



# DELIVERING RESPONSIBLY

2022 Sustainability Report

Delivering Responsibly

# MOVING FORWARD TOGETHER

At CN, *Delivering Responsibly* means moving our customers' goods safely and efficiently, and in an environmentally responsible way. It also means attracting, developing, and retaining top diverse talent, and helping to make the communities we serve safer and stronger, all while adhering to the highest governance standards.

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Above: Devona, AB, Photo by CN employee **Tim Stevens**  
Cover: Journeyman Mechanic, **Andrew Nii Noi** at Walker Yard, Edmonton, AB

# COMMITTED TO DELIVERING RESPONSIBLY

As CN’s Board of Directors, a responsibility we take very seriously is to oversee the development and implementation of the Company’s short- and long-term sustainability policies, practices, and objectives as they relate to its business plan.



**Shauneen Bruder**  
Chair of the Board of Directors

### Good Governance Is Good Business

We know CN’s role is more than simply moving goods. Our first priority is providing oversight of CN’s strategic direction, which includes making sure the Company’s operational performance supports its customers. We also strive to promote a workplace culture that emphasizes safety, teamwork, and diversity by ensuring a safe and engaging work environment for employees with robust talent development and succession plans. Another priority for the Board is seeking to minimize the impact of CN’s operations on the natural environment. We are also focused on being good neighbours to the communities through which the Company operates, including our Indigenous neighbours.

Most importantly for our Board, we endeavor to ensure leading governance practices as we work to create value and shared success for all our stakeholders and rightsholders. An important part of this function is enterprise risk management. The business’ risk environment is evolving rapidly, and the Board is closely monitoring the areas of climate, cybersecurity, safety, and geopolitics, among others. At the same time, we are pursuing our consistent approach to capital allocation, which is to first support the safety, efficiency, and resilience of our network, and to enable growth. We also aim to return value to our shareholders by efficiently reinvesting in the business to drive

profitable growth, increasing dividends in line with earnings growth, and leveraging share repurchases to optimize our capital structure.

CN is dedicated to fulfilling its role as a responsible corporate citizen in every aspect of what we do, from the field to the boardroom. The Board and CN’s executive management team recognize the importance of striking the right balance between our shorter- and longer-term goals, as well as ensuring our environmental, social, and governance (ESG) initiatives are embedded into our day-to-day operations and support and enable our sustainable strategic agenda.

In 2023, CN was proud to take first place out of 219 companies and trusts in the S&P/TSX Composite Index for the quality of our corporate governance practices. For the second year in a row, CN obtained a score of 98% in the Globe and Mail’s Report on Business’ annual comprehensive ranking. Also in 2023, CN was honoured to receive the Top 5% ESG Score in the S&P Global Yearbook as one of the best sustainability performers in 2022 in the worldwide transportation industry.

On behalf of CN’s Board of Directors, thank you for your continued support as we move forward together.

*Shauneen Bruder*  
**Shauneen Bruder**

### SELECTED 2022 MEMBERSHIPS AND RECOGNITION

<p>Member of <b>Dow Jones Sustainability Indices</b> <small>Powered by the S&amp;P Global CSA</small></p>	<p><b>WE SUPPORT</b></p>	
<p>Listed on the Dow Jones Sustainability World Index for the 12th consecutive year and on the DJSI North American Index for the 15th consecutive year.</p>	<p>In 2022, CN joined the United Nations Global Compact initiative — a platform for the development, implementation, and disclosure of responsible business practice. This commitment further strengthens our ongoing support of the Sustainable Development Goals.</p>	<p>Listed on CDP’s* 2022 prestigious A List for our actions to cut emissions, mitigate climate risks, and develop the low-carbon economy. <small>* formerly the Carbon Disclosure Project</small></p>

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# MOVING FORWARD TOGETHER

Welcome to CN's 2022 *Delivering Responsibly* report. It outlines our sustainability aspirations, achievements, and challenges as we strive to meet the needs of the present without compromising the future.

## Moving Our Plan Forward

2023 marks 25 years since CN pioneered scheduled railroading, a fixed 24/7 system to move more goods with fewer assets and improve customer service. When I joined CN last year, I was very excited to refocus this iconic Company on what it does best. We moved quickly to restore a disciplined operating model, where we make a plan that optimizes assets for the entire rail network. Then, we run that plan, day in and day out, and sell into our available capacity. Every day, in every decision we make, we have sustainability in mind.

## Delivering Responsibly

What does it mean to deliver responsibly? When you bring it back to basics, it means moving customers' goods safely, efficiently, and with the aim of minimal environmental impact. But, at CN, it means a lot more than that. It involves attracting, developing, and retaining diverse talent, helping to make our communities safer and stronger while fostering close relationships with stakeholders and rightsholders, and adhering to the highest governance standards. This is how we will move forward together toward a more sustainable future.

## Sustainability Is at the Heart of Every Decision

- ✘ **SAFETY IS A CORE VALUE:** We have an uncompromising commitment to the safety of our employees, customers, and communities. We aspire to zero – zero serious injuries, zero fatalities, zero harm. There is nothing more important than the work we do to help ensure everyone goes home safely after each and every day.
- ✘ **RAISING THE BAR ON ENVIRONMENTAL LEADERSHIP:** Climate change is the defining issue of our time and we are determined to be part of the solution. We have set science-based targets to make significant cuts to our GHG emissions by 2030 and committed to setting a 2050 net-zero target. Achieving these goals is dependent upon and will require working with industry to increase the use of renewable fuels and, when feasible, implement alternative propulsion technologies.
- ✘ **BUILDING THE NEXT GENERATION OF RAILROADERS:** We are focused on making ours the best company to work for by ensuring our workforce reflects the diversity of the communities where we operate, and all employees can embrace their full potential.
- ✘ **PROUD TO BE YOUR NEIGHBOUR:** We are proud of the work we do to be good neighbours by investing in community development and contributing to socioeconomic benefits.
- ✘ **UPHOLDING THE HIGHEST STANDARDS IN GOVERNANCE:** We are committed to maintaining best-in-class governance standards, with an emphasis on engagement and transparency. How we deliver success is just as important as what we achieve.

Looking forward, we will continue to innovate – in safety, in efficiency, in sustainability, in engagement. We are committed to delivering reliable service to our customers and to continuously improving our performance for a sustainable future.



**Tracy Robinson**



**Tracy Robinson**  
President and Chief Executive Officer

*"Sustainability is not just an important part of CN; sustainability is our business."*

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# POWERING SUSTAINABLE GROWTH

As CN’s Executive Vice-President and Chief Financial Officer, I have direct overall responsibility for – and provide executive oversight of – the Company’s sustainability programs, including our Climate Action Plan.



**Ghislain Houle**  
Executive Vice-President and Chief Financial Officer

## Reporting High-Quality Data

CN is committed to generating sustainable value. Effective collaboration between the Finance and Sustainability teams is important to how we manage longer-term risks and opportunities as we transition to a low-carbon economy. These risks and opportunities can have an impact on the Company’s financial results, whether it is through cost reduction and optimization or revenue generation. With the evolution toward the integration of financial and sustainability reporting, we know our stakeholders expect high-quality data, which is second nature to our reporting teams.

Having reliable data is crucial because it provides a comprehensive view of our sustainability impact based on the topics most material to our business. Financial data reveals the economic implications of our sustainability practices, which helps us make informed decisions to improve efficiency and reduce costs. Non-financial data, like greenhouse gas (GHG) emissions and people-based metrics, sheds light on our environmental and social impact. In turn, this helps us assess long-term sustainability risks, meet stakeholder expectations, and foster responsible business practices aligned with our goals.

## Adding Resilience through Preparation

When preparing for operational risks, we are committed to making our operations more resilient in the face of extreme weather and other disruptions. Extreme heat can buckle track and extreme cold can result in broken rails and frozen switches. Flash floods can lead to landslides and washouts. We have several programs in place to manage these risks, including extreme weather readiness plans, emergency response plans, inspection programs, and rapid-deployment teams to restore operations quickly.

## Planning for a Sustainable Future

CN has the financial flexibility to pursue the investments we need to drive our sustainability agenda. CN is playing a key role in the transition to a lower carbon economy. We intend to continue our work with customers to identify and develop additional clean energy market opportunities.

Capital investments are key to achieving our sustainability goals. We continue to invest to operate safely and reliably, with a focus on resiliency, to meet the evolving needs of our customers. For example, we are continuously upgrading our locomotive fleet, having added about 300 efficient high-horsepower locomotives since 2019. Cleaner, more fuel-efficient equipment enables us to decouple our GHG emissions from our business growth. Another example: we are working with partners to test biodiesel and renewable diesel in our locomotives to understand the long-term operational impacts, especially in cold weather.

## Our Sustainability Targets

In 2021, the Science-Based Targets initiative (SBTi) approved our revised GHG targets to reduce Scope 1 and 2 emissions intensity by 43%, and Scope 3 emissions intensity from fuel- and energy-related activities by 40% by 2030 based on a 2019 starting point. We have also set specific targets for other sustainability priorities and report on our progress annually. In addition, we are a founding participant in the Government of Canada’s Net-Zero Challenge and joined the U.N.’s Race To Zero to transition to net-zero emissions by 2050. To achieve this important goal, the entire rail transportation industry will need to collaborate and make significant investments to find innovative solutions.

**Ghislain Houle**

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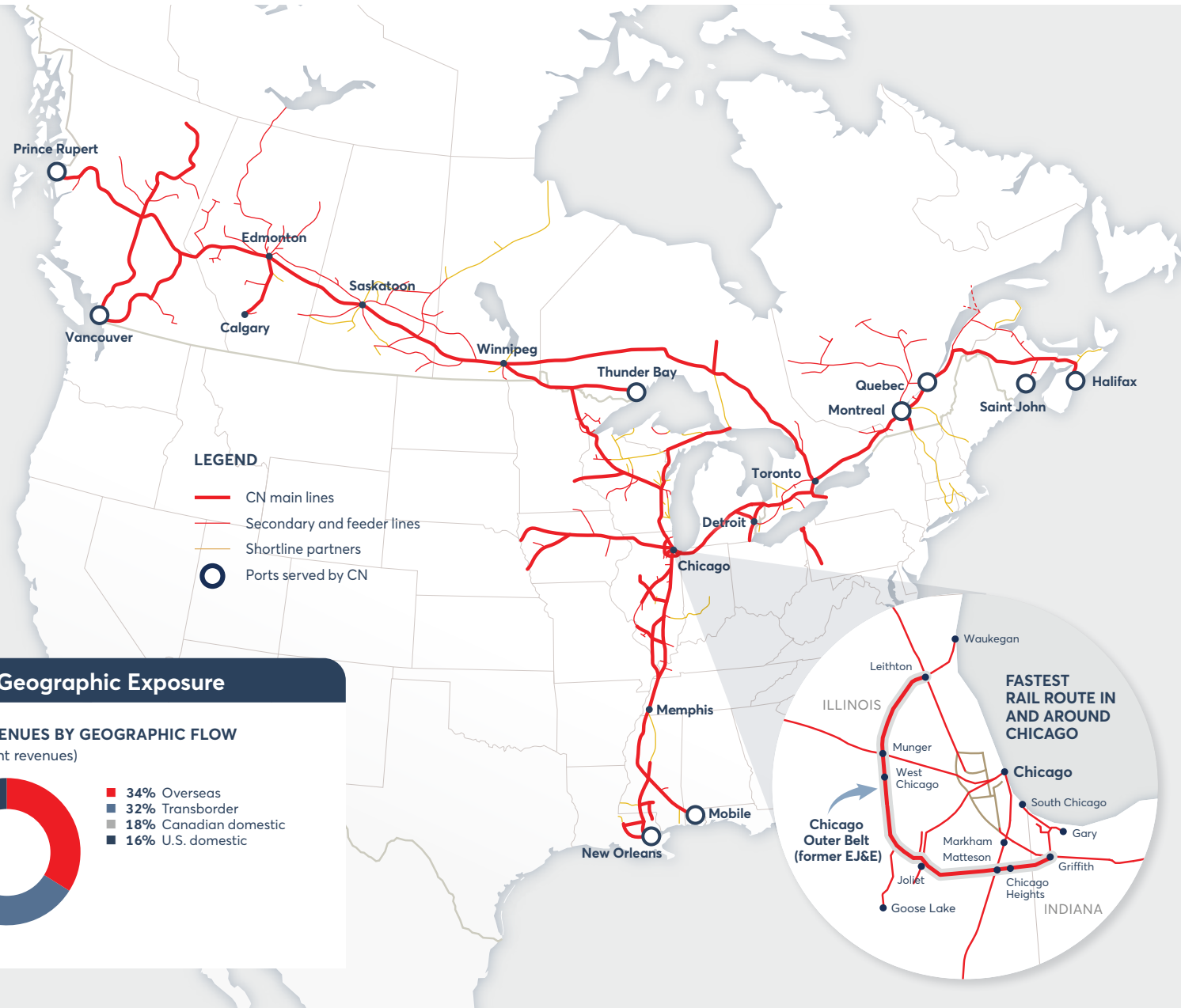
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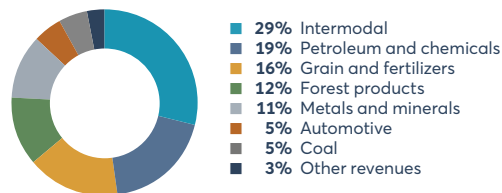
# OUR BUSINESS AT A GLANCE

CN is a world-class transportation leader. Along with our supply chain partners, we safely power the North American economy. The customers and communities we serve and the goods we deliver are vital to people across the continent and around the world. Committed to environmental stewardship, social responsibility, and good governance, CN has been contributing to sustainable trade since 1919.



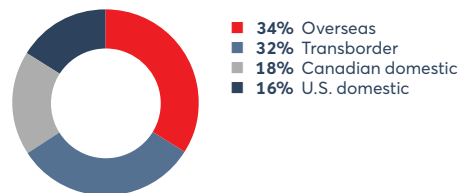
## Balanced and Diverse Portfolio

2022 REVENUES BY COMMODITY GROUP (% of total revenues)



## Broad Geographic Exposure

2022 REVENUES BY GEOGRAPHIC FLOW (% of freight revenues)



## 2022 Key Statistics

18,600

ROUTE MILES

300M

TONS OF CARGO MOVED

\$17.1B

REVENUES

\$2.8B

CAPITAL INVESTMENTS

9 ports

SERVED

~24,000

EMPLOYEES (end of period)

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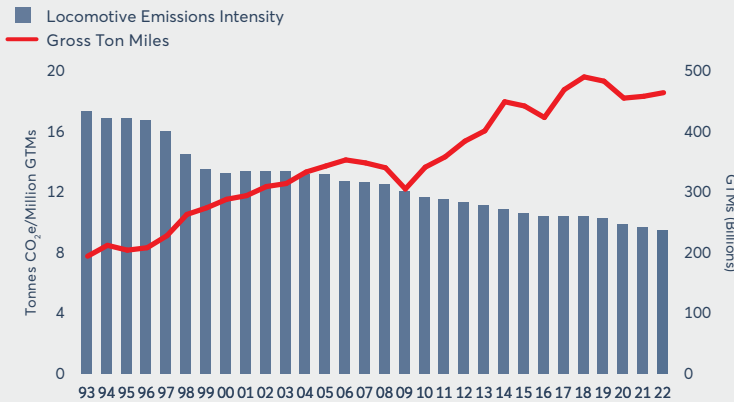
Progress Toward Our Targets

# DELIVERING LONG-TERM VALUE

CN is committed to long-term value creation through solid financial performance, increasing shareholder distributions, and sound capital investment, all while continuing to reduce our overall carbon emissions intensity.

## Decoupling Carbon Emissions from Growth

**CARBON EMISSIONS INTENSITY VS. GROSS TON MILES (GTM)**  
(Tonnes CO<sub>2</sub>e/Million GTMs vs. Traffic in Billion GTMs)



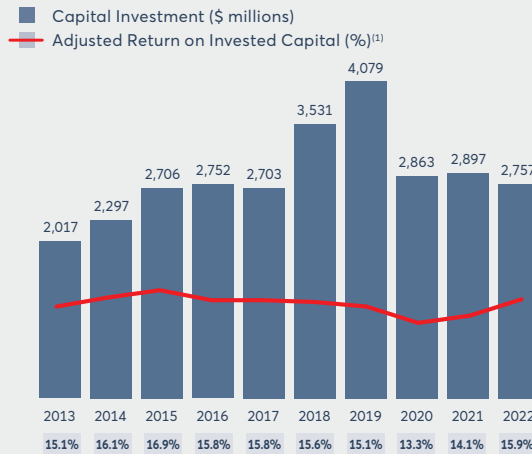
**45%**

### REDUCTION IN CARBON EMISSIONS INTENSITY SINCE 1993

Since 1993, CN has made significant progress in decoupling carbon emissions from volume growth, reducing our locomotive emissions intensity by 45% and avoiding over 54 million tonnes of GHG emissions while consuming approximately 15% less locomotive fuel per GTM than the industry average.

## Disciplined Capital Investment

**CAPITAL INVESTMENTS VS. ADJUSTED ROIC<sup>(1)</sup>**



**\$29B**

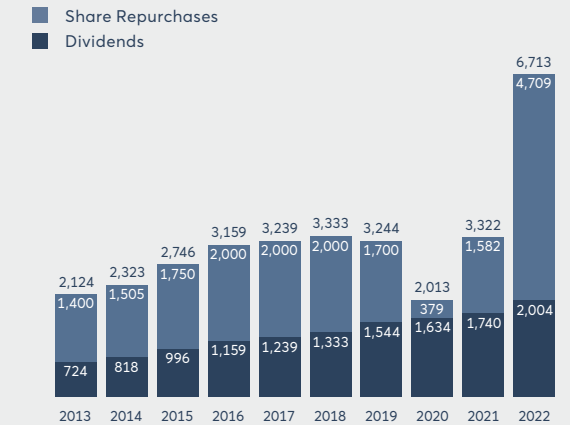
### CAPITAL INVESTMENTS AND 15.4% AVERAGE ADJUSTED ROIC<sup>(1)</sup> OVER THE LAST 10 YEARS

CN has a strong track record of capital investment and return on invested capital (ROIC) to improve the safety and reliability of our service, support the growth of our customers, and digitize our processes to continue to compete effectively.

(1) Capital investments and Adjusted ROIC are non-GAAP measures and do not have any standardized meaning prescribed by GAAP and, therefore, may not be comparable to similar measures presented by other companies. For an explanation of these non-GAAP measures, refer to the section titled "Non-GAAP Measures" of our 2022 Management's Discussion & Analysis (MD&A), which section is incorporated by reference herein and is available on SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca), on the SEC's website at [www.sec.gov](http://www.sec.gov) through EDGAR, and on CN's website at [www.cn.ca](http://www.cn.ca) in the "Investors" section.

## Returning Value to Shareholders

**SHAREHOLDER DISTRIBUTION (\$ millions)**



**\$32B**

### RETURNED TO SHAREHOLDERS OVER THE LAST 10 YEARS

CN's strong financial position allowed us to return \$6.7 billion to our shareholders in 2022. With an 8% increase in 2023, we have raised our dividend every year since our initial public offering in 1995 at a compound average growth rate of 14% since 2013.

## Selected Sustainability Ratings and Memberships



CN continues to be recognized by various organizations for our stellar ESG performance and reporting. These listings strengthen CN's status as a leader among North American Class I railroads and across the entire transportation sector.

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# Moving the Sustainable Economy

CN is proud to play a critical role in supporting North America's lower-carbon economy and the fight against climate change by providing energy-efficient transportation solutions.

## > BIOFUELS



The oilseed crushing industry has been growing steadily in recent years, driven by increased demand for canola products as an ingredient in sustainable renewable fuels, which have a tremendous potential to reduce the environmental impact of transportation.

## > ELECTRIC VEHICLES



A desire to reduce carbon emissions, supportive government incentives, wider deployment of charging stations, and lower operating costs for electric vehicles (EVs) compared to those with internal combustion engines are factors anticipated to drive growth in this emerging market segment.

## > CRITICAL MINERALS



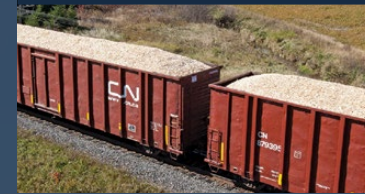
The demand for EVs is expected to drive up demand for certain metals and minerals used in production, such as aluminum, copper, nickel, lithium, and graphite. Canada is a major producer of these metals and minerals, and CN is prepared to take advantage of the sustainable growth.

## > CLEAN ENERGY



Thanks to the innovation of our customers, we are moving more zero-emission energy alternatives, including solar panels and wind turbines, strengthening North America's position in cleaner energy markets across Canada, the U.S., and the world.

## > WOOD PELLETS



With the emphasis on renewable energy to combat climate change, demand for clean-burning wood pellets used for power generation is expected to continue to rise. And, with rail access to fibre-rich areas, CN is well positioned to serve this growing market.

## > RECYCLING



CN plays an important role in the circular economy, transporting plastics and metals for transformation and reuse, and helping to keep these materials out of landfills. At CN, we are also avid recyclers, diverting >90% of our operational waste from landfills.



PICTURED: A CN unit train transports wind turbine blades to producers and consumers of renewable electricity, Saint-Lazare, SK



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# MILESTONES ON OUR JOURNEY

2006

Publishes first public sustainability report under the five pillars of **Delivering Responsibly**: safety, environment, people, community, and governance.

2010

Publicly discloses **GHG footprint**, risks, opportunities, and strategy through CDP.

2010

1st North American railroad to publish a **sustainability report aligned with the Global Reporting Initiative**.

2011

Launches **EcoConnexions Employee Engagement** program to promote waste reduction, energy conservation, and good housekeeping practices.

2012

Listed on the **Dow Jones Sustainability World Index** for the first of 12 consecutive years.

2013

Commits to CN's **Indigenous Vision** to build respectful and mutually beneficial relationships with all Indigenous peoples.

2014

Launches **EcoConnexions Partnership Program** to recognize the sustainability efforts of our customers and supply chain partners. In recognition, trees are planted on their behalf as part of our mass reforestation efforts.

2014

Creates the **Looking Out for Each Other** program to strengthen our safety culture and performance.

2016

Commits to the United Nations' **Sustainable Development Goals (SDGs)**.

2009

1st of 15 consecutive years listed on Corporate Knights' **Best 50 Corporate Citizens of Canada**.

2012

Launches **EcoConnexions From the Ground Up** program to help communities establish green spaces along our network.

2020

1st North American railroad to issue a report aligned with the **Task Force for Climate-related Financial Disclosures (TCFD)**.

2019

Develops **Life Critical Rules** to embed safe work practices in major functions.

2019

Celebrates **100 years of service and resiliency**.

2019

Adopts the **Sustainability Accounting Standards Board** reporting standards.

2018

Only freight railroad and Canadian company listed on **CDP's Climate A List**.

2017

One of the 1st 100 companies in the world and 1st freight railroad with a **GHG reduction target approved by SBTi**.

2020

Begins creating **Employee Resource Groups** to bring employees with similar backgrounds together.

2021

1st North American railroad to **secure a sustainability-linked loan** tying the cost of capital to environmental targets.

2021

Develops a **Climate Action Plan** and is among the 1st companies globally to give shareholders an annual non-binding advisory vote.

2021

1st North American railroad to **commit to setting a net-zero 2050 target** through the "Business Ambition for 1.5°C".

2021

**SBTi approves CN's revised GHG targets** to reduce Scope 1, 2, and 3 emissions in line with the Paris Agreement.

2022

CN's Board of Directors achieves target of **50% of independent Board member representation by women**.

