.S., supported by a robust network of highways, railways, and border crossings, notably the Windsor-Sarnia gateways. Additionally, the Corridor is a key component of the Great Lakes – St. Lawrence Seaway System, a vital trade route and efficient trade route

that had 4,008 cargo vessels transit carrying 36.3 million tonnes of cargo valued at \$16.7 billion in 2022. In 2023, nearly 38 million tonnes of cargo moved through the Seaway¹².

Marine Infrastructure

The Great Lakes–St. Lawrence Seaway Marine Corridor is vital to maritime trade. It is located within the industrial and agricultural heartland of Canada and the U.S. It helps move critical commodities, containerized goods, and transshipped exports across North America and to global markets.

The Seaway also helps to transport grain from the Prairies, typically shipped via the Port of Thunder Bay and transferred through Quebec ports for overseas export. In 2024, approximately 37 million tonnes of cargo moved through the Seaway. Key commodities included grain, iron



¹¹ Source: <u>https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=3610048801</u>

¹² Source: Transport Canada announces a modernized agreement with the St. Lawrence Seaway Management Corporation - Canada.ca

ore, potash exports, coal and salt imports from the U.S., and imports of iron and steel products—together accounting for roughly two-thirds of Canada's international Seaway traffic.

The Great Lakes

The Great Lakes—Superior, Michigan, Huron, Erie, and Ontario—span the Canada–U.S. border and are directly connected to the St. Lawrence Seaway, which allows ships to travel from the heart of North America to the Atlantic Ocean. Several key ports support trade and regional economies:

- Port of Duluth-Superior: The largest and busiest port on the Great Lakes.
- Port of Chicago: A major inland commercial shipping center.
- Port of Cleveland: The largest port on Lake Erie.
- Port of Detroit: A key hub for automotive trade and manufacturing.
- Port of Thunder Bay: A critical outlet for Prairie grain exports via Lake Superior.
- Port of Windsor: Strategically located on the Detroit River, it serves as a key link to U.S. markets.

The St. Lawrence Seaway

Extending from Montreal to Lake Erie, the Seaway is a system of 15 locks that allow vessels to navigate between the Great Lakes and the lower St. Lawrence River, ultimately reaching the Atlantic Ocean. The Welland Canal includes eight Canadian locks that allow ships to bypass Niagara Falls, connecting Lake Erie to Lake Ontario. The Montreal–Lake Ontario section features 7 locks—five in Canada and two in the U.S.—that make it possible to navigate between Lake Ontario and the lower St. Lawrence River. Key Canadian ports along the Seaway include:

- Port of Toronto: Ontario's primary gateway for international container trade.
- Hamilton-Oshawa Port: The largest port in Ontario by cargo volume.
- Port Colborne: Located at the southern end of the Welland Canal, linking the Great Lakes to the Atlantic.

The St. Lawrence River

The St. Lawrence River begins at the northeastern edge of Lake Ontario and flows to the Atlantic Ocean. It includes 7 navigable locks, which form part of the Seaway system. The locks help vessels bypass natural obstacles like rapids and dams. Prominent ports along the river include:

- Port of Montréal: Canada's second-largest container port and a critical hub for intermodal trade.
- Port of Québec: A deep-water facility specializing in bulk cargo like grain and minerals.
- Port of Trois-Rivières: Located midway between Montreal and Quebec City, serving as a regional trade center.
- Port of Saguenay: North of Quebec City, supporting forestry and aluminum industries.
- Port of Sept-Îles: A key export point for iron ore and other mining products from the Côte-Nord region.

Other key ports include the Port of Baie-Comeau, Port Cartier, and the Société portuaire du Bas Saint-Laurent et de la Gaspésie. Many of these smaller ports play a key role in supplying rural and remote communities.

Rail Infrastructure

Class I freight railways operate extensive mainline networks that closely parallel the region's road infrastructure, with key interprovincial connections that link Central Canada to both Western and Atlantic regions. Approximately one-third of

Canada's Class I mainline network is in the Corridor, anchored by major terminals in the Greater Toronto Area, Montreal, and Quebec City. These terminals play a critical role in handling and distributing imported goods from overseas markets.

In addition to CN and CPKC's extensive rail lines, the Central Corridor has many shortlines, with a variety of operators, which connect to small and remote communities. Ontario has 11 shortlines, while Quebec has around 100 to service its dispersed population.

Freight train traffic in the Corridor is dominated by intermodal (containerized) shipments, followed by manifest (mixed bulk), automotive, and grain movements. The Corridor's rail network facilitates high-volume, time-sensitive trade with domestic and international markets. Ontario hosts three of the top six rail export crossings in the country—Sarnia (first), Windsor (second), and Fort Erie (sixth)—while Lacolle, Quebec ranks eighth, underscoring the strategic trade role of this region.

In addition to freight, the Quebec City-Windsor Corridor is the backbone of Canada's passenger rail network. VIA Rail's busiest routes run between major urban centres—Toronto, Ottawa, Montreal, and Quebec City—providing critical intercity and regional connectivity. This Corridor, with 48 stations and 1,800 kilometres of track, accounts for 95% of VIA Rail's national passenger services.

Much of VIA Rail's operations occur on CN-owned track infrastructure. On the CN segment of the Corridor, approximately 54 VIA Rail trains operate daily—representing 75% of train movements—though CN freight trains retain right-of-way.

Road Infrastructure

Ontario has 6,135 centreline kilometres of core highway network (defined as key interprovincial and international corridor routes by the National Highway System Annual Report) and 682 km of feeder network (key linkages to core routes from population and economic centres).

The Central Corridor accounts for 33% of Canada's National Highway System and plays a critical role in moving goods and people. It supports a dense concentration of trucking activity and third-party logistics services, while also serving as a key commuter network for major population centres. High-capacity freeways form the backbone of this road system, including Ontario's 400-series highways and Quebec's autoroutes, linking all major cities between Windsor and Quebec City.

While infrastructure capacity is generally high along these routes, significant congestion persists—especially in and around the greater Toronto and Montreal areas. Chronic peak-hour delays are common and continue to be a major challenge for both freight and passenger mobility.

Ontario and Quebec host five of Canada's six busiest land border crossings by traffic volume and trade value. These include:

- Ambassador Bridge (Windsor, ON)
- Bluewater Bridge (Sarnia, ON)
- Peace Bridge (Fort Erie, ON)
- Queenston-Lewiston Bridge (Niagara Falls, ON)
- Lacolle (QC)

These crossings are vital links for cross-border trade and form a critical part of Canada's gateway connections with the U.S.

Air Infrastructure

Toronto Pearson (YYZ) and Montréal-Trudeau (YUL) serve as the Central Corridor's primary international air hubs, handling the bulk of both passenger and air cargo traffic. In 2024, the region handled an average of over 6.1 million air travellers per month, with YYZ accounting for 60% and YUL for 28%. YYZ's passenger traffic is relatively balanced across domestic, transborder, and other international markets, while nearly half of YUL's traffic is international.

For air cargo, the region handled an average of over 67,000 tonnes per month in 2024. Toronto Pearson managed 54% of this volume, serving as the country's top air cargo gateway, with Montreal-Trudeau handling approximately 19%. These airports play a critical role in supporting trade flows with Asia (e.g., China, South Korea) and Europe (e.g., Germany, the U.K., Spain). John C. Munro Hamilton International Airport and Montreal-Mirabel International Airport also serve as key air cargo hubs, offering capacity for freighter operations and easing congestion at primary passenger airports.

Billy Bishop Toronto City Airport (YTZ), located on Toronto's downtown waterfront, provides regional connections. It mostly supports short-haul domestic and transborder service, catering especially to business travellers. With over two million passengers annually, it plays a complementary role to Pearson in managing regional demand.

Ottawa International Airport (YOW) is the primary aviation gateway for Canada's capital region. While smaller than Toronto and Montreal airports, YOW serves both domestic and international flights and contributes to the Corridor's air passenger mobility and connectivity—particularly in government, diplomatic, and service-based travel markets.

Together, these airports form a multi-tiered air transport network that supports high volumes of passenger movement, regional and global trade, and diversified travel demand across the Central Corridor.



Atlantic Corridor

TRANSPORTATION IN CANADA

The Atlantic Corridor encompasses the transportation networks of Canada's four Atlantic provinces: New Brunswick, Nova Scotia, Prince Edward Island, and Newfoundland and Labrador. Geographically, it serves as a strategic gateway to international shipping routes across the North Atlantic, and supports trade with Europe, the Mediterranean, Africa, and Asia.

The Corridor is anchored by major deep-water ports, notably Halifax and Saint John, and is connected to Central Canada and the U.S. Northeast via an integrated network of highways and rail lines running through New Brunswick and Nova Scotia.

