



# TRANSPORT CANADA

Departmental Results Report  
2020-21



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2020–21  
Departmental Results Report

**Transport Canada**

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The Honourable Omar Alghabra, MP  
Minister of Transport

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Ottawa, Canada

Catalogue No. T1-28E-PDF

ISSN 2561-1615

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## From the Minister



The 2020-21 fiscal year will be regarded as one of the more complex and challenging times in our recent history. Despite the adversities we faced from the COVID-19 pandemic, Canadians have continued to demonstrate remarkable resilience and a steadfast resolve to prevail against this global challenge. By March 2021, our country had endured a full year of significant changes to our work and social lives, the likes of which no one could have previously predicted. Yet, despite these unprecedented conditions, our department continued to ensure the safe and steady movement of citizens and goods across the country; protected public health; supported a strong economic recovery; promoted a cleaner environment and stood up for fairness and equality.

To ensure the continued safety and security of our transportation system and the resilience of our economy, Transport Canada implemented essential health measures such as requiring

masks on aircraft and mandating the vaccination of transportation workers and travellers. We also worked closely with the transportation industry to help minimize the financial and operational impact of the pandemic on Canadian companies, employees, and consumers.

Transport Canada remains focused on its commitments towards reconciliation. We provided essential funding for Indigenous communities to participate in the design and delivery of our national transportation priorities. We invested in learning opportunities to help our employees better understand Indigenous Peoples' history, culture, and traditions, ensuring that Indigenous considerations are fundamental in the development of our policies and programs. There is no relationship more important to the Government of Canada than the one we have with Indigenous Peoples, and I acknowledge that although we continue to progress in this regard, there remains much to be accomplished.

Significant investments were made to strengthen our National Trade Corridors and the fluidity of Canada's transportation network, including the development of a new trade and transportation information system. We advanced our proposal to create a High Frequency Rail system in the Toronto-Ottawa-Montreal-Quebec City corridor, in collaboration with VIA Rail and the Canada Infrastructure Bank. We amended the *Canada Transportation Act* to promote innovation in transportation through increased

research and development, while updates to the *Motor Vehicle Safety Regulations* has paved the way for more informed testing of connected and automated vehicles.

Transport Canada continues to focus on the reduction of greenhouse gas and air pollution emissions in the transportation sector by advancing initiatives like the Zero-Emission Vehicles program, resulting in increased electric vehicle sales throughout Canada. We continue to build on the foundation of the Pan-Canadian Framework on Clean Growth and Climate Change, to further accelerate emission reductions as part of Canada's commitment to a Strengthened Climate Plan; A Healthy Environment; and a Healthy Economy. These measures combined with several other green initiatives like Transport Canada's Sustainable Development Strategy have reduced climate risks and increased our ability to adapt to the impacts of climate change.

The department launched the Oversight Modernization initiative to improve risk-based decision making through the implementation of innovative technologies that help ensure the diligent application of transportation regulations in a manner that supports areas of rapid economic growth such as the drone industry. We also refined the rules that ensure the vigilant movement of dangerous goods on our roads and railways.

Through the Oceans Protection Plan (OPP), the Government of Canada collaborated with Indigenous peoples to deliver on the country's largest ever investment in the protection of our coasts and waterways for today and future generations. The OPP initiative has improved marine safety and further protected marine mammals such as North Atlantic right whales from shipping and pollution hazards. In partnership with marine stakeholders, we established the Seafarer's Welfare Board which is focused on providing maritime workers with improved access to recreational, cultural, and medical services, as well as essential shore-based facilities.

This Departmental Results Report provides an opportunity to reflect on our accomplishments in 2020-21, which were achieved in the face of adversity resulting from the pandemic. This document alone cannot convey the full scope of our achievements at Transport Canada; however, it provides essential insight into our collective results.

I am very proud to be the Minister of Transport, and to have the opportunity to work closely with its dedicated people located across the country.

I would like to offer my sincere thanks to all those who strive each day to ensure our country's transportation system is safe, secure, green, and efficient for all Canadians.

The Honourable Omar Alhabra, P.C., M.P.

Minister of Transport

## Results at a glance

For more information on the Transport Canada's plans, priorities and results achieved, see the "Results: what we achieved" section of this report.

### Priority 1: Improve the performance and reliability of Canada's transportation system to get products to market and grow our economy

#### For this priority we:

- Invested in Canada's trade corridors to improve the access to global market for Canadian goods, by:
  - supporting projects through the [National Trade Corridors Fund](#)<sup>ii</sup>, to date TC has announced 96 projects and committed more than \$2.1 billion to marine, air, rail and road projects
  - developing multi-stakeholder supply chain visibility projects in Western Canada and Ontario
  - working with the [Canada Infrastructure Bank](#)<sup>iii</sup> on the Canada's Arctic and Northern Policy Framework
- Developed a travel time index to measure urban congestion in major Canadian cities and, in partnership with Statistics Canada, developed the Transportation Data and Information Hub as an authoritative source of data and information about the sector.
- Completed research and analysis as part of the St. Lawrence Seaway Review to support the Seaway's long-term competitiveness and sustainability strategy.
- Launched consultations on a regulatory proposal to amend the [Transportation Information Regulations](#)<sup>iv</sup> to collect data from Class 1 rail carriers.
- Supported supply chains, and the health and safety of essential road transportation workers against the ill effects of the COVID-19 pandemic.
- Continued with progressive amendments to *Fishing Vessel Safety Regulations* to improve vessels operations in Canadian waters. Marked improvements to support the safety of the marine industry through updated construction and safety requirements for fishing vessels. Many virtual consultations with key stakeholders were held despite the COVID-19 pandemic, which allowed the department to continue developing this important regulatory proposal.

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## Priority 2: Provide greater choice, better service, lower costs and enhanced rights for consumers

### For this priority, we:

- Worked with the Joint Project Office to assess the proposal to create [High Frequency Rail](#)<sup>v</sup> in the Toronto-Quebec City Corridor.
- Established Phase I of the [Air Travel Performance Data Regulations](#)<sup>vi</sup> to measure how effective the [Air Passenger Protection Regulations](#)<sup>vii</sup> are at improving the air travel experience.
- Worked with partners to make the transportation system more accessible for persons with disabilities by:
  - working with the Canadian Transportation Agency to ensure the [Accessible Transportation for Persons with Disabilities Regulations](#)<sup>viii</sup> are enforced
  - finalizing the [Accessible Transportation Planning and Reporting Regulations](#)<sup>ix</sup>
  - advancing the accessible transportation mandates of the [Canada Transportation Act](#)<sup>x</sup> and the [Accessible Canada Act](#)<sup>xi</sup>
  - working with national and international partners to promote accessibility in aviation
- Monitored the 2019 merger of First Air and Canadian North to ensure: air travel in the North is fair and affordable, capacity is maintained and improved as needed, and northern travellers receive a high level of service.

## Priority 3: Build world-leading marine corridors that are competitive, safe and environmentally sustainable, and enhance Northern transportation infrastructure, while respecting commitments to Indigenous communities

### For this priority, we:

- Worked with Canadians and Indigenous Peoples through the Government of Canada's \$1.5 billion [Oceans Protection Plan](#)<sup>xii</sup>. Detailed accomplishments related to the Oceans Protection Plan can be found in the [Report to Canadians](#)<sup>xiii</sup>. Key achievements include:
  - improving prevention and response time to marine pollution incidents, increasing on-water presence and response capacity, rapid enablement of science-based response in the event of a spill and expanding the role of the Canadian Coast Guard Auxiliary

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- working to preserve and restore coastal marine ecosystems vulnerable to marine shipping. This included protecting Canada’s whale populations, removing [abandoned boats](#)<sup>xiv</sup>, and restoring coastal ecosystems
  - partnering with Indigenous Peoples across the country to improve our marine safety system. As of March 31, 2021, we have held over 1,600 engagement sessions, 1,200 of which with Indigenous groups, to modernize marine safety and environmental protection in Canada
  - investing in scientific research and technology to better prevent and respond to ship-source oil spills, while increasing our understanding of how to protect coastal ecosystem
  - Established a National Community of practice for responding to marine incidents, conducted a review of lessons learned and prepared an After Action Report to improve our response to marine incidents by making sure we use the best procedures and plans.
  - Used the [Wrecked, Abandoned or Hazardous Vessels Act](#)<sup>xv</sup> to address 172 wrecked, abandoned or hazardous vessels.
  - Developed, refined and took steps to protect whales from vessel traffic on Canada’s coasts.
  - Modernized the [National Aerial Surveillance Program's](#)<sup>xvi</sup> aircraft with new maritime surveillance equipment, to enhance monitoring efforts for the deterrence of oil spills and protection of marine mammals. The Program flew 304 hours for the North Atlantic right whale monitoring.
  - Supported trade and transportation infrastructure in Arctic and Northern communities by:
    - collaborating with partners on implementing the [Arctic and Northern Policy Framework](#)<sup>xvii</sup> to improve socio-economic opportunities for Northerners
    - creating a process to assess new policies, programs and regulations through an Arctic and Northern lens to help make sure that northern realities are considered
    - launching the National Trade Corridors Fund Arctic and Northern call for proposals to distribute \$400 million in funding from Budget 2019 to Canada’s Arctic and northern regions. This call closed in March 2021, with announcements of funding decisions expected in 2021-22

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## Priority 4: Build a safer and more secure transportation system that Canadians trust

### For this priority, we:

- [Reported](#)<sup>xviii</sup> publicly our work overseeing the safety and security of the transportation sector.
- Continued to [publish](#)<sup>xix</sup> enforcement data via the Enforcement Actions Summary on the department's website (via Statistics Canada).
- Continued to work with partners to monitor the impacts of drugs and alcohol in the transportation system. Developed effective enforcement and intervention strategies to align with the comprehensive review that confirmed TC's regulatory framework includes provisions prohibit transportation workers in safety-sensitive positions from working if they are impaired.
- Published updated [Duty and Rest Period Rules for Railway Operating Employees](#)<sup>xx</sup> which set the length of duty period, total work hours, rest periods, time away from work, and fatigue management plans to reduce the chance of rail accidents due to operator fatigue.
- Approved changes to the [Rules Respecting Key Trains and Key Routes](#)<sup>xxi</sup> to address important risk factors for derailments caused by railway infrastructure, especially during winter operations.
- Worked with the rail industry to update the [Rules Respecting Track Safety](#)<sup>xxii</sup> which explain the safety requirements that railway companies must follow when inspecting and maintaining their railway tracks.
- Renewed Inspection Services Agreements with Nova Scotia, New Brunswick, Newfoundland and Labrador, Quebec and Manitoba.
- Finalized the [Locomotive Voice and Video Recorder Regulations](#)<sup>xxiii</sup> which requires rail companies to install recording devices on board their locomotives by September 2, 2022.
- Registered and implemented the [Passenger Rail Transportation Security Regulations](#)<sup>xxiv</sup>.
- Reviewed the interdepartmental Marine Security Operations Centre initiative which was created as part of Canada's National Security Policy. Findings and recommendations from the Review were shared with the Marine Security Operations Centre's partners.
- Continued to work with multiple domestic and international maritime security partners to better understand and respond to maritime security threats and share best practices.