2022

Becomes a founding participant of the Government of Canada's **Net-Zero Challenge** to help businesses transition to net-zero emissions by 2050.

2022

Officially joins the **United Nations Global Compact** initiative and participates in the **Race To Zero**.

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# COMMITTED TO A BETTER WORLD

At CN, our vision is to be the safest and most carbon-efficient, operationally effective, and customer-centric railroad in North America. *Delivering Responsibly* is at the heart of how CN is building for a sustainable future. Our five pillars guide all our actions as we move forward together toward a better world.



## OUR SUSTAINABILITY COMMITMENTS

### Environment

Conduct our operations in a manner that seeks to minimize our environmental impact, while providing cleaner, more sustainable transportation services to our customers.

### Safety

Be the safest railroad in North America by establishing an uncompromising safety culture and implementing systems designed to minimize risk and drive continuous improvement.

### People

Provide a safe, supportive, and diverse work environment where our employees can grow to their full potential and be recognized for their contributions to CN's success.

### Community

Build safer, stronger communities by investing in development, creating socioeconomic benefits, and ensuring open dialogue with all stakeholders, including Indigenous peoples.

### Governance

Continuously improve our culture of integrity and ethical business conduct, building trust and confidence with all our stakeholders.

SDG	Our Ambition	Progress	SDG	Our Ambition	Progress
	Health and safety is key to CN's operations, with training and programs designed to reduce accidents and engage employees at all levels.	+ <a href="#">Safety</a>		CN collaborates with stakeholders to support the development of inclusive, safe, sustainable, and disaster-resilient cities.	+ <a href="#">Operations</a> + <a href="#">Community</a>
	We develop strategies to attract, retain, and provide opportunities for women to lead in the rail transportation sector.	+ <a href="#">People</a> + <a href="#">Governance</a>		We work collaboratively across the value chain to support sustainable production and consumption, and continually look for ways to optimize materials and equipment to minimize waste.	+ <a href="#">Environment</a>
	CN invests in education and skills development to provide a safe, secure, and inclusive work environment for all employees.	+ <a href="#">People</a> + <a href="#">Governance</a>		We invest in efficient, low-carbon, and climate-resilient rail transportation infrastructure and technology, and engage our value chain for deeper decarbonization.	+ <a href="#">Environment</a>
	We build, maintain, and operate safe, efficient, and resilient rail infrastructure across North America supported by innovative technology.	+ <a href="#">Operations</a> + <a href="#">Safety</a>		Protecting biodiversity and managing the lands near our network is essential to operating a responsible railroad. Our goal is to minimize environmental disturbance, while creating positive enhancements.	+ <a href="#">Community</a>

While CN contributes directly and indirectly to each of the United Nations' 17 SDGs, a detailed consideration of the indicators and metrics that comprise the UN's SDG framework has helped us to identify eight SDGs upon which we believe we can have the greatest impact and align with CN's five pillars of *Delivering Responsibly*. The selection of these SDGs is also based on the principles of materiality and stakeholder inclusiveness, to prioritize the topics that matter most to our business and our stakeholders.

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# PROGRESS TOWARD OUR TARGETS

Area	Topic	Mid-Term Target	2022 Progress	Trend	Long-Term Goal
ENVIRONMENT	GHG Emissions	<b>43%</b> Scope 1 and 2 intensity reduction by 2030 based on 2019	In 2022, we reduced our GHG emission intensity for Scope 1 and 2 by 2.0% from 2021. We realized an 18% progress toward our 2030 target.	●	We have committed to setting a net-zero 2050 target by signing the "Business Ambition for 1.5°C".
		<b>40%</b> Scope 3 intensity reduction for fuel- and energy-related activities by 2030 based on 2019	In 2022, we reduced our GHG emission intensity for Scope 3 for fuel- and energy-related activities by 4.3% from 2021. We realized a 40% progress toward our 2030 target.	●	
	Air Emissions	<b>6%</b> intensity reduction by 2022 based on 2017	In 2021, we achieved our 6% intensity-based reduction in Criteria Air Contaminants (CACs) by 2022 based on 2017 levels which was based on a long-standing Memorandum of Understanding (MOU) with Transport Canada.	●	In line with our commitment to net-zero GHG emissions, we aim to also reduce our locomotive air contaminants to net-zero by 2050.
	Waste	<b>95%</b> diverted from landfill by 2030	In 2022, we diverted approximately 94% of our waste from landfill.	●	We aim to play an important role for greater resource efficiency, the creation of regenerative economic systems and to achieve zero waste by 2050.
	Biodiversity	<b>3 million trees</b> planted by 2030	In 2022, we planted 114,000 trees, for a total of 2.3 million trees since 2012. We realized a 77% progress toward our 2030 target.	●	We aim to have a positive impact by investing in reforestation projects that generate benefits for nature and society.
SOCIAL	Personal Safety	<b>55%</b> reduction in personal injury frequency rate (per 200,000 person hours) by 2030 based on 2019	In 2022, we improved our personal injury frequency rate by 19% from 2021. We realized an 80% progress toward our 2030 target.	●	Our goal is to create a values-based safety culture and to reduce serious injuries and fatalities to zero.
	Operational Safety	<b>45%</b> reduction in accident rate (per million train miles) by 2030 based on 2019	In 2022, our accident rate increased by 7% from 2021. We realized a 26% progress toward our 2030 target.	●	Our goal is to be the safest railroad in North America by establishing an unwavering safety culture as well as investing in technology and infrastructure.
	Executive Diversity	<b>30%</b> female representation at executive level by 2022	At the end of 2022, 8 of the 30 executive management members (27%) identified as women. We continue to focus on increasing diversity through our succession planning strategies.	●	Diversity is an essential element in sustaining CN's competitive success and we aim to have our senior management and Board composition reflect the communities and customers we serve.
GOVERNANCE	Board Diversity	<b>50%</b> non-management Board members from under-represented groups, including gender parity by 2022	At the end of 2022, 5 of the 10 independent Board members (50%) identified as women. We have met our 2022 target. In addition, 20% of the current independent Board members identified as visible minorities.	●	

● Green: On target or achieved ● Yellow: Possible to meet target ● Red: Off target



PICTURED:  
Stephanie Moricz, Rail Traffic Controller at Kirk Yard in Gary, IN

## Our Commitment

Deliver safe and reliable service to our customers by continuously improving our operating performance and network resiliency while maximizing the efficiency of the whole supply chain.

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# STRENGTHENING EFFICIENCY AND CUSTOMER SERVICE

CN operates a disciplined scheduled railroad based on a strong level of safety, with high railcar velocity and low terminal dwell. We are committed to consistently serving the needs of our customers with a resilient network.

## Rail Network Safety and Efficiency

CN has a great network and a fantastic team of operating people focused on running a disciplined schedule with an emphasis on railcar velocity and dwell. The faster our rolling stock circulates from origin to destination and back again, the more volume we can handle with the same equipment and crews. And we are delivering results. Velocity in 2022 and 2023 is up, reaching levels not seen since 2016, and terminal dwell is down. But this means nothing if we do not do it safely. At CN, our safety aspirations are anchored on our commitment to eliminate injuries and accidents through a combination of vigilance, training, leadership, and proactive maintenance. Advanced technologies are also delivering enhanced safety as well as operational efficiencies.

## Customers and Supply Chain Partners

Our strategy is focused on consistently delivering the quality service our customers expect by using the strength of our network, people, technologies, and partnerships to accelerate sustainable, profitable growth. We put the customer at the centre of everything we do so we can provide faster and more consistent, reliable service. All our business units maintain deep relationships with their customers and supply chain partners to understand their markets and anticipate future demand. This collaborative approach enables us to work together to address challenges, resulting in improved overall efficiency and reliability.

By delivering on our commitments, we are building trust and confidence with our customers and supply chain partners. We are also partnering more with other railways to help our customers reach new markets. Collaboration and integration within the whole supply chain are the keys to how we will move forward, together.

## Network Resiliency

As the most northerly Class I railway operating in North America, we understand the challenges that cold, snow, ice, and rain bring every winter. CN has taken many steps, including preventative measures and a focus on ensuring local rail service matches mainline network capacity, to allow the network to recover quickly. See [page 17](#) for more details on CN's Winter Plan. We have also been resilient in delivering for our customers as we meet the issues brought about by global supply chain disruptions, and we continue to work with our customers and partners to build capacity and enable growth.

Another important aspect of resiliency is providing our customers with transparent access to real-time information that allows them to track the status of their shipments and empowers them to make critical decisions regarding their operations.

## 2022 Performance Highlights

- Refocused on running a disciplined scheduled railroading operating model with an emphasis on higher railcar velocity and lower dwell in our terminals and yards.
- Invested \$2.8 billion to support the safety of our network, improve efficiency and resiliency, and enable growth.
- Deployed advanced technologies to improve safety, productivity, and customer service.
- Our Voice of the Customer rating of 85% improved by 5% over the previous year's results.



- CN continues to consume about 15% less locomotive fuel per GTM than the industry average.
- We are testing renewable fuel blends for use in our locomotives to reduce emissions, and we announced the purchase of a 100% battery-electric locomotive.
- CN plays a critical role in transporting zero-emission products such as solar panels and wind turbines.
- We are aggregating distribution facilities into centralized hubs that help reduce our customers' overall GHG emissions and operating costs.



# ENSURING A SAFE AND FLUID NETWORK

We help our customers grow their markets and reach new ones by enhancing our scheduled operating plan and developing innovative supply chain solutions. We are committed to continuing to invest in our network infrastructure and rolling stock to enhance the safety, fluidity, and reliability of our service.

## Uncompromising Commitment to Safety

With proper training, leadership, and by always looking out for each other, we strive to ensure everyone goes home safely at the end of each shift. We are also focused on preventing train accidents, which not only threaten people and property, they also cause delays on the network. In addition to manual/visual inspections, our automated inspection portals, Autonomous Track Inspection Program (ATIP) railcars, and vast network of wayside detectors significantly increase the frequency and quality of track and rolling stock inspections. Millions of data points are collected daily to help us identify problems before they happen. As a result, CN is creating a safer and more resilient rail network, which translates into greater rail capacity and velocity, as well as fewer disruptions due to track and equipment malfunctions.

## Evolving Scheduled Railroading

In 2022, we implemented fundamental changes to our operating model. We renewed our focus on ensuring our manifest and intermodal trains depart on time from CN yards with the right blocks of railcars going to the right destinations. We also scheduled slots in key corridors

for unit trains of bulk commodities like grain. In addition, we staged bulk unit trains west of Edmonton to take advantage of any available capacity in our corridors with the heaviest traffic. The changes have delivered CN's best car velocity in seven years and have significantly reduced terminal dwell. The result is more network capacity and better customer service.

## Effective Network Planning

CN analyzes all volumes across the network as well as metrics like car velocity and on-time train performance to set a plan that optimizes capacity for the entire network, not just one corridor or train. Effective operational design, planning, coordination, and communication are vital to building the most efficient trip plan to meet customer demand. They are also critical to maximizing network capacity and making the best use of operating assets (i.e., crews, locomotives, rolling stock, and rail infrastructure) to deliver the goods safely and reliably.

By analyzing data on train movements and scheduling, we identify potential bottlenecks, refine the model, and optimize train transits and connections to minimize delays and improve overall efficiency and capacity.



## Good Planning is Key

A critical element of our supply chain collaboration model is open communication and planning with all our stakeholders. For example, as the most northerly Class I railroad operating in North America, the challenges of winter and its effects on rail transportation are deeply ingrained in CN's operations and planning activities. Our [CN Winter Plan](#) sets out the actions and innovations we have implemented to ensure we meet the needs of our customers and stakeholders during the difficult winter months. And, CN collects input from grain producers, grain-handling companies, customers, and government officials to develop our [CN Grain Plan](#), a comprehensive, robust, and focused action plan to deliver the anticipated volume of grain.

### Faster Trains

**213 miles**

PER DAY – AVERAGE CAR VELOCITY IN H1 2023, UP 15% VS. H1 2022

### Reduced Dwell

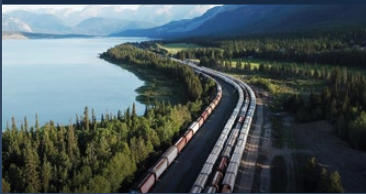
**6.9 hours**

DWELL ACROSS ALL YARDS IN H1 2023 IMPROVED 15% VS. H1 2022

# Investing for Today and Tomorrow

We continue to invest in our network to build safety and reliability, and to match the evolving needs of our customers and the emerging supply chains of the future. Our capital program also creates optionality and resiliency to better respond to the unexpected.

## > EXPANSION



CN's aim is to expand capacity ahead of demand by building long sidings and doubling tracks, especially in Western Canada, to improve network fluidity and make the network more resilient to disruptions.

**150+** miles

OF DOUBLE TRACK AND 20+ LONG SIDING PROJECTS SINCE 2016

## > MAINTENANCE



About 60% of CN's capital investments in 2022 were dedicated to track maintenance, including the replacement of rail and ties, bridge improvements, plus upkeep of level crossings, culverts, signals, and other track infrastructure.

**3.6** million feet

OF RAIL AND 1.1 MILLION TIES REPLACED IN 2022

## > LOCOMOTIVES



We are continuously upgrading our fleet to accommodate expected demand. Cleaner, more fuel-efficient locomotives also enable us to decouple our GHG emissions from business growth. Tier 4 locomotives reduce particulate emissions by up to 90%.

**~300**

LOCOMOTIVES ADDED SINCE 2018 TO RENEW OUR FLEET

## > ROLLING STOCK



In 2022, CN acquired 800 new high-capacity boxcars to allow us to increase our share of new industrial production and respond to shifts in demand. We also added 500 high-efficiency grain hopper cars and will take delivery of 750 more in 2024.

**+3,500**

HIGH-CAPACITY GRAIN HOPPER CARS ADDED IN LAST 3 YEARS

## > PORTALS



Automated inspection portals feature high-definition cameras and high-intensity LEDs that capture a 360° view of a train as it travels at track speed. Artificial intelligence (AI) helps experienced mechanics identify railcars requiring repair.

**7** portals

IN OPERATION 24/7 ACROSS THE NETWORK

## > ATIP RAILCARS



CN is installing powerful sensor and AI technology into ATIP railcars positioned in regularly scheduled trains, enabling autonomous track inspections at normal track speeds and under load.

**11** ATIP cars

PROVIDING CONTINUOUS TRACK ASSESSMENT ACROSS THE NETWORK



PICTURED: A CN intermodal train with an ATIP railcar crosses the historic Kankakee Railroad Bridge south of Chicago.

# ENABLING CUSTOMERS AND SUPPLY CHAIN PARTNERS

We are committed to working with all our customers and supply chain partners to deliver sustainable top-tier transportation services by anticipating their needs, understanding their growth plans, and earning their trust.

## Collaboration Is Key

At CN, by running a disciplined scheduled operation, we are leaning into our strengths and pursuing growth opportunities across our three-coast network. Our business model is anchored on end-to-end collaboration with our customers and supply chain partners from true origin to ultimate destination. We add value to this model by leveraging our expertise and technological innovation to advise our customers and help them win in their markets — because when our customers grow, CN grows along with them.

We have service level agreements in place with all the port authorities and terminal operators we serve. Our collaborative approach ensures imports are transported from the ports in a timely fashion, exports arrive in time to meet vessel schedules, and our trucking partners move quickly in and out of our intermodal terminals.

## Strengthening Relationships

We aim to provide the highest level of cost-effective transportation and logistics services to our customers. We set our customer satisfaction targets high and remain aligned with our customers' needs. Maintaining strong relationships helps us identify and act on important market

trends that influence business decisions. Our goal is to continue to provide our customers with consistent, reliable, and efficient service. Due in part to increased communication and safety efforts, our overall customer satisfaction score in 2022 was 85%, up from 80% in 2021. Proactive customer notification, enhanced safety awareness, and improved service quality have all had positive impacts on overall customer experience.

## Creating Value with Innovation

We are taking advantage of the rapid evolution in technology, analytics, and automation to be more efficient, improve safety, and deliver more reliable and seamless service to our customers. An example of how we are using technology to improve transparency and make it easier to do business with CN is our new *CN One* mobile shipment tracking app for carload and Intermodal customers launched in 2023.

Our innovation efforts are focused on making it easier to do business with us through closer data integration and transparency. CN's suite of Application Programming Interfaces offers robust supply chain visibility tools that demonstrate our commitment to managing customer supply chains through system integration.

▶ Watch the video to learn more about how CN is enabling customers and supply chain partners at: [vimeo.com/820641128](https://vimeo.com/820641128)



## Alberta Clean Energy: A Partnership for Growth

Part of CN's sustainable business model involves the aggregation of distribution facilities into centralized hubs that reduce our customers' overall GHG emissions and operating costs.

An example of this strategy is the planned Alberta Clean Energy (ACE) terminal. CN and Keyera, a Canadian energy infrastructure business, will leverage our joint expertise to develop the most efficient rail logistics solution in the Alberta Industrial Heartland.

ACE will aggregate natural gas liquids along with clean energy products such as biodiesel, hydrogenation-derived renewable diesel, and sustainable aviation fuel from multiple sources for transport to markets across North America and around the world.

# 85%

VOICE OF THE CUSTOMER RATING IN 2022



SPOTLIGHT

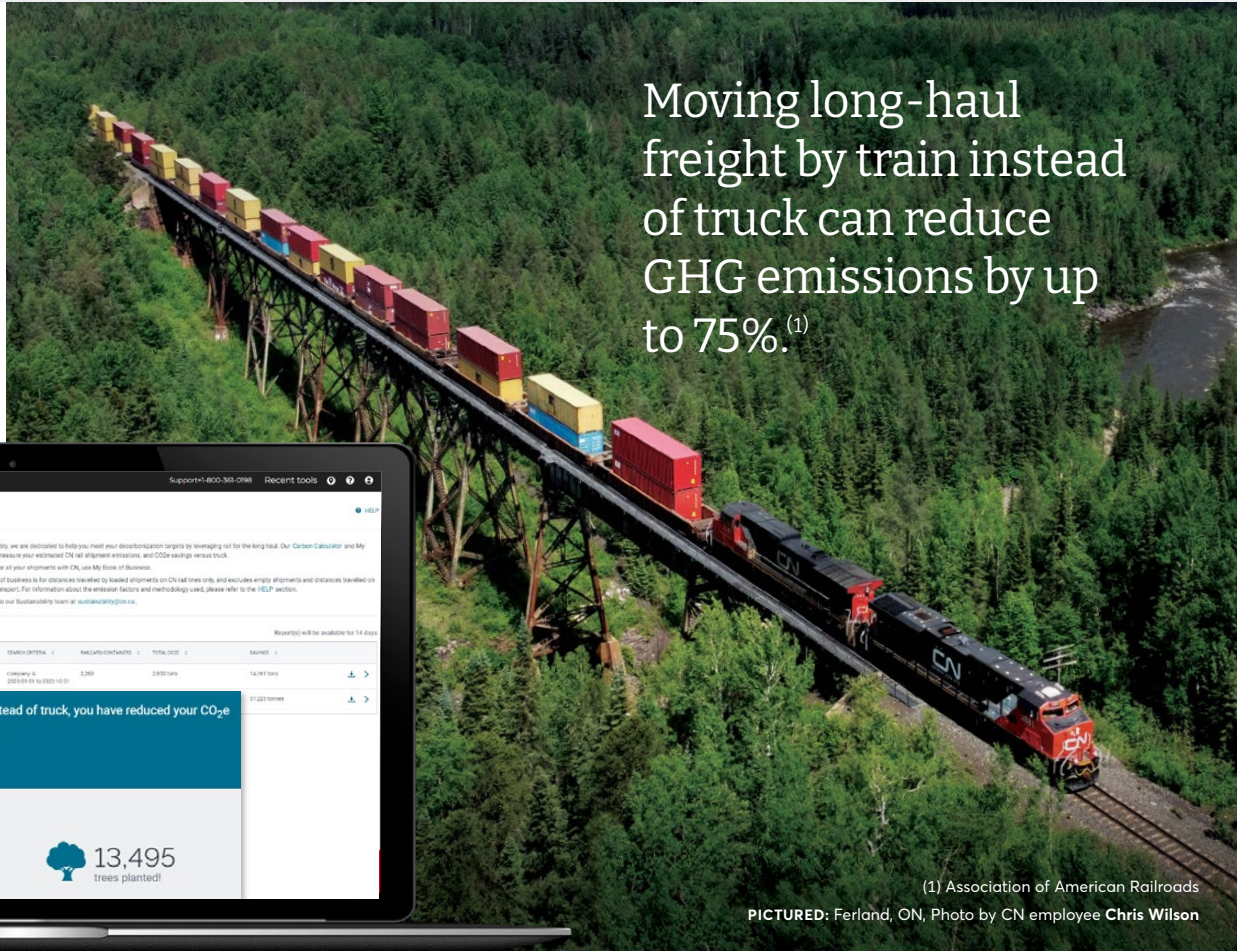


# New Customer Tool: *My Carbon Emissions*

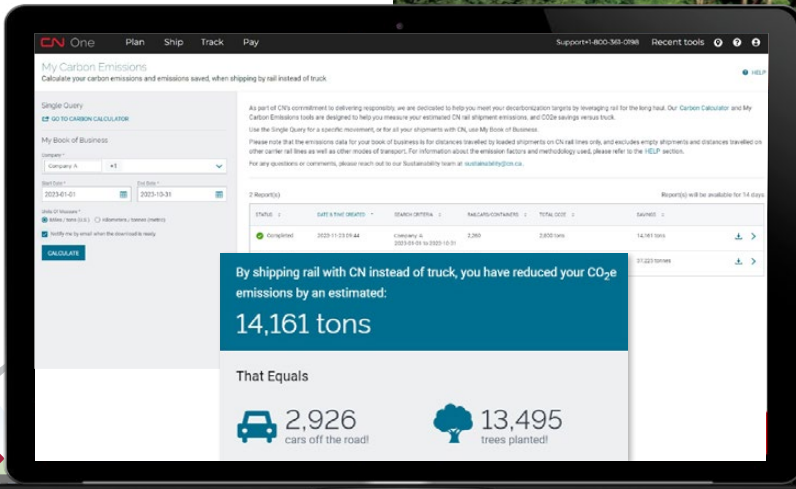
As more companies are looking to quantify and lower their transportation GHG emissions, CN has launched a new online self-serve sustainability tool, *My Carbon Emissions*, to provide customers with an estimate of their GHG emissions for all their shipments, as well as the emissions they avoided by choosing rail over truck.

CN was first to launch a carbon calculator, 13 years ago, to give customers visibility into their estimated GHG emissions and the emissions they avoid by using rail transportation. Now, this new tool, available on the *CN One* eBusiness platform, provides customers with a detailed report of their estimated GHG emissions based on all their loaded shipments moved on CN, as well as the emissions avoided by choosing rail over truck. These insights into the environmental benefits of shipping via CN's transcontinental network empower customers to make data-driven decisions that support their climate objectives.

*My Carbon Emissions* demonstrates CN's commitment to innovate and offer solutions for our customers' evolving needs. Rail has a tremendous potential to reduce the environmental impact of transportation. Moving long-haul freight by train instead of truck can reduce GHG emissions by up to 75% and CN consumes about 15% less locomotive fuel per GTM than our peers.



Moving long-haul freight by train instead of truck can reduce GHG emissions by up to 75%.<sup>(1)</sup>



(1) Association of American Railroads

PICTURED: Ferland, ON, Photo by CN employee Chris Wilson

# ENHANCING NETWORK RESILIENCY

CN employees power our success by caring about our business and bringing a high level of commitment and resilience to our operations. As a team, we are running a scheduled operating plan, with emphasis on service, efficiency, and velocity. Having an integrated network plan makes it easier to adjust to volume fluctuations and the whole supply chain is more resilient to disruptions.