The Atlantic Corridor has 15 airports, including five international airports (Halifax Stanfield, Moncton Romeo Leblanc, Fredericton, Gander, St. John's, Newfoundland and Labrador) that support passenger and air cargo movements. It also has extensive ferry services that move both passengers and freight between the provinces and to Newfoundland and Labrador, strengthening regional accessibility.

In 2024, the Atlantic Corridor transported \$38 billion in exports, with 86% originating from within the Atlantic Provinces. Key export commodities included¹³:

- Petroleum products (51.7%) mostly from New Brunswick and Newfoundland and Labrador
- Seafood (13.0%) sourced from all four provinces
- Fresh produce (2.5%) notably from Prince Edward Island and New Brunswick
- Paper products (2.4%) mainly from New Brunswick and Newfoundland and Labrador.

The Corridor plays a vital role in supporting Canada's global trade capacity while sustaining local economies through its diverse and resource rich profile.

Marine and Rail Infrastructure

The Corridor serves as a key secondary gateway to Europe and the Mediterranean, supported by four Canada Port Authority (CPA) ports: Halifax, Saint John, Belledune, and St. John's. Together every year, they handle:

- 45 million tonnes of cargo
- 700,000 TEUs
- \$19.7 billion in goods
- 3,230 vessel arrivals

The Port of Halifax, Atlantic Canada's largest container port, is a major hub for international trade—particularly for vehicles and containerized cargo. It is one of the few East Coast ports capable of handling fully laden post-Panamax vessels, and offers the shortest shipping routes between Europe and mainland North America. Its eastern location also provides strategic access to Suez Canal routes, which to Asia and the Middle East. CN Rail serves the port directly and connects it

¹³ Transport Canada, adapted from Statistics Canada's International Merchandise Trade Data

Atlantic Corridor Infrastructure

• Four Canada Port Authorities (Belledune, Saint John, NB, Halifax, and St. John's, NL

Rail

- Class I (CN and CPKC), and CSX connects Atlantic Corridor to the rest of Canada
- VIA Rail connects passengers to and from Atlantic Canada using the CN line.
- Shortline railroads (Cape Breton, Labrador, New Brunswick Southern Railway)

Road

- 22,000 km of provincially maintained roads and highways across the Atlantic Provinces.
- 4,700 km are part of the National Highway System
- Six border crossings in New Brunswick

Air

- 14 airports
- Two International (Halifax Stanfield and Moncton Romeo Leblanc)

to the St. Lawrence—Great Lakes system, facilitating cargo movement to and from Central Canada. VIA Rail also provides passenger rail connections from Atlantic Canada to the rest of the country using CN Rail lines.

The Port of Saint John, New Brunswick, is the region's largest by tonnage, handling crude oil refining, potash exports, and container imports. It also houses the Canaport LNG terminal, a key liquefied natural gas hub. The port is served by regional shortlines like New Brunswick Southern and three Class I railways: CN, CPKC, and CSX, providing access to Central Canada and U.S. markets.

The Port of St. John's, Newfoundland and Labrador, is the primary commercial port in the province, playing a vital role in supplying the island and supporting offshore oil operations. While Newfoundland has no rail, the port connects to global markets via marine terminals at Come by Chance and Whiffen Head, which handle offshore oil exports.

Ferry services are an essential component of Atlantic Canada's

transportation network, ensuring year-round passenger and freight access between the mainland and island communities. Marine Atlantic operates critical ferry routes between North Sydney, Nova Scotia, and Port aux Basques and Argentia, Newfoundland and Labrador, linking Newfoundland to the Trans-Canada Highway. In the 2023-24 fiscal year, over 367,000 passengers and over 145,000 passenger vehicles were transported on Marine Atlantic ferries¹⁴. Additional services, such as the Bay Ferries route between Saint John, New Brunswick and Digby, Nova Scotia, and the Northumberland Ferries' seasonal route between Prince Edward Island and Nova Scotia, support both regional travel and commercial trucking.

Road Infrastructure

Trucking is the backbone of Atlantic Canada's transportation network, with a well-connected regional highway network that links local businesses to key marine ports, neighbouring provinces, and U.S. markets. The Trans-Canada Highway serves as the primary east-west spine, connecting the region to Quebec and Central Canada, while the Gateway Highway provides a direct route to the U.S. through Maine, supporting cross-border trade and regional mobility.

Atlantic Canada has six border crossings, all located in New Brunswick. Major border crossings at Woodstock and St. Stephen are the busiest in Atlantic Canada and rank among the top 15 nationally in terms of traffic volume and trade value for both passenger and commercial vehicles.

Interprovincial connectivity is further enhanced by the Confederation Bridge, which links Prince Edward Island to New Brunswick. As the longest bridge over ice-covered waters in the world, it is a vital year-round route for commercial trucking and tourism, and helps Prince Edward Island integrate seamlessly into regional markets.

¹⁴ Marine Atlantic, <u>https://www.marineatlantic.ca/sites/default/files/2024-10/Annual-Report-2023-2024.pdf</u>.

Air Infrastructure

The Atlantic region has 14 airports and 5 international airports (Halifax Stanfield, Fredericton, Gander, St John's and Moncton Roméo LeBlanc). The region handles approximately 8,500 tonnes of freight per month, with Halifax Stanfield (YHZ) managing 49% and Moncton Romeo LeBlanc (YQM) handling 34% of the volume. Halifax Stanfield International Airport also plays a pivotal role in global trade, especially for temperature-sensitive goods like seafood, which is primarily exported to Europe and Asia through its specialized cargo facility. Moncton Romeo LeBlanc, the region's second-largest air cargo hub, serves as a key courier centre for regional logistics.

In terms of passenger traffic, the region handles up to 640,000 travelers per month, with Halifax Stanfield (YHZ) handling 50% of this volume and St. John's (YYT) managing 18%. While 80% of passengers at Halifax are traveling domestically (as it functions as a key regional hub), the airport also connects to international markets, including the U.S., U.K., Germany, and various sun destinations like the Dominican Republic, Cuba, and Mexico. In 2024, just under four million passengers flew through Halifax¹⁵.

Northern Corridor



Canada's Northern Corridor spans regions north of 55 degrees latitude, including the Yukon, Northwest Territories, Nunavut, and parts of British Columbia, Saskatchewan, Manitoba, Ontario, Quebec, and Labrador. This expansive area

¹⁵ Halifax Stanfield Airport, https://halifaxstanfield.ca/news-releases/halifax-stanfields-passenger-volumes-take-off-in-2024/#:~:text=The%20airport's%20bustling%20corridors%20and,growth%20in%20air%20travel%20demand.

covers roughly 48% of Canada's landmass—around 4.8 million square kilometres—but is sparsely populated, with a population of around 150,000.

Currently, passenger travel in the North is limited by the seasonality of its road network and high cost of air travel. Much of the freight movement focuses on supplying remote communities and providing access to essential services like healthcare. Despite these challenges, the region's exports totaled \$3.82 billion in 2024, primarily consisting of gold, diamonds, and iron ore¹⁶.

Climate change is significantly affecting the connectivity and safety of the Northern Corridor as warmer temperatures accelerate ice melt. This leads to a loss of permafrost, which causes cracked roads, shifting air runways, and misaligned rail tracks. Ice melt also causes increases in sea ice volume, which can cause damage to ships and require more icebreakers. Winter roads and bridges are also available for shorter periods, affecting essential resupply routes. There has also been an increase in extreme weather, including flooding and wildfires, both of which disrupt the Corridor's transportation system.

In light of these climate events and changes, the potential opening of new shipping routes through the Northwest Passage

Northern Corridor Infrastructure

Marine

- Three key ports (Churchill, Iqaluit, Tuktoyaktuk)
- Churchill and Iqaluit are the only deep-water ports in the Arctic
- Desgagnes (Transarctik) serves 15 northern communities in Northern Quebec and 29 ports in Nunavut

Rail

- CN shortline connecting Enterprise, AB to Hay River, NWT (currently inactive)
- Hudson Bay Railway connects Northern Manitoba
 (Churchill)

Road

- Over 4,800 km of roads in Yukon
- Over 3,800 km of roads in NWT
- Nunavut has no inter-community road network Air
- 206 aerodromes across entire Corridor
- Yellowknife, Whitehorse, and Iqaluit airports are part of the National Airports System
- Yukon: five certified airports, 27 aerodromes
- NWT: 20 certified airports, 41 aerodromes
- Nunavut: 24 certified airports, 14 aerodromes

could significantly enhance the region's strategic importance and resiliency, bringing new opportunities for trade and connectivity.

Marine Infrastructure

The Northern Corridor includes three key ports that include the only two deep water ports in the Arctic (Churchill, Manitoba, and Iqaluit, Nunavut, which handle most international cargo shipments. The other port, Tuktoyaktuk, serves as a key hub for receiving goods from other Canadian ports. Desgagnes (Transarctik), the largest carrier for Northern resupply, serves northern communities in 15 ports across Northern Quebec (Nunavik) and 29 locations in Nunavut. In addition to these harbours and sealift areas, communities tend to have small harbours that support local resupply, fishing and hunting activities, and search and rescue. Marine services provide the vast majority of resupply due to the high cost of air travel and the lack of permanent rail or road links between communities.