- Integrated and modernized key [Transportation of Dangerous Goods Regulations](#)<sup>xxv</sup> databases into one core system. Developed functionality of a new internal oversight system for a summer 2021 rollout. The new system, called the Regulatory Oversight Management (ROM) application, will: support risk-based decision making for interventions regarding safety, and monitor regulatory compliance across the country.
- Worked with stakeholders to develop safety and cyber security guidance, policy, and non-regulatory tools to support research, testing and deployment of connected and automated vehicles.
- Created measures to ensure air travel safety and security for Canadians during the pandemic and, supported the continuity of supply chains, and the health and safety of essential road transportation workers.
- Improved navigation safety for small vessels by:
  - printing and distributing the Sharing the Waterways Brochure for Recreational Boating
  - printing and distributing the Safe Boating Guide
  - posting safe navigation messages on social media
  - printing the French Safe Boating Guide within the Nautique Guide in Quebec
  - printing and distributing the Sharing the Waterways Brochure – Commercial Vessel
  - printing and distributing the Small Commercial Vessel Safety Guide
  - mailing copies of the Small Commercial Vessel Safety Guide and Sharing the Waterways Brochure with every new vessel registration
  - printing and distributing the Sharing the Waterways Brochure – Fishing Vessel

## **Priority 5: Reduce environmental impacts and embrace new technologies to improve Canadians' lives**

### **For this priority, we:**

- Supported government priorities under the [Pan-Canadian Framework on Clean Growth and Climate Change](#)<sup>xxvi</sup> by:
  - developing the Phase I report under the Federal-Provincial-Territorial Task Force on after-market fuel-saving technology for heavy-duty vehicles

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- finalizing the roll-out of the International Civil Aviation Organization’s Carbon Offsetting and Reduction Scheme for International Aviation into Canadian domestic regulations
  - finalizing the roll-out of the CO2 Emissions Standard for airplanes into Canadian domestic regulations
  - Building on the foundation of the Pan-Canadian Framework on Clean Growth and Climate Change, developed new transportation commitments under Canada’s Strengthened Climate Plan to accelerate emission reduction efforts in all modes.
  - Continued delivering the [Incentives for Zero-emission vehicles](#)<sup>xxvii</sup> Program, and achieved the following:
    - in 2020-2021, 39,000 Canadians and Canadian businesses benefitted from the program
    - the iZEV program, along with actions undertaken by other federal departments and other levels of government, is helping to increase the market share of Canada’s Zero-emission vehicles. According to Transport Canada’s analysis of IHS Markit data, Canada’s Zero-emission vehicle market share of light-duty vehicles grew to 3.8% in 2020, up from 3.1% in 2019
  - Contributed to the Government’s national strategy on zero plastic waste by:
    - supporting discussions at the International Maritime Organization to develop a strategy to monitor the implementation of measures that will reduce marine plastic litter from ships
    - launching an Innovation Solutions Canada challenge to capture and remove microplastics from ship greywater discharge
    - awarding 2 grants, each with a value of \$1 million dollars, under the Innovation Solutions Canada program to help develop a prototype to recycle or reuse fiberglass
    - completing a study on Canada’s ability to dismantle and recycle ships, including ships made out of fiberglass
  - Amended the *Canada Transportation Act* to allow the Minister of Transport to grant exemptions from the requirements in any Transport Canada act or regulation to support transportation innovation. TC has developed a multimodal policy to support the consistent use of this new authority across the department.
  - Carried out several research projects through the Quiet Vessel Initiative to help develop quiet ship features to reduce underwater noise.
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- Provided vessel owners, operators, and designers with information intended to help reduce the impact of shipping on marine mammals and the marine environment. Some of the projects undertaken include:
  - evaluating the operational feasibility of a real-time cavitation monitoring tool
  - supporting research into a cost-effective and commercially available propeller cavitation monitoring system
  - supporting research that will provide data to inform the development of international standards for measuring underwater vessel noise in shallow water
- Continued efforts to prevent the introduction and spread of species through the ballast water of vessels by:
  - working towards finalizing new regulations in spring 2021 on the International Convention for the Control and Management of Ships' Ballast Water and Sediments by reviewing public comments and seeking additional scientific advice. The new regulations were [published](#)<sup>xxviii</sup> in June 2021
  - working with the United States on regulatory compatibility, including through public comments to the Environmental Protection Agency
  - completing 1,672 inspections to verify ballast water management, and finding 1,572 (94%) vessels complied
- Worked with other government departments on the proposed [International Maritime Organization's](#)<sup>xxix</sup> ban of the use of heavy fuel oil by ships in the Arctic.
- Supported the implementation of the [Trans Mountain Expansion Project](#)<sup>xxx</sup>, including delivery of accommodation measures and responses to the [Canada Energy Regulator's \(formerly National Energy Board\) recommendations](#)<sup>xxxi</sup>.
- Managed over 100 active projects to test and evaluate the safety and environmental performance of emerging technologies in the road, rail, marine, and multi-modal sectors. Key projects included:
  - launching Canada's first on-road cooperative truck platooning trial
  - supporting a fully automated (driverless) low-speed automated shuttle trial in the National Capital region
  - studying Canada's position, navigation and timing infrastructure, including its current and future ability to support driverless and automated vehicles
  - launching a project to develop guidance tools, materials and training resources to help improve Canada's transportation infrastructure authorities' cyber-security resilience

- helping to develop, test and deploy a novel hybrid-electric Canadian fishing vessel
- Launched pilot projects for a drone traffic management system and beyond-visual line-of-sight drone use.
- Supported other government departments through special approvals for drone use.
- Progressed considerably in the implementation of regulatory initiatives and other novel approaches outlined in the Transportation Sector Regulatory Review Roadmap, which includes the following:
  - updating the import-related sections of the Motor Vehicle Safety Regulations and publishing them in Canada Gazette, Part II in February 2020. This update made the regulations more flexible and helped reduce industry costs. Industry can now temporarily import connected and automated vehicles and other vehicle technologies to evaluate or test them for at least 1 year
  - updating the drone-related Canadian Aviation Regulations in 2 phases making the regulations more flexible, supporting innovation in the drone industry
  - aligning drone regulations between Transport Canada and the Federal Aviation Administration after the 2018 Declaration of Intent to work together on researching and developing drones
  - introducing 4 regulatory changes to modernize parts of the [Canadian Aviation Regulations<sup>xxxii</sup>](#) that deal with: [portable electronic devices<sup>xxxiii</sup>](#), [manuals<sup>xxxiv</sup>](#), [codifying exemptions<sup>xxxv</sup>](#), and [other amendments<sup>xxxvi</sup>](#)
  - working with industry to modernize the regulatory framework so air personnel in Canada have the right skills, tools, and competencies for their jobs
  - finalizing the new Navigation Safety Regulations, 2020. The consolidation and improvement of previous regulations resulted in key benefits, such as addressing navigation safety and radio communication networks into one comprehensive set of regulations and enabling stronger alignment with international requirements

## **Priority 6: Transform the design and delivery of programs and services to Canadians in order to adapt to a changing world**

### **For this priority, we:**

- Improved online service experience and increased the number of online services available, now accepting online payments for 80+ regulatory services.
- Used innovative, user-centric approaches to design priority programs and services, using data analytics and emerging technologies such as robotics, artificial intelligence, and virtual reality to transition to a more digital government.

- Continued to implement the requirements of the [Service Fees Act](#)<sup>xxxvii</sup> and modernize the management of fees.
- Implemented the [Marine Safety Fees Regulations](#)<sup>xxxviii</sup> to streamline existing regulations by consolidating marine fees and services into one comprehensive regulation.
- Launched Oversight Modernization, a series of initiatives designed to:
  - improve the collection and analysis of transportation data, which will enable the identification of current and emerging trends in the transportation system, and better align TC’s oversight activities with areas of higher risk
  - accelerate the transition to digital services and the modernization of oversight to reduce the compliance burden on industry while maintaining the safety and security of the transportation system
  - make better use of inspector talent and expertise by equipping our inspectorate with better tools and technologies
- Created an initiative to launch an Enterprise Data Integration Platform to support better data-driven decision making.
- Grew our ability to rapidly produce and share multimodal analytics to help better understand emerging risks.
- Worked with domestic and international partners to continue to facilitate the safe testing and eventual deployment of connected and automated (CAV) technologies. A range of legislative/regulatory and non-regulatory tools are in development to keep pace with emerging CAV technologies, subject to ongoing updates as technologies evolve to reduce barriers to innovation, program and service delivery, while ensuring the ongoing safety of road users. Used data to measure public risk in the transportation system to target oversight activities and measure outcomes more effectively.
- Created a dedicated [webpage](#)<sup>xxxix</sup> with information on connected and automated vehicle safety. The webpage features a variety of resources, including videos on how to use driver assistance features safely.
- Published guidance and tools to help industry safely test and deploy connected and automated vehicle technology, such as: Canada’s Vehicle Cyber Security Guidance<sup>xi</sup>, Canada’s Safety Framework for Automated and Connected Vehicles<sup>xli</sup>, and Safety Assessment for Automated Driving Systems in Canada<sup>xlii</sup>.
- Clarified regulatory requirements and guidance to support the industry’s ability to adopt emerging technologies.
- Continued to work closely with the United States to harmonize the standards on connected vehicles and reduce manufacturing costs.

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- Established a public-private Canadian Security Credential Management System Governance Committee to develop a Canada-United States interoperability policy framework published in fall 2021.
  - Introduced the Enhanced Road Safety Transfer Payment Program to help align Canadian jurisdictions on road safety and connected and automated vehicles and [announced 22 projects that focus on technology](#)<sup>xliii</sup> for impaired or distracted driving, commercial drivers, and technological innovation.
  - Introduced novel regulatory approaches in a variety of areas, including:
    - Drones: Transport Canada is working with industry to approve 2 drone test ranges in Foremost, Alberta and Alma, Quebec. These facilities provide a controlled operating environment for drone manufacturers and businesses to test the safety and reliability of the technology
    - Transportation of dangerous goods: The department is launching a regulatory sandbox to evaluate the feasibility of adopting electronic shipping documents for the shipment of dangerous goods in a safe testing environment. To date, 3 rail companies and 2 road companies are participating. Transport Canada is also conducting extensive research on the needs of first responders in emergency situations and how other countries use shipping documents. This includes testing the use of e-shipping documents in emergency scenarios in certain regions of Canada in 2021. This study will inform future updates to the *Transportation of Dangerous Goods Regulations* in 2022
    - Connected and automated vehicles: Transport Canada worked with specialists and funded research into truck platooning technology. This led to a [2020 technical report \(PDF, 2.3 MB\)](#)<sup>xliv</sup>

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## Results: what we achieved

### Core responsibility 1: Safe and Secure Transportation System

**Description:** Ensures a safe and secure transportation system in Canada through laws, regulations, policies, and oversight activities.

#### Results

In 2020-21, TC implemented several [measures to respond to the COVID-19 pandemic<sup>xlv</sup>](#) and ensure the safety of transportation industry workers and travelers, for example by [requiring travelers to have non-medical masks or face coverings<sup>xlvi</sup>](#). Notably in the air sector, TC applied specific [restrictions to international travel<sup>xlvii</sup>](#) and [required pre-departure testing<sup>xlviii</sup>](#) to reduce the incidence of air travel contributing to the spread of the virus. To protect our coastal and northern communities, TC announced measures for [cruise ships<sup>xlix</sup>](#) in Canada and [prohibited the majority of pleasure crafts from operating in the North<sup>l</sup>](#) to limit potential interactions with remote and vulnerable coastal communities in consideration of minimal health care infrastructure.

In continuance of its ongoing mandate, TC also accomplished several results despite the COVID-19 pandemic. For example, a new evidence-based decision-making process was designed and implemented to help assess current and emerging risks to Canadians. A Public Risk dashboard was created, which helps inform the development of risk profiles for transportation modes. By focusing on current and emerging risks, these tools will help guide risk-informed decision-making and resource allocation in Safety and Security.

The department improved its capacity with Regional Enforcement Units. The investigative capacity was boosted through training and development, as well as finalizing the organizational structures. With limited in-person training due to COVID-19, enforcement courses were refined, and advanced investigative-related training was tailored. Software was also acquired to support the management and reporting of investigation cases accurately. Lastly, partners continued to be engaged in oversight and monitoring strategies to mitigate the impacts of drugs and alcohol in the transportation workplace.

A number of reports concerning safety and security were also published. The Civil Aviation Medicine Directive on Substance Use was issued to provide direction on the assessment of substance use in Civil Aviation Medical Certificate applicants. A methodology was created to conduct roadside surveys used by Provinces and Territories to gain insight into substance use by commercial vehicle drivers. Also, an update to the Duty and Rest Period Rules for Railway Operating Employees was published on November 25, 2020. These new requirements set the length of duty period, total work hours, rest periods, time away from work, and fatigue management plans to reduce the chance of rail accidents due to operator fatigue.

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## Connected and automated vehicles

TC continued to develop modern, flexible, and innovative safety policies for new and emerging vehicle technologies. During the year, TC conducted research on what connected and automated vehicles mean for vulnerable populations in Canada, and a technical review of these vehicles helped contribute to the design of a flexible safety regime. The safety of these technologies, among all levels of government in Canada was improved by updating the Jurisdictional Guidelines for the Safe Testing and Deployment of Highly Automated Vehicles and setting collision investigation protocols. Several documents were also updated and developed, including:

- Canada's Safety Framework for Connected and Automated Vehicles<sup>li</sup>
- Process for Seeking Exemptions from Canada Motor Vehicle Safety Standards<sup>lii</sup>
- Guidelines for Testing Automated Driving Systems in Canada (update anticipated for publication 2021)
- Canada's Vehicle Cyber Security Guidance<sup>liii</sup> (published May 2020), which provides a set of technology-neutral guiding principles to support industry in strengthening their vehicle cyber resilience
- Canada's Vehicle Cyber Security Assessment Tool to support manufacturers in assessing the cyber security performance and resilience of their vehicles and vehicle components (planned publication in 2021)

The department collaborated with stakeholders and international working groups to advance automated vehicle technologies. A globally aligned safety requirement regimen was designed in conjunction with the Global Forum for Road Traffic Safety, the World Forum for the Harmonization of Vehicle Regulations, and numerous sub-working groups, such as the Informal Working Group on Validation Methods for Automated Driving (co-chaired by Canada). The department also advanced Canada's vehicle cyber security posture through consultations with stakeholders at all levels of government, industry, international partners, and academia. In February 2021, Canada hosted the virtual Vehicle Cyber Security Workshop.