## Protecting CN's Mainline Fluidity

We provide our customers with optionality and resilience in a world of emerging and shifting trade patterns through our exceptional footprint that spans the continent. Since railcars are ordered by our customers for delivery to/from their respective facilities, matching feeder traffic to the capacity of the mainline is paramount to protect overall traffic movement. CN ensures local rail service matches the capacity of the mainline to accept traffic, especially during periods of extreme weather, wildfires, or other service interruptions. This allows network productivity to recover much more quickly after a disruption.

## Building and Maintaining Resilient Infrastructure

CN has a disciplined approach to capital allocation, which is to support the safety of our network, improve efficiency and resilience, and enable growth. In 2022, we invested approximately \$2.8 billion in our capital program, with approximately \$1.6 billion allocated to maintaining the basic safety and integrity of our network. These projects focused on the replacement of worn rail and ties, plus maintenance of crossings, bridges, culverts, signals, and other track infrastructure.

The balance of our 2022 capital program, approximately \$1.2 billion, focused on enabling sustainable growth. Capacity upgrades included lengthening sidings and doubling sections of mainline track so we can run longer and more frequent trains in our busiest corridors. Investments in new equipment included more powerful yet fuel-efficient locomotives and higher-capacity hopper cars and boxcars. The new rolling stock also saves fuel as it can carry more volume per train. In addition, we continued to invest in information technology, with a focus on automation and digitization. These investments help us create more resilient service for our customers.

## Leveraging Tech for More Resilient Operations

Innovative technologies enable CN to enhance safety, reduce risk, and provide more resilient operations. Predictive analytics can identify problems before they happen and avoid network disruptions. CN uses over 2,800 detectors on our right-of-way to measure the condition of train components (e.g., wheels and bearings) and prompt the repair or replacement of a component before it fails.

CN's seven automated inspection portals (AIPs) use high-resolution imaging and machine learning to inspect trains at track speed around the clock, helping experienced mechanics identify railcars requiring repair. CN has 11 ATIP railcars equipped with multiple advanced measurement systems to inspect track and assign preventative maintenance. The cars operate 24/7 on regularly scheduled trains at track speed, allowing for real-time measurement of track conditions under load. Increasing the frequency and quality of inspections help reduce accidents related to railcar and track defects.



## Distributed Air Braking Cars

Unique among Class I railroads, CN modifies boxcars to add air compressors that supplement the air supply to a train's air brake system in extreme cold temperatures. Distributed air cars are very effective for winter operations because they can minimize the need to reduce train lengths for safety reasons. CN has about 100 air cars strategically deployed along our mainline during colder months. Our air cars have travelled more than five million miles since they were introduced in 2006.

 See page 27 in Safety for more information on ATIP.



# Preparing for the Winter

CN has dealt with and learned from winter’s harsh reality. While winter conditions have the potential to increase the risk of congestion and delays, the resilience and determination needed to overcome the inevitable challenges have become ingrained in how we keep our railway running.

Whether it is extreme cold, ice, heavy snow or rain, winter weather fundamentally affects what we do and how we do it. Each year, CN takes many steps to prepare for the challenges of operating a railway in a northern climate, including obtaining volume forecasts from customers and adjusting to a changing federal regulatory environment.

**SAFETY**  
CN’s focus on safety is even stronger during winter, when the elements can directly affect safe operations. We have comprehensive employee training, including to prevent frostbite and other injuries. We recognize that it may take a little more time to complete a task during winter, and we may even need to suspend operations when extreme weather makes it unsafe.

**CUSTOMERS**  
CN’s rail network connects shippers to receivers, each with their own considerations and challenges. The fluidity of the North American rail network depends on the fluidity of all rail carriers and supply chain partners. Accurate customer demand forecasts are required for us to plan our operations, especially during winter. Collaborative resource planning is critical to deliver the best possible service.

**NETWORK**  
We have made fundamental changes to our operating plan to increase car velocity and reduce dwell. While we undertake numerous planning activities in advance of winter, exceptional conditions like blizzards, persistent cold, and track outages are always a possibility. In the event of a disruption, CN proactively updates customers and takes steps to restore service as soon as possible.

**OPERATIONS**  
CN takes action to make our operations more resilient ahead of winter. We focus on strategic infrastructure investment to proactively reinforce our network against winter conditions. When temperatures dip below -25°C (-13°F), we shorten trains to maintain safety, which increases our need for locomotives and crews. CN’s deployment of distributed power and air cars helps maintain fluidity across the network during the coldest months.

PICTURED:  
Henry House, AB  
Photo by CN employee **Tim Stevens**

 Learn more about the many steps CN takes to prepare for the challenges of a northern climate at: [CN Winter Plan 2023–2024](#)



# SAFETY

PICTURED:  
Cory Klashinsky, Watchman/Engine Hostler, at Chappell Yard in Saskatoon, SK.

## Our Commitment

Be the safest railroad in North America by establishing an uncompromising safety culture and implementing systems designed to minimize risk and drive continuous improvement.

### IN THIS SECTION:

- 19 Overview
- 20 Safety Culture and Management
- 23 Workplace Health and Safety
- 25 Operational Safety and Technology

# DRIVEN TO STAY SAFE IN ALL THAT WE DO

We take nothing more seriously than our goal of ensuring everyone goes home safely every day.

## Safety Culture and Management

At CN, safety is a core value. Our ambition is to be the safest railroad in North America with an unwavering commitment to the health and safety of our employees, the customers we serve, and the communities and environments in which we operate. We are on a journey to zero – zero serious injuries and accidents and zero harm – through an uncompromising safety culture and a systematic approach to safety and risk management.

Our safety culture is instilled starting on Day One at our CN Campuses and across our network through ongoing safety training, coaching, leadership, employee engagement, and by managing exposures. Our longstanding *Looking Out for Each Other* program urges team members to work together, be vigilant about safety, and speak up if they spot an unsafe situation. We also focus on strict adherence to *Life Critical Rules*, which address job-related activities that have the potential to cause serious injury or fatality.

## Workplace Health and Safety

CN uses a wide variety of processes and initiatives to maintain a safe workplace. This includes our Safety Management System and Risk Reduction Program, formal frameworks for ensuring employees, contractors, and other stakeholders adhere to all applicable health

and safety regulations while on CN property. All employees are responsible for working together with a strong safety mindset as well as for ensuring a workplace free from violence and harassment.

CN's joint union-management Health and Safety Committees help address the main causes of accidents and injuries in Canada by reviewing safety issues at the local level and conducting monthly site inspections. Employees and managers also engage in two-way discussions about safety-related questions and concerns at in-person Safety Summits, which are held regularly throughout the year across the network.

## Operational Safety and Technology

CN is investing in infrastructure and adopting new technologies to reduce the occurrence and severity of accidents and injuries. For example, we are increasing the frequency and quality of track and railcar inspections by utilizing automated methods. Our algorithms use predictive analytics to identify problems and proactively assign preventative maintenance before accidents happen. Through our structured community engagement program, CN employees share information with communities on crossing safety, corridor risk assessments, proximity guidelines, dangerous goods traffic, and emergency response training.

## 2022 Performance Highlights

- › CN's accident ratio in 2022 was down 12% compared to our 2019 baseline, achieving 26% of our 2030 target. Progress continued in the first half of 2023, with the accident rate down 27% year-over-year.

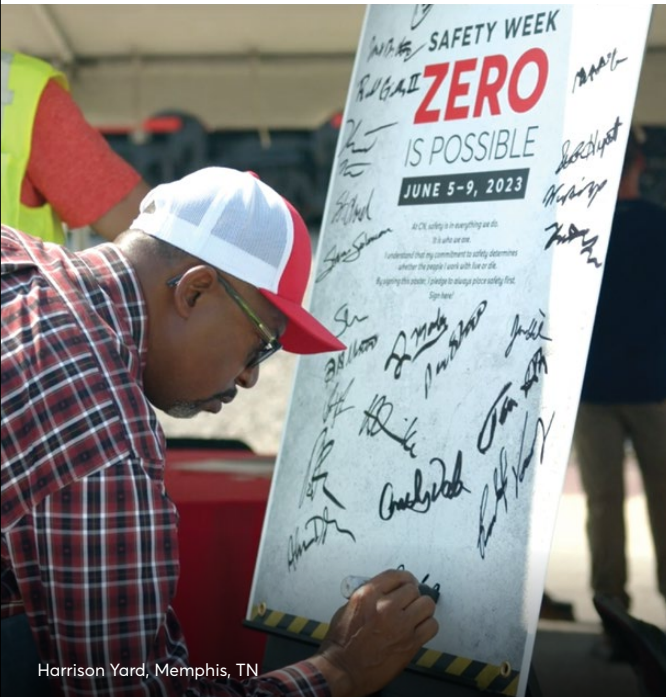


- › Allocated \$1.6 billion of our \$2.8 billion capital program to maintaining the safety and integrity of our rail network.
- › Inspected nearly 800,000 miles of track in 2022 with our Autonomous Track Inspection Program (ATIP) railcars.
- › Brought critical dangerous goods response training to close to 4,700 first responders in 2022.

- › CN's personal injury ratio in 2022 was down 44% compared to our 2019 baseline to its lowest level ever, achieving 80% of our 2030 target. Progress continued in the first half of 2023, with the injury rate down 20% year-over-year.



- › Expanded our *Life Critical Rules* safety program to include online training and in-person testing to enhance accessibility and learning.
- › Implemented various preventative safety training programs and technological innovations to identify and mitigate exposures to risk.



Harrison Yard, Memphis, TN



Southwark Yard, Saint-Lambert, QC



Chappell Yard, Saskatoon, SK

## Coming Together for Safety

CN's first-ever Safety Week was held from June 5 to 9, 2023, with special gatherings across the entire network to remind ourselves that nothing is more important than returning home safely to our loved ones. The week kicked off with field visits by executive leaders engaging shoulder-to-shoulder with employees where they work in terminals and yards across the network. Thousands of employees joined in discussions about safety and our business. The week ended with our second annual Leaders in Safety gala in Montreal, QC, honouring CN's Lifetime Leaders in Safety who worked their whole careers of 35-plus years injury free. The names of our Lifetime Leaders in Safety have been placed on the Wall of Outstanding Achievements in Safety, which is on permanent display in the lobby of CN headquarters in Montreal. Another award recognized CN teams that reduced injuries to record low levels.

Learn more about CN's Safety Week at: [vimeo.com/863213836](https://vimeo.com/863213836)



Centralia Yard, Centralia, IL



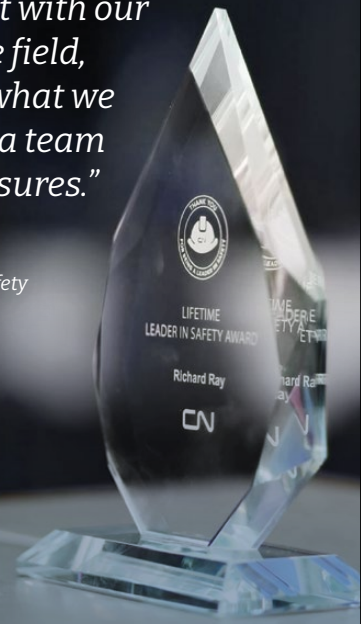
Wainwright Yard, Wainwright, AB



Winners of the 2023 Leaders in Safety Awards, Montreal, QC

*"We dedicated a full week to safety because it's a value. It's in everything we do. We went out where it matters the most with our employees in the field, learning about what we can do better as a team to mitigate exposures."*

**Matthew McClaren**  
Assistant Vice-President, Safety



# BUILDING A CULTURE OF SAFETY

We aspire to provide the leadership, training, and resources necessary to continue to move toward our safety goals of zero accidents, zero injuries, and zero harm in the workplace. We aim to foster a strong safety culture where every employee is dedicated to their personal safety and mental well-being.

## Looking Out For Each Other

*Looking Out for Each Other* is one of the best tools we have to enhance our safety culture and help everyone end their day as safely as it started. Our peer-to-peer engagement program trains employees to speak up about potentially at-risk work practices or physical hazards in the field.

CN has been progressively shifting from strict rules compliance and performance monitoring to a more inclusive focus on coaching and training. There is also an emphasis on understanding the root causes of incidents and offering constructive solutions at both the individual and system level. The spotlight is on learning, so employees feel safe to bring up bad news or report near misses and incidents.

All field operations employees are taught how to follow CN's *Life Critical Rules* for their job function. Ongoing training, coaching, and testing are reinforcing the importance of these rules to avoid serious injuries or fatalities.

At CN, every shift, meeting, or event begins with a job safety briefing to further embed safety into daily operations. The practice enables employees to maintain positive relationships and initiate meaningful conversations around improving safety by controlling, reducing, or eliminating exposures.

## Ensuring Continuous Learning about Safety

CN's safety culture is an integral part of every step of an employee's career, from hiring and onboarding, through training and coaching, to ongoing mentorship and leadership development. Ensuring continuous learning for our employees is critical to having a skilled, safe, and engaged labour force. In 2022, CN employees invested close to 900,000 hours in training covering skills re-certification, leadership development programs, and entry-level training.

See [page 50](#) for more information about our state-of-the-art training facilities

## Partnering with Our Suppliers on Safety

Our suppliers are key partners in our business. We strive to ensure they are guided by the same core safety value that guides us, and we partner with our suppliers to help them achieve the same safety standards we expect of ourselves. That is why we rolled out *eRailSafe*, a certification program specifically designed for CN consultants, contractors, and sub-contractors. Through *eRailSafe*, suppliers receive a short orientation to CN and a criminal background check with the assistance of the CN Police Service.

We use a third-party specialist to prescreen all our vendors to ensure they have the required training and credentials as well as comply with local and federal regulatory requirements, such as having sufficient insurance, workers' compensation, safety training, etc. Through this review process, each supplier is provided a letter grade (A, B or F) and must have a passing score to work on site for CN.

Learn more at: [www.cn.ca/en/safety/supplier-safety](http://www.cn.ca/en/safety/supplier-safety)



## Teaching Leaders How to Lead

Enhanced safety leadership training has been deployed to frontline supervisors (FLS) as well as to all newly hired or promoted managers. The goal is a work environment where all employees feel empowered to conduct operations safely, regardless of the urgency of the job. FLS are trained to ask themselves: Were the risks understood? Is more coaching required? Do procedures need adjustment?

PICTURED: Members of the Automotive team receive their Safety Leadership Training certificates. (Left to right): **Steven Dimeglio**, Supervisor, Autoramp; **Mark Guerriero**, Supervisor, Autoramp; **Nicolas Lavasseur**, Manager, Terminal; **Francis Arpin-Brunet**, Assistant Manager, Terminal.

# Life Critical Rules: Ensuring Everyone Goes Home Safely

At CN, safety is essential in everything we do. To prevent the most serious injuries, we have a set of safety rules for the most crucial aspects of our jobs. These are CN's *Life Critical Rules* (LCRs).

LCRs are those rules that, if not followed to the letter, can lead to serious injury or fatality. They are based on experience learned from past incidents and are designed to ensure such incidents do not happen again.

There are 10 job functions at CN, each with their own set of LCRs. These rules address the specific day-to-day activities in each of these job functions that have the highest potential to cause serious harm if the rules are not followed to the letter.

All CN employees, including current and new employees starting their careers, receive training on the LCRs applicable to their job function, both in the classroom and via training videos. CN's onsite employee engagement also provides ongoing coaching to employees on the LCRs through meaningful discussions to enhance rule understanding and help reduce exposure to risk.

CN has new digital training on the LCRs for Field Operations employees (CN's largest employee group). Each module has true-to-life videos and scenarios to show how the LCRs are applied in the field to control the critical exposures Field Operations employees face each day.

Employees are also assessed on their understanding and application of LCRs as well as their ability to identify critical exposures and put the proper controls in place to keep themselves and their colleagues safe. Every month, snap tests on selected LCRs are used to reinforce understanding of the LCRs and how to apply them. The snap tests also help managers provide impactful coaching when they evaluate employees in the field.

But at CN, safety is much more than simply following a set of rules; it is how we live our safety values.



To learn more about *Life Critical Rules* visit: [www.cn.ca/safety/employee-safety](http://www.cn.ca/safety/employee-safety)



PICTURED (FROM LEFT): **Chance Unrau**, Freight Car Mechanic, and **Chyle Christie**, Mechanical Supervisor, work safely by following the *Life Critical Rules*. Walker Yard, Edmonton, AB



# PLACING SAFETY AT THE CENTRE OF DAILY PRACTICES

We take nothing more seriously and do everything in our power to keep safe in all that we do and help ensure everyone goes home safely at the end of the day.

## Formalizing Safety Processes

Our railroaders use a wide variety of processes to maintain a safe workplace. CN's Safety Management System and Risk Reduction Program, formal frameworks for integrating safety into day-to-day operations, apply to all CN employees, and govern our relationships with contractors and other stakeholders while on Company property. CN complies with all applicable regulations to maintain a safe, secure, and healthy workplace. Employees are responsible for complying with Company safety policies and procedures as well as for ensuring a workplace free from violence and harassment.

## Working Together to Address Safety Issues

CN has approximately 80 joint union-management Health and Safety Committees in Canada that are helping to address the main causes of accidents and injuries and improve our safety culture. These committees review safety issues at the local level and connect with our people in the field to identify solutions. They also conduct monthly site inspections to identify potential hazards in the workplace. The committee records those inspections in the Enablon Go (see pg. 25) Inspections module and creates action plans for the repair or removal of those hazards.

Safety Summits are held regularly throughout the year across the network. These in-person sessions engage employees and managers in two-way discussions on safety-related questions and concerns, with the goal of continuously improving relationships and safety processes in the workplace.

## Improving Operational Safety with Mobile Reporting

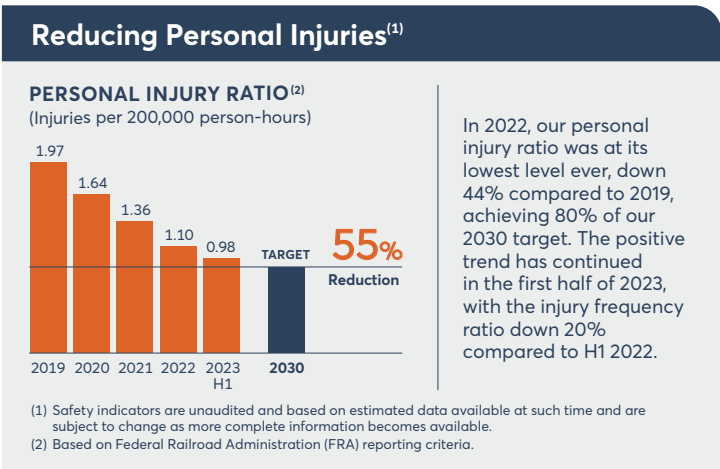
Train crews must record all car movements at customer locations. This has historically been a paper-based system, causing delays and a higher probability of errors. CN's Mobile Reporting System (MRS) empowers train crews with a safe and efficient method to report car movements in the field in real-time. MRS improves safety with up-to-date shipping instructions and dangerous goods information on all railcars.



## Technology to Help Keep Track Employees Safer

An innovative real-time application developed by CN to keep track employees safer has earned a 2022 Railway Association of Canada Safety Award. CN was recognized for its Electronic Track Authority Verification (ETAV) tool, which provides precise location information to hi-rail operators and warns them prior to exceeding their track authority limits.

ETAV complements existing processes that hi-rail operators use to get permission from rail traffic controllers to work on tracks. Operators log onto the ETAV app to see their exact location within their authorized track limits. Their truck's position is monitored in real-time through CN's Geospatial Information System. If they approach the limits of their track authority, ETAV sends them auditory and visual alerts.



# Preventative Safety Programs and Tools to Identify and Mitigate Exposure

At CN, we are committed to ensuring our employees have the necessary tools and training to identify exposures in the workplace and put controls in place to reduce or eliminate the exposures.

## > FIELD VERIFICATION

In 2022, weekly field exposure reduction discussions were introduced to identify and eliminate or control exposures. Field Verification of Critical Controls (FVCCs) focus on controlling critical exposures that have the potential to cause serious injuries or fatalities. FVCCs help ensure the necessary controls are in place to protect employees and represent further investment in the safety leadership skills of FLS. Qualified coaches are training FLS across CN on the FVCC process. In turn, FLS are providing coaching to employees to enhance their understanding of the required critical controls that must always be in place.

## > EXPOSURE WORKSHOPS

In 2022, we also began serious injury or fatality exposure workshops that focus on identifying high-risk scenarios that have the potential to cause serious injuries or fatalities. By working with subject matter experts across the Company and referencing leading and lagging safety indicators, workshop participants develop potential mitigation strategies for specific high-risk situations. These workshops are helping to eliminate or control exposures whenever feasible.

## > BLINDSPOT PROTECTION

Every day, hundreds of CN employees perform crucial car switching activities in railyards across the CN network. In many locations, crews are working in close proximity to multiple tracks at the same time, with rolling stock in constant motion. Blindspot Protector is intended to provide an additional layer of protection by improving situational awareness and warning workers of railcars approaching from behind. The pilot project is using backward-facing radar that scans a full 180 degrees for oncoming rolling stock. Vibration and audible alerts on worker-worn smartwatches have the potential to prevent severe injuries and fatalities.

**Note:** A hazard is a potential source of harm. Substances, events, or circumstances can constitute hazards when their nature would allow them, even theoretically, to cause damage to a person or property. An exposure occurs when an employee and a hazard come together.



**PICTURED:** Ryan Trithardt, Conductor, Surrey, BC, is focused on preventing exposures in the workplace while switching railcars in the yard.

# INVESTING FOR A SAFE AND EFFICIENT NETWORK

At CN, we are committed to continuing to build upon our leadership role in rail infrastructure and innovative technologies to monitor the condition of track and equipment to proactively minimize risks.

## Investing in Infrastructure

In 2022, we invested approximately \$2.8 billion in our capital program, with about \$1.6 billion allocated to maintaining the safety and integrity of our network. Projects included replacing 3.6 million feet of rail and 1.1 million ties. We also refurbished 448 level crossings and did maintenance work on bridges, culverts, signals, and other track infrastructure. Also, in 2022, we eliminated over 8,400 rail joints from core routes, almost twice as many as in the previous year. Replacing jointed track with continuously welded rail provides for stronger and safer track, which reduces the potential for accidents.

## Leveraging Technology

We are leveraging new technologies to drive improved safety performance. CN uses over 2,800 detectors on our right-of-way to measure the condition of train components, such as wheels and bearings. Our seven automated inspection portals (AIPs) use machine vision and AI to complement current manual railcar inspections. Our 11 ATIP railcars measure track geometry, cross level, and gauge, covering hundreds of thousands of miles a year, and doing it all at track speed. Combined, our safety inspection technologies produce millions of data points a day that, along with AI and trend analysis, are used to prompt the repair or replacement of a component before it fails.

## Emergency Preparedness and Response

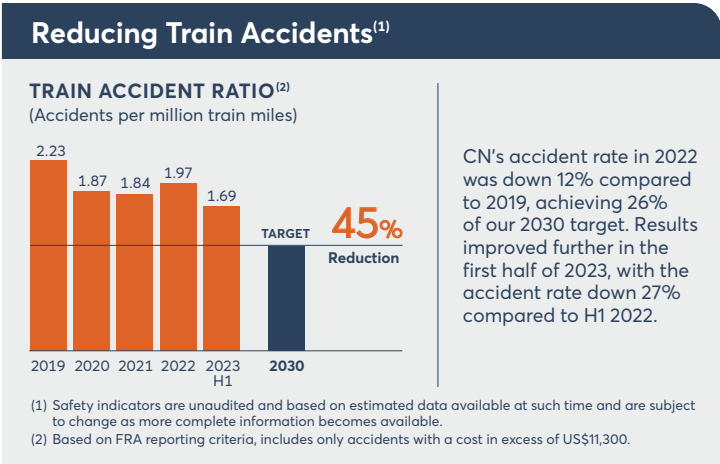
An important component of CN's work is supporting TRANSCAER® (Transportation Community Awareness and Emergency Response), an outreach effort to train emergency personnel in communities near rail lines where dangerous goods are transported. In 2022, CN participated in 283 TRANSCAER® events, bringing critical training to over 4,290 first responders. In addition, over 370 first responders attended web-based training on the CN Dangerous Goods website. Since 1988, CN has participated in over 5,950 TRANSCAER® events, reaching over 124,000 first responders.