Rail Infrastructure

There is one rail line connecting the Northern Corridor to the south. The first is Hudson Bay Railway, which is used for grain, fuel and cargo exports, Artic resupply, military use, tourism, and cruise ships through the Port of Churchill, Manitoba. Prior to wildfire damage in 2023, a second rail line connecting Enterprise, AB to Hay River, Northwest

Territories transferred goods from rail track onto barges to supply remote communities in the North.

¹⁶ <u>https://ised-isde.canada.ca/site/trade-data-online/en</u>

Road Infrastructure

Highway infrastructure in Northern Canada is limited and often supplemented by winter roads, which are only operational for part of the year. Key routes include the Dempster Highway, which links the Northwest Territories and Yukon; the Mackenzie Highway, which connects the Northwest Territories south of the 60th parallel through Alberta; and the Alaska Highway, which links Yukon to British Columbia. Nunavut remains unconnected to the rest of Canada by road, and instead relies on air and seasonal marine transport.

There are five land border crossings between Canada and Alaska. Two are in the Yukon—at Beaver Creek and Little Gold Creek—while the other three are in British Columbia, at Stewart, Pleasant Camp, and Fraser.

Air Infrastructure

Air transportation is essential to trade in the Northern Corridor, and for many remote communities unreachable by sea, it's the only reliable, year-round mode of access. In 2024, 71.6% of trade value for the territories was transported via air transport, underscoring the vital role it plays for the region's economy.

Air is the most frequent method of passenger travel into and out of the North. The territorial airports in Whitehorse, Yukon, Yellowknife, Northwest Territories, and Iqaluit, Nunavut, serve as a major gateway to the Arctic, supporting passenger travel and tourism in addition to cargo transport. In Nunavut, Rankin Inlet Airport recently underwent a \$63.5 million terminal upgrade, which has significantly improved its capacity to handle freight and passengers. This investment has improved critical aviation infrastructure in the Kivalliq region, strengthening regional connectivity and service delivery. In Labrador, major regional airports include Goose Bay Airport, and Wabush Airport (serving Labrador City-Wabush), in addition to smaller airstrips that provide connectivity to fly-in communities.

The Corridor is home to 206 aerodromes, including three in Canada's National Airports System—Yellowknife, Whitehorse, and Iqaluit—and 12 designated as official Canadian Border Services Agnecy ports of entry. However, infrastructure challenges persist. Most runways in the North—about 85%—are surfaced with gravel or crushed rock, which limits the types of aircraft that can land safely and limits cargo capacity.

Maintaining Resiliency, Safety and Security

Canada's transportation network is essential to the country's economic prosperity and national resilience. As critical infrastructure, it underpins the safe and efficient movement of people and goods across vast distances and international borders. In 2024, the system once again faced a series of disruptive events—ranging from extreme weather and cyber threats to global geopolitical instability and illicit activities—highlighting the importance of a robust, adaptable transportation network.

Transport Canada plays a central role in safeguarding this system. In collaboration with provinces, territories, industry, and national security partners, TC works to continuously assess and address vulnerabilities, including organized crime, technological disruptions, and cascading transport network impacts. It operates 24/7 monitoring centres and maintains specialized teams that assess the economic and operational implications of major incidents, while closely tracking emerging safety and security trends.

Recognizing the evolving threat landscape—driven by increased traffic volumes, technological advances, and the growing frequency of natural and human-made disruptions—Transport Canada is expanding its risk awareness and response

capacity. In 2024, the department hosted its first-ever cybersecurity briefing for transportation sector CEOs, in partnership

with the Canadian Security Establishment and the Canadian Centre for Cyber Security. This work reflects a whole-of-system approach to improving resilience and protecting Canadians' mobility and economic wellbeing.

Network Performance

In 2024, Canada's transportation network performed well under normal conditions, efficiently supporting growing domestic and international freight and passenger demand and recovering quickly from disruptions. However, the system continued to face persistent challenges such as reduced connectivity, increasing volatility, and stagnant productivity. These issues highlight the need for sustained efforts to strengthen capacity, reliability, and resilience, both to seize future opportunities and safeguard Canada's economic stability.



Source: Canada Port Authorities, Class I monthly aggregate waybill data (CN, CPKC)

Carriers maintained fluidity while responding to increasing demand

Following a period of tight monetary policy in response to high inflation, 2024 marked the beginning of a modest economic recovery, both globally and within Canada. This rebound drove increased global demand for Canadian natural resources and more demand at home for imported goods.





Figure 1: Canadian Port Container Traffic (TEUs, millions)

Likewise, passenger traffic in all modes continued to recover from pandemic-era travel restrictions. Marine port, Class I rail, and air cargo volumes indicate that the transportation network effectively responded to rising demand—enabling the

2024 Disruptions and Threats

Domestic

- Widespread and significant wildfire season
- Harsh winter conditions
- Utterances of serial bomb threats to Indian air operators travelling to Canada and elsewhere
- Air cargo incendiary concerns
- Simultaneous labour lockouts CN and CPKC
- Strikes at the Port of Vancouver and the Port of Montréal

International

- Ongoing conflict in the Red Sea
- Collapse of the Baltimore Bridge
- Port labour strikes on the U.S. East and Gulf Coasts
- Ongoing drought conditions at the Panama Canal
- CrowdStrike cyber outage

smooth movement of containerized finished goods entering and moving through the country, as well as bulk commodities like grain, coal, and potash, largely destined for export. Despite higher volumes, the system remained fluid during normal operations. In 2024, the average end-to-end transit time to import a container from Shanghai to Toronto via Canada's West Coast was 33.6 days, down from 35.0 days in 2023 and below the three-year average of 36.5 days (although still above pre-pandemic levels). Airport operations were similar in 2024. Despite a strong rebound in passenger volumes, security screening wait times improved significantly. At the Top 15 CATSA airports, wait times declined notably compared to 2019, with over 95% of passengers screened within 15 minutes—meeting service level targets at all the Top 8 airports.





While managing increased demand, Canada's transportation network also faced a range of global and domestic disruptions and threats in 2024. Despite these challenges, the system was resilient—responding to and recovering from disruptions quickly and effectively. Coordinated efforts between industry and government enabled the network to adapt while sustaining higher overall volumes throughout the year.

Transportation GHG emissions stayed below 2019 levels

According to Canada's <u>2024 National Inventory Report</u>, transportation accounted for 23% of the country's total greenhouse gas (GHG) emissions in 2023, amounting to 157 million tonnes of carbon dioxide equivalent (Mt CO₂e). Road transportation was the largest contributor, responsible for 124 Mt, which represents 79% of transportation emissions and 18% of Canada's total emissions. Passenger vehicles accounted for 51% of road emissions, while freight vehicles accounted for 27%.

Emissions from other domestic modes—including marine, aviation, and rail—totaled 18.5 Mt. This made up 12% of transportation-related emissions and 3% of the national total.

While transportation emissions have increased since the pandemic-related lows, they remain 12 Mt below 2019 levels. This reduction reflects progress in several areas, including improved vehicle efficiency, advancements in technology, increased adoption of zero-emission vehicles, and a gradual shift toward lower-emission fuels.

Navigating volatility in a complex operating environment

While Canada's transportation recovered well from disruptions in 2024, the operating environment remains volatile. Canada's vast and rugged terrain and its four-season climate makes variability a longstanding reality for transportation and logistics. This is further compounded by more frequent extreme weather events and the growing complexity of global supply chains, which are often vulnerable to disruptions across the world.

Although transportation performance continues to improve, it has yet to return to pre-pandemic levels and remains more variable across all modes. For example, West Coast ports continue to be competitive with U.S. counterparts but face longer transit times than before the pandemic. This level of variability requires shippers to plan further ahead to manage inventory and supply chain continuity.

These conditions are not unique to Canada. Similar disruptions and performance fluctuations are being seen globally, reflecting the wider pressures supply chains face in an increasingly interconnected and unpredictable world.

Declining connectivity is a growing pressure point

As Canada's transportation system adapts to changing demands, connectivity across the network has been gradually declining. This adds to volatility and influences both accessibility and costs. In the marine sector, the loss of direct service on certain trade lanes has contributed to longer transit times and increased variability. For example, Vancouver and Prince Rupert have lost direct connectivity with Shanghai, China, with ocean carriers introducing additional port stops along the voyage to respond to changes in demand and optimize their business operations. Each additional port call along the



way can introduce delays which can grow at subsequent ports, adding uncertainty to vessel arrivals and volatility at BC ports.