## Road transportation

TC partnered with various federal organizations and road transportation industry stakeholders to implement measures supporting road transportation workers. As well, the department supported the ongoing development and implementation of Emergency Orders in Council amendments under the *Quarantine Act for land border measures*. A core definition of essential transportation workers was established to include commercial truck drivers. A template employment confirmation letter was developed to support the national and international movement of essential road transportation workers and established a temporary Targeted Essential Freight Transport Exemption template to support exemptions related to COVID-19 under the *Commercial Vehicle Drivers Hours of Service Regulations*. TC also actively supported the Public Health Agency of Canada and the Alberta International COVID-19 Border Testing Pilot

Program. Lastly, guidance documents and tools to help limit the spread of COVID-19 in commercial road transportation were introduced regarding the use of personal protective equipment. This guidance included the use of face covering by commercial vehicle drivers and motor carrier, and the installation of bus driver shields or enclosure systems on intercommunity bus passengers and school buses.

During the year, public consultations on the Let's Talk Transportation platform were held on four groups of potential regulatory amendments (Administrative Monetary Penalties, Information Gathering, VIN Lookup, and Exemptions Labelling). In February 2020, a Class 1 Driver entry-level training standard was approved nationally by the Council of Ministers responsible for transportation and highway safety, specifically the National Safety Code 16 – NSC 16, Commercial Truck Driver Entry Level Training. This training was adapted for COVID-19, and in February 2021 was approved for non-classroom training. A harmonized technical standard for electronic logging devices of driving hours on commercial vehicles was implemented, and a governance structure for the National Safety Code was developed and updated, in collaboration with the Canadian Council of Motor Transport Administrators. Also, TC assessed measures identified by the Task Force on School Bus Safety. Pilot projects, such as the use of three-point seatbelts, were launched in September 2020 in British Columbia and Ontario. The program will continue into 2022 to ensure adequate data collection.

### **Rail transportation**

In 2020-21, TC offered 4 rail safety education and awareness initiatives that focused on reducing injuries and fatalities across communities. This included offering 20 training sessions and issuing 183 training certificates for the Incident Command System and 140 for the Emergency Operations Centre. A modern service model was developed for the Transportation Security Clearance Program to improve system effectiveness and efficiency, and a Personnel Management Tool for managing staffing needs during an emergency. Employees with specific qualifications can be recruited quickly and mobilized to fill various Incident Command System positions as part of TC's Incident Management System.

The *Passenger Rail Transportation Security Regulations* were partially implemented and will come into force in early 2022. In 2020-21, TC developed and issued new program documentation and risking methodology to stakeholders, to facilitate planning inspection activities based on high-risk regulated companies. The reporting system used by the inspectorate was improved, and internal program documentation to help oversee both sets of regulations was developed and shared.

### **Transportation of dangerous goods**

In 2020-21, the transportation of dangerous goods continued to be a priority for TC. An action plan was developed to better identify the level of compliance for transporting dangerous goods in Canada through access to provincial and territorial compliance data for road shipments, which will be supported by a national registry of regulated entities. As well, TC created an action plan to guide ongoing activities in response to an audit of

the Transportation of Dangerous Goods Program by the Commissioner for the Environment and Sustainable Development and the National Energy Board. The “You’re Not Alone!” tool was developed to help first responders plan and respond to dangerous goods incidents, including 3 worksheets that can be customized based on local needs, and introduced new fees and service standards for the Transportation of Dangerous Goods Means of Containment Facilities Registration Program.

Policies were developed to anticipate and respond to issues, such as allowing early and meaningful consultations with stakeholders, supporting harmonization with international codes, and helping the program adapt alongside industry, enhance capacity, and strengthen regulatory frameworks. TC updated Part 6 of the *Transportation of Dangerous Goods by Rail Security Regulations* and developed and implemented an oversight program, as well as published training standards. This will ensure alignment with the most recent changes in the United Nations recommendations on the Transportation of Dangerous Goods, the International Civil Aviation Organization’s (ICAO) Technical Instructions, the International Maritime Organization’s Dangerous Goods Code, 21<sup>st</sup> Revised Edition Model Regulations, reducing the compliance burden on the industry, and reducing compliance regulatory barriers on cross-border trade with the United States. Also, TC developed safety standards for means of containment, including tank cars, highway tanks, intermediate bulk containers and cylinders with the safety standards references in [Part 5 of the Transportation of Dangerous Goods Regulations](#)<sup>iv</sup>, aligning Canada’s standards with international ones, such as United Nations model regulations or the Hazardous Materials Safety Administration standards, and publishing updated safety standards every 5 years.

During the year, TC made improvements to the Transportation of Dangerous Goods Oversight Program by offering specialized training for inspectors, identifying and addressing emerging risks, and issuing guidance on alternative oversight activities. We published and distributed the 2020 edition of the Emergency Response Guidebook in collaboration with the US, Mexico, and Argentina. The guide helps first responders safely respond to incidents involving the transportation of dangerous goods. As well, TC continued to engage with partners to improve the Transportation of Dangerous Goods Safety Awareness Program by developing several publications, such as: new requirements for nurse tanks transporting anhydrous ammonia in Canada, volumetric capacity on TC’s highway tanks, for tank testers, thickness testing on highway and portable tanks, structural inspections of TC’s 423 highway tank trailers, pneumatic pressure testing requirements, welding requirements for highway tanks and TC’s portable tanks, highway tank brake interlocks used during loading and unloading, and transporting Class 3, Flammable Liquids, Aqueous Solutions of Alcohol.

In response to the COVID-19 pandemic, TC issued many [temporary certificates](#)<sup>iv</sup> so that dangerous goods could be transported. This included the transportation of: hand sanitizer by air to remote communities, hydrogen peroxide and peroxyacetic mixture by air, refrigerating machines containing flammable, non-toxic gas and liquefied gas by air, refilling of propane 450L cylinders with expired pressure relief devices, to allow highway

tanks to be used in Moosonee and Iqaluit that don't comply with testing and inspection requirements under the *Transportation of Dangerous Goods Regulations*.

TC continued to work on various research initiatives and projects, including:

- Working with partners to support the development of safety requirements, including a multi-year research program called Jack Rabbit II on the hazard, flammability, and behaviour properties of distillates and crude oil, undertaken in collaboration with the United States Department of Homeland Security and Defense Research and Development Canada. This will enable TC to better understand how large-scale chlorine releases from large transport containers behaves in case of an incident. This also included supply chain analysis on lithium batteries, and continued research with National Research Council Canada to inform the development of an International Society of Automobile Engineers Aerospace standard (AS6413) on packaging performance for lithium battery transportation on passenger aircrafts.
- Continuing the development of a Transportation of Dangerous Goods Client Identification Database

## Aviation

TC revised its approach to aircraft services and aviation safety. The Task team for Aircraft Identification and Registration in the *Canadian Aviation Regulations (CAR)* was disbanded after reviewing 62 proposed changes. In June 2021, the CAR's Miscellaneous Amendments Regulations were signed by the Governor in Council, and will be published in the Canada Gazette, Part II. In Spring 2021, new task teams were created for RP9 Heliport/Helicopter Operations, and RP8 Personnel Qualifications, Training, and Licensing. A final drafting instructions package was also completed for Air Navigation services, and online consultations for "What We Heard" were held and published for Part II Aircraft Registration, Helicopter/Airport, and Part IV Personnel Qualifications Training and Licensing regulatory packages.

During the year, TC engaged with the international aviation community to strengthen Canada's influence and regulatory expertise. To improve regional aviation safety, TC worked with the International Civil Aviation Organization and shared technical assistance in safety oversight for the National Office of Civil Aviation, the country of Haiti, and the Eastern Caribbean Civil Aviation Authority. A number of bilateral agreements were updated, including an aviation safety agreement between Canada and the European Union, a working arrangement with the U.K. Civil Aviation Authority, a Memorandum of Understanding on cooperation in civil aviation with the Republic of Indonesia, and implementation of procedures with the United States Federal Aviation Administration.

The security risks of illegitimate drones in and around airports were addressed by TC. By working with NAV Canada and government partners, response processes for drone

security incidents at an airport were aligned at the national and local levels. A table-top exercise was run with key industry and government partners to test how stakeholders would act and respond to drone security breaches, as well as partnering with Defense Research and Development Canada on the Airport Drone Mitigation, Integration and Response Experiments Project to test the same response at a national and local level, and the technology surrounding it along with the RCMP. TC published a notice of proposed amendment to expand safety regulations of operating drones. Pilot projects were launched for drone traffic management systems, as well as beyond visual line of sight operations. TC supported other government departments by granting special approvals for the use of drones. Lastly, development of a national drone strategy also began, including a policy and regulatory framework to detect and track drones at Canadian airports.

Drone detection and tracking measures were also taken at the international level. TC participated and collaborated in international forums and workshops to share information on best practices in prevention and response to drone incidents and the latest technology to counter illegitimate drones. In collaboration with the United States Transportation Security Administration and the Federal Aviation Administration, the department shared information and discussed similar topics.

Despite delays caused by the COVID-19 pandemic, TC continued its work on the Known Traveller Digital Identity Program. In collaboration with the Canada Border Services Agency, TC completed the testing of the first interdepartmental blockchain-based digital identity management platform. This platform helped inform continual assessment of blockchain impacts and the digital identity on the aviation sector. The mobile app was also tested multiple times for verification regulations. The Explosives Detection Dog and Handler Teams Program also completed a few initiatives. These included developing a security performance standard called the National Certification Protocol, a national aviation security oversight and compliance framework and a national standard operating procedure for explosive detection dogs and handler team screening, and launching an industry application portal on the Secure Supply Chain Information Management System. Lastly, the Aviation Safety Certification Team improved its ability to meet industry service demands through the Aviation Certification Enhanced Activity initiative, keeping Canada's aerospace competitive and safe. The aircraft certification program was harmonized nationally, and the National Aerial Surveillance Program flew 3,877 surveillance hours, monitored 417,601 vessels using the Automatic Identification System, and 48,175 vessel overflights were conducted.

### **Marine transportation**

TC made progress with some initiatives in the marine sector as well. Port State Control inspections verified that Canadian and foreign vessels complied with oil, air, garbage, and sewage pollution prevention requirements. Also, inspected 293 foreign tankers under the taker safety program, and issued 5 administrative monetary penalties for discharging pollutants into Canadian waters. The *Marine Safety Fee Regulations* was

implemented to streamline existing regulations by centralizing marine fees and services into one regulation. This supports the broader departmental fee modernization initiative by promoting a balance between the financial burdens borne by clients while upholding marine safety and security. Lastly, TC protected Canadian navigable waters by implementing the *Canadian Navigable Waters Act*, including running consultation on updates to the new [Minor Works Order](#)<sup>lvi</sup>, and conducted public consultations on the proposed [fees for the Navigation Protection Program](#)<sup>lvii</sup>.

### **Gender-Based Analysis Plus**

Transport Canada remains committed to the GBA Plus initiative. In June 2021, data on Canadian women in maritime roles was compiled and shared with the International Maritime Organization (IMO) and Women’s International Shipping & Trading Association for future policy development. Funding was provided to marine training institutes to increase the number of women and Indigenous peoples in the marine industry. All schools involved, including the British Columbia Institute of Technology, Nova Scotia Community College, and the Nunavut Fisheries and Marine Training Consortium, have seen a higher number of underrepresented groups of people enroll.

TC assessed the impact of new regulations on identifiable Canadian groups such as Indigenous Peoples or others by gender, age, or geographic location and improved regulatory frameworks accordingly. A multimodal working group was also established to build broad and deep expertise on advancing gender equality and diversity objectives, and to integrate and apply GBA Plus into TC’s programs and services.

The GBA Plus lens was also applied to the development of the generic Task Hazard Analyses (THA) relevant to oversight delivery. Three THAs were finalized and included references to foreseeable risks associated with employees of differing identities performing certain tasks (i.e., working alone, traveling), and control measures for these exposures.

TC built GBA Plus into the RegInfo – How We Work Playbook and integrated a GBA Plus assessment into Regulatory Impact Assessment Statements as a mandatory requirement.