## Industry-Leading Mobile Reporting of Near Misses

A key element of CN's safety strategy is the identification and reporting of safety hazards and near misses. The Enablon Go application allows employees to easily report detailed information about near misses and safety hazards while onsite in real time directly on their mobile devices. GPS coordinates are automatically captured, and photos, videos, and audio files can also be uploaded. While near misses can be reported anonymously, Enablon Go can provide feedback on the corrective actions taken to the person who reported the near miss or hazard.

With Enablon Go, CN is improving employee safety by creating a safer working environment, improving compliance with regulatory standards, and allowing for more impactful safety solutions to be shared and implemented system wide.



See page 67 for more information about how CN keeps communities safe.

**SPOTLIGHT**



# Improving Safety with Technology

Technology is critical to the evolution of the rail industry, and we are committed to playing a leadership role. Advanced innovations present exciting opportunities to layer technology into all aspects of monitoring locomotive and railcar mechanical health to proactively detect issues on active trains in real time using our extensive wayside detection network.

**> INSPECTING RAILCARS**

Our AIPs feature ultra-high-definition panoramic cameras and high-intensity infrared and LED lighting that capture a 360° view of a train and undercarriage as it travels at track speed. Machine-learning algorithms and AI then help experienced mechanics identify railcars requiring repair before a component fails. CN has seven AIPs in operation 24/7 across its network to improve the quality and frequency of railcar inspections.



**> IDENTIFYING WHEEL DEFECTS**

Broken wheel detectors are designed to find wheel defects, including cracks, chips, and tread buildup. The system uses various technologies, including wheel weight gauges, lasers, cameras, and machine pattern algorithms to identify both urgent and emerging wheel defects. By monitoring the health of wheels, CN can make operational decisions on whether to remove a car from service immediately or allow the car to continue to the next mechanical shop to be repaired or replaced.



**> MEASURING TEMPERATURE**

Situated on average every 13 miles along mainline track, hot bearing detectors monitor the condition of wheel bearings to identify overheated components before they reach temperatures that can lead to failure. Deployed alongside hot bearing detectors, dragging equipment detectors look for anything that is hanging from the train. Cold wheel detectors are placed at the bottom of long grades where trains typically apply brakes. Since the braking process generates heat, cold wheels are flagged for brake system inspection.



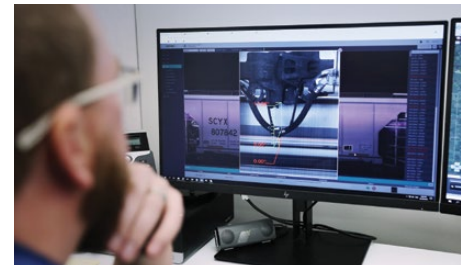
**> MONITORING SOUND**

Acoustic bearing detectors monitor the sound signatures of bearings to find defective bearings before they generate enough heat to be found by hot bearing detectors. The system operates a bank of microphones capturing the sound of each bearing as a car passes over the detector. The sound is recorded and matched against algorithms of known defects associated with failing bearings. Cars with identified defects are then proactively placed into preventative maintenance for the bearings to be replaced.



**> LEVERAGING DATA**

Data collection and analytics help us identify trends and improve safety. Taken together, data collected through our ATIP cars, AIPs, wayside detectors, and other systems generate millions of data points daily, allowing us to engage machine-learning algorithms to build preventative maintenance schedules that address problems before they happen. Mechanical Analytics for Rail Safety is used to prevent railcar failures, while Engineering Reliability and Analytics helps to assess track health.



# Automating Track Inspection

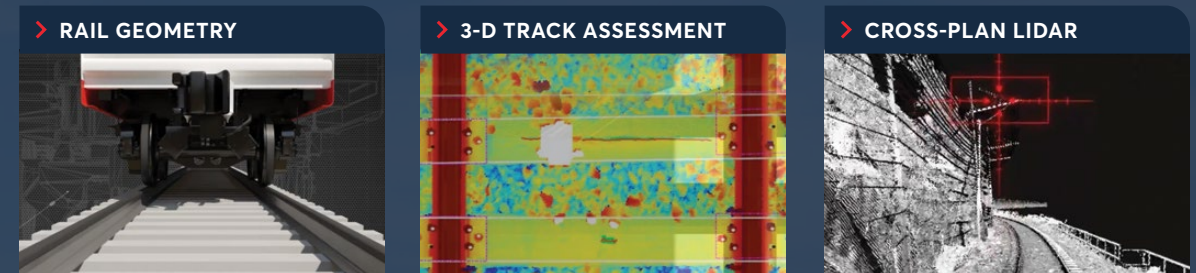
CN has 11 ATIP railcars that provide continuous infrastructure safety and component health assessment across the network. Our cars operate in revenue service, 24/7, on regularly scheduled trains, and provide near real-time visibility on the integrity of our track.

In addition to rail geometry, curvature, and surface technologies, CN's third-generation ATIP cars can analyze joint bars and assess the quality of wheel-to-rail contact. Using ATIP technologies, CN inspects nearly 800,000 miles of track yearly. As a result, CN achieves a 90% improvement in industry-defined track safety KPIs, including a substantial reduction in mainline track derailments attributed to track geometry. In the future, we will continue to enhance our ATIP cars with new technologies like ground-penetrating radar to assess ballast and subgrade conditions.

**90% improvement**

**IN INDUSTRY-DEFINED TRACK SAFETY KPIs WITH THE USE OF ATIP**

CN is increasing the frequency and quality of track inspections with powerful sensor and AI technology in our ATIP railcars, enabling track inspections at normal track speed.



ATIP captures a digital profile of track geometry (i.e., distance apart, cross level, surface deviation, alignment) to significantly reduce the risk exposure associated with track structure anomalies. With our broad portfolio of autonomous technologies, CN is able to make data-driven preventative maintenance and capital investment decisions.



**16x more**

**TRACK INSPECTED THAN WITH NON-AUTONOMOUS METHODS**

**2.6 million**

**MILES OF TRACK INSPECTED WITH ATIP SINCE 2020**

PICTURED: ATIP railcar near Udo, MB



# ENVIRONMENT

PICTURED:  
Elma, MB, Photo by CN employee Idar Nouredin

## Our Commitment

Conduct our operations in a manner that seeks to minimize our environmental impact, while providing cleaner, more sustainable transportation services to our customers.

### IN THIS SECTION:

- 29 Overview
- 30 Climate Change
- 40 Waste Management
- 43 Biodiversity and Remediation

# PROGRESSING ON OUR ENVIRONMENTAL COMMITMENTS

We are committed to an environmentally sustainable future by seeking to minimize our environmental impact and facilitating the transition to a lower-carbon economy through sustainable transportation services and circular economy solutions.

Rail has a tremendous potential to reduce the environmental impact of transportation and we are actively working with many of our customers and supply chain partners, including ports, to help them reduce their emissions. We also continue to strengthen our position within emerging cleaner energy markets, such as wood pellets, wind turbines, solar panels, and biofuels.

## Climate Change

Climate change is the defining issue of our time, and we are determined to be part of the solution. We continue to be a leader in decoupling carbon emissions from volume growth by maintaining a leadership position among Class I railroads by consuming approximately 15% less locomotive fuel per GTM than the industry average. We have set ambitious near-term climate targets, committed to setting a net-zero 2050 target, and operationalized our low-carbon transition plan. CN has a well-defined climate change strategy that is guided by four key pillars: decarbonizing our business, enabling the transition to a lower-carbon economy, building resiliency and biodiversity, and collaborating with stakeholders. We have also progressed efforts to reduce our non-rail carbon footprint through upgrades and retrofits.

## Waste Management

Managing resource consumption is critical as we aim to minimize our environmental impact. We know that preventing and minimizing waste is not only good for the planet but also helps us realize operational efficiencies while engaging our employees in caring for their work and natural environments. We focus our circular solutions and waste management efforts on identifying more sustainable procurement options, extending the life of resources wherever possible, and diverting waste through comprehensive reuse and recycling programs.

## Biodiversity and Remediation

Protecting the natural environment is critical to CN's operations, with a network that passes through a wide range of habitats. We are committed to embedding an environmental protection mindset in our workplace culture as we proactively take measures to avoid, minimize, restore, and/or offset our impact. We look for opportunities to enhance the natural ecosystems along our network through collaborative projects with key stakeholders and rightsholders, including planting trees and improving habitats.

## 2022 Performance Highlights

- 

Reduced our GHG emissions intensity for Scope 1 and 2 by 2.0% from 2021, realizing 18% progress toward our 2030 target.
- 

Reduced our GHG emissions intensity for Scope 3 for fuel- and energy-related activities by 4.3% from 2021, realizing 40% progress toward our 2030 target.
- 

Reinforced our commitment to transitioning to net-zero emissions by 2050 by becoming a founding corporate participant of the Government of Canada's Net-Zero Challenge.
- 

Diverted approximately 94% of our operational waste from landfill as part of our waste management program.
- 

Recognized 58 customers and supply chain partners for their sustainability practices by planting 100,000 trees at five reforestation projects through our *EcoConnexions Partnership Program*.
- 

Partnered with Progress Rail and Chevron Renewable Energy Group to test the use of high-level renewable biofuel blends in rail operations.

# BUILDING MOMENTUM ON CLIMATE LEADERSHIP

We recognize that our climate is changing and that businesses must not merely adapt but be part of the solution. As a mover of the economy, CN is committed to playing a key role.

## OUR CLIMATE CHANGE STRATEGY

Our strategy is focused on ensuring CN’s long-term response to climate change is meaningful, measurable, and focused on identifying specific actions we can take. As we prepare for the future, we are committed to strategically managing the impacts of climate change through a four-pillar framework that guides our climate strategy:

### Decarbonize Our Business

We are proactively identifying opportunities to reduce our own carbon footprint and across our entire value chain. In 2021, we updated our approved science-based targets and committed to setting a 2050 net-zero target by joining the Business Ambition for 1.5°C and the United Nations’ Race To Zero campaigns. In 2022, we joined the Government of Canada’s Net-Zero Challenge. Some of the steps we are taking to reduce our carbon footprint include renewing our locomotive fleet, leveraging innovative technologies and data analytics, streamlining our operating practices, investigating alternative fuels, upgrading our non-rail fleet, and retrofitting yards and buildings.

1

### Enable the Transition to a Low-Carbon Future

We understand our essential role to move the North American economy and enable global trade. We are committed to the transition to a low-carbon economy. Rail has tremendous potential to reduce the environmental impact of transportation and we are actively working with many of our customers and supply chain partners to help them reduce their emissions. Worldwide efforts to combat climate change are driving policy and demand shifts toward cleaner, renewable energy sources, like wood pellets, biofuels, solar panels, and wind turbines. CN is a key player in all these rapidly developing markets.

2

### Build Resiliency and Biodiversity

Each year, we invest billions of dollars to improve the safety and reliability of our network, support the growth of our customers, and digitize our processes to enable us to continue to compete sustainably. Another important element of building our resiliency involves climate scenario analysis to understand how climate-related risks will impact our business. CN is also committed to the protection of land and biodiversity in areas where we can impact the natural environment. Through our community tree-planting and mass reforestation initiatives, we are helping to improve air quality, support biodiversity, and create resilient and sustainable communities.

3

### Collaborate with Stakeholders

Decarbonizing rail transportation will require collaboration among various stakeholders, including governments, supply chain partners, customers, suppliers, academics, and cleantech companies, to accelerate the fight against climate change and find innovative solutions to achieve net-zero by 2050. We are actively engaging with other railways, directly and through industry associations, to accelerate the decarbonization of the transportation industry. For instance, in 2022, along with Progress Rail and Chevron Renewable Energy Group, we began testing high-level renewable fuel blends, including both biodiesel and renewable diesel, in our locomotives.

4

↓ To learn more:  
2023 CDP Response – C3 Business Strategy



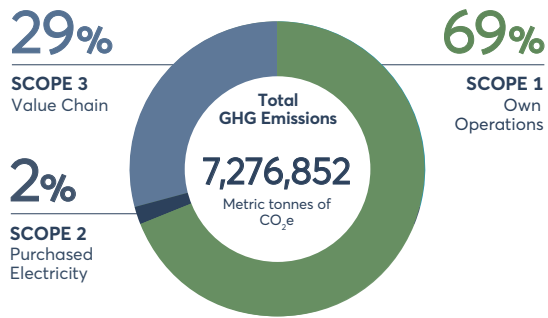


**SPOTLIGHT**

# Measuring Progress Toward Our Climate Targets

## Our Carbon Footprint

**2022 TOTAL SCOPE 1, 2, AND 3 GHG EMISSIONS**  
(% of total metric tonnes of CO<sub>2</sub>e)



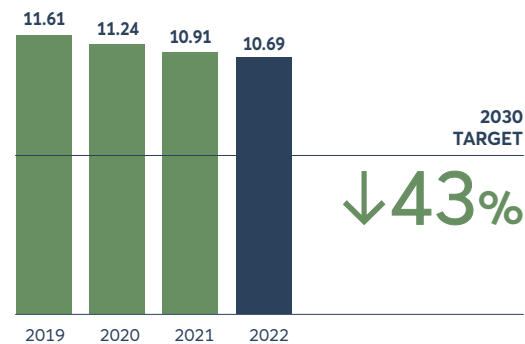
**87% of Scope 1**

**GHG EMISSIONS ARE DERIVED FROM THE FUEL THAT POWERS OUR LOCOMOTIVES**

Locomotive emissions represent CN's largest source of Scope 1 emissions. Scope 2 emissions are comprised exclusively of purchased electricity emissions. The largest source of our Scope 3 emissions come from the production of fuel used in our activities. In 2022, total Scope 1 and 2 emissions intensity was 2.0% less than in 2021, and Scope 3 GHG emissions intensity from fuel- and energy-related activities was 4.3% less than in 2021.

## Progress Toward Our Near-Term Targets

**SCOPE 1 AND 2 GHG INTENSITY\***  
(Metric tonnes of CO<sub>2</sub>e per million GTMs)

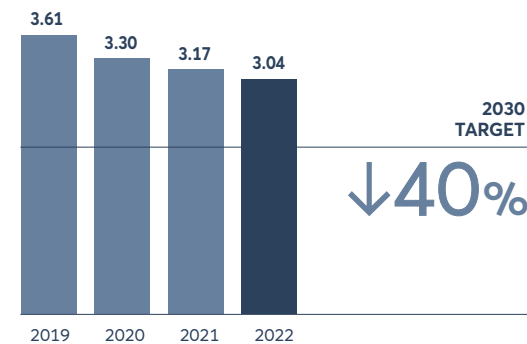


**18.3% progress**

**TOWARD OUR SCOPE 1 AND 2 GHG EMISSIONS TARGET IN 2022**

Our approved Science Based Targets initiative (SBTi) emissions reduction target is consistent with levels required to meet the goals of the Paris Agreement. CN is committed to reduce Scope 1 and 2 GHG emissions by 43% per million GTMs by 2030 from a 2019 base year. As at the end of 2022, CN achieved 18.3% progress toward our 2030 target for Scope 1 and 2 GHG emissions.

**SCOPE 3 GHG INTENSITY\***  
(Metric tonnes of CO<sub>2</sub>e per million GTMs)



**39.5% progress**

**TOWARD OUR SCOPE 3 GHG EMISSIONS\* TARGET IN 2022**

In alignment with the SBTi framework for the transportation sector, CN has committed to reduce Scope 3 GHG emissions from fuel- and energy-related activities by 40% per million GTMs by 2030 from a 2019 base year. As at the end of 2022, CN achieved 39.5% progress toward the 2030 target for Scope 3 GHG emissions.\*

\* From fuel- and energy-related activities

## Beyond 2030



# Net-Zero

**FORMALLY COMMITTED TO SETTING A NET-ZERO TARGET**

In 2017, CN became the first railroad in North America, and was among the first 100 companies globally, to set an approved science-based target for GHG emissions reductions. In 2021, CN was the first North American railroad to formally commit to setting a 2050 net-zero target. This target will cover at least 95% of Scope 1 and 2, and 90% of Scope 3, emissions.

1

# DECARBONIZING OUR BUSINESS

We continue to strengthen our commitment to making a positive contribution to the fight against climate change by decarbonizing our business.



High-capacity grain cars and fuel-efficient, high-horsepower locomotives are two ways CN is working to decarbonize. Hinton, AB  
Photo by CN employee **Tim Stevens**

## Climate Action Plan

With approximately 87% of our GHG emissions generated from rail operations, we believe the best way to reduce our carbon footprint is by continuously improving our rail efficiency. We also apply our leading practices to the other fleets we operate, which include trucks, vessels, intermodal equipment, and other service vehicles. To achieve our approved science-based target to reduce our Scope 1 and 2 GHG emissions intensity by 43% by 2030 based on 2019 levels, we are focused on five key strategic areas:



Earned a spot for the seventh time on CDP's prestigious A List for our leadership in corporate transparency and performance on tackling climate change.

➤ **FLEET RENEWAL:** Cleaner, more fuel-efficient equipment enables us to decouple our GHG emissions from business growth. We continue to purchase the most fuel-efficient high-horsepower locomotives currently available. CN acquired 69 units in 2021 and 53 units in 2022. We also received the first 10 units in 2022 from our multi-year modernization program, where existing locomotives from the CN fleet are upgraded with the latest technology, extending their life, and enhancing fuel efficiency.

➤ **INNOVATIVE TECHNOLOGIES:** We continue to explore and invest in innovative technologies to improve our carbon efficiency. We equip our locomotives with energy management and data telemetry systems as well as distributed power functionality to help us maximize locomotive operating effectiveness and efficiency. These innovative technologies allow us to continuously improve train handling, braking performance, and overall fuel efficiency.

➤ **BIG DATA:** Through our locomotive telemetry systems, we collect large amounts of data to improve performance and conserve fuel. In addition, our in-house Horsepower Tonnage Analyzer uses the data from the systems to optimize a locomotive's horsepower-to-tonnage ratio, further reducing fuel consumption. Information technology enables deeper analysis to continue to identify, through trend analysis, additional opportunities to further reduce emissions.

➤ **OPERATING PRACTICES:** CN has a proven operating model that provides safety, efficiency, and customer service benefits. In 2022, CN's recommitment to a disciplined scheduled operating plan, with a focus on velocity and terminal dwell, helped to increase network fluidity, reduce unplanned train stops, and drive related gains in fuel efficiency. In parallel, capitalizing on our locomotive telemetry systems and advanced data analytics helps us identify additional opportunities for fuel conservation today and in the coming years.

➤ **CLEANER FUELS:** In the medium term, the Canadian Clean Fuel Regulations and other renewable and clean fuel standards in jurisdictions where CN operates will continue to present important opportunities for us to further reduce our emissions. We are actively working with our fuel suppliers and locomotive manufacturers to explore and test the greater use of sustainable renewable fuel blends in our locomotives, beyond regulated amounts, to achieve our target. Trials and qualifications of up to 100% bio-based diesel fuel, important steps in reducing GHG emissions from CN's existing locomotive fleet, have continued to progress in 2022. These testing programs will allow us to better understand the long-term operational impacts of renewable fuels on locomotives, especially in cold weather, and plan needed modifications to leverage their usage over the next decade.

↓ For a full version of CN's Climate Action Plan: [2023 Management's Information Circular](#)

# Decarbonization Trajectory

We are committed to setting a 2050 net-zero target. Achieving the upcoming target will be dependent, in part, on collaboration between the rail industry, locomotive manufacturers, and fuel producers to continue to develop innovative technologies as well as make available sufficient quantities of cost-competitive sustainable renewable fuels in the years to come. An ecosystem of collaboration is critical to our success.

## OUR PHASED APPROACH TO DECARBONIZE OUR ACTIVITIES

### Driving Operational Efficiency

Building on our leading track record of fuel and carbon efficiency, we continue to take actions big and small to further drive efficiency and reduce emissions in all our fleets and at our facilities.

### Transitioning to Cleaner Energy Sources

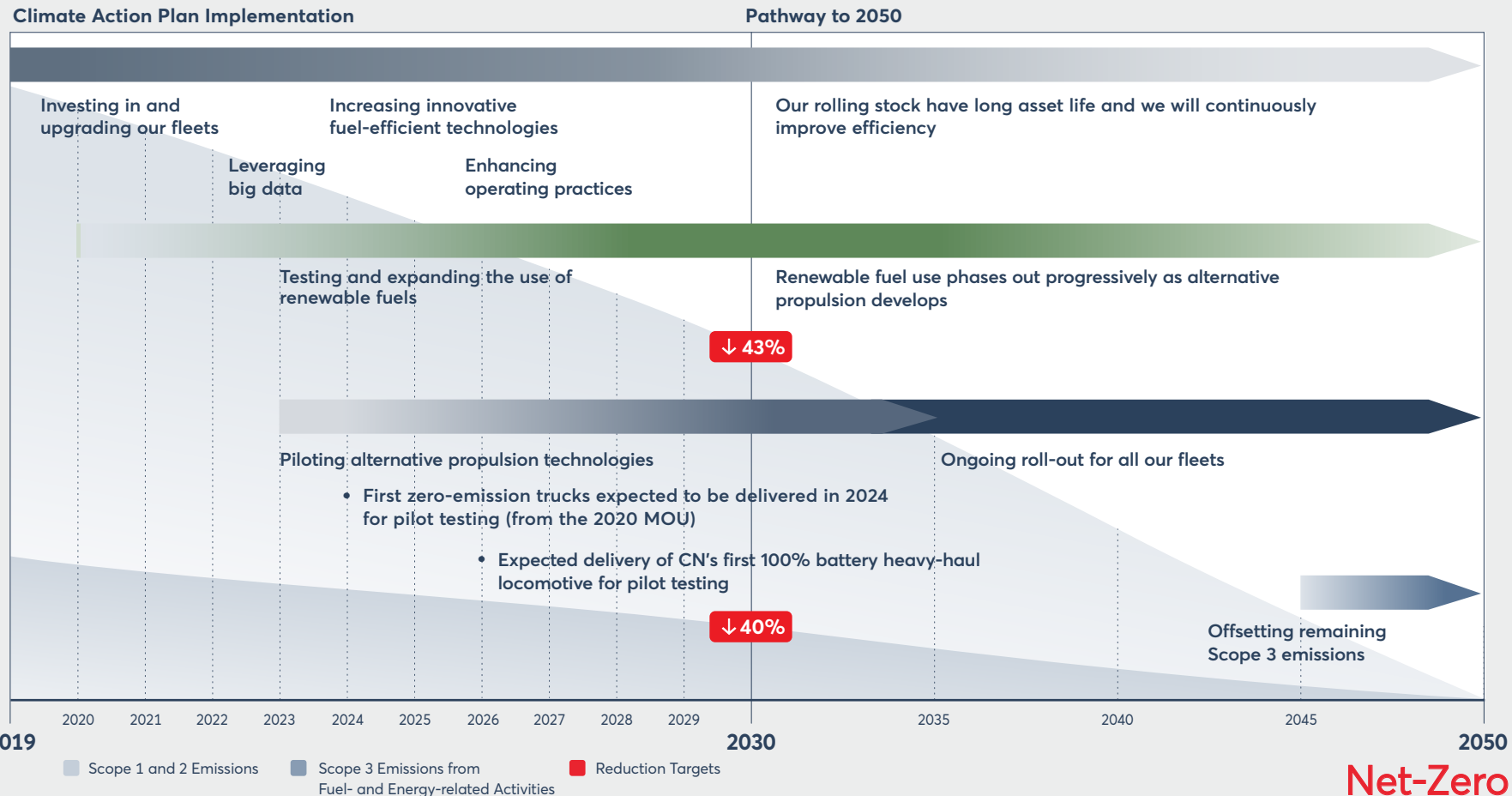
Driven partly by regulatory requirements, growth of the renewable fuel market presents a short- and medium-term opportunity to further reduce our emissions by using sustainable renewable fuel blends in all our fleets.