In the rail sector, the number of stations served has declined by 54% since 1996, with reductions concentrated among

smaller stations. While these changes have supported cost efficiency and operational fluidity for Class I rail carriers, they have also reduced the availability of direct service options for some shippers.

In the air sector, the continued use of a hub-and-spoke model has concentrated flights at major airports, which has improved connectivity through hubs but reduced point-to-point options for smaller communities. As a result, while these communities can access a wider range of destinations, they often do so through indirect and



Figure 6: Port stops on container vessel voyages from Shanghai to BC Ports

sometimes more expensive routes. These developments reflect broader shifts in how the transportation network is structured to balance efficiency with accessibility.

Productivity struggles in a shifting landscape

Productivity reflects how efficiently inputs, like labour and equipment, are used to produce goods and services. Multifactor productivity considers how effectively all inputs – including labour, capital, and technology – are used in combination, and is influenced by the quality of equipment and technologies, as well as workforce capabilities.

As a fundamental economic indicator, productivity is closely tied to long-term improvements in living standards and overall well-being. It represents the most sustainable path to increasing income per capita over time. In the transportation sector, higher productivity helps reduce the cost of moving goods and services, supports trade and economic activity and helps to improve quality of life.

From the 1960s to the 1980s, the transportation sector saw strong productivity gains, driven by technological advancements and regulatory reforms, often outpacing the broader business sector. However, since the 1990s—and especially after 2017—these gains have leveled off or declined. Recent disruptions, including travel restrictions and operational challenges during the COVID-19 pandemic, have further compounded these trends.

Historically, productivity improvements have been closely linked to infrastructure investment, innovation, and regulatory modernization. In rail, for example, Class I carriers achieved gains through investments in centralized traffic control, double-tracking key corridors, and adopting precision scheduled railroading. In air transportation, advancements included more fuel-efficient aircraft, airport infrastructure modernization through the National Airports Policy, and improved air traffic management by NAV CANADA. In the trucking sector, reforms such as expanded weight and dimension limits, use of long combination vehicles (LCVs), and adoption of technologies like telematics and GPS routing supported productivity growth.

These examples highlight the importance of coordinated efforts in innovation, investment, and regulatory alignment to enhance productivity and strengthen the long-term efficiency and resilience of Canada's transportation network. For

instance, a recent Bank of Canada study attributes approximately one-quarter of productivity growth in the 2020s to digitalization¹⁷. Conversely, several studies have found that higher regulatory burdens are associated with lower levels of productivity, innovation, and investment—underscoring the need for balanced, streamlined regulatory frameworks that support both performance and progress¹⁸.

Addressing challenges to seize upcoming economic opportunities

Global population growth, evolving economic dynamics, and shifting trade patterns are expected to shape transportation demand in the years ahead. These trends may present opportunities for Canada to expand its trade relationships, diversify markets, and strengthen its role in global business and multilateral fora. Realizing these opportunities will require addressing longstanding structural challenges within the transportation system.

Key issues such as aging infrastructure, uneven multimodal integration, service gaps in certain regions, and complex regulatory environments continue to affect the system's overall efficiency and adaptability. These factors can limit the network's ability to respond to growing demand, changing cargo flows, and emerging trade corridors.

Improving the system's ability to respond to these shifts will likely involve renewing infrastructure, adopting new technologies, improved data and network visibility, and policy coordination across jurisdictions and modes. Efforts to improve regional connectivity, particularly in under-served areas, may also help ensure broader access to economic opportunities.

By addressing these structural factors, the transportation system can be better positioned to adapt to long-term changes in global trade and population growth, while continuing to meet national priorities around reliability, resilience, and inclusive access.

Modal Overviews

Air

Canada's air transportation network connects Canada to the world and moves passengers across the country, which spans six time zones and covers about 18 million square kilometres. As of 2024, there were approximately 1,900 certified and registered airports in Canada. These are part of a broader network of 6,000 aerodromes, which include land (runways and/or heliports) and water facilities.

NAV CANADA, a private, not-for-profit corporation, manages Canadian airspace through Canada's civil air navigation system. It owns and operates air traffic control towers at 42 airports, and flight service stations (facilities that provide information and services to pilots before, during, and after flights) at 55 airports.

¹⁷Source: Bank of Canada, 2024, Brouillette et al.

¹⁸Source: Andrews et al., 2016; Égert, 2018; Gu, 2022; OECD, 2024

Key Traffic and Volume Statistics

Canada's air cargo sector saw notable growth in 2024, driven by higher volumes and stronger demand. The improvement

was mainly supported by an increase in e-commerce activity and route expansions by Canadian carriers. Airports in Canada handled 1.60 million tonnes of cargo (loaded and unloaded) from domestic and foreign carriers in 2024, a 5.2% increase compared to 2023 volumes.

In 2024, the four busiest airports for air cargo were Toronto Pearson International Airport (441.5 thousand tonnes in 2024, 3.8% more than in 2023), Vancouver International Airport (315.5 thousand tonnes in 2024, 8.6% more than in 2023), Montréal Trudeau International Airport (158.3 thousand tonnes in 2024, 20.1% more than in 2023) and Hamilton International Airport (140.4 thousand tonnes in 2023, 0.7% more than in 2023).



Passenger

In 2024, the number of passengers travelling by air was up 4% from 2023 and remains slightly below pre-pandemic levels. Growth in passenger volumes is mainly supported by international sectors, whereas growth in the domestic sector remains slow (0.3% from 2023). Much of the post-pandemic recovery was led by large airports but limited by airline capacity challenges combined with the substitution of business travel by technology.

57 million passengers passed through pre-board security screening at Canada's 8 largest airports in 2024, representing a 5.8% increase over 2023, and 2.7% more than in 2019. Of note, 4.8 million passengers were screened at the top 8 airports in December alone, which was an 8.1% increase compared to December 2023 and 4.3% above the pre-pandemic benchmark set in December 2019.



Connectivity

Canada negotiated new and expanded Air Transport Agreements (ATAs) with key aviation partners in 2024, significantly enhancing international connectivity for both passenger and cargo services. New agreements with Argentina and Australia allowed an unrestricted number of flights and provided substantial operational flexibility for airlines. An expanded agreement with Qatar introduced phased increases in capacity, enabling each side to allocate 14 passenger flights per week among its airlines by October 2026. Throughout the reporting period Canada maintained positive relations with a wide variety of partners, laying the groundwork for future negotiations that will further improve Canada's international connectivity, and offer greater choice for travellers and shippers.

Safety & Security

Transport Canada participated in several initiatives to improve the safety and security of the air cargo and passenger system in 2024, such as the Pre-load Air Cargo Targeting (PACT) System, which uses machine learning to detect risks in air cargo data. Another effort is the Air Right Touch (ART) initiative, which involved industry partners and Canadian Air Transport Security Authority (CATSA), testing facial recognition technology and digital credentials to securely and seamlessly process passengers at Canadian airports.

2024 witnessed the launch of TC's first mobile application - Aviation Intake Request (TC AIR) into production, and the continued transformation of the Aviation Examination Online Booking Tool, enabling applicants to manage their exams conveniently from home. This year TC also introduced expanded functionality of the Drone Management Portal, accommodating the new regulatory framework - including the capability to accept pre-validated manufacturer safety declarations and issuance of RPAS Pilot Operator Certificates – as well as implementing the Aviation Regulatory Affairs Prioritization System (ARAPS), a new regulatory prioritization system to improve accountability in decision-making for regulatory submissions.

Green Transportation

ICAO and CORSIA

Transport Canada continued to be actively involved in maintaining the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). It requires aircraft operators to buy emission units on the open market to offset a portion of their GHG emissions from international flights. This applies to any operator that emits more than 10,000 tonnes of carbon dioxide (CO²) on international flights from 2019 to 2035.

Sustainable Aviation Fuel (SAF) Blueprint for Canada

In 2024, the SAF Task Force continued to develop an SAF Blueprint for Canada. This initiative brought together stakeholders across the SAF value chain to identify what is needed to create a domestic SAF market capable of supporting the 10% aspirational SAF use goal by 2030, set under Canada's Aviation Climate Action Plan. The draft Blueprint depicts current domestic and international context, existing challenges, and opportunities. It also identifies strategic pathways through a combination of domestic production and imports.

Marine

The domestic marine sector primarily focuses on transporting bulk cargo and is essential for supplying Northern communities and developing offshore resources. Canadian-registered vessels carry around 99% of domestic gross tonnage and support trade between Canada and the U.S., while foreign-registered fleets transport goods to and from non-U.S. destinations.



As of December 2024, Canada's commercial registered fleet, comprising vessels with 1,000 gross tonnage capacity and above, totaled 210 vessels with a combined gross tonnage of approximately 2.3 million. This fleet includes 55 cargo ships, 40 dry bulk carriers, 25 tankers, and

22 other vessels.