Diversity and Inclusion guidelines were developed to improve training products, which aligns with the anti-racism projects of other departments and the Clerk of the Privy Council’s the federal Call to Action.

TC updated the technical training with a GBA Plus lens. A resource has been assigned to champion this initiative and conduct a baseline analysis of prioritized training to provide further recommendations in the goal of eliminating gender bias in the curriculum.

## Experimentation

Policy and regulatory work were advanced in fatigue management. Policy instruments were identified to address safety and security issues, including encouraging recreational boaters to wear life jackets and enhanced vehicle safety at rail crossings. A Fellow was invited from the Privy Council’s Office Fellowship Program to work at TC and deal with complex issues across government through innovative behavioural science techniques.

TC worked in tandem with the Public Health Agency of Canada, Immigration, Refugees and Citizenship Canada, and Canada Border Services Agency (CBSA) to examine how a blockchain-based digital identity management platform could support proof of vaccination credentials. In collaboration with CBSA, TC assessed the impact of blockchain and digital identify on the aviation sector and tested multiple versions of the known traveller mobile app to ensure that it follows various identify verification regulations.

The Transportation Sector Regulatory Review Roadmap, which is TC’s plan to address regulatory barriers to innovation and investments to support novel approaches in the transportation sector, was introduced as part of the federal government’s Targeted Regulatory Reviews.

The department also worked with industry to arrange the regulatory approvals for 2 drone test ranges in Foremost, Alberta and Alma, Quebec. These controlled testing environments allow the technology to be tested for safety and reliability. Lastly, TC made progress in several areas, including working with specialists and funding research into truck platooning technology (technical report: Cooperation Truck Platooning), as well as launched a regulatory sandbox to evaluate the feasibility of adopting electronic shipping documents for dangerous goods in safe testing environment. To date, three rail companies and two road companies are participating.

## Results achieved

### Results Achieved – Result 1: A Safe Transportation System

Departmental results	Performance indicators	Target	Date to achieve target	2018–19 Actual results	2019–20 Actual results	2020–21 Actual results
1a) A safe transportation system	Ten-year aircraft accident rate <sup>1</sup> (average per year, per 100,000 aircraft movements)	Target is for the rate not to increase year-over-year	2021-03-31	3.2 per 100,000 movements	3.2 per 100,000 movements	3.1 per 100,000 movements

<sup>1</sup> This includes foreign-registered aircraft operating in Canada for both the accident and fatality rates.

1b) A safe transportation system	Ten-year aircraft fatality rate (average per year, per 100,000 aircraft movements)	Target is for the rate not to increase year-over-year	2021-03-31	0.7 per 100,000 movements	0.6 per 100,000 movements	0.6 per 100,000 movements
1c) A safe transportation system	Ten-year marine accident rate (average per year, per 1,000 commercial vessels) <sup>2</sup>	Less than 10 per 1,000 commercial vessels	2021-03-31	7.2 per 1,000 commercial vessels	7.0 per 1,000 commercial vessels	6.8 per 1,000 commercial vessels <sup>3</sup>
1d) A safe transportation system	Ten-year marine fatality rate (average per year, per 1,000 commercial vessels)	Less than 0.5 per 1,000 commercial vessels	2021-03-31	0.4 per 1,000 commercial vessels	0.4 per 1,000 commercial vessels	0.4 per 1,000 commercial vessels <sup>4</sup>
1e) A safe transportation system	Ten-year rail accident rate (average per year, per million-train miles)	5% reduction in the rate as compared to the average of previous five years <sup>5</sup>	2021-03-31	3.7% reduction	5.2% reduction	7.9% reduction
1f) A safe transportation system	Ten-year rail fatality rate (average per year, per	5% reduction in the rate as compared to the average of	2021-03-31	26% reduction	7% reduction	3.9% reduction

<sup>2</sup> This includes unique foreign vessel arrivals, registered Canadian vessels under 15 gross tonnes (GT) and certificated vessels over 15GT operating in Canadian waters.

<sup>3</sup> Indicator 1c calculated using 10 year averages of incidents as reported by Transportation Safety Board and number of registered commercial vessels in June 2021. Previously reported numbers have been revised as the number of commercial vessels was overstated, primarily due to the inclusion of registered pleasure craft.

<sup>4</sup> Indicator 1d calculated using 10 year averages of fatalities as reported by Transportation Safety Board and number of registered commercial vessels in June 2021. Previously reported numbers have been revised as the number of commercial vessels was overstated, primarily due to the inclusion of registered pleasure craft.

<sup>5</sup> For indicator 1e reductions in accident rates depend on collaboration between railway companies, road authorities and private authorities who share the responsibility for the implementation of measures to reduce these rates. This is the reason why we chose a 5% annual reduction rate.

	million-train miles)	previous five years <sup>6</sup>				
1g) A safe transportation system	Rate of reportable road traffic collisions in Canada (rate per billion vehicle kilometres travelled)	1% reduction in the rate for current year as compared to the average of the previous five years <sup>7</sup>	2021-03-31	3.0% reduction in 2017 as compared to the five year average (2012–16)	4.4% reduction in 2018 as compared to the five year average (2013–17)	5.7% reduction in 2019 as compared to the five year average (2014–18)
1h) A safe transportation system	Rate of serious injuries in reportable road traffic collisions in Canada (rate per billion vehicle kilometres travelled)	1% reduction in the rate for current year as compared to the average of the previous five years <sup>8</sup>	2021-03-31	11.2% reduction in 2017 as compared to the five year average (2012–16)	15.9% reduction in 2018 as compared to the five year average (2013–17)	18.9% reduction in 2019 as compared to the five year average (2014–18)
1i) A safe transportation system	Rate of fatalities in reportable road traffic collisions in Canada (rate per billion vehicle kilometres travelled)	1% reduction in the rate for current year as compared to the average of the previous five years	2021-03-31	9.2% reduction in 2017 as compared to the five year average (2012–16)	3.9% reduction in 2018 as compared to the five year average (2013–17)	12.5% reduction in 2019 as compared to the five year average (2014–18)

<sup>6</sup> For indicator 1f reductions in fatality rates depend on collaboration between railway companies, road authorities and private authorities who share the responsibility for the implementation of measures to reduce these rates. This is the reason why we chose a 5% annual reduction rate.

<sup>7</sup> For indicators 1g, 1h, and 1i, the most recent metrics for the performance/results indicators are based on preliminary estimations that are subject to change when updated data are received from the data providers (provinces and territories). As such, previous year's metrics may vary from previously reported results as a result of these periodical data updates.

<sup>8</sup> For indicators 1h and 1i, while we've historically gotten results far better than the established targets, this will change going forward as the significant decreases in fatalities, and to some extent injuries, has decreased. Transport Canada also has limited control over road injuries and fatalities.

1j) A safe transportation system	Number of reportable dangerous goods accidents per year <sup>9</sup>	1% reduction in the count of accidents for current year as compared to the previous year	2021-03-31	469	416	287
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## Results Achieved - Result 2: A Secure Transportation System

Departmental results	Performance indicators	Target	Date to achieve target	2018-19 Actual results	2019-20 Actual results	2020-21 Actual results
2a) A secure transportation system	Rate of refusals of new Transportation Security Clearance applications (per 10,000 new Transportation Security Clearance applications)	A target cannot be set for this indicator as there is no established baseline. A baseline cannot be established for this indicator as we cannot forecast the rate of refusals of new Transportation Security Clearance applications.	2021-03-31	91.74	62.74	49.16

<sup>9</sup> As of December 1, 2016, companies now report both a release and anticipated release to the Minister within 30 days of the initial report made to CANUTEC, resulting in an expected increase in the number of reportable accidents after this date. A reportable release means either:

- An actual spill has occurred where the amount of dangerous goods released meets the minimum threshold stipulated in the regulation; or
- A release of dangerous goods is expected to occur. Canadian regulations have been updated to include “anticipated releases” as reportable as of December 1, 2016 (SOR/2016-95 May 13, 2016). Some possible examples of an anticipated release include:
  1. An incident has occurred and dangerous goods will likely have to be transferred to another container;
  2. A container is damaged to the extent that its integrity is compromised and dangerous goods could be released; or
  3. An event during a dangerous goods transportation resulting in an evacuation, injuries or fatalities.

2b) A secure transportation system	Rate of suspensions of Transportation Security Clearance applications (per 10,000 Transportation Security Clearance holders)	NA target cannot be set for this indicator as there is no established baseline. A baseline cannot be established for this indicator as we cannot forecast the rate of suspensions of Transportation Security Clearance applications.	2021-03-31	10.29	4.68	17.26
2c) A secure transportation system	Rate of cancellations of Transportation Security Clearance applications (per 10,000 Transportation Security Clearance holders)	A target cannot be set for this indicator as there is no established baseline. A baseline cannot be established for this indicator as we cannot forecast the rate of cancellations of Transportation Security Clearance applications.	2021-03-31	5.46	2.14	5.23
2d) A secure transportation system	Rate of compliance of air sector operators with Transport Canada's security regulations	90%	2021-03-31	91.8%	93.03%	90%

2e) A secure transportation system	Rate of compliance of marine sector operators with Transport Canada's security regulations	80%	2021-03-31	76%	78.4%	76%
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### Results Achieved - Result 3: A modern safety and security regime that supports economic growth

Departmental results	Performance indicators	Target	Date to achieve target	2018-19 Actual results	2019-20 Actual results	2020-21 Actual results
3a) A modern safety and security regime that supports economic growth	Percentage of new Canadian Rail Safety operating and equipment safety rules aligned with the US Rail Safety operating and equipment rules	80%	2021-03-31	NA New indicator	93%	N/A - Operating and equipment rules developed during the reporting period were specific to the Canadian operating environment and therefore did not require alignment with the United States.
3b) A modern safety and security regime that supports economic growth	Percentage of Transport Canada safety regulations aligned with international transportation standards (air)	100%	2021-03-31	N/A - New indicator	95.1%	95.1%
3c) A modern safety and security	Percentage of Transport Canada safety	90%	2021-03-31	N/A - New indicator	N/A - New indicator	N/A - Indicator

Departmental results	Performance indicators	Target	Date to achieve target	2018-19 Actual results	2019-20 Actual results	2020-21 Actual results
regime that supports economic growth	regulations aligned with international transportation standards (marine)					under revision
3d) A modern safety and security regime that supports economic growth	Percentage of Transport Canada security regulations aligned with international transportation standards (marine)	90%	2021-03-31	N/A - New indicator	N/A - New indicator	N/A - Indicator under revision
3e) A modern safety and security regime that supports economic growth	Percentage of client requests for safety authorizations that meet Transport Canada's service standards (transportation of dangerous goods)	TBD	TBD	N/A – New Indicator	N/A – New Indicator	N/A – Indicator under revision
3f) A modern safety and security regime that supports economic growth	Percentage of Transport Canada aviation security regulations that align with international transportation standards	90%	2021-03-31	100%	100%	100%
3g) A modern safety and security regime that supports economic growth	Percentage of aviation client requests for safety or security authorizations that meet	83%	2021-03-31	84%	89%	80.45%

Departmental results	Performance indicators	Target	Date to achieve target	2018-19 Actual results	2019-20 Actual results	2020-21 Actual results
	Transport Canada's service standards					
3h) A modern safety and security regime that supports economic growth	Percentage of marine client requests for safety or security authorizations that meet Transport Canada's service standards	80%	2021-03-31	N/A – New Indicator	99.88%	99.87%

### Budgetary financial resources (dollars)

2020–21 Main Estimates	2020–21 Planned spending	2020–21 Total authorities available for use	2020–21 Actual spending (authorities used)	2020–21 Difference (Actual spending minus Planned spending)
440,999,964	440,999,964	542,707,504	460,142,800	19,142,836

### Human resources (full-time equivalents)

2020–21 Planned full-time equivalents	2020–21 Actual full-time equivalents	2020–21 Difference (Actual full-time equivalents minus Planned full-time equivalents)
3,603	3,514	(89)

Financial, human resources and performance information for the Transport Canada's Program Inventory is available in [GC InfoBase](#)<sup>lviii</sup>.

## Core responsibility 2: Green and Innovative Transportation System

**Description:** Advances the Government of Canada's environmental agenda in the transportation sector by reducing harmful air emissions; protects Canada's ocean and marine environments by reducing the impact of marine shipping; and affirms a commitment to innovation in the transportation sector.

### Results

With cultural and ecological considerations in mind, TC developed safe shipping routes in the Arctic to minimize the effects of vessel traffic on wildlife (including the Quiet Vessel Initiative for endangered whales) and worked on various research projects to develop and adopt methods and technologies to reduce underwater noise from vessel traffic and its impact on endangered whales. The work on the Transportation Assets Risk Assessment and Northern Transportation Adaptation initiatives continued in order to build resiliency into the infrastructure and operations into the transportation sector and its adaptation to climate change.