### Shifting to Alternative Propulsion

We are investing in the development of new locomotive, trucking and intermodal propulsion technologies required to advance the deep decarbonization of the entire transportation supply chain.

### Leveraging Nature-based Solutions

In line with the SBTi's Net-Zero Standard, we will 'neutralise' the hard-to-abate Scope 3 residual emissions that can not be avoided by investing in nature-based solutions.



\* We have submitted our net-zero target to the SBTi for verification in 2023.

# Advancing the Future of Freight

We are proud of our industry-leading fuel efficiency, but fuel efficiency alone will not be enough to achieve net-zero by 2050. The entire rail transportation industry will need to collaborate and make significant investments to find innovative solutions.

## ▶ TRANSITIONING TO CLEANER FUELS

In 2022, CN announced an innovative partnership with Progress Rail and Chevron Renewable Energy Group to test the use of high-level renewable biofuel blends in rail operations. These types of fuels present an opportunity to further reduce our GHG emissions and help us meet our science-based targets. The main objective of this pilot project is to evaluate the feasibility and impacts of using biofuels in our locomotives, including in cold weather.

The first year of operational testing on the Bessemer and Lake Erie portion of our network, in Pennsylvania, is already a success. The testing of different blends of biodiesel and renewable diesel did not have any impact on our customers' traffic, including during cold weather operations. Over winter 2023–2024, we will continue to closely monitor the impact of these tests on the locomotives, in collaboration with our partners, and compile all results at the end of the project to better understand the implications of using renewable biofuels across our network.

## ▶ SHIFTING TO ALTERNATIVE PROPULSION

CN is building important partnerships to reduce the Company's GHG emissions intensity. Testing over the next decade will help us identify modifications that may be needed to our operations to fully leverage the benefits.

In 2021, we announced the purchase of Wabtec's FLXdrive freight locomotive, the first 100% battery-electric heavy-haul locomotive, in support of our ambitious long-term goals. The anticipated efficiencies and emissions reductions from the technology are expected to be significant, reducing overall locomotive fuel consumption and emissions of a train by up to 30%, and will help open the door to new alternatives beyond the diesel-powered locomotives used today. This new technology is a key component in achieving an effective transition to a lower-carbon future.

*“As we look to 2030 and beyond, decarbonizing rail transportation will need a combination of cleaner fuel and new locomotive propulsion technologies. Both of which are part of CN’s portfolio of initiatives to meet our science-based emissions reduction targets.”*

**Mark Grubbs**  
Vice-President, Mechanical



▶ Learn more about how CN is working to improve efficiency and reduce emissions: [vimeo.com/831616714](https://vimeo.com/831616714)

# Reducing Our Non-Rail Carbon Footprint

Operating an efficient railroad extends beyond our tracks to our non-rail operations, enabling further carbon reductions from our ground and vessel fleets, buildings, and yards. We are taking concrete steps to reduce our non-rail carbon footprint, which comprises approximately 15% of our total Scope 1 and 2 emissions, by upgrading and modernizing our ground service vehicles, retrofitting yards and buildings, and decarbonizing our vessel fleet.

## Driving Ground Fleet Upgrades

We are focused on improving the fuel efficiency of our non-rail ground fleet, comprised of intermodal equipment, service vehicles as well as CNTL and TransX trucks. We are also increasing our use of renewable fuels and purchasing electric vehicles.

In 2020, we announced a partnership with Quebec-based Lion Electric to pilot the use of zero-emission electric trucks across our network. The objective is to test the trucks' suitability for various tasks such as urban delivery, container shuttle service, port operations, and cross-town service. By using the trucks in different settings, we hope to identify where they can make the most impact on how we service our customers and reduce emissions.

Our teams continue to be trained on measures to improve fuel efficiency, from the use of aerodynamic components on trucks to innovative routing optimization initiatives. Recently, we installed a new driver-centric fleet management system to improve hours of service management, enable a paperless workflow, and to

drive further gains with respect to accident prevention and fuel efficiency. These types of programs can monitor driver actions and send feedback to improve fuel efficiency by ensuring they do not accelerate unnecessarily.

## Decarbonizing our Vessel Fleet

Our maritime shipping fleet offers safe and highly fuel-efficient transportation services on the Great Lakes and is continually upgraded to meet strict emissions standards. For example, we installed skewed propeller blades that reduce engine vibration, extend engine life, and improve the fuel efficiency of the vessel, contributing to reducing carbon emissions from operations. Ship operators are also trained on fuel conservation practices.

## Retrofitting Yards and Buildings

Our \$5-million *CN EcoFund*, combined with government and utility incentives and subsidies, has enabled us to implement energy-efficient upgrades in our buildings and yards. We continue to invest in retrofits to boilers, air compressors, HVAC systems, and lighting, enabling us to improve our carbon efficiency and reduce costs. As part of the *CN EcoFund*, we have a dedicated budget for related initiatives identified through our *EcoConnexions Employee Engagement* program.

## Engaging Our Employees

In 2022, CN EcoChampions took effective steps to reduce the environmental footprint of CN's non-rail operations. These initiatives included replacing a propane-fueled forklift in Prince George, BC, with a fully electric one. The Intermodal maintenance team in Brampton, ON, reconfigured their shunt trucks to shut down automatically after 10 minutes of idling. And, the Facilities team in Baton Rouge, LA, replaced aging lighting fixtures with LEDs, which has reduced energy consumption by 21% and improved safety with increased visibility.



## Improving Air Quality

At CN, we know reducing air emissions is good for everyone. Our focus on improving fuel efficiency helps reduce GHG emissions and criteria air contaminants (CACs). CN is acquiring custom-built zero-emission electric trucks that will be tested in our intermodal terminals in urban areas to reduce GHG emissions and CACs. The electric trucks do not produce any noise or air pollution and are estimated to remove 100 tons of GHG emissions from the road annually.

2

# ENABLING THE TRANSITION TO A LOW-CARBON FUTURE

As a lower-carbon way to move large volumes of goods great distances, we believe rail has tremendous potential to reduce the environmental impact of transportation and we are committed to playing a key role in the transition.

The direct ship-to-rail dock operation at the Port of Prince Rupert, BC, allows customers to bypass the need for trucks. Photo courtesy of the Port of Prince Rupert.

### Providing Low-Carbon Transportation Solutions

We play a key role in North America’s supply chains and are making a positive contribution in the fight against climate change by offering carbon-efficient transportation solutions to our customers. While we are committed to decarbonizing our own operations, we remain focused on maintaining cost effectiveness and improving our service and efficiency for our customers. Our transportation services form part of the Scope 3 emissions of our customers. We are actively working with them to help reduce their transportation supply chain GHG emissions by leveraging combined modes of transportation like using rail for the long haul and trucking over the shorter distances.

### Collaborating for More Efficient Supply Chains

We are using fewer railcars and locomotives to ship more freight in a safe, reliable, and efficient scheduled operation. By working closely with customers and supply chain partners, including ports, we are driving further emission reductions across the entire supply chain. We recognize it is our responsibility to provide cleaner, more sustainable transportation services to our customers, while aiming to minimize the environmental impact of our operations. Through our *EcoConnexions Partnership Program*, we continue to deepen our customer relationships, as well as collaborate and learn from each other, as we move together toward a more sustainable future.

### Enabling the Transition through Rail

Worldwide efforts to combat climate change are driving policy and demand shifts toward lower-carbon energy sources, like wood pellets and biofuels. CN is a key player in all these rapidly developing supply chains. For renewable fuels, we transport oilseed to crush plants, vegetable oil to refineries, and renewable fuels to end markets. We are also proud to play a critical role in transporting zero-emission products such as solar panels and wind turbines. With CN's unique network and integrated supply chain solutions, we access lower-carbon products and create hubs to consolidate them onto rail for shipment to both domestic and international markets.

## THE ENVIRONMENTAL BENEFITS OF SHIPPING BY RAIL

#### Reduces Carbon

75%

MOVING FREIGHT BY RAIL INSTEAD OF TRUCK REDUCES GHG EMISSIONS BY UP TO 75%<sup>(1)</sup>

(1) Association of American Railroads (2) Railway Association of Canada

#### More Fuel Efficient

3-4x

TRAINS, ON AVERAGE, ARE THREE TO FOUR TIMES MORE FUEL EFFICIENT THAN TRUCKS<sup>(1)</sup>

#### Moves Farther with Less

480 miles

ONE TRAIN CAN MOVE A TON OF FREIGHT 480 MILES ON ONE GALLON OF FUEL<sup>(1)</sup>

#### Avoids Congestion

300 trucks

ONE FREIGHT TRAIN CAN TAKE OVER 300 BIG TRUCKS OFF THE ROAD<sup>(2)</sup>

# Planning for a Net-Zero Economy

As a supporter of the Paris Agreement, and one of the first companies to enable shareholders to vote on its Climate Action Plan, we are committed to providing our stakeholders with transparent climate change disclosures aligned with leading practices.

## CN's Low-Carbon Transition Plan

**GOVERNANCE:** The Governance, Sustainability and Safety Committee of CN's Board of Directors has the highest level of responsibility for managing our sustainability performance, including climate-related issues, as well as monitoring the Company's decarbonization strategy and ESG disclosures. CN's Executive Vice-President and Chief Financial Officer is the highest-level management position with direct responsibility for sustainability and reports directly to the President and Chief Executive Officer and the Board.

**STRATEGY:** With most of CN's GHG emissions generated from rail operations, we are focused on reducing our carbon footprint by improving our rail efficiency. To achieve our science-based targets, we are renewing our fleet, implementing innovative technologies, optimizing the use of data, emphasizing best practice initiatives for fuel conservation, and increasing the use of renewable fuel blends.

**RISK MANAGEMENT:** Climate change is integrated into our risk assessment processes, which consider both physical risks, including increased frequency of temperature extremes, flooding, and sea level rise, fires, hurricanes, and tornadoes, as well as transition risks, including legal, policy, and market impacts. We use enterprise and operational risk management processes to identify, prioritize, assess, respond to, and disclose risks. CN is also well positioned to take advantage of climate-related opportunities such as potential cost reductions and/or new sources of revenue.

**TARGETS:** In 2021, CN updated its approved science-based targets and is now aiming to reduce Scope 1 and 2 GHG emissions intensity by 43% per GTM and Scope 3 GHG emissions intensity from fuel- and energy-related activities by 40% per GTM by 2030 from a 2019 base. Also in 2021, we joined the Business Ambition for 1.5°C and the United Nations' Race To Zero campaign. In 2022, we joined the Government of Canada's Net-Zero Challenge. All these programs encourage companies to transition to net-zero emissions by 2050. In 2023, CN formally submitted its 2050 net-zero target to the SBTi for validation and approval.

↓ CN's [2023 CDP Response](#) includes our TCFD Index on page 83.



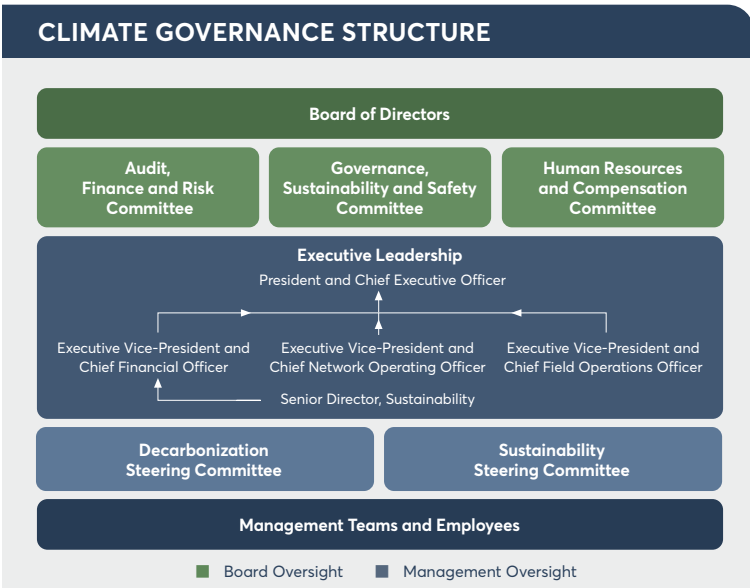
## Enabling Electric Vehicle Supply Chains

Electric vehicles (EVs) are a key emerging technology to help decarbonize our roads and the shift toward EVs is changing the automotive industry as we know it. In 2022, EVs accounted for 14% of sales and, by 2040, EV sales could represent more than half of total automotive sales.<sup>(1)</sup>

CN is well positioned to support the growing market for EVs as we move many of the critical inputs required for EV production. We are also working with our automotive partners to create new supply chains and enhance existing ones for the growing EV market in North America.

(1) Source: Forbes

**PICTURED:** EVs off-loaded at CN's Autoport, Halifax, NS, one of CN's 18 automotive compounds that facilitate the transport of finished vehicles and auto parts across Canada and the U.S.



# 3

## BUILDING RESILIENCY AND BIODIVERSITY

We recognize the impacts of climate change are broad and systemic and require proactive strategies to ensure the resiliency of our network while protecting the natural environment.

### Assessing the Resiliency of Our Strategy

Building our technical capability to model the impacts of climate change under multiple scenarios improves our capacity to assess and further integrate physical and transitional risk scenarios into our strategic planning and risk assessment processes. We leverage the best available information to improve our understanding of various potential climate change impacts for our customers, supply chain partners, and the communities in which we operate. Through our analysis, we identify potential climate vulnerabilities that we translate into tangible actions to mitigate climate-related risks and take advantage of the opportunities that the net-zero transition will create.

### Increasing the Resiliency and Recoverability of Our Network

Severe weather events have the potential to disrupt rail operations. We have programs in place to respond to the physical impacts of climate change, including extreme weather readiness plans, an emergency response planning program, and inspection programs. We also continue to innovate and find ways to improve our ability to deal with severe weather events through strategic actions.

In 2022, CN allocated approximately \$1.6 billion from our capital program to track maintenance in support of safe and efficient operations, including the replacement of rail and ties, bridge improvements, crossing upgrades, and other maintenance.

### Investing in Nature Across Our Network

We believe trees are critical to protect and conserve ecosystems, secure urban resilience to extreme weather events, improve air quality and public health, and build a nature-positive future. Since 2012, our *EcoConnexions* programs have been supporting the greening of municipalities and Indigenous communities along our network. We also engage in mass reforestation projects to recognize and encourage the decarbonization efforts of our customers and supply chain partners. CN and our partners, Tree Canada and America in Bloom, have planted over 2.3 million trees. Our current goal is to plant a total of 3 million trees by 2030.

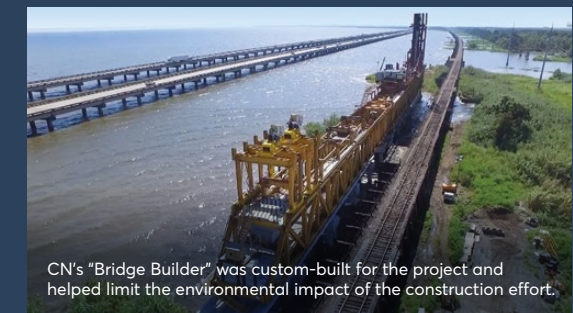
↓ To learn more about CN's commitment to resiliency and biodiversity: [2023 CDP Response – C15 Biodiversity](#)

## Strengthening Our Network Resiliency

At CN, we continue to build upon our leadership role in rail infrastructure and innovative technologies to construct a more resilient network and proactively minimize risks.

For example, CN recently completed the US\$100-million reconstruction of the Bonnet Carré-McComb Spillway Bridge near New Orleans, replacing an old two-mile-long timber bridge that had a 10-mph speed limit with a pre-cast concrete structure with a 60-mph limit. For outstanding achievement in railway engineering, the American Railway Engineering and Maintenance-of-Way Association honoured CN with its 2021 Dr. William W. Hay Award for Excellence.

Learn more at: [vimeo.com/644881097](https://vimeo.com/644881097)



CN's "Bridge Builder" was custom-built for the project and helped limit the environmental impact of the construction effort.



# 4

## COLLABORATING WITH STAKEHOLDERS

We recognize the importance of collaborating with governments, supply chain partners, customers, suppliers, academics, and cleantech companies to achieve an effective transition to a low-carbon future.

Union Pacific and CN joined forces to share the costs and resources needed to test a blend of renewable fuels on two classes of locomotives.

### Climate Change Engagement and Collaboration

Our decarbonization goals are ambitious and will require the support and collaboration of many stakeholders, starting internally with our employees, as well as external partners who will play a key role.

**EMPLOYEES, EXECUTIVES AND BOARD:** Through our *EcoConnexions Employee Engagement* program, our dedicated and innovative employees are provided with practical knowledge and tools to reduce energy consumption, minimize waste, and improve good housekeeping practices in our yards. The implementation of our climate strategy is supported by the leadership of our Board and executive management team, as well as our Sustainability and Environment teams and multiple business units.

**SUPPLIERS:** Achieving our net-zero target will be dependent, in part, on the continuing collaboration between locomotive manufacturers and fuel producers to successfully develop innovative technologies and make available sufficient quantities of cost-competitive sustainable renewable fuels in the years to come.

**CUSTOMERS:** Our goal is to provide cleaner, more sustainable transportation services to our customers. Shipping heavy goods by rail over long distances is up to four times more fuel efficient than trucks and has tremendous potential to reduce the environmental impact of transportation and help fight climate change. We are working with our customers to help them reduce their transportation supply chain emissions and meet their climate targets. We are also supporting growth in sustainable markets by transporting sustainable products.

**SUPPLY CHAIN PARTNERS:** As we look to 2030 and beyond, we believe decarbonizing transportation will require designing innovative low-emission supply chain solutions through investment and collaboration. Our experience as operators of trains, trucks, and vessels as well as our position in the supply chain will enable us to lead a step change toward decarbonizing North America's freight sector.

**GOVERNMENTS:** Through the Railway Association of Canada and in collaboration with our peers, we have been actively working with the Government of Canada since 1995 to address the impacts of rail activities on the environment. In 2022, CN supported the Government of Canada's commitment to achieving net-zero emissions by 2050 by becoming a founding corporate participant in the Net-Zero Challenge. We also work with governments in the U.S. as well as with the Association of American Railroads, as a member, to support them in promoting cleaner, greener, more efficient, and environmentally responsible transportation solutions.

*“Working with our suppliers is absolutely the right thing to do, for our stakeholders, our customers, and the communities in which we operate. It underscores our commitment as an industry to finding more sustainable paths forward.”*

**François Bélanger**, Senior Director, Sustainability

↓ To learn more about CN's climate-related engagement strategies: [2023 CDP Response – C12 Engagement](#)

# MANAGING RESOURCE CONSUMPTION

Reducing the environmental impacts of resource consumption is critical as we work toward a more sustainable economy. Responsible material stewardship and waste management strategies enable us to realize cost efficiencies, lessen our impact, increase productivity, and give our employees a sense of pride for being part of a company that cares about the future.

## Advancing the Circular Economy

We are committed to limiting waste at the source by pursuing responsible procurement solutions and sourcing environmentally friendly products and services. We know that managing our resources efficiently requires collaboration with our suppliers to consider more sustainable alternatives across the product life cycle. We continue to use biodegradable degreasers at our maintenance centres, work with suppliers to advance the use of renewable fuels in our rail and non-rail fleets, and collaborate on packaging optimization such as boomerang boxes and pallets as well as bulk buying.

## Extending Resource Life

Over the past few years, we established a more robust waste inventory that has enabled us to target resource materials that generate significant quantities of waste. With a clearer focus, we partner with our suppliers to promote more sustainable materials, reduce packaging, and increase recycling and reuse. For example, working with our suppliers of locomotive lead-acid batteries, we continue to re-qualify the batteries and put them back into service.

Another example: our locomotive modernization program extends the useful life of locomotives. We also move worn but still usable rail from our mainline to secondary lines and yards before eventually selling them to companies that recycle them into steel products.

## Diverting Waste from Landfill

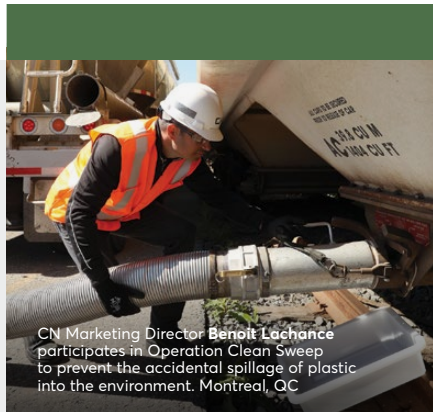
We work with supply chain partners on ways to extend the service life of our rail ties. Once they reach their end of life, over 95% of ties are diverted from landfill and leveraged as an alternative low-carbon fuel through various circular economy partnerships and outlets across our network. These agreements play a significant role in our ability to support supply chain partners in their efforts to decarbonize. For example, our partnership with Kruger, a North American leader in paper and paperboard recycling and a long-standing CN customer, has enabled us to ensure used rail ties are transformed into renewable energy instead of being sent to landfill.

While water is not a material issue for CN, we focus our wastewater management program on ensuring we effectively manage discharge from CN's operations to ensure we are compliant. We treat all impacted water in accordance with regulatory requirements and internal best management practices. In addition, we work to minimize our water consumption by identifying and implementing diversion, reduction, and recycling solutions.