Passenger ferries play a crucial role in connecting coastal, island, and remote

Canadian Port Authorities

Nanaimo Port Authority Port Alberni Port Authority Prince Rupert Port Authority Vancouver Fraser Port Authority Hamilton-Oshawa Port Authority Thunder Bay Port Authority **Toronto Port Authority** Windsor Port Authority Montréal Port Authority Québec Port Authority Saguenay Port Authority Sept-Îles Port Authority **Trois-Rivieres Port Authority Belledune Port Authority** Halifax Port Authority Saint John Port Authority St. John's Port Authority

communities across Canada. In 2023, there were 68 registered ferries operating nationwide.

Canadian ports are key for exporting bulk commodities and serve as primary entry points for imported containerized manufactured goods. They act as crucial hubs, linking Canada's coastlines to domestic and international markets through railways and trucks.

Transport Canada oversees two types of ports:

- 17 ports managed independently by Canada Port Authorities (CPAs); and
- 34 port facilities owned and operated directly by Transport Canada.

Key Traffic and Volume Statistics

Freight

Containerized cargo (in TEUs) increased by 4.6% at the four largest Canadian container ports in 2024. The growth marked a rebound from the decline seen in 2023, particularly on the West Coast. The improvement was supported by a more favourable economic environment, with inflation easing and consumer demand stabilizing. Overall, the Port of Vancouver saw an 11.1% increase in container throughput, while the Port of Prince Rupert saw a 5.0% increase year over year.

Eastern ports are key entry and exit gateways for marine trade with European, the Mediterranean, and Southeast Asia. In 2024, the Port of Montréal experienced a 4.8% decline in container throughput, while Halifax saw a 6.8% drop. These declines reflect broader global supply chain disruptions, particularly along the Red Sea Corridor.

In comparison, container volumes increased at major U.S. ports in 2024, reflecting broader improvements in global trade and economic conditions. Key gateways like the ports of Los Angeles, Long Beach, New York-New Jersey, Savannah all recorded significant gains after a challenging year in 2023 despite the dockworkers' strike on the U.S. East Coast and Gulf Coast. Non-containerized throughput at Canada's four largest ports grew by 2.1% in 2024 compared to 2023. On the West Coast, the Port of Vancouver recorded an increase of 3.9% driven by higher volumes of grain and petroleum products, while Prince Rupert experienced a 4.2% decline. On the East Coast, non-containerized throughput fell by 1.9% at the Port of Montréal amid labour uncertainty, and by 6.5% at the Port of Halifax due to weaker demand.

Passenger

Canada's cruise sector saw significant growth in 2024. Cruise ship passenger traffic reached 3.2 million, a 5.7% increase from 2023 and 16.6% above 2019 levels (2.8 million) at major Canadian ports¹⁹. U.S. residents accounted for most disembarkations, followed by overseas and Canadian residents. The strong performance reflects increasing demand for Canadian cruise destinations and continued growth in the tourism sector.

Connectivity

Since its inception in 2017, the National Trade Corridors Fund has played a central role in enhancing Canada's ability to move goods efficiently and reliably from origin to destination. Through 2024, the federal government has committed around \$4.1 billion toward 213 infrastructure projects across the country, leveraging a total investment of more than \$10.5 billion. These projects improve Canada's transportation network, connect modes, and support seamless end-to-end freight transit from ports through to inland markets and international borders.

In 2024, the NTCF announced the investment of up to \$6.7 million in two projects at the Port of Thunder Bay to strengthen supply chains and enhance global trade. The investment includes up to \$3 million for redeveloping the marshalling yard at Keefer Terminal, improving cargo handling and attracting new markets, and up to \$3.7 million for upgrading the wharf, expanding cargo areas, and enhancing rail infrastructure. These improvements aim to boost Northern Ontario's economy by supporting key industries such as grain, potash, steel, and renewable energy components.



Another key investment this year was a \$16.75 million contribution to the Port of Montréal. This project focuses on expanding rail infrastructure, including the addition of a fourth track on the Pie-IX railway bridge. The improvements are designed to increase container handling efficiency, preserve longterm terminal capacity, leverage investments from multiple partners, and ensure more reliable rail access to central Canadian and U.S. markets.

Source: Transport Canada reports, Vancouver Fraser Port Authority, Prince Rupert Port Authority, Montréal Port Authority, and Halifax Port Authority

¹⁹ Source: Transport Canada Supplementary Data Tables – M16: Cruise Ship Traffic at Selected Canadian Ports

Safety and Security

Vessels

In 2024, Transport Canada made progress on the Domestic Vessel Oversight Review Initiative, which runs through 2027. The initiative is modernizing how we oversee vessels by aligning safety protocols with operational risk and incorporating best practices and new technologies. Transport Canada launched three new digital tools to support marine operators: an <u>Online Certificates of Registry platform</u> with web validation, a <u>searchable course provider tool</u> for pleasure craft operators, and a self-serve <u>license lookup tool</u> to verify pleasure craft license status and renewal dates.

Transport Canada also clarified the distinction between guests on pleasure craft and passengers on non-pleasure craft, helping determine when vessels are subject to commercial regulations. A national trial began in 2024 to evaluate alternative marine cargo inspection methods to improve efficiency in oversight.

Seafarers

Transport Canada published a <u>national standard</u> in 2024 to help deliver online, distance, and blended maritime training at approved institutions that included protocols for online test administration to expand access for seafarers in remote areas. Canada also finalized credential recognition agreements with Ireland and Brunei Darussalam to help address a shortage of seafarers. It also launched a new Fatigue Management at Sea course.

Modernizing Marine Regulations and Enhancing Security

In 2024, Transport Canada continued modernizing Canada's marine regulatory framework. Transport Canada made progress by working to replace the *General Pilotage Regulations* with *Canadian Marine Pilotage Regulations* to align oversight across all four pilotage regions. Interim Order No. 2 was issued to limit sewage and greywater discharge from cruise ships until permanent environmental measures could be developed. Updates to vessel operation restrictions, traffic service zones, enforcement actions, and marine safety fees also moved through the *Canada Gazette* process. *Marine Safety Management System Regulations* were also finalized to expand safety oversight across a broader range of Canadian vessels.

Transport Canada further improved marine security by coordinating threat response and intelligence sharing through national and international partnerships. Transport Canada conducted security reviews at high-risk ports, including those linked to organized crime and auto theft. Transport Canada enforced sanctions banning Russian-flagged or owned ships in Canadian waters and monitored vessels engaged in non-compliant or illegal activity. Cybersecurity vulnerabilities tied to foreign-manufactured port equipment to help improve port and marine facility security plans.

Green Transportation

In 2024, the Green Shipping Corridors Program funded projects at Canadian ports and for ships operating along the Great Lakes, St. Lawrence Seaway, and both coasts. The program focused on removing barriers to using clean technology, encouraged investments in low- and zero-emission vessels and infrastructure, and su Canadian operators in transitioning to cleaner fuels and equipment. These investments de-risked the adoption of low-carbon technologies and accelerated the sector's decarbonization.

Canada also launched work on a new Green Shipping Corridor Memorandum of Understanding (MOU) linking Atlantic Canada, the Great Lakes, and the St. Lawrence Seaway with international partners across the Atlantic. This builds on a

similar initiative connecting Canada's Pacific Coast to Asia. These MOUs foster public-private collaboration and provide a framework to advance clean marine innovation and infrastructure deployment.

Reducing Marine Ecological Risks

Transport Canada continued efforts to manage environmental risks from ship-borne invasive species and underwater noise.

To address the growing problem of abandoned and derelict vessels, the Comprehensive Strategy for Vessels of Concern funded the removal or mitigation of 294 high-risk vessels in 2024, improving navigation safety and protecting marine environments.

Rail



Rail transportation remains a cornerstone of the *Canadian economy, facilitating the movement of goods* and passengers across the country and to international markets. Canada's extensive railway network is integral to both freight and passenger sectors, each playing a vital role in the nation's transportation landscape.

The freight rail sector primarily handles the transportation of heavy, bulk commodities and container traffic over long distances. Canada's two major Class I freight railways, CN and CPKC, manage the majority of freight rail traffic.

The passenger rail sector offers commuter, intercity, and tourist transportation services. VIA Rail Canada, an independent Crown Corporation established in 1977, operates the national passenger rail service.



Key Volume and Statistics

Freight

Rail transportation

In 2024, network-wide rail traffic of Class I Railways was 0.9% above 2023 levels. Overall, bulk commodity volumes saw a modest increase of 0.2% year over year, while containerized rail traffic rose by 1.6%. However, the latter half of the year was marked by significant labour disruptions, including disputes involving CN and CPKC, as well as the strike and lockout at the Port of Montréal and on the West Coast. These challenges, combined with extreme cold weather in early winter, weighed on rail

performance and limited volume growth in the final months of 2024.