Among other Arctic initiatives, the *Arctic Shipping Safety and Pollution Prevention Regulations* helped effectively handle unique vessel hazards faced in the region. As well, modern hydrographic coverage was increased in the Arctic Primary and Secondary Low Impact Shipping Corridors to help mariners navigate safely. Finally, a framework for investments in the North was developed to determine marine safety shipping routes in the Arctic to minimize potential effects of vessel traffic on wildlife, respecting cultural and ecological sensitive areas.

TC provided information to vessel owners, operators, and designers on reducing shipping impacts on marine animals and the marine environment. This was done through the evaluation of a real-time cavitation monitoring tool, the development of a cost-effective and commercially accessible propeller cavitation monitoring system, and supporting research for measuring underwater vessel noise in shallow water for the development of international standards.

The *Wrecked, Abandoned or Hazardous Vessels Act* was brought into force in 2019, helping protect Canada's coast and shorelines by banning vessel abandonment and strengthening owner responsibility and liability. This act helped in the preservation of Canada's marine ecosystem by addressing 172 vessels by the Navigation Protection Program. A long-term vessel remediation fund, financed by owners to cover these vessels, was also explored. The *Nairobi International Convention on the Removal of Wrecks* was integrated into Canadian law, improving federal powers over problem vessels.

The [Marine Training Program](#)<sup>lix</sup> continued to fund projects to help underrepresented groups (e.g., Indigenous Peoples, Inuit, Northerners, and women) access marine training. This training was offered through the British Columbia Institute of Technology, in partnership with Camosun College, the Nunavut Fisheries and Marine Training Consortium, and the Nova Scotia Community College. In 2020-21, there were 74 graduates under the Program and over 100 TC certificates were issued. Despite

challenges faced by the COVID-19 pandemic, many graduates were able to find employment in the marine industry, including with the Canadian Coast Guard.

TC contributed to the Government of Canada's national strategy on zero plastic waste by awarding two \$1 million grants under the Innovation Solutions Canada program to develop a prototype to recycle or reuse fiberglass. TC also supported the International Maritime Organization to develop a strategy on reducing plastic litter from ships and monitoring the impact, launched a challenge to remove micro plastic waste from ship greywater discharge, and completed a study on Canada's ability to recycle regular and fiberglass ships.

TC continued working on reducing economic and environmental risks from aquatic invasive species by developing regulations for ballast water discharge from ships and developed guidance for in-water hull cleaning. Also, the department contributed to the review of the International Maritime Organizations 2022 Guidelines for the Control and Management of Ships Biofouling to Minimize the Transfer of Invasive Aquatic Species.

Over the last 4 years, the Government of Canada has been collaborating with Canadians and Indigenous Peoples through the \$1.5 billion Oceans Protection Plan to protect Canada's coasts and waterways now and for future generations, while growing the economy. This is in addition to TC's continued investments in Canada's northern communities including activities such as the purchase of safety equipment and investment in marine infrastructure to improve the efficiency of sealift and resupply operations in the Northwest Territories, Nunavut, Nunavik, and Nunatsiavut communities.

Measures under this Plan include making the Canadian Coast Guard's Regional Operations Centres available 24/7 (monitoring and assessing marine incidents, including pollution), funding projects under the [Abandoned Boats Program](#)<sup>lx</sup> to assess, remove and dispose of hazardous boats in Canada's waters (over 300 projects were funded, including 51 this year), and contributing \$200,000 in funding to Innovation Maritime for a recyclable boat project with a functioning prototype.

### **Collaborating with our Indigenous partners and other stakeholders**

Transport Canada partnered with Indigenous Peoples across Canada through various initiatives and programs, including:

- 1,600 engagement sessions, 1,200 with Indigenous groups, to modernize marine safety and environmental protection in Canada
- The Community Participation Funding Program, through which \$300,000 was provided to support Indigenous and local community participation in developing and improving Canada's marine transportation system (over \$3.4 million since 2017-18).

- Working closely with Indigenous partners to develop the [Enhanced Maritime Situational Awareness initiative](#)<sup>lxix</sup> (EMSA). By providing real-time information on vessel traffic, weather, hydrography, sensitive ecological areas, and local historical knowledge of the waterways, the EMSA system enables Indigenous partners, coastal communities, and other stakeholders make evidence-based decisions. Demonstrations and training sessions were also conducted to encourage the use of the system, resulting in nearly 600 licenses being issued to the various stakeholders across Canada.
- Partnering with Indigenous Nations and organizations in British Columbia to launch pilot projects under the Proactive Vessel Management (PVM) initiative. Collaborative forums were created to identify marine management and vessel traffic concerns. Voluntary measures were also co-developed with the marine industry and other stakeholders. Lessons learned from the pilot projects will help inform the development of future PVM forums and long-term commitments in pilot regions.
- The [Indigenous and Local Communities Engagement and Partnership Program](#)<sup>lxxi</sup>, through which TC continued to support and fund 21 projects with Indigenous groups across the country (2 projects are now completed). This Program supports their ongoing engagement and partnership on measures under the Oceans Protection Plan.
- Providing funding to two Northern British Columbia Indigenous coastal communities under the [Reconciliation Framework Agreement](#)<sup>lxxiii</sup>, which promotes a coordinated and efficient approach to the governance, management, and protection of oceans in the Pacific North Costs, including marine ecosystems, marine resources and marine use activities.

TC also demonstrated its commitment to reconciliation with Indigenous Peoples by exploring new opportunities for co-management and partnership agreements, establishing and maintaining centralized relationships with national Indigenous organizations, found new ways to include Indigenous Peoples in the Canadian transportation system, and offered its employees training on Indigenous cultures, history, and rights.

### **Innovating and developing new transportation technologies**

TC continued to invest in innovative transportation technologies, providing \$7.3 million in capital improvements to test equipment and in facility upgrades at the Motor Vehicle Test Centre. Partnerships also continue to be strengthened with National Research Council Canada and the Department of National Defence, and a building condition report was drafted with Public Services and Procurement Canada. Also, \$6.9M was committed through the Innovative Solutions Centre testing stream. These projects included data science deployments in the Atlantic port system, robotic sanitization equipment in the airport system, and the testing and deployment of unmanned aircrafts to support indigenous bands in northwestern Ontario. \$750,000 was contributed through the Innovative Solution Canada challenge to develop draft proof of concepts for

greywater filtration systems and reducing underwater noise from recreational crafts and tugboats.

In terms of technological innovation, Canada's first large scale drone was delivered, which will be supporting the National Aeronautics Surveillance Program in the Arctic by late 2022. The program's recently purchased aircraft, a typical airline commuter, is undergoing transformation to a marine patrol aircraft and is expected to reach initial operating service by late summer of 2022.

Through the ecoTECHNOLOGY for Vehicles Program, TC evaluated connected and automated vehicles, tested a low speed automated shuttle on a track with and without riders, completed a report for on-road cooperative truck platooning systems trials, and launched a project to test truck platooning systems on-road.

### **International commitments**

In an effort to meet Canada's international obligations, TC has undertaken a number of measures designed to mitigate greenhouse gas and air pollution emissions from transportation and embrace new clean technologies that improve the lives of Canadians. Policies and programs were implemented as part of the Pan Canadian Framework on Clean Growth and Climate Change, such as working with partners to create new measures to encourage people to choose Zero-emission vehicles. As well, new transportation commitments that were set under Canada's Strengthened Climate Plan were designed for emission reduction efforts.

Other initiatives were implemented as well, such as:

- developing the Phase I report on after-market fuel saving technology under the Federal-Provincial-Territorial Task Force
- finalizing CO<sub>2</sub> (carbon dioxide) Emissions Standard for airplanes into domestic regulations
- including the International Civil Aviation Organization's (ICAO) Carbon Offsetting and Reduction Scheme for International Aviation in Canada's domestic regulations
- participating in international forums, like the ICAO, to find solutions to reduce the environmental impacts of international transportation

### **Gender-based analysis plus**

As part of the Oceans Protections Plan, new training and learning opportunities were added to address the underrepresentation of women and Indigenous Persons in the marine sector; this included the creation of the Marine Training Program. 19 students, including 10 women, were welcomed to discussions during the annual meeting of the Northern Transportation Adaptation Initiative. TC also took leadership roles at

international forums, such as the International Maritimes Organization, to encourage the increased representation of women in the marine industry.

### **Experimentation**

TC awarded a project to Envisioning Labs Inc. through the Innovation Solutions Canada challenge for the Development of Quiet Depth Finder Technology. This organization will create and test technology that uses light, and not sound, to determine the depth of water for small recreational vessels, which could reduce acoustic disturbance levels on a variety of marine mammals, including Southern Resident killer whales and St. Lawrence estuary belugas. TC also reviewed the findings of a recently completed diagnostic tool that assessed gaps and opportunities across key departmental functions to find ways to remain flexible within the climate change adaptation plan.

### **2030 Agenda for Sustainable Development**

Transport Canada remains committed to the 2030 Agenda for Sustainable Development, specifically for the following:

- Goal 9 - Build resilient infrastructure, promote sustainable industrialization and foster innovation. TC contributed by increasing the resilience of transportation assets through the previously mentioned TARA initiative. This provides funding for the assessments of climate change impacts on federally-owned and/or managed assets, such as bridges, ports and airports, and the adaptation solutions that could be employed.
- Goal 13 – Take urgent action to combat climate change and its impacts: TC contributed by providing support for the Northern Transportation Adaptation Initiative, helping to foster interdisciplinary collaboration, share knowledge, and strengthen institutional capacity to adapt northern transportation to the impacts of climate change. TC also established measures to reduce climate risks and increase departmental resilience, through the development of a second departmental climate change adaptation plan. Finally, the iZEV program supported a greater uptake of Zero-emission vehicles in Canada, thereby helping to reduce greenhouse gas emissions in the light-duty vehicle sector, which makes up about 12% of Canada’s greenhouse gas emissions.
- Goal 14 - Conserve and sustainably use the oceans, seas and marine resources: TC contributed to the reduction of the impacts of shipping and vessel traffic in 2020-21 to support the recovery and protection of Canada's endangered whale populations, as well as the overall conservation and sustainable use of Canada's oceans for sustainable development.

## Results achieved

### Results Achieved - Result 4: Harmful air emissions from transportation in Canada are reduced

Departmental results	Performance indicators	Target	Date to achieve target	2018–19 Actual results	2019–20 Actual results	2020–21 Actual results
4a) Harmful air emissions from transportation in Canada are reduced	Percentage change in emissions of greenhouse gases from the transportation sector from 2005 levels	Contribute to the achievement of Canada's national target to reduce emissions by 30% by 2030 from 2005 levels <sup>10</sup>	2030-12-31	15% above 2005 levels in 2018	16% above 2005 levels in 2019	2020 emissions will be published in April 2022

### Results Achieved - Result 5: Canada's oceans and marine environments are protected from marine shipping impacts

Departmental results	Performance indicators	Target	Date to achieve target	2018–19 Actual results	2019–20 Actual results	2020–21 Actual results
5a) Canada's oceans and marine environments are protected from marine shipping impacts	Rate of spills, per hour, into Canada's oceans and marine environments (per 1,000 active vessels)	5% reduction in spills from one year to the next <sup>11</sup>	2021-03-31	0.15/hr per 1,000 active commercial vessels	0.15/hr per 1,000 active commercial vessels <sup>12</sup>	0.114/hr per 1,000 active commercial vessels

<sup>10</sup> In July 2021, Canada updated its target under the Paris Agreement to a 40-45% reduction in emissions by 2030 from 2005 levels.

<sup>11</sup> This includes unique foreign vessel arrivals, registered Canadian commercial vessels under 15 gross tonnes (GT) and certificated vessels over 15 GT operating in Canadian waters.

<sup>12</sup> This was reported as 0.0015 in the 2019-20 Departmental Results report.

**Results Achieved - Result 6: A transportation system that supports innovation**

Departmental results	Performance indicators	Target	Date to achieve target	2018-19 Actual results	2019-20 Actual results	2020-21 Actual results
6a) A transportation system that supports innovation	Number of new aeronautical products certified	Variance remains +/- 10% year-over-year	2021-03-31	820	N/A: The indicator is in the process of being revised, to better capture and report on the department's innovation agenda.	N/A: The indicator is in the process of being revised, to better capture and report on the department's innovation agenda.
6b) A transportation system that supports innovation	The number of motor vehicle features introduced in Canada through the use of Transport Canada's regulatory tools that facilitate innovative technologies	Average annual increase of 10% in Advanced Driver Assistance System technologies in the overall light duty fleet in Canada <sup>13</sup>	2023-03-31	N/A – New Indicator	N/A: The indicator is in the process of being revised, to better capture and report on the department's innovation agenda.	N/A: The indicator is in the process of being revised, to better capture and report on the department's innovation agenda.