## Reusing Materials in Our Operations

**54%**

**OF LOCOMOTIVE BATTERIES WERE RECERTIFIED AND PUT BACK INTO SERVICE IN 2020-2022**



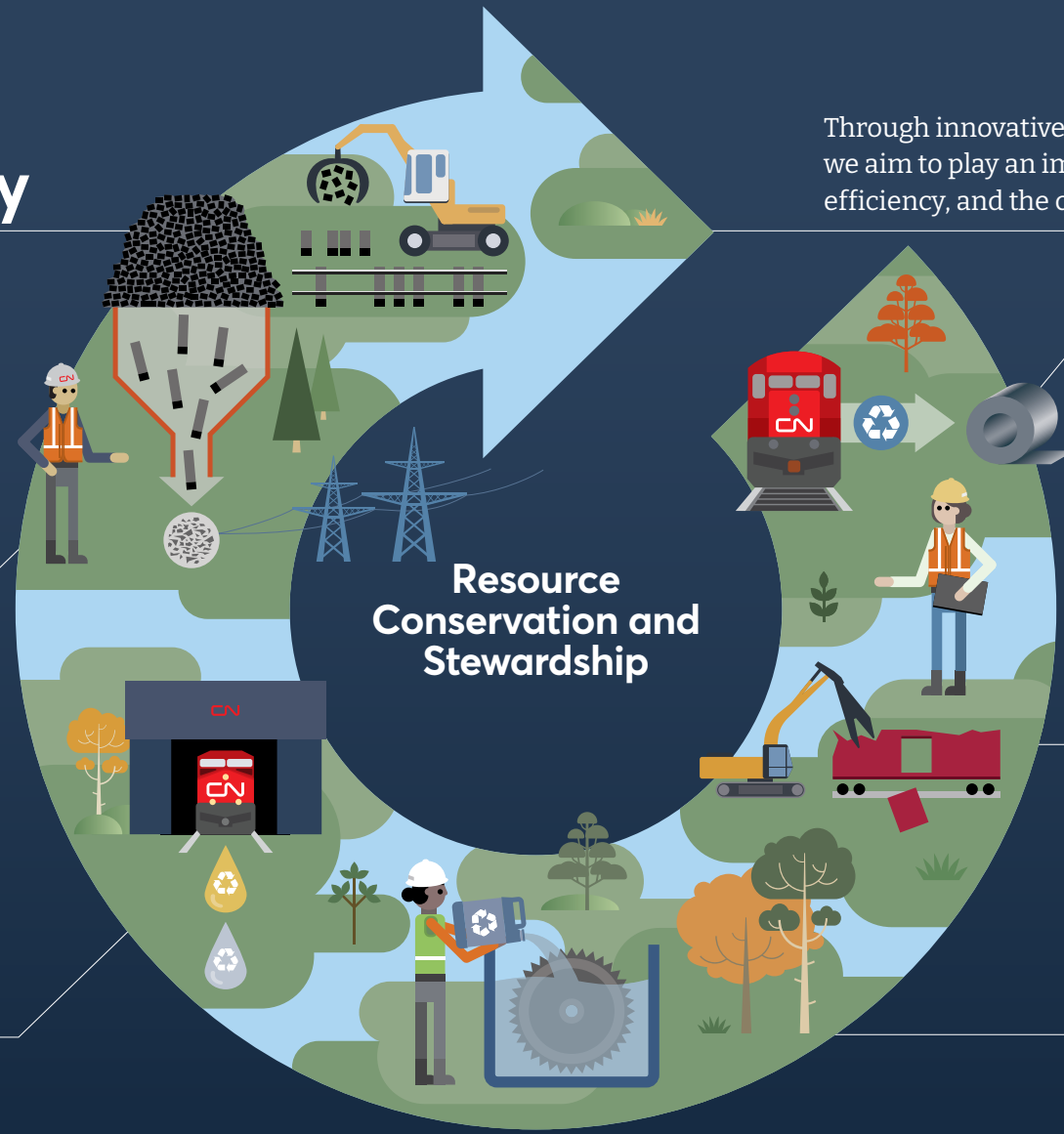
CN Marketing Director **Benoit Lachance** participates in Operation Clean Sweep to prevent the accidental spillage of plastic into the environment. Montreal, QC

## Playing Our Part in a Sustainable Economy for Plastics

CN plays an important role in the circular economy of plastics, where plastics are transformed in a closed-loop system rather than being discarded after use. We transport feedstocks to plastics producers, intermediate products to manufacturers, and finished goods to retailers. CN also collaborates with resin suppliers, packaging manufacturers, waste contractors, and recyclers to help keep plastics out of landfills. We are also aligning our efforts with the Chemistry Industry Association of Canada's Operation Clean Sweep to help reduce the accidental spillage of pellets, flakes, and powder into the environment.

# Advancing the Circular Economy

We recognize that the way resources are extracted, used, then disposed of, as a linear economy, is putting pressure on our natural environment, communities, and public health. For us, a circular economy is about using valuable resources wisely, thinking about waste as a resource instead of a cost, and recovering as much value as possible from resources by reusing, repairing, refurbishing, remanufacturing, repurposing, or recycling products and materials.



Through innovative collaboration with industry partners and suppliers, we aim to play an important role for greater resource conservation, efficiency, and the creation of regenerative economic systems.

**> INDUSTRIAL SYMBIOSIS**  
 Rather than sending our used ties to landfill, we collect, chip, and ship them to some of our customers, like Kruger, providing a mutually beneficial input for use as biomass to power their cogeneration plants.

**> REUSING MATERIALS**  
 Locomotive lead-acid batteries are re-qualified and put back into service. Used oil, engine coolants, and wastewater are also reused.

**> EXTENDING LIFESPAN**  
 Our locomotive modernization program extends the life of these assets. In addition, rail is reused on our secondary lines and then at our yards and finally sold to be recycled into new steel products.

**> RECYCLING**  
 Locomotives, railcars, and heavy machinery are used and refurbished until they reach their end of life when they are sent for recycling.

**> REDUCING AT SOURCE**  
 We purchase innovative products, such as aqueous-based parts washers, and collaborate with suppliers on recycled packaging and optimization through bulk purchasing.

SPOTLIGHT

# Engaging Employees to Minimize Our Environmental Impact



We are committed to ensuring environmental leadership is firmly embedded in CN’s operating practices and culture. Our *EcoConnexions Employee Engagement* program – in partnership with Earth Rangers – empowers our employees to conserve energy, reduce waste, and improve housekeeping at CN yards and offices. Through our \$5-million *CN EcoFund*, we support our employees’ initiatives that drive environmental and social benefits and improve safety across our organization.

CONSERVING ENERGY

Extending Resource Life

EcoChampion **Terry Hamilton**, Regional Manager at Brampton Intermodal Terminal, feels very strongly about helping the environment. *“When you see shunt trucks idling for no reason,”* explains Terry, *“it’s a waste of carbon emissions, fuel, and maintenance.”* His team worked with OEM and CN mechanics to configure the anti-idle settings to shut down the engine after 10 minutes and re-wired critical equipment to remain powered. In Brampton alone, the initiative is estimated to save 54,000 litres of fuel annually. Less idling also means the time between preventive maintenance inspections can be extended, reducing the employee hours, filters, and oil required to keep equipment in top shape.



REDUCING WASTE

Shedding a Light for the Environment

EcoChampion **Adam Ata**, Market Manager (formerly Transportation Manager in Jasper, AB), was looking to reduce lantern battery waste. Conductor **Justin Peters** showed Adam the new lantern he had bought that ran on rechargeable batteries. Not only was it smaller and had a magnetic base that came in handy when he needed to use both hands to connect train air hoses, each unit eliminates over 30 batteries per year. Adam ran a successful pilot with his team and the project has been expanded to the Yellowhead and U.S. Central divisions, including the CN Homewood Campus where new hires are now provided with the new rechargeable battery-powered lanterns. Since 2021, CN has issued close to 11,000 units.



IMPROVING HOUSEKEEPING

Small Change, Big Impact

EcoChampion **Jonathan Hoziel**, Senior Manager at the Locomotive Repair Centre (LRC) in Taschereau Yard near Montreal, QC, recently replaced the LRC’s old cold-water washer system with a heated high-pressure one. *“This has reduced the use of chemical-heavy soaps and cleaning time by half,”* says Jonathan. *“The hot water blasts through the greasy dirt on floors, pits, engines, and components, allowing employees to work more efficiently.”* The heated pressure washer cost about \$10,000, and Jonathan estimates the savings from using fewer chemicals and less water will pay for itself within a year. Heated pressure washing also improves employee safety by reducing the risk of slippage and employee exposure to harsh chemicals.



OUR RESULTS SINCE 2011

~30%  
CO<sub>2</sub>E REDUCTION ACHIEVED AT KEY YARDS

200,000  
TONNES OF WASTE DIVERTED FROM LANDFILL AND SENT FOR RECYCLING

+1,500  
HOUSEKEEPING PROJECTS COMPLETED

~\$60M  
COST SAVINGS ACHIEVED

# SAFEGUARDING OUR NATURAL ENVIRONMENT

Protecting and restoring the natural environments along our rail lines is an important part of CN’s commitment to sustainability. Our network passes through a wide range of habitats, including national parks, forests, prairies, and wetlands. We have a broad range of programs in place to preserve and rehabilitate ecosystems close to our tracks.

## Setting the Tone

CN’s Environment Policy underscores our commitment to building a sustainable future by working with our supply chain partners and customers to provide cleaner, more sustainable transportation services. We work with businesses, Indigenous communities, and local municipalities to avoid, minimize, restore, and offset our environmental impact. CN’s sustainability and environmental strategies are overseen by CN’s GSS Committee, which also monitors our performance against our biodiversity and environmental goals. Our Environment Policy, management programs and training focus our efforts on ensuring environmental leadership and performance are firmly embedded in CN’s culture, complying with applicable legal and regulatory requirements, and demonstrating continuous improvement.

## Avoiding Impacts at the Start

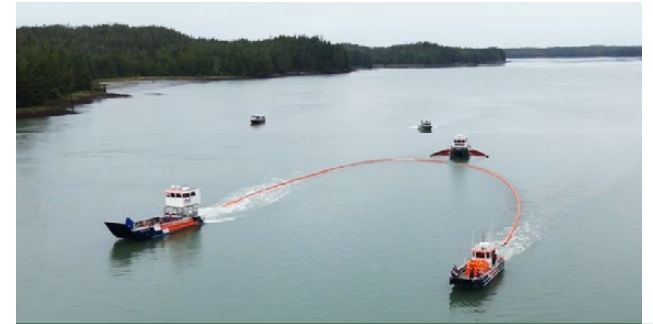
Before starting construction projects, CN engages early to identify and assess potential environmental risk impacts. We work cross-functionally within CN and externally with regulators, experts, local municipalities, and Indigenous communities to inventory and identify critical habitat, species at risk, sensitive areas as well as archaeological and heritage features. We also work with key stakeholders and rightsholders to identify opportunities to implement mitigation

measures using the hierarchy of avoidance, minimization, restoration, and offsetting, where appropriate. Our systematic approach ensures we consider the specific environmental and regulatory context when completing maintenance, growth, remediation, and/or emergency response projects across our network.

## Responding to Incidents Promptly

We focus on preventative maintenance, spill prevention, and emergency preparedness to limit the potential impacts of incidents. We take steps to ensure our employees, emergency response partners as well as local and Indigenous communities are prepared in the event of an incident. Using our network emergency response plan, which outlines what is needed to ensure any spills or releases are attended to promptly, we engage stakeholders and rightsholders in emergency drills to practice response skills.

When an incident does occur, we complete a comprehensive environmental clean-up and remediation of affected areas. In close coordination with government safety organizations, we investigate the cause of the incident to avoid future occurrences.



## Strengthening Our Emergency Response

In 2023, we hosted our largest spill exercise ever, which saw more than 75 participants from local First Nations, Transport Canada, the B.C. government, local municipalities, and CN emergency response partners working together on the Skeena River, one of the most remote, sensitive, and challenging waterways in Canada.

The objective of the exercise was to test the response to a mock derailment that “released” oil into the river and the methods used to contain and recover the oil. The drill enabled CN to demonstrate our commitment and safety readiness, while offering an opportunity for shared learning with our stakeholders and rightsholders. The drill strengthened our emergency response plan and partnerships with local communities, including the Tsimshian First Nation.

**PICTURED:** The team practices enhanced skimming of the mock contamination from the Skeena River.

### Minimizing Disturbances

When CN's operations have the potential to disturb nearby ecological or community environments, we make best efforts to minimize our impact. Where impacts are unavoidable, we implement appropriate measures to promote no net loss of sensitive habitat.

As good neighbours, we listen and respond to feedback we receive from stakeholders and rightsholders. An example is CN's Milton Logistics Hub project where Indigenous communities were engaged early and continue to participate in programs associated with archaeology, fisheries, water quality, and wildlife, among others. Their insight and knowledge were integrated into reports and mitigation plans that are currently being used during construction of the Milton Logistics Hub. Measures to reduce emissions, dust, light, and noise are also actively being used.

Post-construction of projects, we monitor our mitigation measures and make adjustments when required. This allows us to verify that our biodiversity initiatives are functional, which helps improve the design and delivery of future projects. CN is also committed to follow-up programs and ongoing engagement with local and Indigenous communities.

### Working to Preserve Biodiversity

Protecting biodiversity is an important part of CN's corporate culture and sustainability objectives. We have a broad range of programs to preserve and restore ecosystems close to the railway, such as restoring fish migration corridors, managing invasive species, and repurposing retired concrete rail ties into marine reef habitats.

We are also playing a role in promoting biodiversity and combating climate change by planting trees through our *EcoConnexions* programs. Today, CN is one of the leading private non-forestry tree planters in Canada, having planted over 2.3 million trees across North America.

▶ Learn more about how CN is helping to restore fish habitat in partnership with the Takla First Nation and the Canadian Wildlife Federation



## Award-Winning Restoration of Fish Habitat



Before restoration

As part of a bank stabilization effort in Quebec, we identified an opportunity to restore a fish passage (ladder) in consultation with the local Indigenous community, municipality, and government agencies. The old fish passage restricted the movement of brook trout, an important native species, between the lake and the spawning grounds, causing the species to nearly disappear.

Working with local stakeholders and rightsholders, CN implemented a solution to facilitate the movement of the fish. Initial results indicate the brook trout are migrating and spawning, which benefits the lake ecosystem and the community.

CN is proud to have won the 2023 Railway Association of Canada Environment Award.

**AFTER RESTORATION**  
 CN collaborated with the local community, multiple federal and provincial agencies, and the Listuguj Mi'gmaq First Nation, in what became a successful three-year planning, permitting, design, and construction project – now in the environmental monitoring phase.  
**PICTURED:** New Lac Huit Mile dam and fish ladder.

**SPOTLIGHT**

# EcoConnexions: Supporting the Value of Trees



We strive to be a good neighbour and planting trees is one way we can give back to the communities along our rail lines. We believe trees can play a key role in helping to improve air quality, support biodiversity, and combat climate change.

**GREENING COMMUNITIES**

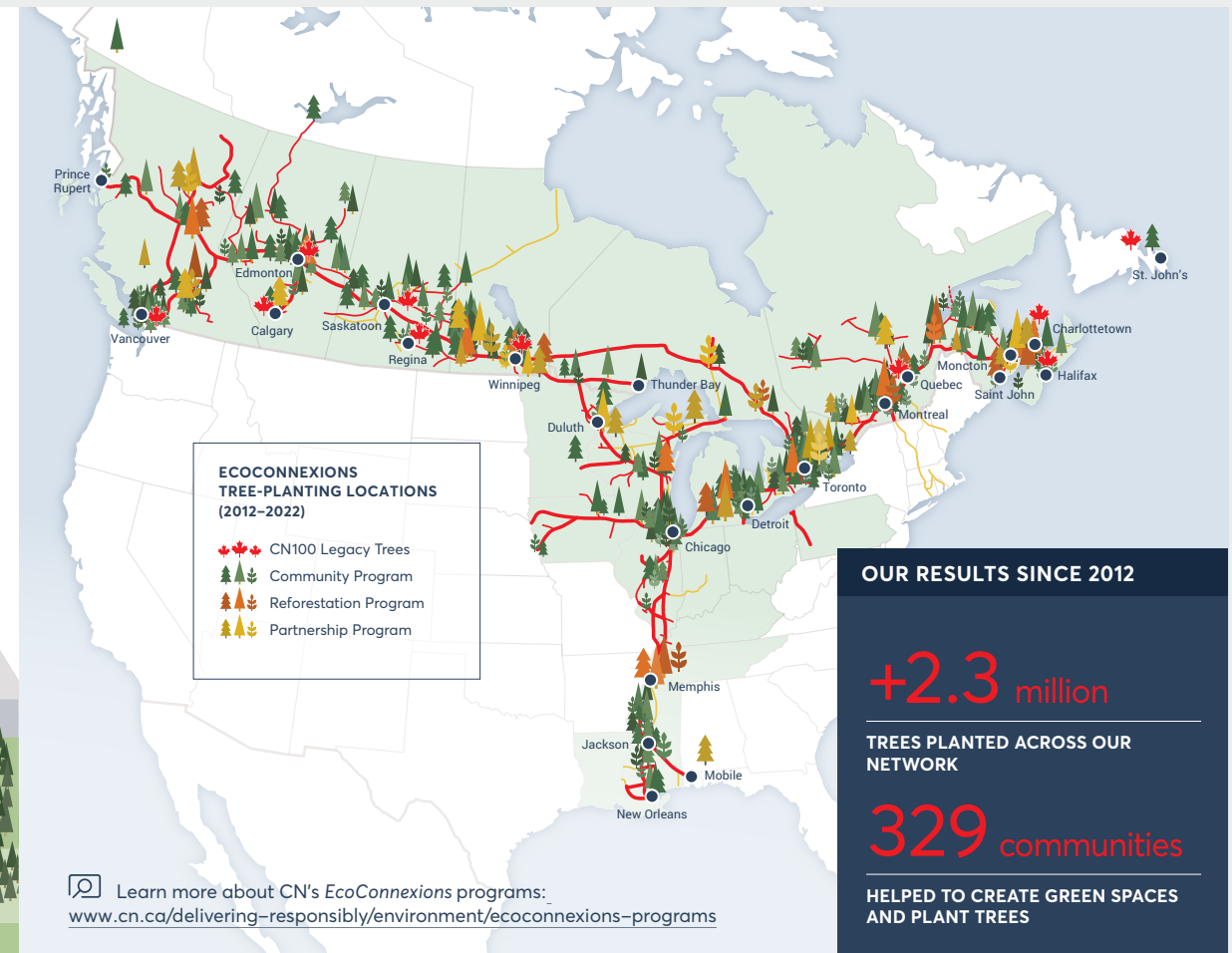
For over 10 years, CN's *EcoConnexions – From the Ground Up* program has supported the greening of municipalities and Indigenous communities along our network by planting trees and shrubs. We are also re-establishing urban and rural forests to help create a living legacy of sustainability for current and future generations by supporting the value of trees.

In 2022, CN contributed \$1.65 million through our partner Tree Canada and nearly \$400,000 through America in Bloom in 15 communities to help improve air quality, support biodiversity, and create resilient and sustainable communities. Since 2012, the program has participated in 252 projects in Canada and 77 in the United States.

**PARTNERING FOR REFORESTATION**

CN's *EcoConnexions Partnership Program* celebrates our customers and supply chain partners who are working to reduce their emissions, increase energy efficiency, and drive sustainable business practices. Each year, we recognize our partners by planting trees in their honour.

In 2022, 58 customers and supply chain partners were recognized for their dedication to sustainability and 100,000 trees were planted as part of five reforestation projects. Since 2014, in collaboration with Tree Canada, the *EcoConnexions Partnership Program* has planted over 800,000 trees in Canada and the U.S.





# PEOPLE

**PICTURED:**

Dylan Brown, Conductor; Michael Jackowski, Conductor; Sherpreet Singh, Conductor; Kenneth Heffling, Machinist; Trevor Young, Locomotive Engineer; Matthew Brooke, Conductor; Robert Harrison, Conductor; Kaitlyn Rondeau, Transportation Manager; Gary Gill, Hostler

## Our Commitment

Provide a safe, supportive, and diverse work environment where our employees can grow to their full potential and be recognized for their contributions to CN's success.

**IN THIS SECTION:**

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- 49 Talent Development
- 52 Diversity, Equity, and Inclusion
- 55 Employee Well-being



# BUILDING A DIVERSE AND EMPOWERED WORKFORCE

CN's people have always been our most important differentiator. They power our success by caring passionately about railroading and bringing a high level of commitment and resilience to their daily tasks, even in challenging times.

## Workforce Planning and Labour Relations

CN continues to attract, train, and motivate diverse talent with a renewed focus on an inclusive and winning culture. We leverage a cross-functional team and a disciplined data analysis process for our strategic workforce planning. This allows us to ensure we have the people and equipment to meet customer demand and move the economy forward. We also continue to work collaboratively with our union partners. Labour unions play a key role in ensuring our employees' voices are heard at all levels of the Company.

## Talent Development

We continue to align our talent strategies with our business objectives by focusing on developing the various skills and capabilities required to meet our commitments, address challenges, and ensure a solid bench of talent to mitigate risk. In 2022, we continued to leverage our integrated *My360* human resources information system, our state-of-the-art training facilities, and our *Railroader Certification Program* (RRCP). We expanded our curated online playlists for more self-guided and self-paced learning. We also delivered several courses via virtual platforms, allowing us to reach employees in all regions.

## Diversity, Equity and Inclusion

Our approach to building a diverse, equitable, and inclusive workforce is holistic and integrated to ensure our talent reflects the diversity of the communities we serve. We focus on assessing CN's hiring practices to support the recruitment of under-represented groups, engaging CN's eight Employee Resource Groups (ERGs), as well as taking proactive steps to address any pay equity gaps.

## Employee Well-being

We are committed to looking out for each other and supporting all employees' health and wellness. Our *CN Traction* program helps employees develop good health habits and an active lifestyle. Our *Employee and Family Assistance Program* (EFAP) provides an avenue for our employees and their families to seek help on a wide range of personal issues. We also invested in technology and tools to support our talent with hybrid working options. In addition, through our telemedicine provider, employees have 24/7 access to free, professional, and confidential health care.

## 2022 Performance Highlights

- > Launched CN's Core Competency Model to set clear expectations about the behaviours we want from our team.
- > Established the Allies of Diverse ABILITY Partnering Together (A.D.A.P.T.) ERG to raise awareness of issues important to people with visible and non-visible disabilities.
- > Filed our first annual Employment Equity Report under the new Canadian Pay Transparency regulations to address wage gaps in the four designated groups.



- > All four designated groups are represented in CN's senior management team, with 42% identifying as members of under-represented groups, including 23% as women.
- > Women are also well represented in CN's revenue-generating functions and science, technology, engineering, and math positions, with 32% and 21%, respectively, identifying as women.
- > Renewed our membership in the League of Railway Women, a group that represents and promotes opportunities for women in the railroad industry.



# ALIGNING OUR TALENT STRATEGY TO THE BUSINESS

Our talent acquisition program is a critical component of our strategic plan. We recruit talent with diverse strengths and experiences to ensure our workforce reflects a variety of perspectives. In an increasingly challenging job market, we are focused on cultivating a workforce of skilled and talented railroaders who will drive CN's future success.

### Attracting Talent

Building for the future requires attracting talent with the right competencies to support CN's strategic vision. Our talent acquisition approach focuses on:

- > **Strategic sourcing** of talent by leveraging employment portals and services.
- > **Leveraging technology** to help remove bias and enhance candidate diversity.
- > **Using focused recruiting campaigns** on platforms like Google, Facebook, and LinkedIn.
- > **Building partnerships** to identify potential candidates across the network.

Our approach has resulted in strong brand visibility for potential employees to learn more about CN's opportunities. In 2022, we attended more than 100 events and partnered with universities and technical schools across our network to feed our talent pipeline.

**35%**

INCREASE IN OUR APPLICATION POOL IN 2022 VS. 2021

**1,531**

NEW EMPLOYEES HIRED UNDER THE AGE OF 30, REALIZING A 47% INCREASE OVER 2021

### Strategic Workforce Planning

Our strategic workforce planning process is disciplined and leverages a cross-functional team of experts across CN who analyze data to support our decision making. The team estimates the Company's future workforce and equipment needs by studying the external landscape. Our analysis includes customer traffic forecasts up to 36 months out, which we translate into train requirements. These are used to determine the number of locomotives and railcars needed, which helps us determine the number of crews we will need in the future, as well as other employees to support them.

### Fostering Positive Labour Relations

Trade unions play a key role in ensuring our employees' voices are heard at all levels of the Company. CN is committed to maintaining collaborative relationships with our unions and recognizes that information sharing and two-way dialogue are essential to resolve employee issues and business challenges. We strive to reach consensus whenever we can, and when we cannot, we use dispute resolution mechanisms to find solutions of mutual interest.



## Opportunities for Students and Recent Graduates

To attract new diverse graduates to CN, we have developed a robust *Early Talent Career Strategy* to actively promote a career in rail. Many students are unfamiliar with the rail industry and the opportunities for a stable and rewarding career. The strategy ensures our talent focus includes youth and recent graduates through well-established entry-level recruitment programs that offer excellent ongoing career development and advancement.