The Western Canada Rail Corridor remains the primary route for exporting of bulk commodities such as grain, coal and potash to international markets. In 2024, rail shipments to and from Western Canada increased by 2.8% year over year, despite disruptions and harsh winter conditions. In Central Canada, the country's most populated and industrialized region, the freight rail network connects Western Canada with Ontario and Québec markets as well as key U.S. gateways. Rail shipments in this region rose by 1.6%. Meanwhile, Eastern Canada experienced a 10.3% decline in rail shipments over the same period due to reduced demand.

Passengers

In 2024, VIA Rail transported about 4.4 million passengers—a 7% increase over 2023, but only 88% of 2019 levels. The Québec City–Windsor corridor remained the busiest in the network, handling the vast majority of VIA Rail's passenger traffic.

Connectivity

In 2024, VIA Rail unveiled its strategic plan, <u>VIAction 2030</u>, aiming to transform passenger rail services and position the corporation as a leader in integrated mobility. As part of this plan, VIA introduced its new fleet in the Quebec City-Windsor Corridor, where 63% new trains were already in service by the end of 2024, with full replacement expected by Summer 2025.

In addition, VIA Rail also launched Requests for Qualification (RFQ) for locomotives and cars to replace its Long-Distance, Regional, and Remote (LDRR) fleet. This initiative aims to ensure continuity of services across Canada by connecting over 400 communities with a modern, comfortable and sustainable travel experience. Transport Canada also continued efforts to improve the reliability of passenger rail services while supporting the fluid movement of goods through Canada's freight and rail network through the conclusion of a study in addressing on-time performance challenges.

Safety & Security

Transport Canada continued its program delivery and oversight activities under its two rail security programs: the Passenger Rail Transportation Security Program and the Transportation of Dangerous Goods by Rail Security Program. Both Programs are guided by regulations that provide Transport Canada's Rail Security Program with the authority to conduct oversight activities of federally regulated passenger and freight railway companies, which enhance security oversight at railway sites, stations and facilities across Canada.

Oversight activities included reviewing and assessing security risk assessments and security plans of regulated entities; conducting comprehensive inspections that examine railway companies' processes, procedures, training, record keeping; and conducting in-person site inspections. In addition, the Rail Security Program continues to implement its compliance and enforcement framework, including the use of administrative monetary penalties as an enforcement tool to promote regulatory compliance under the Passenger Rail Transportation Security Program.

To support Transport Canada's safety mandate, funding through the Rail Safety Improvement Program supported the completion of 221 projects at high-risk grade crossings and along rail lines across Canada in FY2024-25. These investments in infrastructure, technology, research, education and awareness initiatives aim to reduce collisions and trespassing incidents, increase resilience of the rail transportation against climate change and/or prevention of the impacts of climate change and extreme weather events, as well as increase public confidence in Canada's rail transportation system.

Green Transportation

Rail transportation continued to make Canada's transportation network more efficient by reducing congestion and wearand-tear on roads and highways. A 100-car freight train carrying 10,000 tonnes of goods could replace 300 trucks. Transport Canada has a long history of working with the rail sector to reduce locomotive emissions through a series of voluntary agreements with the Railway Association of Canada (RAC). In 2024, Transport Canada continued to work with the RAC to publish a Locomotive Emissions Monitoring report, which provides key environmental data and highlights emission reduction projects such as hydrogen and battery-electric locomotives and a pilot project to transition to biodiesel power.

Road



In 2024, Canada's road transportation network continued to be the primary means for moving both freight and passengers across the country. The Trans-Canada Highway and extensive regional roadways facilitated connectivity from coast to coast to coast.

The Canadian trucking sector, necessary for domestic and cross-border trade, comprised approximately 152,000 trucking businesses of December 2024²⁰. This total includes both general and specialized freight services operating on local and long-haul routes. Despite a slight decrease in job vacancies for truck drivers, the demand for

trucking services remained robust amid ongoing transport network challenges. Ontario led in the number of trucking businesses, followed by Quebec, Alberta, and British Columbia. The industry is characterized by a mix of small for-hire carriers, owner-operators, and larger firms offering comprehensive logistics services.

Key Traffic and Volume Statistics

Road freight

In 2024, truck border crossings in Canada decreased by 1.1% compared to 2023. Trade by truck to and from the U.S. is concentrated in Central Canada, where the Quebec City-Windsor Corridor remains the busiest trucking corridor.

Overall, truck border crossings in Central Canada declined by 1.3% while Western Canada saw a smaller decreased of 0.2% when compared to 2023. Border crossing flows in both directions remained fluid throughout the year, with the top 15 busiest border crossings averaging 9.5 minutes in wait time, around 3.3% (or 0.3 minute) increase when comparing to the 3-year historical average. Of the 4 Southern Ontario region crossings, only Sarnia and Fort-Erie/Peace Bridge recorded an

²⁰ Sources: <u>https://www.150.statcan.gc.ca/t1/tbt1/en/tv.action?pid=3310076401</u> (trucking businesses with employees) and <u>https://www.150.statcan.gc.ca/t1/tb11/en/tv.action?pid=3310076501</u> (trucking businesses without employees).



increase in wait times of more than 1 minute in 2024 when compared to the 3-year historical average, with a average border wait time of 14.2 minutes and 14.9 minutes, respectively.

Vehicle registrations

As of 2023 (the most recent data available), there were 26.3 million registered road motor vehicles in Canada, or a 0.3% increase from 2022 and

a 14.3% increase since 2013. Light-duty vehicles, including passenger cars, pickups, SUVs, and minivans, make up 91.7% of these registrations. Medium and heavy trucks made up for 5.1%, while buses, motorcycles, and mopeds made up the remaining 3.2%.

In 2023, Canadians registered 1,714,356 new motor vehicles, a 13.4% increase from the previous year. Ontario recorded the highest number of new registrations at 677,043, followed by Quebec with 414,897, and British Columbia with 210,666. Notably, Prince Edward Island experienced the largest percentage increase in new registrations at 19.5%.

Public Transit

Urban transit systems across Canada continued to recover in 2024. For the full year, Canadians took approximately 1.6 billion trips on public transit—an increase from 1.5 billion in 2023 and representing 84.2% of pre-pandemic levels. Operating revenues for transit agencies improved significantly. In December 2024, revenues rose by 25.5% over the same month in 2023. Increased fares or per-trip costs are likely what drove revenues to 2019 levels despite lower ridership.

Competitiveness and efficiency

Trucking

Three of Canada's top 10 carriers underwent significant merger and acquisition activities in 2024, reflecting ongoing consolidation in the trucking sector, as companies aimed to expand their services and market presence while reducing overhead costs.

When it comes to labour, the trucking industry saw a notable decrease in driver vacancies. In the second quarter of 2024, vacancies dropped by 36% year over year, reducing the number of unfilled positions to roughly 15,460. Targeted recruitment efforts, coupled with increased wages (\$27.10 an hour average in 2024 versus \$24.05 in 2021) contributed to this improvement. Despite these gains, the industry continues to face an aging workforce and difficulty attracting younger drivers, which challenge its long-term sustainability.



Figure 13 Monthly Travel Time Index for Vancouver,



Figure 12: Monthly Travel Time Index for Montreal,





Figure 14 Monthly Travel Time Index for Calgary, Alberta, by Afternoon Peak Period

Urban mobility

The long-lasting impact of COVID-19 pandemic has reshaped commuting behaviour in Canada, with continued remote work reducing peak-hour traffic and shifting travel patterns. In 2024, road congestion levels varied across urban areas. In Montreal, traffic congestion remained above pre-pandemic levels last year, with the average 2024 traffic congestion level being 9% higher than 2019. In Calgary, traffic congestion has been mostly below pre-pandemic levels in 2024, with the average traffic congestion level being 9% lower than 2019. In Toronto and Vancouver, traffic congestion has been steadily

below pre-pandemic levels (being respectively down 22% and 17% on average). These levels are measured as part of the Time Travel Index (TTI)²¹, which is the ratio of the measured travel time to the free-flow travel time. Free-flow travel time is measured overnight, when drivers are free to drive at their desired speed because of low volume traffic conditions.

Road safety and security

There has been a <u>significant downward trend</u> in motor vehicle casualties for decades in Canada. Since their peak in the mid-1970s, deaths have decreased by over two-thirds while serious injuries have dropped by over 60%, even though the number of vehicles and kilometres driven by Canadians have increased significantly.

In 2022, deaths from road collisions were around 1% lower compared to 2013, despite significant growth in the number of licensed drivers, vehicles registered, and vehicle kilometers driven. Canada's death rate per 10,000 registered motor vehicles was 0.73 in 2022. This rate has been relatively stable in recent years and is significantly lower (-14%) than a decade earlier (2013)²².