**Budgetary financial resources (dollars)**

2020–21 Main Estimates	2020–21 Planned spending	2020–21 Total authorities available for use	2020–21 Actual spending (authorities used)	2020–21 Difference (Actual spending minus Planned spending)
321,204,902	321,204,902	453,158,093	345,956,926	24,752,024

<sup>13</sup> We will be measuring the increase in advanced driver assistance systems (ADAS) that are standard equipment on light duty vehicles in the Canadian fleet. We will undertake the analysis to generate year-over-year changes to report on for this indicator. As with similar database-sourced information, the reference period of the data source will not align exactly with the reporting period (i.e., there will be a time lag).

## Human resources (full-time equivalents)

2020–21 Planned full-time equivalents	2020–21 Actual full-time equivalents	2020–21 Difference (Actual full-time equivalents minus Planned full-time equivalents)
647	678	31

Financial, human resources and performance information for Transport Canada's Program Inventory is available in [GC InfoBase](#)<sup>lxiv</sup>.

## Core responsibility 3: Efficient Transportation System

**Description:** Supports efficient market access to products through investment in Canada's trade corridors; adopts and implement rules and policies that promote sufficient choice and improved service to Canadian travellers and shippers; and manages transportation assets to ensure value for Canadians.

### Results

#### Getting Canadians from point A to B

Despite the challenges of the COVID-19 pandemic, TC has continued to promote the competitive, merit-based National Trade Corridors Fund (NTCF) and worked with stakeholders to ensure that new project applicants were supported. This enabled investments in infrastructure projects to improve the fluidity of the Canadian transportation system. The department also launched the NTCF Arctic and Northern Call for proposals, which will allocate \$400 million from Budget 2019 for Arctic and Northern communities. These funding decisions are expected in 2021-22.

TC maintained its commitments on three federally supported ferries to ensure the ferry services in Eastern Canada. The MV Madeleine II was acquired as an interim replacement for the MV Madeleine, progress was made with respect to the designs to replace the MV Holiday Island and MV Madelaine.

With a view to promoting trade and economic growth, TC reviewed the governance structures of marine assets by:

- undertaking the final stages of research and analysis under the Ports Modernization Review, publicly releasing a summary of input received from stakeholders and partners
- completing research and analysis under the St. Lawrence Seaway Review, including the release of a summary of input received from stakeholders and

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partners. The Review's findings informed recommendations for the Minister of Transport's consideration

TC continues to listen to and implement what Canadians demand from Canada's rail networks. This includes the public solicitation of performance and rail service indicators on Canada's freight rail network. Also, TC worked with the Joint Project Office to assess the proposal to create a High Frequency Rail system in the Toronto-Ottawa-Montreal-Quebec City corridor, in collaboration with VIA Rail and the Canada Infrastructure Bank. This analysis included factors such as the route, type of power (electric, diesel, hybrid), integration and interoperability with other rail systems, forecasted operating and capital costs, alternative approaches for delivery or public-private partnerships, and value for riders and Canadians.

The department worked with partners to make the transportation system more accessible for persons with disabilities. TC worked closely with the Canadian Transportation Agency to finalize regulations as well as ensure they are enforced, advanced the accessible transportation mandates of the *Canada Transportation Act* and the *Accessible Canada Act*, and worked with national and international partners to promote accessibility in aviation.

### **Assets are managed effectively**

Transport Canada's airports and ports remained available for use through health and safety-related initiatives. A total of 5 projects funded through Budget 2018 were started during the year. The Services Building Retrofit at the Kuujjuaq Airport was completed, and the remaining 4 are ongoing (Wabush Airport Combined Services Building, Sept Iles Airport Rehabilitation of Runway 09-27, Kuujjuaq Airport Rehabilitation of Runway 07/25 & Taxiway, and Penticton Airport Maintenance Garage replacement).

### **Leveraging existing resources**

Innovating and modernizing TC's workforce is integral to the department's effectiveness. As per reporting requirements through the *Transportation Modernization Act*, TC established a new Data and Advanced Analytics directorate to help the department mature and advance its key data-related strategies and priorities. In conjunction with the new Data Science unit, TC has a much greater ability to now leverage its data analytics to help drive decision-making to ensure an efficient transportation system. It also continued its efforts to collaborate with industry, stakeholders, and other government partners to support a diverse transportation workforce in Canada. This includes initiatives such as engaging underrepresented groups like women or Indigenous Peoples, or by adding transportation as a key sector in the Government of Canada's new skills agenda.

### **Gender-based analysis plus**

As part of GBA Plus considerations, TC continues to work with transportation providers to ensure the competitiveness of the sector. This ensures that, for essential travel and for leisure after the pandemic, a larger variety of providers and transportation options are available at a competitive rate and can be used by a greater segment of the population, reducing the impact of the economic status of the travelers.

TC remains committed to applying the GBA Plus lens to appropriate activities associated with an efficient transportation system, for example, in all Treasury Board submissions, as well as budget-cycle and off-cycle funding proposals submitted to the Department of Finance. Gender equality, diversity, and inclusion are also promoted with TC's Crown Corporations and throughout the department's portfolio appointment processes.

### 2030 Sustainable Development Goals

TC took the lead on several international initiatives and programs to implement the United Nation's Sustainable Development Goal 5 - Achieve gender equality and empower all women and girls. Examples of this include the development of the Study on Disruptive Technologies and the Changing Nature of Work in the Transportation Sector through the Asia-Pacific Economic Cooperation (APEC) Transportation Working Group. The [study](#)<sup>lxv</sup>, published in March 2021, provided recommendations on preparing for and attracting a more inclusive and diverse workforce in the transportation sector. The department also collaborated with the International Transport Forum, leading a webinar on the department's GBA Plus approach, and sharing lessons learned and best practices with member countries.

### Results achieved

#### Results Achieved - Result 7: Transportation corridors get products reliably to market

Departmental results	Performance indicators	Target	Date to achieve target	2018–19 Actual results	2019–20 Actual results	2020–21 Actual results
7a) Transportation corridors get products reliably to market	End-to-end, rail transit time of containers along the trade corridor from Canadian west coast ports to Chicago, including border crossing time	At most 6.5 days	2021-03-31	7 days	6.5 days	6.2 days
7b) Transportation corridors get products reliably to market	End-to-end, Canada-side, truck transit time of general freight along the Toronto to United States trade corridor,	Between 0 and 25	2021-03-31	N/A – New Indicator	N/A – New Indicator	3.4 hours

	including border crossing time					
7c) Transportation corridors get products reliably to market	End-to-end transit time of containerized freight arriving from ports in Asia	At most 25 days	2021-03-01	27.4 days	25.9 days	29.7 days
7d) Transportation corridors get products reliably to market	End-to-end transit time of a select grouping of commodities, such as grains, departing from Canada to Asia	Average 38 days of end-to-end transit time	2021-03-31	39 days	39.5 days	40.5 days

### Results Achieved - Result 8: Canadian air travellers benefit from choice and increased service

Departmental results	Performance indicators	Target	Date to achieve target	2018–19 Actual results	2019–20 Actual results	2020–21 Actual results
8a) Canadian air travellers benefit from choice and increased service	Percentage of designation requests from Canadian carriers for international scheduled services processed <sup>14</sup>	100%	2021-03-31	NA New indicator	NA New indicator	100% (7 out of 7) <sup>15</sup>
8b) Canadian air travellers benefit from choice and increased service	Percentage of exemption requests from foreign carriers for domestic services processed <sup>16</sup>	100%	2021-03-31	NA New indicator	100% (2 of 2)	100% (3 out of 3) <sup>17</sup>

<sup>14</sup> This Department Results Indicator, as a percentage, has limited use since the department through ACE(A) aims to process all designation requests, regardless of the actual number of requests received, and we are exploring revising this indicator.

<sup>15</sup> This number represents the actual number of designation requests that were processed during 2020-21; and, as expected, is quite small due to the pandemic, which negatively impacted all air transport activity.

<sup>16</sup> This Departmental Results Indicator, as a percentage, has limited use since the department through ACE(B) aims to process all exemption requests, regardless of the actual number of requests received, and we are considering revising this indicator.

<sup>17</sup> This number represents the actual number of exemption requests that were processed during 2020-21; and, as expected, is quite small due to the pandemic, which negatively impacted all air transport activity.

8c) Canadian air travellers benefit from choice and increased service	Ratio of federal government funding per passenger mile given for intercity rail passengers	\$0.40 per passenger mile	2021-03-31	NA New indicator	NA New indicator	\$1.83 per passenger mile <sup>18</sup>
8d) Canadian air travellers benefit from choice and increased service	Percentage of total communities over a certain size with scheduled intercity surface transportation services	TBD	TBD	NA New indicator	TBD New indicator	82% <sup>19</sup>
8e) Canadian air travellers benefit from choice and increased service	Percentage of Canadians living within 40km of a public transportation service point	TBD	TBD	NA New indicator	NA New indicator	96% <sup>20</sup>

### Results Achieved - Result 9: Transport Canada manages its assets effectively

Departmental results	Performance indicators	Target	Date to achieve target	2018-19 Actual results	2019-20 Actual results	2020-21 Actual results
9a) Transport Canada manages its assets effectively	Availability of Transport Canada owned and managed airports <sup>21</sup>	100% (*certain types of events are excluded from the calculation)	2021-03-31	100%	100%	100%
9b) Transport Canada manages its	Availability of Transport Canada owned	100% (*certain types of events are excluded)	2021-03-31	100%	100%	100%

<sup>18</sup> This had been averaging \$0.27 pre-COVID.

<sup>19</sup> Calculation based on the proportion of Statistics Canada Census Population Centres located within 40km of a scheduled intercity rail or bus service. A Population Centre has a population of at least 1,000 and density no less than 400 persons per square kilometre.

<sup>20</sup> Calculation based on Statistics Canada Census Dissemination Area populations located within 40km of a scheduled intercity air, rail, or bus service.

<sup>21</sup> 9a)-c) Any planned closure/cancellation required for maintenance reasons to ensure safe operations is excluded from the calculation. In addition, any closure/cancellation due to causes that cannot be anticipated and/or are beyond the control of the department, such as weather-related issues, natural disasters, or employee strikes is excluded.

Departmental results	Performance indicators	Target	Date to achieve target	2018-19 Actual results	2019-20 Actual results	2020-21 Actual results
assets effectively	and managed ports	from the calculation)				
9c) Transport Canada manages its assets effectively	Availability of Transport Canada owned and managed ferries	100% (*certain types of events are excluded from the calculation)	2021-03-31	100%	100%	100%

### Budgetary financial resources (dollars)

2020–21 Main Estimates	2020–21 Planned spending	2020–21 Total authorities available for use	2020–21 Actual spending (authorities used)	2020–21 Difference (Actual spending minus Planned spending)
927,054,699	927,054,699	1,406,841,261	852,124,999	(74,929,700)

### Human resources (full-time equivalents)

2020–21 Planned full-time equivalents	2020–21 Actual full-time equivalents	2020–21 Difference (Actual full-time equivalents minus Planned full-time equivalents)
518	490	(28)

Financial, human resources and performance information for the Transport Canada's Program Inventory is available in [GC InfoBase](#)<sup>lxvi</sup>.

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## Internal Services

### Description

Internal Services are groups of related activities and resources that the federal government considers to be required to support programs and/or required to meet the corporate obligations of an organization. Internal Services refers to the activities and resources of the 10 distinct service categories that support program delivery in the organization:

- ▶ Acquisition Management Services
- ▶ Communication Services
- ▶ Financial Management Services
- ▶ Human Resources Management Services
- ▶ Information Management Services
- ▶ Information Technology Services
- ▶ Legal Services
- ▶ Materiel Management Services
- ▶ Management and Oversight Services
- ▶ Real Property Management Services

### Results

To modernize and enhance user experience for transportation clients and stakeholders, Transport Canada began the roll out of a cost recovery service management tool that supports time tracking, calculating remissions, and improved performance reporting. The department also held public consultations and published proposed fees in the Canada Gazette, Part I.

With respect to the modernization of our fees, TC implemented the *Marine Safety Fees Regulations* to streamline existing regulations by consolidating marine fees and services into one comprehensive regulation, approved in March 2021 and published in the Canada Gazette, Part II in April 2021.