Through this focus, the Company is better equipped to support young people on their journey, while helping us recruit and integrate new diverse talent.

**PICTURED:** Recently hired grad, **Inderpreet Deol**, Design and Construction Officer (left), and her manager, **Kristina Boka** at Brampton Intermodal Terminal, Brampton, ON.

# ADVANCING THE NEXT GENERATION OF RAILROADERS

We are focused on making CN an inclusive organization where all talent is valued and able to thrive. Our talent management approach focuses on all areas of the employee experience, from onboarding to ongoing education and training opportunities aligned to their interests. We want our railroaders to be confident that they made the right decision by joining CN.

## Setting Our Expectations

CN's onboarding approach welcomes, orients, and integrates new railroaders to the Company. Onboarding begins as soon as candidates accept their employment offer and continues through the first 14 months of their career. Our program ensures employees have the right knowledge about CN, understand how they fit in, and know how to do their jobs safely. To us, successful onboarding means our new railroaders understand what to expect in the days, weeks, and months ahead. We take steps to ensure they feel supported in their roles through regular check-ins.

In 2022, as part of our commitment to set clear expectations about the behaviours we expect from our team, we launched CN's *Core Competency Model*. The *Core Competency Model* articulates our target culture and reinforces the behaviours needed to achieve our vision, build our talent, and foster a diverse, inclusive, and winning team. CN's *Core Competency Model* applies to all management employees and focuses on how we approach our work and interact with others, fostering openness, and inclusion to help evolve our Company culture in a tangible way.

## Training and Developing Our Talent

Employee learning and development is one of the biggest drivers of employee engagement. We offer online, e-learning, and virtually led courses as well as in-person sessions. We are focused on providing employees with the right resources to do their jobs to the best of their abilities. In 2022, we launched *My360 Playlists*, CN's new online learning library, offering curated content covering more than 50 topics.

In 2023, CN launched *Percipio* to provide a range of high-quality learning resources for digital, leadership, and business skills. *Percipio* offers CN employees opportunities to develop capabilities and confidence on a schedule that works for them, satisfies their performance needs, and supports their career and personal aspirations.

On a peer-to-peer level, employees are trained to recognize potential at-risk work practices in the field and taught how to support their teammates in working safely. Our two CN Campuses are focused on instilling a strong safety culture in our new hires who receive a complete range of hands-on technical training. And, in partnership with labour unions, new conductors' skills development and assessment continues for six months after qualification. Employees return to CN Campus throughout their careers for refreshers and to train on new equipment.

## CN'S CORE COMPETENCY MODEL



## Ensuring Continuous Learning

**890,000** hours

OF EMPLOYEE TRAINING IN 2022 COVERING SKILLS RE-CERTIFICATION, LEADERSHIP DEVELOPMENT, AND ENTRY-LEVEL TRAINING

# Leveraging State-of-the-Art Training

CN is committed to providing robust and comprehensive training to all employees. Opened in 2014, CN Campus provides onboarding and recertification training that blends in-class and hands-on learning with a continuous emphasis on safety.

## > MODERN FACILITIES



The modern National Training Center in Homewood, IL, and Claude Mongeau National Training Centre in Winnipeg, MB, – commonly referred to as “CN Campus” – represent CN’s commitment to preparing railroaders.

## > IN-CLASS TRAINING



The training centres are focused on instilling and reinforcing a strong safety culture, where railroaders are equipped with a common understanding of CN’s policies, procedures and rules.

## > HANDS-ON LABS



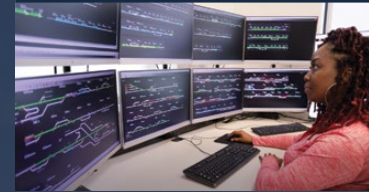
Our indoor and outdoor labs provide practical learning on real tracks, rolling stock, and work equipment in a controlled and safe environment. The labs enable employees to train with items they will encounter in the field.

## > WALKING SIMULATORS



Walking simulators place individuals in a safe, controlled environment that allows them to experience what it feels like to walk on uneven ground, ballast, ice, and over obstacles, which improves stability and reduces risk.

## > RTC SIMULATORS



Rail Traffic Control (RTC) simulators replicate all functionalities of a live RTC desk, allowing students to practice various tasks, such as lining signals, protecting movements, and responding to emergency situations.

## > LE SIMULATORS



Locomotive Engineer (LE) simulators replicate all controls of a real locomotive, including air brake handles, throttle handle, screens used to monitor train health, air pressure, and advanced safety systems.

~6,500

STUDENTS TRAINED IN 2022 AT CN'S TWO TRAINING CAMPUSES

PICTURED:  
Claude Mongeau National Training Centre, Winnipeg, MB



**Encouraging Leadership Dialogue**

We launched a new event series in 2022 specifically designed for Front Line Supervisors (FLS). Led by members of our executive team, the events were opportunities to network and explore CN's vision of leadership. Over the course of 1.5 days, FLS engaged with a small group of peers and select leaders to deepen their understanding of leadership, along with how customer centricity, collaboration, and safety connect with their role. The experience consisted of presentations, two-way dialogue, and a workshop as a dynamic way of learning together.

**Succession Planning**

CN is committed to having a diverse senior management team that offers a depth of perspectives and enhances our operations. CN's integrated approach to executive talent management and succession planning aims to ensure a pipeline of leaders is in place to drive both short- and long-term performance. We complete annual reviews to identify enterprise talent across all levels, through standardized criteria, to ensure we have the right people ready to lead.



Recognized as one of Canada's Top 100 Employers for the 8th time, and one of Montreal's Top Employers for the 10th consecutive year, demonstrating CN is an exceptional workplace for our employees.



PICTURED:  
Alexandre Bougie, Locomotive Engineer and Eric Fisher, Assistant Superintendent at Taschereau Yard, Montreal QC.

**Giving Managers Hands-on Experiences**

Our RRCP is part of a long-term initiative to bring managers closer to our core operations and help them understand how we meet our service commitments to customers. We also maintained our *Railroad Familiarization Program*, which offers management employees the opportunity to acquire fundamental operations knowledge and hands-on experience.

262

MANAGEMENT EMPLOYEES IN CANADA OBTAINED OR MAINTAINED THEIR CONDUCTOR OR LOCOMOTIVE ENGINEER QUALIFICATIONS UNDER THE RRCP IN 2022

# FOSTERING AN INCLUSIVE CULTURE

We recognize the importance of creating an inclusive work environment that respects the contributions and uniqueness of every employee. We are committed to creating a workforce that reflects the regions and communities we serve.

Diversity, equity, and inclusion (DE&I) are principles of major importance at CN and key to our future success as our workplace strives to reflect the communities where we operate. Our commitment is anchored by our Diversity and Inclusion Plan, which focuses on increasing the representation of women, Black, Indigenous and People of Colour, persons with disabilities, and veterans at all levels of our Company.

## Putting Our Plan into Action

Our DE&I strategy involves an integrated approach to sensitizing, recognizing, and building awareness on DE&I in the workplace. We conduct regular reviews of pay equity, assess our hiring practices to leverage recruitment agencies that focus on under-represented groups, and require diverse candidate slates for all recruitment mandates. We are also reviewing how our DE&I is reflected in our processes, including reviewing our policies for unconscious bias and amending them as required. In 2022, CN filed our first annual Employment Equity Report under the new Canadian Pay Transparency regulations.

# 42%

OF ACTIVE SENIOR MANAGERS IDENTIFIED AS MEMBERS OF AN UNDER-REPRESENTED GROUP IN 2022 COMPARED TO 41% IN 2021

## Diversity in Senior Management

CN is committed to having a diverse senior management team that offers a depth of perspectives and enhances our operations. Executive officer appointments are reviewed with our DE&I and talent management objectives in mind, including the level of representation of women in executive officer positions. In 2022, all four designated groups were represented in the senior manager occupational group, with 23% identifying as women, compared to 22% in 2021. In early 2023, we renewed our gender diversity target for executive management and above that, by the end of 2023 and thereafter maintained, at least 30% of this group will be women.

## Strengthening Our Commitment

CN has engaged experts to assess our programs, developed valuable training tools, and outlined clear policies to help further embed a strong DE&I mindset into our culture. In this way, differences are met with an open mind and leveraged to bring further value. In 2022, CN continued to engage the services of a human resources firm to help review and elaborate gender-neutral and unbiased job descriptions that serve as the basis for all CN job postings. CN also leverages a tool that enables unbiased sourcing of candidates as it masks any information pertaining to a person's sex, ethnicity, sexual orientation, or disability.



## Project Together: Connecting through Music

In 2023, 14 CN employees from varied backgrounds from across our rail network in Canada and in the U.S. contemplated a common bond through the power of music. What emerged was Project Together. The production, which begins with inspiring First Nations drumming, comes straight out of Ocean Way Studios in Nashville, TN, on CN's former Illinois Central main line.

"Together" is a song written and performed by CN employees to honour the lasting ties between railroaders and our communities. It celebrates how CNers work together to solve problems and support collective prosperity throughout North America and the world. At our railroad, we do it TOGETHER.

▶ Watch the video at: [Project Together](#)

PICTURED: Claire Levesque, Conductor, Jasper, AB. One of the 14 talented CN employees who were part of Project Together.

**SPOTLIGHT**



# Building an Inclusive Culture: Employee Resource Groups

We are focused on building a culture that is welcoming to all, where diverse perspectives from our team of railroaders are heard and respected. We believe that building an inclusive culture is integral to our ability to serve our customers and communities.

CN's ERGs help propel innovation by bringing together different perspectives, experiences, and ideas from employees at all levels. ERGs create an open forum and safe space for employees who share common interests to meet, share experiences and support one another. They are also a valuable resource to CN regarding employee/community interests, needs, and policies as well as to advance a respectful and caring corporate culture.

- > A.D.A.P.T. (Diverse Abilities)
- > Indigenous
- > Latinos CN
- > PACE (Pan-Asian Community Engagement)
- > PRIDE (LGBTQ2+)
- > RISE (Black/African American)
- > Veterans at CN
- > WE (Women Employees)

In 2022, CN employees created the A.D.A.P.T. ERG to increase awareness about issues important to people with visible and non-visible disabilities. Through open dialogue, education, and more, the A.D.A.P.T. ERG steering committee inspires conversation around inclusion to eliminate the stereotypes that have created barriers in the past for people with disabilities.



**PICTURED** (Clockwise from top left): **Ferdinand Aquiatan**, Field Maintainer, Macmillan Yard, Toronto, ON; **Orson Jones**, Locomotive Engineer, Kirk Yard, Gary, IN; **May Dong**, Senior Operations Clerk, Walker Yard, Edmonton, AB; **Angelique Cope**, Contract Compliance Officer, Homewood, IL; **Kanwaljit Kamboj**, ELE-Mechanical, Symington Yard, Winnipeg, MB; **Geordan Price**, Conductor, Macmillan Yard, Toronto, ON; CN's Commemorative Veterans Day Locomotives; Pride Day Homewood, IL (left to right): **Ashley Chmura**, Track Inspector; **Miranda Pachal**, Manager, Learning Operations; **Jeffery Price**, Special Agent; **Duane Spears**, Senior Manager, Diversity, Equity & Inclusion; Rich Hofeld, Mayor, Homewood; **Colette Disbrowe**, Logistics Coordinator; **Christopher Ratuszny**, Material Planner.

For more information on CN's commitment to DE&I visit: [www.cn.ca/en/careers/diversity-equity-inclusion](http://www.cn.ca/en/careers/diversity-equity-inclusion)

### Respecting Gender Identity and Expression

Gender identity and expression are deeply personal matters and CN continually strives to respect these constructs. Gender identity refers to a person’s individual experience of gender, whether they identify as being a woman, man, both, neither, or anywhere on the gender spectrum. Gender expression refers to how a person chooses to publicly present their gender. This can include one’s outward appearance and behaviour.

Another way is through their name and pronouns. By using a person’s identified pronouns, we demonstrate that we affirm and respect their identity. At CN, employees have the right to indicate which pronouns they use for themselves. In 2022, we continued to indicate our pronouns in our email signatures and on social media to tell everyone we are not going to assume their gender.

### Advancing Women in the Rail Industry

Women have a long history being a part of the very fabric of CN. As a signatory to the Catalyst Accord 2022, CN is committed to accelerating the advancement of women in business. We have several programs and initiatives in place to retain and attract women to CN, including ensuring job titles are neutral and working closely with several organizations to promote opportunities for women in non-traditional roles. In 2022, specific job opportunities were promoted to encourage a diverse pool of applicants by providing potential candidates with a glimpse into employees’ day-to-day activities and the CN culture.

Also in 2022, CN renewed our membership in the League of Railway Women, continuing our support of an organization dedicated to advancing representation and opportunities for women in the railroad industry.

### Raising Cultural Awareness

We continue to demonstrate our commitment to DE&I at CN through various programs, trainings, and initiatives across our network. For example, we offer an *Inclusive Leadership Program*, which is a webinar series created especially for CN. The program provides employees with concrete tools to embody inclusive leadership. In 2022, 217 employees in Canada received this training.

CN develops annual communication campaigns to highlight key diversity celebrations and increase engagement through awareness and recognition. In 2022, we promoted diversity celebrations across our network, including for International Women’s Day, National Indigenous Peoples Day, Pride Month, Asian Heritage Month, Hispanic/Latin American Heritage Month, Black History Month, Remembrance Day and Veterans’ Day, and International Day of Persons with Disabilities.

▶ To celebrate International Women’s Day 2022, CN produced a video paying tribute to all the ways CN women #BreakTheBias: [vimeo.com/686307448](https://vimeo.com/686307448)



### Developing Inclusive Leaders

We continue to develop inclusive leaders through targeted training and education, as they play a critical role in creating and sustaining an inclusive work environment. In 2022, in partnership with Franklin Covey, CN launched an online course on “Unconscious Bias for People Leaders,” which provides tools on how we can manage and even interrupt our unconscious biases. In 2022, 913 employees in Canada received this training. Additionally, we require all recruiters and hiring managers to take bias awareness training to help ensure the face of CN better reflects the demographics of our customer base and that of the communities in which we operate.



Recognized as one of Canada’s Best Diversity Employers for the fifth time, demonstrating CN’s best-in-class diversity and inclusiveness programs. Our Diversity strategy was also recognized in 2023 by Partners in Inclusion.



# TAKING A HOLISTIC APPROACH TO EMPLOYEE WELLNESS

We are evolving our way of working to be more modern, innovative, inclusive, and reflective of the future we want for our Company and industry.

Beyond offering competitive compensation and benefits programs, our focus is on employee wellness – physical, mental, and financial. We are committed to looking out for each other by reviewing and benchmarking our employee benefits and compensation packages annually against industry leaders to ensure they remain competitive.

## Evolving Our Way of Working

Throughout 2022, we successfully welcomed many employees back to CN premises in hybrid work arrangements, joining those who remained safely on site in critical roles during the pandemic. We believe this allows our employees to better contribute to innovation, collaboration, and achieve better work-life balance and greater productivity. Our intention is to make improvements along the way by learning from our employees and other organizations, and by bringing together the best approaches that foster rapid development, collaboration, and feedback.

## Supporting Mental Health

**1,864 employees**

AND 525 FAMILY MEMBERS USED CN'S EFAP SERVICES IN 2022

## Providing Access to Healthcare Professionals

We believe the health of our employees matters and we have partnered with healthcare management companies to provide telemedicine services for all employees. The services include easy, convenient, and confidential access to healthcare professionals for a variety of health-related issues, including pediatric concerns, stress and mental health, prescriptions renewals, and chronic disease management. Employees can access these services 24/7 via mobile, tablet, or computer in English and French.

## Fostering Health and Wellness

We are committed to supporting our people's health and wellness through our various programs. For instance, our *CN Traction* program aims to help employees develop good health habits and an active lifestyle. Our people's mental health is just as important as their physical health. Our EFAP provides an avenue for our employees and their families to seek help on a wide range of personal issues, including physical, mental, financial, and professional concerns.



## Recognizing Excellence

Across CN, teams are doing extraordinary things to move the Company forward. It is important to credit truly exceptional accomplishments with CN's highest form of recognition, the *CN People Awards for Excellence*. What makes this award unique is that nominations can be submitted by and for all CN employees across the network, a true form of peer recognition. Indeed, individuals at all levels can be recognized for their over-and-above efforts to drive innovation, safety, diversity, and altruism throughout the organization. In 2022, over 150 nominations were received.

The *CN People Awards for Excellence* also includes the *People's Choice Award*. All CN employees may vote for one of the six main award winners that they believe best exemplifies CN's desired behaviours and created the most value for the Company.

**PICTURED:** The jubilant Jasper Common Connection team, winners of the 2022 *People's Choice Award*



# COMMUNITY

**PICTURED:**

In 2023, for the 16th year in a row, CN was proud to be the title sponsor of CN Cycle for CHEO (Children's Hospital of Eastern Ontario). Together, we raised over \$1.8 million to fight cancer.

## Our Commitment

Build safer, stronger communities by investing in community development, creating socioeconomic benefits, and ensuring open dialogue with all stakeholders, including Indigenous peoples.

**IN THIS SECTION:**

- 57 Overview
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- 61 Indigenous Relations
- 63 Stakeholder Engagement
- 65 Community Development

# PROUD TO BE YOUR NEIGHBOUR

At CN, we are committed to being good neighbours who listen, learn, and do our part to help build safer, stronger, more prosperous communities.

## Socio-Economic Benefits

Connecting Canada's Eastern and Western coasts with the U.S. Gulf Coast, CN is a world-class transportation leader and trade-enabler. Essential to the economy, to the customers, and communities we serve, CN safely transports more than 300 million tons of natural resources, intermediate goods, and finished products throughout North America every year. In 2022, CN paid \$2.9 billion in salaries and wages to our nearly 24,000 employees, spent \$5.8 billion at local businesses, and paid \$2.1 billion in taxes to all levels of government.

## Indigenous Relations

CN operates within or adjacent to nearly 230 reserve lands of more than 120 First Nations and Métis peoples as well as seven reservations in the United States. Working alongside Indigenous communities, we make it a priority to strengthen our ties, cultivate respectful and mutually beneficial relationships, and work toward reconciliation.

We continue to engage in open dialogue with Indigenous communities, identify and foster business opportunities, increase our employees' awareness and understanding of Indigenous culture, and enhance our ability to attract Indigenous talent.



## Stakeholder Engagement

We are committed to building and maintaining strong, lasting relationships with all our stakeholders. Through our engagement activities, we seek the perspectives and expertise of our stakeholders and rightsholders to understand and address their expectations. We aim to engage proactively, consistently, collaboratively, and authentically, and in doing so, hope to build trust and deepen our relationships.

## Community Investments

Each year, through our *CN Stronger Communities Fund* and our *CN Railroaders in the Community* program, CN contributes millions of dollars, over \$15 million in 2022, to non-profits that promote health and safety, environmental sustainability, diversity and inclusion, innovation, and civic engagement. For example, we support the greening of municipalities and Indigenous communities along our network by planting trees and re-establishing urban and rural forests.

## 2022 Performance Highlights

- > The *CN Stronger Communities Fund* contributed over \$15 million to non-profits throughout Canada and the U.S. 
  - > CN Railroaders in the Community volunteered over 100,000 hours and CN donated \$1.6 million to the organizations where they volunteer.
  - > The *CN Employees' and Pensioners Community Fund* raised a record \$2.19 million, supporting over 600 charities.
  - > Earned the prestigious TRANSCAER® National Achievement Award for training emergency personnel how to respond to dangerous goods incidents.
- 
- > We continued our partnership with Earth Rangers to help employees and their families make a difference through CN's *EcoConnexions* program. 
  - > In partnership with Tree Canada, America in Bloom and others, CN continued to support the greening of communities along our rail lines by planting trees and shrubs.
  - > CN contributed to Indigenous communities to help them with their stewardship of the land as well as Indigenous-led heritage parks and cultural centres.

# HELPING TO POWER THE ECONOMY

CN is an engine of North American economic growth and prosperity. We strive for leadership in safety, customer service, operational efficiency, and sustainability.

## Enabling Trade and Growth

Our rail lines are the threads that weave together the very fabric of North America, contributing to economic prosperity, improving quality of life, and supporting the shift to a cleaner, more sustainable economy. Every year, CN handles hundreds of millions of tons of cargo of all kinds – from grain and forest products to consumer goods and automobiles – driving the economy forward and enabling trade. Our network reaches millions of people living in more than 2,000 communities throughout North America. If you eat it, use it, or drive it, chances are we move it!

## Generating Economic Value

Our customers, supply chain partners, and the public rely on us to deliver the critical goods they need every day. As a major employer of nearly 24,000 people in 2022, we contribute to the wealth and prosperity of the communities and regions where we operate and where our employees live, work, and play. We spend locally on goods and services, pay taxes to all levels of government, and invest in community partnerships.

## Investing for Our Customers

In 2021 and 2022, CN invested a total of \$5.7 billion to improve the safety and reliability of our service, support the growth of our customers, and digitize and automate processes to keep our network well maintained, safe, and fluid. Capital projects in 2022 included building long sidings and double tracks as well as acquiring 53 high-horsepower locomotives, 800 high-capacity boxcars and 500 high-efficiency grain hopper cars. We are investing in our intermodal terminals around Toronto, ON, and Chicago, IL, to promote gateway growth and deploying advanced technologies to improve decision-making, capacity, and safety.

## Supporting the Sustainable Economy

CN continues to play a key role in the transition to a lower-carbon economy by providing customers with a safe, efficient, and environmentally responsible way to move goods. We are actively working with many of our customers and supply chain partners, including ports, to help them reduce their emissions. Increasingly, we are strengthening the sustainable economy by moving cleaner energy alternatives, such as biofuels, wood pellets, solar panels, and wind turbines, as well as emerging products like electric vehicles.



## New Intermodal Service to Mexico

CN, Union Pacific (UP) and Ferromex (FXE) have partnered to create the Falcon Premium intermodal service, a game-changing Mexico-U.S.-Canada route with a seamless connection in Chicago, IL. It links all CN origin points to FXE terminals in Monterrey and Silao, Mexico, via UP's direct line from Eagle Pass, TX, to Chicago. This new service benefits intermodal customers shipping automotive parts, food (especially temperature-controlled products), and freight of all kinds.

Falcon Premium also benefits all communities by lowering transportation GHG emissions with a shorter route and by promoting truck-to-rail conversion. Having fewer trucks on the road improves urban air quality, reduces traffic congestion, and road maintenance costs, and helps fight climate change by lowering GHG emissions.

↓ To learn more about CN's markets, operations, and financials: [2023 Investor Fact Book](#)

**SPOTLIGHT**



# Creating Sustainable Value – 2022

CN plays a leading role as an essential enabler of the North American economy. Delivering our transportation services safely, efficiently, and responsibly is vital to us and to the value we create for our stakeholders and society.

**Customers**

We nurture close relationships with our customers to help them grow their businesses and win in their markets.

**300M**

TONS OF CARGO MOVED

**Shareholders**

We create long-term value for our shareholders, distributing dividend payouts and share repurchases.

**\$6.7B**

RETURNED TO SHAREHOLDERS

**Suppliers**

We source goods and services from suppliers, creating jobs, and economic growth.

**\$5.8B**

IN GOODS AND SERVICES

**Governments**

We contribute to Canadian and U.S. economic prosperity through the various taxes we pay.

**\$2.1B**

TOTAL TAX PAYMENTS <sup>(2)</sup>

**Employees**

We attract, develop, and reward our people to maintain a skilled and motivated workforce.