Transport Canada plays a central role in improving road safety and protecting Canadians from evolving vehicle-related risks. In 2024, we aimed to reduce road collisions by improving the regulations for school bus safety, which was published in the *Canada Gazette*, Part II. We also funded 35 projects under the <u>Enhanced Road Safety Transfer Payment Program</u> that advance road safety innovation from 2024-26. These projects will support nationally consistent road safety objectives (for example: measures to address impaired and distracted driving, safe use of new vehicle technologies).

We also supported vehicle safety innovation by contributing to the <u>international guidelines for automated driving system</u> <u>safety</u>, and through testing new safety technologies at its Motor Vehicle Test Centre.

Green Transportation

Zero-Emission vehicles

Canada's light-duty zero-emission vehicle (ZEV) market made significant progress in 2024, reaching 15.4% of new market share, continuing a steady rise from previous years. Medium- and heavy-duty ZEVs accounted for 1.4% of new market share, a slight decline from 1.9% in 2023, due in part to the temporary suspension of Quebec's incentive program. Quebec remains Canada's leading province for ZEV registrations.

Starting on October 1, 2024, only vehicles manufactured in countries that have a free trade agreement with Canada were eligible for both the incentives for Zero-Emission Vehicles Program (iZEV) and the incentives for Medium- and Heavy-Duty Vehicles Program (iMHZEV) to align with new tariffs on Chinese-made electric vehicles.

The iZEV Program was paused in early 2025 as its remaining funding was exhausted earlier than expected and ended on March 31, 2025.

²¹ Source: <u>https://www150.statcan.qc.ca/n1/en/catalogue/23260001</u>

²² Source: <u>https://tc.canada.ca/en/road-transportation/statistics-data/canadian-motor-vehicle-traffic-collision-statistics-2022</u>

Trends & Outlook

Technology

In 2024, Canada's transportation sector continued to evolve in response to shifting consumer expectations, emerging technologies, and environmental priorities. From a surge in the use of electric vehicles to the growing use of drones for delivery and inspection, transportation modes across the country continued to innovate and adapt. These trends highlight how Canadians are moving—and how the systems that move goods and people are being reimagined in real time.

The use of drones expanded significantly in 2024. Transport Canada's Drone Strategy to 2025 emphasized integrating drones into the national airspace, focusing on safety, innovation, and growing the economy. Work included advancing beyond visual line-of-sight (BVLOS) operations and developing traffic management systems to manage more drone activity.

We also made a great deal of progress in researching and testing connected and automated vehicles (CAVs). Institutions like McMaster University's Centre for Automotive Research continued exploring vehicle-to-everything (V2X) communication systems and autonomous driving technologies. These developments will improve road safety and mobility and align with Transport Canada's vision for integrating connected and automated vehicles into the transportation network.

Policy Initiatives

Air policy initiatives

Pre-load Air Cargo Targeting (PACT) System

In 2024, Transport Canada launched the PACT system. The system uses machine learning to detect risks in air cargo shipment data and makes transporting air cargo more secure. Air carrier information is analyzed ahead of time and high-risk air cargo shipments can be reviewed before they arrive in Canada. This added digital security layer has reduced security-related cargo risks, supported economic resiliency, and boosted public confidence in Canada's air cargo system.

Air Right Touch

In 2024, the Air Right Touch Initiative worked with industry partners to make air travel more efficient and secure by supporting projects with airlines, airports and CATSA to test facial recognition and digital credential technologies. This initiative allowed Canadians to voluntarily provide their identity using secure digital credentials on mobile devices to enable faster, more efficient and secure passenger processing at Canadian airports.

Advanced air mobility (AAM)

Advanced air mobility has the potential to boost economic growth, create jobs, improve access for remote regions, and support environmental sustainability. To support future operations, we created an internal AAM Integration Team in 2024 to coordinate efforts across departments and provide a single point of contact for industry. Canada also supported international harmonization through the International Civil Aviation Organization's AAM Study Group.

Accessible transportation

The government is committed to achieving a Canada without barriers by 2040, including inclusive and accessible transportation systems. Despite significant work on regulations, barriers persist, especially in air travel. To this end, Canada held the first <u>National Air Accessibility Summit</u> in 2024, bringing together the air sector, disability community, and Indigenous partners. The summit led to key commitments to improve air travel for persons with disabilities, including exploring seamless travel strategies, streamlining processes with standardized medical forms and improving data sharing with government officials.

Marine policy initiatives

Oceans Protection Plan

In 2024, we continued implementing the <u>Oceans Protection Plan</u> to improve marine safety, protect the environment, and respond to emergencies. For example, in 2024, the National Aerial Surveillance Program did 466 hours of surveillance in the Arctic, which helped oversee marine safety and enforce Canada's environmental protection measures.

In 2024, proposed amendments to the Environmental Response Regulations were pre-published in the <u>Canada Gazette</u>, <u>Part I</u>. The updates will help improve how certified response organizations and oil handling facilities prepare for, and respond to, oil spills.

The Safety Equipment and Basic Marine Infrastructure in Northern Communities initiative completed 2 projects in the Northwest Territories, resulting in 6 communities now being served by double-hulled barges and one with an upgraded petroleum resupply pipeline. This work improved the safety and efficiency of sealift operations and essential goods delivery to remote Northern communities.

Indigenous partnerships and marine training

In 2024, the <u>Western Arctic Marine Training Consortium</u> was launched and its first cohort of students graduated in April, with funding support from Transport Canada. Since 2018, more than 1,260 people from underrepresented groups, including Indigenous peoples, have graduated from marine training programs across Canada, with over 930 finding jobs in the marine sector.

Protecting marine mammals

Transport Canada continued to focus on reducing the impact of marine traffic on at-risk whale species. For the Southern Resident killer whale, vessel slowdown zones and interim sanctuary areas stayed in place in southern British Columbia. We also supported commercial vessel slowdowns and rerouting measures through the ECHO Program in coordination with the Vancouver Fraser Port Authority.

In the Gulf of St. Lawrence, vessel speed restrictions and routing measures were implemented to protect North Atlantic right whales. From April 17 to November 15, these measures were monitored using aerial surveillance, underwater acoustic gliders, and drones with thermal camera technologies. 99% of vessels complied with mandatory speed limits. In 2024, we also introduced voluntary slowdowns in the Bay of Fundy when whales were detected.

International collaboration on marine emissions

Throughout 2024, Canada worked with member states at the International Maritime Organization to help implement the 2023 Greenhouse Gas Strategy.

In a key development, the organization adopted Canada's proposal to create an Emissions Control Area (ECA) in the Canadian Arctic to reduce air pollutants from marine vessels. In parallel, Transport Canada began to engage with Inuit to explore approaches that minimize potential economic impacts while advancing environmental protection in Northern communities.

Rail policy initiatives

High-Speed Rail

Significant progress was made in 2024 on Canada's High-Speed Rail Initiative, which will provide fast, frequent, and reliable rail service in the Toronto-Quebec City Corridor. The network will span up to 1,000 km, and connect the cities of Toronto, Peterborough, Ottawa, Montreal, Laval, Trois-Rivières and Quebec City. The Initiative's multi-year Procurement Phase to identify a private developer partner to jointly design and develop the project with Alto (formerly VIA HFR) entered its final steps with the end of the Request for Proposals phase on July 24, 2024.

This milestone was followed by the evaluation of bid submissions from three consortia with expertise in the design, development, and operation of large-scale transportation infrastructure. The successful completion of the procurement phase sets the stage for the next phase of the project, and the co-development phase will be launched in 2025. While the role of Project Authority will pass to Alto at the end of the procurement phase, Transport Canada will continue to enable, oversee and coordinate the project to ensure that regulatory, technical, and stakeholder considerations continue to be met during the co-development phase.

Road policy initiatives

Fighting auto theft

Vehicle theft continued to rise in 2024, with organized crime groups increasingly involved. The Canada Border Services Agency intercepted 2,277 stolen vehicles in railyards and ports in 2024, which was over 25% more than in 2023. In February, the Government of Canada hosted a National Summit on Combatting Auto Theft to strengthen collaboration across governments, industry, and law enforcement. A <u>National Action Plan</u> was released in May outlining key federal and partner actions.

Transport Canada committed to modernizing the *Canada Motor Vehicle Safety Standards* to address new theft prevention technologies. We held a public consultation and published a <u>What We Heard Report</u> in December 2024. We're now consulting with industry groups to help shape future updates to regulations.

We also completed targeted port security assessments at high-risk container facilities to detect and address vulnerabilities in vehicle export routes. Security plan updates are now in progress, with follow-up inspections planned for 2025.

To spur innovation, we sponsored the Vehicle Theft Prevention Challenge in collaboration with Public Safety Canada and the RCMP. Under this initiative, 88 proposals were submitted, and 8 were chosen for Phase 1 funding of \$150,000 each to develop affordable aftermarket theft prevention technologies.