In 2020-21, the Audit and Evaluation Group quickly pivoted their efforts to address the departmental risks related to COVID-19 initiatives and the new virtual working environment. Audit and Evaluation conducted a joint project review of Options for Managing the On-Going COVID-19 Pandemic, as well as a Review of Governance and Key Processes during the COVID-19 Pandemic. Both reviews provided senior management with timely assurance, analysis, and advice to effectively manage risks and employees during extreme uncertainty conditions. This group also conducted a review of organizational culture in the Safety and Security Group. The results were integrated with those of other work carried out by Audit and Evaluation to support Safety and Security's on-going oversight modernization efforts as part of TC's Transformation. A follow-up audit of the governance of the Oceans and Protection Program provided

senior management assurance on the progress made with the implementation of improvements.

TC continued to make progress to address barriers to program and service delivery, innovation and data-sharing through regulatory and legislative modernization and policies. Also, TC developed a multimodal policy to support the consistent implementation of this new authority across the department.

TC responded to the COVID-19 pandemic by rapidly moving some paper-based Human Resources processes to digital formats, shifting in-person learning to online learning, developing a suite of FAQs to support employees and managers, and developing a return-to-work strategy. As well, TC renewed its Diversity Action Plan to run from 2020-23, which outlines concrete steps that we have begun to take to actively increase diversity and nurture inclusion. In support of these commitments, TC organized a discussion panel of women senior leaders in the Transportation Industry on International Women's Day and tailored internal resources supporting mental health and wellness to specifically address systematic discrimination.

### **Gender-Based Analysis Plus**

The GBA Plus Centre of Excellence promotes the integration of GBA Plus in Transport Canada, provides guidance to TC employees, and plays a challenge function for GBA Plus conducted in support of Cabinet documents, Memoranda to Cabinet, financial Treasury Board submissions and budget and off-cycle proposals.

TC's Champion on Gender Inclusiveness is supported by the GBA Plus Centre of Excellence to promote and provide leadership on the Department's commitment to applying GBA Plus and the policy direction on Sex and Gender Information Practices to modernize how sex and gender information is collected by the Department. In 2020-21, TC completed its 3-year GBA Plus Action Plan (2018 to 2020) and established a Policy Statement for 2021 and beyond, which was approved by the Department's Executive Management Committee. The plan focuses on the importance of continuing to strengthen the quality and scope of GBA Plus, expanding data collection and availability, and increasing collaboration with federal partners and other stakeholders. TC continued to promote GBA Plus through the Transport Canada intra-departmental GBA Plus Network, which has nearly 100 members with representatives from across the country. A comprehensive update of TC's GBA Plus guidance material was also launched, which will integrate the latest practices and whole-of-government guidance for mandatory processes. TC promoted best practices on GBA Plus, and organized activities in support of GBA Plus Awareness Week/Gender Equality Week.

The GBA Plus online course, offered by the Department for Women and Gender Equality, is now a mandatory course for TC employees. This course helps employees understand the needs of men, women and gender-diverse persons in all facets. This knowledge will also help employees better understand how to apply GBA Plus when developing policies, legislation, regulations, programs and services for Canadians.

The Communications Group shared information in multiple formats to accommodate the diverse needs of Canadians. This ensured information was equally accessible to all

audiences, including Indigenous, ethno-cultural and official-language minority communities, as required by the Government of Canada's Policy on [Communications and Federal Identity](#). All communications products were available in both official languages and communications materials were neutral and depicted the diverse nature of Canadians in a fair, representative, and inclusive way. The visuals used in social media, web and advertising campaigns presented gender-neutral images, different genders (often in non-traditional roles), various ethnicities, and Canadians with disabilities. The department also featured gender-neutral images in other videos and graphics. GBA Plus considerations continue to be carefully applied to target audiences for advertising campaigns. Also, TC programs were advised to include GBA Plus considerations when conducting consultations or surveys. Finally, when conducting Public Opinion Research, GBA Plus was considered in developing the target groups and sample size for research studies.

### Experimentation

TC increased the use of modern technologies to improve productivity, strengthen internal control, improve client service and support effective decision-making by leveraging data analytics, creating new interactive self-service dashboards to improve the presentation of financial information, and help managers and staff make better, more data-driven decisions. As a result of the implementation of a number of data analytics dashboards, key metrics, indicators and insights are available at the click of a button. The finance and administration group implemented automated processes, and shared best practices, experience and lessons learned related to advanced data analytics and process automation with other government departments and private sector organizations.

### Budgetary financial resources (dollars)

2020–21 Main Estimates	2020–21 Planned spending	2020–21 Total authorities available for use	2020–21 Actual spending (authorities used)	2020–21 Difference (Actual spending minus Planned spending)
210,238,822	210,238,822	237,428,822	238,939,964	28,701,142

### Human resources (full-time equivalents)

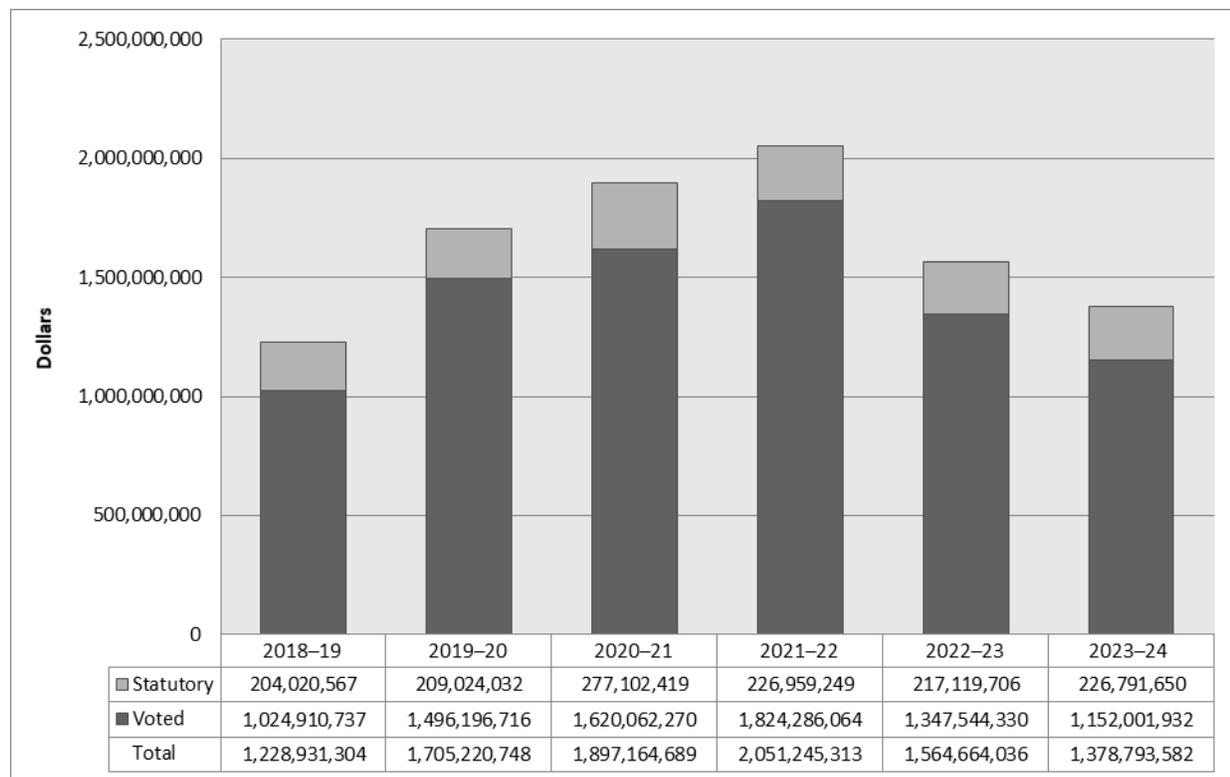
2020–21 Planned full-time equivalents	2020–21 Actual full-time equivalents	2020–21 Difference (Actual full-time equivalents minus Planned full-time equivalents)
1,346	1,569	223

## Analysis of trends in spending and human resources

### Actual expenditures

#### Departmental spending trend graph

The following graph presents actual (from 2018-19 to 2020-21) and planned (from 2021-22 to 2022-23) voted and statutory spending over time.



As illustrated in the departmental spending trend graph, Transport Canada’s actual expenditures increased from fiscal year 2018-19 through to 2020-21 and are expected to increase for one more year until they peak in fiscal year 2021-22. This is mainly due to incremental funding for initiatives such as the National Trade Corridor Fund, the Port Asset Transfer Program, the Zero-emission vehicles initiative and funding for the purchase of a new ferry vessel (*MV Villa de Teror*) to ensure ferry service continuity to the remote community of Îles-de-la-Madeleine.

Spending plans decline after 2021-22, mostly due to sun setting funding for initiatives such as the:

- Zero-emission vehicles initiative
- Support for Remote Communities

- Ferry Services Contribution Program
- Program to Protect Canada's Coastlines and Waterways

A decrease in funding is also expected for various other initiatives, such as the Oceans Protection Plan and National Trade Corridor Fund. Capital expenditures are also expected to decrease as a result of sun setting of the Federal Infrastructure Initiatives.

The planned spending does not include expected funding for items included in Budget 2021.

### **Budgetary performance summary for Core Responsibilities and Internal Services (dollars)**

<b>Core responsibilities and Internal Services</b>	<b>2020–21 Main Estimates</b>	<b>2020–21 Planned spending</b>	<b>2021–22 Planned spending</b>	<b>2022–23 Planned spending</b>	<b>2020–21 Total authorities available for use</b>	<b>2018–19 Actual spending (authorities used)</b>	<b>2019–20 Actual spending (authorities used)</b>	<b>2020–21 Actual spending (authorities used)</b>
CR1 - Safe and Secure Transportation System	440,999,964	440,999,964	444,748,926	399,141,879	542,707,504	422,517,722	453,703,550	460,142,800
CR2 - Green and Innovative Transportation System	321,204,902	321,204,902	480,211,176	204,472,272	453,158,093	165,832,698	389,635,911	345,956,926
CR3 - Efficient Transportation System	927,054,699	927,054,699	911,569,977	759,615,683	1,406,841,261	443,958,943	644,930,752	852,124,999
<b>Subtotal</b>	<b>1,689,259,565</b>	<b>1,689,259,565</b>	<b>1,836,530,079</b>	<b>1,363,229,834</b>	<b>2,402,706,858</b>	<b>1,032,309,363</b>	<b>1,488,270,213</b>	<b>1,658,224,725</b>
Internal Services	210,238,822	210,238,822	214,715,234	201,434,202	237,428,822	196,621,941	216,950,535	238,939,964
<b>Total</b>	<b>1,899,498,387</b>	<b>1,899,498,387</b>	<b>2,051,245,313</b>	<b>1,564,664,036</b>	<b>2,640,135,680</b>	<b>1,228,931,304</b>	<b>1,705,220,748</b>	<b>1,897,164,689</b>

## Actual human resources

### Human resources summary for core responsibilities and Internal Services

Core responsibilities and Internal Services	2018–19 Actual full-time equivalents	2019–20 Actual full-time equivalents	2020–21 Planned full-time equivalents	2020–21 Actual full-time equivalents	2021–22 Planned full-time equivalents	2022–23 Planned full-time equivalents
Safe and Secure Transportation System	3,371	3,479	3,603	3,514	3,451	3,291
Green and Innovative Transportation System	571	629	647	678	713	591
Efficient Transportation System	471	488	518	490	498	480
<b>Subtotal</b>	<b>4,413</b>	<b>4,596</b>	<b>4,768</b>	<b>4,682</b>	<b>4,662</b>	<b>4,362</b>
Internal Services	1,377	1,448	1,346	1,569	1,340	1,270
<b>Total</b>	<b>5,790</b>	<b>6,044</b>	<b>6,114</b>	<b>6,251</b>	<b>6,002</b>	<b>5,632</b>

As illustrated in the above table, full time equivalents (FTEs) increased from 2018-19 to 2020-21. This increase is mostly due to increased funding and corresponding workload associated with initiatives such as Trade, Transportation Corridor Initiative, Protecting Marine Life and the Trans Mountain Expansion project.

Planned FTEs are expected to decline after 2020-21, primarily as a result of reduced and sun setting funding for initiatives such as Trade, Transportation Corridor Initiative, Oceans Protection Plan, Transformation and the Trans Mountain Expansion project.

The planned FTEs do not include resources that would be added as a result of expected funding for items included in Budget 2021.

### Expenditures by vote

For information on Transport Canada's organizational voted and statutory expenditures, consult the [Public Accounts of Canada 2020–2021](#)<sup>lxvii</sup>.

## Government of Canada spending and activities

Information on the alignment of Transport Canada's spending with the Government of Canada's spending and activities is available in [GC InfoBase](#)<sup>lxviii</sup>.