We also worked with provinces and territories to address fraudulent vehicle registrations, or "ReVINing." Discussions focused on improving data sharing through expanded use of the Interprovincial Record Exchange.

Transportation of dangerous goods policy initiatives

CANUTEC (the Canadian Transport Emergency Centre) continued operating its national advisory service. This service helps emergency responders handle dangerous goods emergencies 24/7.

CANUTEC also released the 2024 edition of the <u>Emergency Response Guidebook</u>, which is used during incidents that involve dangerous goods on highways or rail lines. The guidebook continued to help first responders identify hazards based on the material involved to protect themselves and the public when responding to an incident.

In 2024, the Transportation of Dangerous Goods (TDG) Program's 94 inspectors did more than 4,200 inspections. These led to nearly 6,200 enforcement actions and reduction measures to enhance regulatory compliance and address safety concerns.

To provide broader context on safety trends, the following figure compares recent dangerous goods incident numbers with national economic activity:

The TDG Program continues to update safety standards and promote the Means of Containment (MOC) facility registration program to ensure the safe transport of dangerous goods using standardized containment systems, with roughly 1,890 active facility registrations. The program also made progress on several key regulatory and legislative initiatives to enhance knowledge of dangerous goods activities and improve oversight tools for assessing and addressing emerging risks. Research supported evidence-based decision-making, including



regulatory reviews for bulk ammonia transport by rail, marine transport of energy storage systems, and safety modelling for tank car marshalling and the performance of portable tanks for liquefied natural gas.

In November 2020, the Commissioner for the Environment and Sustainable Development released a follow-up audit of the Transportation of Dangerous Goods Program and Canada Energy Regulators. In response, the TDG Program committed to addressing the audit's findings through a management action plan that will track progress. In 2024, the program successfully addressed the one remaining audit finding, thereby fulfilling 5 of 5 recommendations outlined in the plan.

In accordance with the requirements set out by the *Transportation of Dangerous Goods Regulations*, the program continued to promote the Emergency Response Assistance Plan (ERAP) program to improve response capabilities for incidents involving dangerous goods, and where applicable, national security threats.

National Supply Chain Office

The <u>National Supply Chain Office</u> (the Office) was created in December 2023 to work with private and public sector partners to make Canada's supply chains more efficient, fluid, resilient and reliable. The Office continued to engage constantly with industry and other levels of government to keep goods flowing quickly and reliably. It supported improved

industry coordination and information sharing before, including during times of disruption. This included working groups focused on specific challenges and issues, as well as broad engagement, such as the National Supply Chain Forum held on June 21, 2024. The Office also helped share information among key players to keep goods and critical supplies moving during critical disruptions, like the Jasper wildfires. The Office also supported practical, on-the-ground improvements, including pilot projects to address port bottlenecks and efforts to enhance digital tools and data-sharing across the supply chain network to lay the groundwork for a stronger, more economically resilient and agile supply chain network across Canada.

Demand & Outlook

Air travelers

In the short term, international air travel is expected to grow, mostly driven by strong demand for leisure travel. However, this outlook is tempered by several emerging risks, including geopolitical instability, economic uncertainty in both Canada and the U.S, a weaker Canadian dollar, and ongoing industry capacity constraints.

Risks and opportunities

Over the longer term, air travel is projected to return to its pre-pandemic growth trajectory, supported by rising economic activity, population growth, and higher income levels. At the same time, industry strategies will increasingly be shaped by sustainability objectives, the adoption of AI tools for travel planning, concerns around overtourism, and the evolving global geopolitical landscape.

Freight

Short-term outlook

The demand outlook for freight transportation services is derived from the outlook for the supply and use of goods in Canada. Over the next two years, global and Canadian economic activity is expected to slow as the direct impact of U.S. tariffs weighs on the outlook for industries subjected to tariffs (steel, aluminum, autos, etc.). General economic activity is also expected to slow, as economic uncertainty drives firms to defer investment and hiring decisions, and households postpone spending.

These factors will likely result in weakened rail and truck activity over the U.S. border and a slowing of Great Lakes shipping with U.S. ports. The impact of this will be felt the greatest in the Ontario-Quebec region, where most tariffed goods are traded. Nonetheless, all regions will experience a slowdown in transportation as cooling economic conditions will see spillover effects into all commodities.

Long-term outlook

Over the long term, global economic growth is expected to continue, creating sustained demand for trade and transportation. Emerging markets in Asia, Africa, and the Middle East are projected to become key drivers of global growth, supported by rapid population increases and expanding industrial activity. This growth will likely result in increased demand for Canadian agricultural exports and natural resources, including critical minerals and energy products. At the same time, these regions are expected to become more prominent sources of Canadian merchandise imports.

Traditional trading partners—such as the United States, the European Union, and other advanced economies—will remain Canada's primary markets. However, new demand will emerge as these economies accelerate decarbonization and aim to secure access to key materials, particularly those related to clean energy and advanced manufacturing. Canada's resource base and stable trade environment position it to meet these evolving needs.

Domestically, long-term growth in sectors such as agriculture, resource extraction, and clean energy is expected to support increased production and exports. Planned developments, including new critical mineral mines and clean energy projects, may further stimulate demand for transportation across multiple modes.

Transportation demand is projected to grow by approximately 2% annually in line with economic activity. Regional trends include:

- Western Canada: Expected growth of 3%–5% annually in rail and port corridors, driven by strong Asian demand for grain, potash, LNG, and hydrogen.
- Central Canada: Steady urban trucking demand (around 2% annually) supported by manufacturing, alongside rural infrastructure needs tied to mineral development. Emerging rail connections to Mexico may support further trade diversification.
- Eastern Canada: Moderate growth (1%–2% annually) in transportation volumes, with Eastern ports positioned to absorb more containerized trade and facilitate critical mineral and hydrogen exports if major projects proceed.

Figure 16: Transportation Demand Growth 2024-2034		
High	Moderate	Low
Fertilizer	Consumer goods	Pulp and paper
Grain and Oilseeds	Construction metals and materials	Wood products
Critical minerals	Steel making coal	Domestic use refined fuels
Hydrogen, hydrogen feedstock, export liquified natural gas	Automotives	Crude oil
Source: Internal Transport Canada demand outlook model		

Risks and opportunities

While long-term growth prospects are positive, Canada's transportation system will be shaped by several complex and evolving risks:

- Geopolitical instability, such as regional conflicts or trade disputes, has the potential to disrupt global shipping routes and commodity flows.
- Climate change is contributing to more frequent and severe weather events, including wildfires, flooding, and droughts that can damage infrastructure and impair transportation corridors.
- Technological disruption, including the rapid adoption of automation, artificial intelligence, and low-carbon technologies, may outpace regulatory frameworks and infrastructure readiness, creating transitional challenges.

These risks could lead to unpredictable shifts in trade flows and shipping volumes, placing stress on existing infrastructure and highlighting the need for greater system flexibility and redundancy. In some cases, supply chains may need to be realigned, and infrastructure may require adaptation to maintain reliability and efficiency.

At the same time, these challenges present strategic opportunities:

- Canada may strengthen its role as a reliable trade partner in a volatile global environment, offering stability, strong governance, and access to key resources.
- Efforts to decarbonize global supply chains could increase international demand for Canadian clean energy, critical minerals, and environmentally sustainable transportation practices.
- Investments in resilient and adaptive infrastructure can position Canada to better respond to disruptions and capitalize on new trade routes and markets.

Maintaining a high-performing and responsive transportation system will be essential to realizing these opportunities and managing emerging risks. Enhanced coordination, data-driven planning, and ongoing infrastructure investment will be central to supporting Canada's economic resilience in the years ahead.

Conclusion

In 2024, Canada's transportation system faced its share of challenges—from wildfires and cyber disruptions to labour disputes and global instability. Yet, through it all, the network remained resilient. Goods and people continued to reach their intended destinations and Canada's economy stayed connected at home and abroad. Passenger travel grew, cargo volumes increased, and greenhouse gas emissions from transportation stayed below pre-pandemic levels—clear signs of progress in a complex world.

Throughout the year, important steps were taken to modernize and innovate to improve the Canadian transportation system. There was progress on projects like high-speed rail in the Québec City–Toronto corridor, new technologies were tested to improve airport security and cargo screening, and TC worked to make transportation more accessible for people with disabilities. TC also supported cleaner and more efficient ways to move people and goods through electric vehicle programs and green shipping corridors.

As we look to 2025, there is a lot to build on. TC will keep working to improve public transit, modernize infrastructure, strengthen safety and security, and expand access to cleaner transportation options. With more investment, better coordination, and smart use of technology, Canada's transportation system is ready to meet the needs of a growing population and a changing world.

A safe, reliable, and sustainable transportation network is not just about moving from point A to B—it is about connecting people, supporting communities, and helping Canada thrive. The work we did in 2024 laid a strong foundation for the road ahead in 2025.