## Financial statements and financial statements highlights

### Financial statements

Transport Canada's [financial statements \(unaudited\) for the year ended March 31, 2021](#)<sup>lxix</sup>, are available on the departmental website.

### Financial statement highlights

Condensed Statement of Operations (unaudited) for the year ended March 31, 2021 (dollars)

Financial information	2020–21 Planned results	2020–21 Actual results	2019–20 Actual results	Difference (2020–21 Actual results minus 2020–21 Planned results)	Difference (2020–21 Actual results minus 2019–20 Actual results)
Total expenses	2,021,679,000	1,858,085,756	1,877,798,729	(163,593,244)	(19,712,973)
Total revenues	72,796,000	71,385,444	81,744,706	(1,410,556)	(10,359,262)
Net cost of operations before government funding and transfers	1,948,883,000	1,786,700,312	1,796,054,023	(162,182,688)	(9,353,711)

**Condensed Statement of Financial Position (unaudited) as of March 31, 2021  
(dollars)**

Financial information	2020–21	2019–20	Difference (2020–21 minus 2019–20)
Total net liabilities	1,318,444,374	1,344,573,347	(26,128,973)
Total net financial assets	483,005,708	416,510,385	66,495,323
Departmental net debt	835,438,666	928,062,962	(92,624,296)
Total non-financial assets	2,952,182,538	2,817,763,123	134,419,415
Departmental net financial position	2,116,743,872	1,889,700,161	227,043,711

## Corporate Information

### Organizational profile

**Appropriate minister(s):** The Honourable Omar Alghabra, Minister of Transport

**Institutional head:** Michael Keenan

**Ministerial portfolio:** Transport Canada

The [Transport Canada Portfolio](#)<sup>lxx</sup> includes:

- Transport Canada
- Shared governance organizations (e.g., the [St. Lawrence Seaway Management Corporation](#)<sup>lxxi</sup>)
- Crown corporations (e.g., the [Great Lakes Pilotage Authority](#)<sup>lxxii</sup>)

Grouping these organizations into one portfolio allows for integrated decision making on transportation issues.

**Enabling instrument(s):** [Department of Transport Act](#)<sup>lxxiii</sup> (R.S., 1985, c. T-18)

Transport Canada administers over 50 [laws related to transportation](#)<sup>lxxiv</sup> and shares responsibility for the administration of many others. Justice Canada is the federal department responsible for maintaining the [Consolidated Statutes of Canada](#)<sup>lxxv</sup> and provides access to the full text of federal acts and regulations.

**Year of incorporation / commencement:** 1936

### Raison d'être, mandate and role: who we are and what we do

["Raison d'être, mandate and role: who we are and what we do"](#)<sup>lxxvi</sup> is available on Transport Canada's website.

For more information on the department's organizational mandate letter commitments, see the ["Minister's mandate letter"](#)<sup>lxxvii</sup>.

### Operating context

Information on the operating context is available on the [Transport Canada's website](#)<sup>lxxviii</sup>.

### Reporting framework

Transport Canada's approved Departmental Results Framework and Program Inventory for 2020–21 are as follows.

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## **Core Responsibility 1: Safe and Secure Transportation System**

### **Result 1: A safe transportation system**

Result Indicators: (air, marine, rail) Accident rates over a 10-year period; fatality rates over a 10-year period.

Result Indicators: Rate of reportable road traffic collisions in Canada; rate of serious injuries in reportable road traffic collisions in Canada; rate of fatalities in reportable road traffic collisions in Canada.

Result Indicator: Number of reportable dangerous goods accidents per year.

### **Result 2: A secure transportation system**

Result Indicators: Rate of refusals of new Transportation Security Clearances; rates of suspension/cancellations of Transportation Security Clearances.

Result Indicator: (air, marine) Rate of compliance of sector operators with Transport Canada's security regulations.

### **Result 3: A modern safety and security regime that supports economic growth**

Result Indicator: Percentage of new Canadian Rail Safety operating and equipment safety rules aligned with the US Rail Safety operating and equipment rules.

Result Indicators: (air, marine) Percentage of Transport Canada's safety and security regulations aligned with international transportation standards.

Result Indicators: (air, marine, transportation of dangerous goods) Percentage of client requests for safety authorizations that meet Transport Canada's service standards.

Result Indicator: Percentage of Transport Canada aviation security regulations that align with international transportation standards.

Result Indicator: (air, marine) Percentage of client requests for security authorizations that meet Transport Canada's service standards.

Program Inventory under Core Responsibility 1:

- Aviation Safety Regulatory Framework
- Aviation Safety Oversight
- Aviation Safety Certification
- Aircraft Services
- Marine Safety Regulatory Framework
- Marine Safety Oversight
- Marine Safety Certification

- Navigation Protection Program
- Rail Safety Regulatory Framework
- Rail Safety Oversight
- Rail Safety Improvement Program
- Multimodal and Road Safety Regulatory Framework
- Multimodal and Road Safety Oversight
- TDG Regulatory Framework
- TDG Oversight
- TDG Technical Support
- Aviation Security Regulatory Framework
- Aviation Security Oversight
- Marine Security Regulatory Framework
- Marine Security Oversight
- Intermodal Surface Security Regulatory Framework
- Intermodal Surface Security Oversight
- Multimodal Safety and Security Services
- Security Screening Certification
- Emergency Management

## **Core Responsibility 2: Green and Innovative Transportation System**

### **Result 4: Harmful air emissions from transportation in Canada are reduced**

Result Indicator: Percentage change in emissions of greenhouse gases from the transportation sector from 2005 levels.

### **Result 5: Canada's oceans and marine environments are protected from marine shipping impacts**

Result Indicator: Rate of spills into Canada's ocean and marine environments per thousand active vessels.

### **Result 6: A transportation system that supports innovation**

Result Indicator: Number of new aeronautical products certified.

Result Indicator: Number of innovative motor vehicle features introduced in Canada through the use of Transport Canada's regulatory tools that facilitate innovative technologies.

#### Program Inventory under Core Responsibility 2

- Climate Change and Clean Air
- Protecting Oceans and Waterways
- Environmental Stewardship of Transportation
- Transportation Innovation
- Indigenous Partnerships and Engagement

### **Core Responsibility 3: Efficient Transportation System**

#### **Result 7: Transportation corridors get products reliably to market**

Result Indicator: End-to-end, transit time of containers along the trade corridor from Canadian west coast ports to Chicago, including border crossing time.

Result Indicator: End-to-end, Canada-side, truck transit time of general freight along the Toronto to United States trade corridor, including border crossing time.

Result Indicator: End-to-end transit time of containerized freight arriving from ports in Asia.

Result Indicator: End-to-end transit time of a select grouping of commodities, such as grains, departing from Canada to Asia.

#### **Result 8: Canadian travellers and freight operators benefit from choice and increased service**

Result Indicator: Percentage of designation requests from Canadian carriers for international scheduled services processed.

Result Indicator: Percentage of exemption requests from foreign carriers for domestic services processed.

Result Indicator: Ratio of federal government funding per passenger mile given for intercity rail passengers.

Result Indicator: Percentage of total communities over a certain size with scheduled intercity surface transportation services.

Result Indicator: Percentage of Canadians living within 40km of a public transportation service point.

## Result 9: Transport Canada manages its assets effectively

Result Indicators: Percentage of Transport Canada owned and managed transportation assets that remain operational (airports, ports, ferries).

Program Inventory under Core Responsibility 3

- Transportation Marketplace Frameworks
- Transportation Analysis
- National Trade Corridors
- Transportation Infrastructure

## Supporting information on the program inventory

Supporting information on planned expenditures, human resources, and results related to Transport Canada's Program Inventory is available in the [GC InfoBase](#)<sup>lxxx</sup>.

## Supplementary information tables

The following supplementary information tables are available on [Transport Canada's website](#)<sup>lxxx</sup>:

- Details on transfer payment programs
- Gender-based analysis plus
- Horizontal initiatives
- Response to parliamentary committees and external audits

[Transport Canada's 2020-2021 Departmental Sustainable Development Strategy Report](#)<sup>lxxxi</sup>

## Federal tax expenditures

Transport Canada's Departmental Plan does not include information on tax expenditures that relate to its planned results for 2020–21.

Tax expenditures are the responsibility of the Minister of Finance, and the Department of Finance Canada publishes cost estimates and projections for government-wide tax expenditures each year in the [Report on Federal Tax Expenditures](#)<sup>lxxxii</sup>. This report provides detailed information on tax expenditures, including objectives, historical background and references to related federal spending programs, as well as

evaluations, research papers and gender-based analysis. The tax measures presented in this report are solely the responsibility of the Minister of Finance.

## **Organizational contact information**

### **Mailing address**

Transport Canada (ADI)  
330 Sparks Street  
Ottawa, ON  
K1A 0N5

**Telephone:** 613-990-2309

**Fax:** 613-954-4731

**Email:** [Questions@tc.gc.ca](mailto:Questions@tc.gc.ca)

**Website(s):** [Transport Canada website](#)

## Appendix: definitions

### **appropriation** (*crédit*)

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

### **budgetary expenditures** (*dépenses budgétaires*)

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

### **core responsibility** (*responsabilité essentielle*)

An enduring function or role performed by a department. The intentions of the department with respect to a core responsibility are reflected in one or more related departmental results that the department seeks to contribute to or influence.

### **Departmental Plan** (*plan ministériel*)

A report on the plans and expected performance of an appropriated department over a 3-year period. Departmental Plans are usually tabled in Parliament each spring.

### **departmental priority** (*priorité*)

A plan or project that a department has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired departmental results.

### **departmental result** (*résultat ministériel*)

A consequence or outcome that a department seeks to achieve. A departmental result is often outside departments' immediate control, but it should be influenced by program-level outcomes.

### **departmental result indicator** (*indicateur de résultat ministériel*)

A quantitative measure of progress on a departmental result.

### **departmental results framework** (*cadre ministériel des résultats*)

A framework that connects the department's core responsibilities to its departmental results and departmental result indicators.

### **Departmental Results Report** (*rapport sur les résultats ministériels*)

A report on a department's actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

### **experimentation** (*expérimentation*)

The conducting of activities that seek to first explore, then test and compare the effects and impacts of policies and interventions in order to inform evidence-based decision-

making, and improve outcomes for Canadians, by learning what works, for whom and in what circumstances. Experimentation is related to, but distinct from innovation (the trying of new things), because it involves a rigorous comparison of results. For example, using a new website to communicate with Canadians can be an innovation; systematically testing the new website against existing outreach tools or an old website to see which one leads to more engagement, is experimentation.

**full-time equivalent** (*équivalent temps plein*)

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. For a particular position, the full-time equivalent figure is the ratio of number of hours the person actually works divided by the standard number of hours set out in the person's collective agreement.

**gender-based analysis plus (GBA Plus)** (*analyse comparative entre les sexes plus [ACS Plus]*)

An analytical process used to assess how diverse groups of women, men and gender-diverse people experience policies, programs and services based on multiple factors including race ethnicity, religion, age, and mental or physical disability.

**government-wide priorities** (*priorités pangouvernementales*)

For the purpose of the 2020–21 Departmental Results Report, those high-level themes outlining the government's agenda in the 2019 Speech from the Throne, namely: Fighting climate change; Strengthening the Middle Class; Walking the road of reconciliation; Keeping Canadians safe and healthy; and Positioning Canada for success in an uncertain world.

**horizontal initiative** (*initiative horizontale*)

An initiative where two or more federal organizations are given funding to pursue a shared outcome, often linked to a government priority.

**non-budgetary expenditures** (*dépenses non budgétaires*)

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

**performance** (*rendement*)

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

**performance indicator** (*indicateur de rendement*)

A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

**performance reporting** (*production de rapports sur le rendement*)

The process of communicating evidence-based performance information. Performance reporting supports decision making, accountability and transparency.

**plan** (*plan*)

The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally, a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead to the expected result.

**planned spending** (*dépenses prévues*)

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts presented in Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

**program** (*programme*)

Individual or groups of services, activities or combinations thereof that are managed together within the department and focus on a specific set of outputs, outcomes or service levels.

**program inventory** (*répertoire des programmes*)

Identifies all the department's programs and describes how resources are organized to contribute to the department's core responsibilities and results.

**result** (*résultat*)

A consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead they are within the area of the organization's influence.

**statutory expenditures** (*dépenses législatives*)

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

**target** (*cible*)

A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

**voted expenditures** (*dépenses votées*)

Expenditures that Parliament approves annually through an appropriation act. The vote wording becomes the governing conditions under which these expenditures may be made.

## Endnotes

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