**\$2.9B**

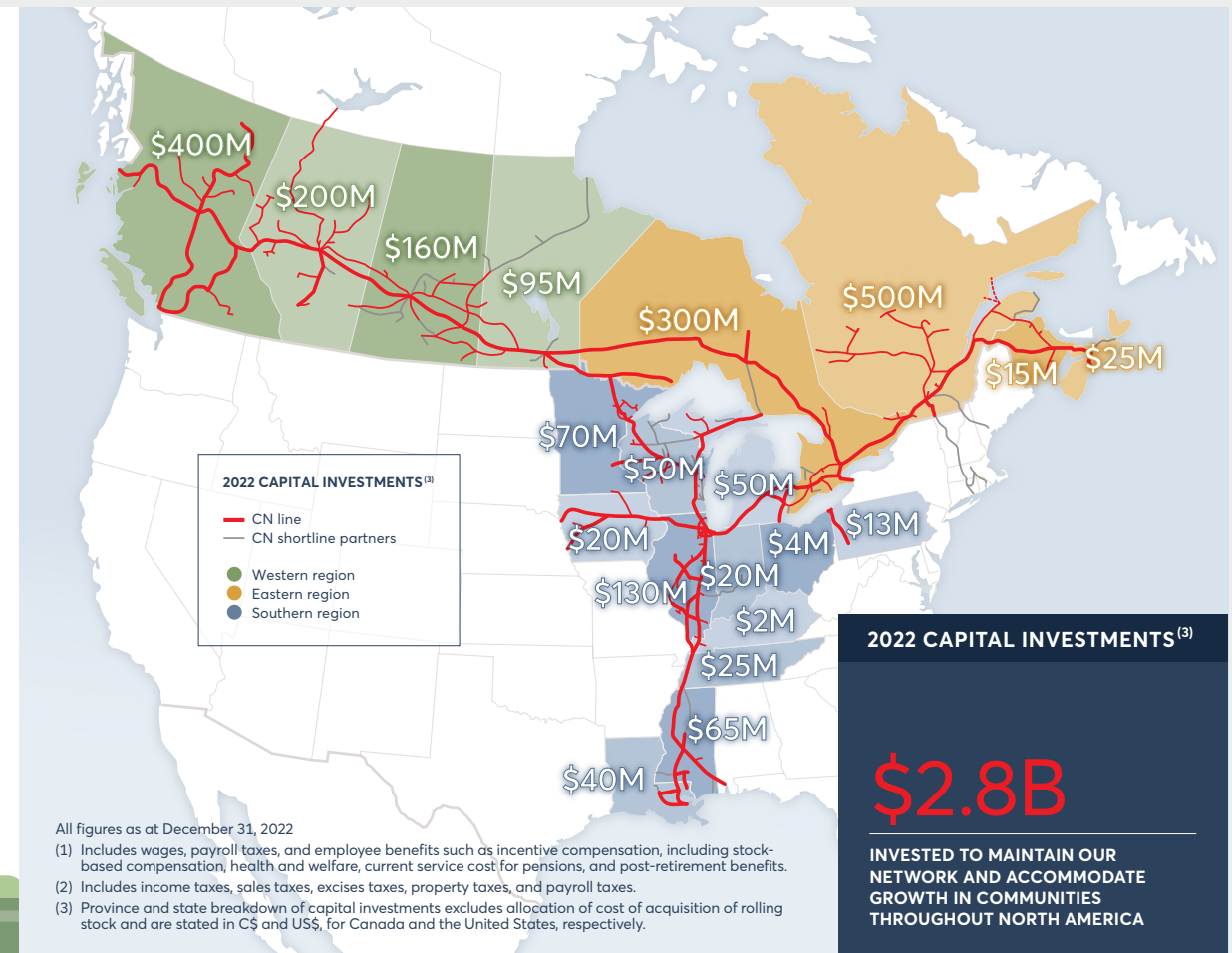
WAGES AND SALARIES PAID <sup>(1)</sup>

**Communities**

We invest directly in communities to make them better places to live, work, and play.

**\$15M**

COMMUNITY SPONSORSHIPS AND DONATIONS



All figures as at December 31, 2022

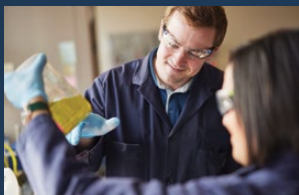
- (1) Includes wages, payroll taxes, and employee benefits such as incentive compensation, including stock-based compensation, health and welfare, current service cost for pensions, and post-retirement benefits.
- (2) Includes income taxes, sales taxes, excises taxes, property taxes, and payroll taxes.
- (3) Province and state breakdown of capital investments excludes allocation of cost of acquisition of rolling stock and are stated in C\$ and US\$, for Canada and the United States, respectively.

**2022 CAPITAL INVESTMENTS <sup>(3)</sup>**  
**\$2.8B**  
INVESTED TO MAINTAIN OUR NETWORK AND ACCOMMODATE GROWTH IN COMMUNITIES THROUGHOUT NORTH AMERICA



# Sustainable Procurement: Maximizing ESG Opportunities with Our Suppliers

Collaboration with our suppliers is essential to drive responsible sourcing and continuous improvement. By embedding sustainability principles, fostering supplier collaboration, and promoting diversity, we aim to create a more sustainable and inclusive supply chain.



We partner with our suppliers such as Progress Rail and Chevron Renewable Energy Group to test renewable fuels for use in our locomotives.

## › INTEGRATING SUSTAINABILITY INTO OUR PROCUREMENT PROCESS

CN's cross-functional *Sustainable Procurement Program* focuses on integrating sustainability into our procurement process, which encompasses supplier selection, risk assessment, continuous improvement, and capacity building. We seek opportunities to work with our suppliers to reduce our environmental impact while focusing on safety, positive social change, transparency, and active engagement.

ESG factors are incorporated in our supplier selection criteria, including consideration for environmental stewardship, health and safety, ethical practices, and sustainable procurement. We aim to support traditionally under-represented groups with a focus on Indigenous engagement.

**86%**

**OF CRITICAL SUPPLIERS SCREENED ON ESG ISSUES IN 2022, MORE THAN DOUBLE IN 2021\***

## › HAVING FORMAL POLICIES AND GUIDELINES

We hold our suppliers to the same high standards we hold ourselves. Our Supplier Code of Conduct, which is an extension of our Code of Business Conduct, outlines our baseline commitment to trust and integrity, health and safety, labour and human rights, as well as environmental and business ethics. Sustainability is an integral part of our procurement framework.

Suppliers must also comply with our CN Human Rights Policy; Environment Policy; Prohibited Harassment, Discrimination and Anti-Retaliation Policy (U.S.); Policy to Prevent Workplace Alcohol and Drug Problems (CAN); and Substance and Alcohol-Free Environment Policy (U.S.).

Learn more at [www.cn.ca/en/delivering-responsibly/governance](http://www.cn.ca/en/delivering-responsibly/governance)

## › MANAGING SUPPLY CHAIN RISKS AND OPPORTUNITIES

We understand the importance of risk mitigation and relationship management throughout the procurement process, including complying with Canada's new Modern Slavery Act. To accomplish this, we adopt a multi-pronged approach to managing opportunities and risks in our supply chain, starting with how we select our suppliers. We also screen our suppliers on ESG and Indigenous engagement criteria.

To assess the ongoing sustainability performance of our suppliers, since 2021, we have partnered with EcoVadis, a cloud-based platform enabling us to identify, manage, and monitor the ESG performance of our suppliers. Also, since 2020, we have engaged with ISNetwork to facilitate the mandatory reporting of safety statistics and other documentation from our in-scope contractors.

\* Suppliers identified as critical (over \$25 million annual spend) include those directly linked to CN's decarbonization pathway (e.g., fuel, locomotives, railcars).



**PICTURED:** Our long-standing supply chain partner, the Port of Prince Rupert, BC, balances environmental stewardship, economic vitality, social responsibility, and safety in its development and operations. Photo courtesy of the Port of Prince Rupert.

# STRENGTHENING OUR TIES WITH INDIGENOUS PEOPLES

Operating within or adjacent to nearly 230 reserve lands of more than 120 First Nations and Métis peoples, CN is in regular contact with Indigenous peoples across our network, developing respectful and mutually beneficial relationships.

## Engaging with Indigenous Communities

CN is proactively fostering positive relationships with Indigenous communities. We continue to engage in open dialogue to learn more about our Indigenous neighbours and increase our community involvement. CN participates in many Indigenous events to help build stronger ties while promoting available jobs, business opportunities, and our commitment to diversity and inclusion.

**PARTNERSHIPS:** As a good neighbour, we look to partner with Indigenous communities near our network through sponsorships and donations. Examples from 2022 include the Banff Centre for the Arts, where CN scholarships helped reduce financial barriers for people accepted into the Centre's Indigenous Leadership Management program. CN also contributed to Western University's Indigenous Leaders in Training Project to help teach Indigenous youth in grades 7 to 12 how to be leaders in their communities.

In 2021, CN created the Indigenous Advisory Council to advise the CN Board and CEO as CN advances on its journey toward reconciliation.

**TRAINING:** CN provides awareness training on Indigenous culture, beliefs, and history. In 2019, this training became mandatory for all management employees working in Canada. This course is also part of CN's unionized new hire program at the CN Campus in Winnipeg, MB. Since the program began in 2014, more than 24,000 employees have completed the training, including 80% of CN's active Canadian workforce.

**EMPLOYMENT:** CN partners with Indigenous organizations to promote CN as an employer of choice and ensure Indigenous people have access to jobs, training, education, and opportunities to help increase Indigenous representation at all levels of the Company.



## CN'S INDIGENOUS VISION SINCE 2013

We will develop respectful and mutually beneficial relationships with all Indigenous peoples, while ensuring service to our customers. In addition, we will be recognized by key stakeholders, including customers and governments, as having a sound approach to engaging with Indigenous communities and having a respectful and sustainable relationship with Indigenous peoples across the CN network.

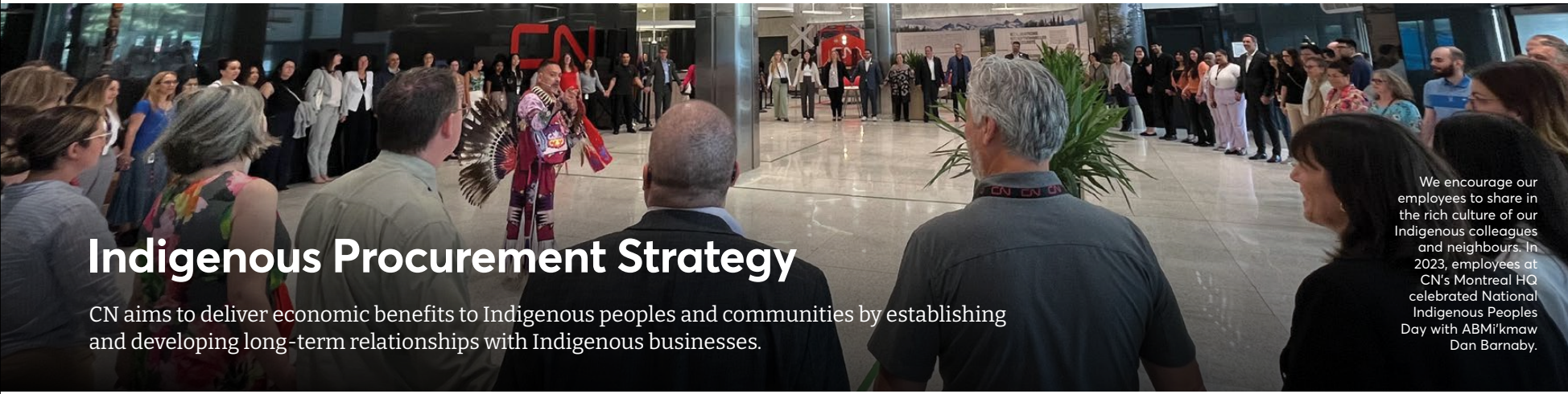


## Growing Together through Employee Engagement

CN's Indigenous Employee Resource Group (ERG) is a safe space for Indigenous and non-Indigenous employees to share, learn, and grow together around the unique experiences, cultures, and histories of Indigenous peoples. The ERG promotes and provides opportunities for reconciliation and shared learning by engaging in dialogue across the company.

*"I'm proud of CN for allowing the Indigenous ERG to come up with different strategies and activities that work toward reconciliation. This beautiful mural painted by Indigenous artist Annie Beach welcomes visitors to Winnipeg's CN Campus as a symbol of diversity and inclusion."* — **Vanessa James**, Manager, Indigenous Relations, Co-chair of the Indigenous ERG, and daughter of a residential school survivor.

From left: April Krahn, Assistant Superintendent, Indigenous Way of Life; Colleen Omand, a local Cree language teacher who helped inaugurate the mural; **Vanessa James**.



# Indigenous Procurement Strategy

CN aims to deliver economic benefits to Indigenous peoples and communities by establishing and developing long-term relationships with Indigenous businesses.

We encourage our employees to share in the rich culture of our Indigenous colleagues and neighbours. In 2023, employees at CN's Montreal HQ celebrated National Indigenous Peoples Day with ABM'ikmaw Dan Barnaby.

## Indigenous Inclusion Criteria

CN engages with Indigenous businesses and embeds Indigenous participation within our procurement activities. We recognize various forms of Indigenous inclusion, such as:

- > **Ownership:** At least 51% owned, controlled, and actively managed by Indigenous people.
- > **Joint Ventures or Partnerships:** Consisting of at least one supplier with Indigenous ownership.
- > **Designated Indigenous Businesses:** Indigenous communities may designate preferred businesses that partner with them.
- > **Subcontracting:** CN suppliers that subcontract part of the work to Indigenous businesses.



In 2018, CN became a "Champion of Indigenous Sourcing," an initiative launched by the Canadian Council for Aboriginal Business, for our commitment to involve more Indigenous businesses in CN calls for proposals.

## Indigenous Procurement Principles

To embed Indigenous participation within CN's procurement process, we have six guiding principles for suppliers, contractors, and subcontractors:

- > Proposals must meet CN's safety and performance standards.
- > Proposals must be market competitive.
- > Any subcontracting opportunities should prioritize businesses with Indigenous participation.
- > Any list of designated suppliers must be provided by the Indigenous community in writing.
- > All proposals are evaluated on their level of effort to incorporate Indigenous participation in their services, whether through direct hiring, partnership, or subcontracting opportunities.
- > Reports are required and recurrent discussions take place to monitor Indigenous inclusion activities.

For more information about CN's commitment to Indigenous communities and to send a business proposal visit: [www.cn.ca/en/delivering-responsibly/community/indigenous-relations](http://www.cn.ca/en/delivering-responsibly/community/indigenous-relations)

## Partnering to Hire More Indigenous Youth

CN continues to support the development of, and access to, jobs for Indigenous youth across our network. We partner with professional Indigenous engagement services to support our recruitment and retention activities, including AMIK and Tokata HR Solutions.

CN also supports and participates in Indspire events geared to Indigenous youth. Indspire is a national Indigenous charity that invests in the education of First Nations, Inuit, and Métis people for the long-term benefit of these individuals, their families, and communities. These partnerships and others help CN lay the foundation for long-term success for the Indigenous candidates we hire.



Indigenous high school students at Soaring Indigenous Youth Empowerment Gathering by Indspire in Edmonton, AB



# ENGAGING WITH OUR STAKEHOLDERS AND RIGHTSHOLDERS

Given the nature of our business and our physical presence across North America, we are committed to building and maintaining strong, lasting relationships with all our stakeholders and rightsholders as we hope to build trust and deepen our relationships.

We aim to protect our social license to operate, ensure a stable, supportive legislative and regulatory environment, enhance CN's brand and reputation, and enable growth. We believe that adopting a structured approach to engagement supports collaboration, decision making, and the development and nurturing of mutually beneficial relationships. Our ambition is to systematically seek stakeholders' and Indigenous peoples' perspectives and expertise to understand and address their expectations.

**EMPLOYEES:** In 2022, we directly employed nearly 24,000 people to fulfill our 24/7 operations. Our people power our success. They are our greatest asset. We aim to create a collaborative and inclusive environment where employees can grow and develop to their fullest potential, and where safety is a core value. As nearly 77% of CN's employees are unionized, labour unions play a key role in ensuring our employees' voices are heard. We are committed to consistent and constructive engagement with our employees, and with those who represent them.

**CUSTOMERS:** CN plays an essential role in moving the economy and enabling trade. We are a key link in our customers' supply chains. We aim to provide the service that our customers need and expect, and we seek to collaborate with them to enable their growth.

**COMMUNITIES:** We aim to be good neighbors by listening, learning, and doing our part to foster economic development, provide community support, improve safety, and help make our communities great places to live, work, and play. We want to keep our community stakeholders informed on community investments, economic development, employment opportunities, operational impacts, safety, and environmental protection, among others.

**INDIGENOUS COMMUNITIES:** CN is in regular contact with Indigenous peoples across our network, developing respectful and mutually beneficial relationships. We aim to engage in open dialogue, identify and foster business opportunities, increase our employees' awareness and understanding of Indigenous culture, and enhance our ability to attract Indigenous talent.

**INVESTORS:** Our Investor Relations department oversees CN's shareholder engagement program, which is our first line of contact for proactive shareholder outreach, and to respond to incoming shareholder inquiries. CN's executive leadership and Investor Relations team engage with shareholders and the broader investment community to solicit feedback about our Company strategy, financial and ESG performance, capital allocation, performance expectations, and business growth objectives. As well, CN's Chair engages with shareholders on governance matters.

**LAWMAKERS, REGULATORS AND GOVERNMENT OFFICIALS:** We work closely with people who represent our constituencies or are members of key transportation bodies. We aim to be seen as a trusted leader and source of input, analysis, and impact assessment for emerging policies and regulations that may affect our strategic efforts. We promote a stable and supportive regulatory environment that encourages investment, enables continuous safety improvement and environmental protection, and supports end-to-end supply chain efficiency.

**SUPPLIERS:** Suppliers are an important part of CN's business. They help us serve our customers and support our efforts to maintain the safety and fluidity of our network, as well as expand our network. Suppliers are also a key part of our decarbonization efforts. We consider our suppliers to be key partners and recognize that they play a pivotal role in creating a more sustainable future.

**PUBLIC AND MEDIA:** We strive to be open about our business and communicate clearly in a timely manner. We recognize the major role that traditional and social media play in disseminating information, and acknowledge the importance of public opinion in the context of our reputation and social license to operate.

↓ To learn more: [CN Stakeholder and Indigenous Peoples Engagement Framework](#)

# Cultivating Enduring Relationships

As a proud neighbour, CN is committed to closely engaging with the communities where we operate to create positive impacts.



**> CN POLICE SERVICE (CNPS)**

For 100 years, CNPS has been active in communities across our network to promote safe behaviour around rail lines. Our efforts to save lives include conducting enforcement initiatives at locations prone to incidents and delivering safety presentations to high-risk groups. Our risk mitigation officers engage with community stakeholders and citizens to deliver educational activities that promote rail safety awareness.

**PICTURED LEFT:** Members of the CNPS Mountain Division, past and present, celebrate 100 years of service at Walker Yard in Edmonton, AB.

**> AGRICULTURAL ADVISORY COUNCIL (AAC)**

To facilitate ongoing consultations with diverse members of the agricultural industry, CN created the AAC in 2019, a first for a Canadian railway. Members of the AAC are a cross-section of industry leaders rooted in communities along our network. They provide insights and advice on policy issues that affect the agricultural industry and help improve CN's ability to service this essential sector.



**PICTURED:** New high-capacity hopper cars and loop tracks at inland terminals help move more grain for the agricultural community. Winnipeg, MB

# GIVING BACK TO OUR COMMUNITIES

For CN, giving back is not a slogan—it is our way of doing business; it is also a way of being, a spirit of caring that is embedded in our CN culture. We encourage our employees to engage with the communities where they live, work, and play.

## CN Stronger Communities Fund

To fuel our actions and those of our community partners, the *CN Stronger Communities Fund* is helping to build safer, stronger, more sustainable and prosperous communities. Through our Fund, we contribute millions of dollars each year to organizations and initiatives that promote health and safety, innovation, environmental sustainability, diversity and inclusion, and civic engagement.

Our employees are part of the fabric of our communities and, together, we help support communities by investing in community development, creating socioeconomic benefits and ensuring open lines of communication. And, when our neighbours are in crisis, CN and our employees step up to help recover and rebuild, such as during the severe weather events of 2022.



Ranked among the best 50 corporate citizens in Canada by Corporate Knights for the 15th consecutive year, placing first in the freight transportation category.

## CN Railroaders in the Community

At CN, we are proud of our employees, pensioners, and their families who devote their own time to volunteer in their communities. CN supports these worthy efforts through our *CN Railroaders in the Community* program. Participants earn a reward (donation) of \$15 for every hour volunteered with an eligible non-profit organization. In 2022, CN railroaders volunteered more than 100,000 hours and CN contributed more than \$1.6 million to the organizations where they volunteer.

 To learn more: [www.cn.ca/en/delivering-responsibly/community/cn-railroaders-community](http://www.cn.ca/en/delivering-responsibly/community/cn-railroaders-community)

## CN Employees' and Pensioners' Community Fund

The *CN Employees' and Pensioners' Community Fund* has planned and organized fundraising activities and annual campaigns in support of many registered Canadian charities for 54 years. The Community Fund, run by CN employees and pensioners acting on behalf of their colleagues, gives every dollar donated directly to the designated organizations. One of the largest and most successful funds of its kind in Canada, the Community Fund expanded to the U.S. in 2022, giving employees in that country opportunities to get involved and support their communities.

 To learn more and contribute, visit: [www.cn.ca/en/delivering-responsibly/community/community-fund](http://www.cn.ca/en/delivering-responsibly/community/community-fund)



## Making a Meaningful Contribution

CN employees and pensioners gave generously to their Community Fund's 2022–2023 campaign, coming together to raise a record \$2.19 million. Over the past 10 years, the Community Fund has raised \$19.1 million, supporting over 600 charities focusing on humanitarian aid, child support, health and research, and community well-being.

A prime example is the CN-Canadiens Alumni Challenge, which involves a team of CN employees playing a friendly game of hockey against Montreal Canadiens Alumni to raise money for charitable organizations helping to protect children in need. The 16th edition raised a record \$550,000 for New Pathways Foundation, Jeunesse Lambda, Cancer Research Society, and other charitable organizations. Since 2002, the event has raised \$5.3 million.

PICTURED: CN Employees' and Pensioners' Community Fund President and CEO **Lynn Blais** (centre) and the Fund's Coordinator **Rebecca Tremblay** (centre-left) accompanied by CN Canadiens alumni event volunteers.

## Promoting Community Health and Safety

We help safeguard our neighbours by reaching out to hundreds of communities along our network every year. We regularly share information on crossing safety and dangerous goods traffic with municipal officials and local emergency responders. By educating people of all ages, CN employees, retirees, stakeholders, and community leaders focus on our common goal of bringing railroad crossing and trespassing deaths and injuries down to zero.



CN's Little Obie train helped educate spectators about rail safety at the 2022 Calgary Stampede Parade.


### A Focused Community Investment Program

Through our *CN Stronger Communities Fund*, we contribute millions of dollars each year to U.S.- and Canadian-registered charities and not-for-profit organizations. We focus our efforts in five areas where we feel CN can have the most impact and make a meaningful difference in our communities.

**HEALTH AND SAFETY:** We contribute to organizations, programs, and initiatives that prevent injuries and promote healthy lifestyles. We also support hospitals, medical centres, mental health organizations, and scientific research to save lives. In addition to our own safety awareness programs such as *All Aboard for Safety* and Rail Safety Week, in 2022 we partnered with Parachute (Leaders in Injury Prevention) during National Teen Safety Week and the Canadian Agricultural Safety Association's BeGrainSafe campaign.

**INNOVATION:** By supporting innovation through transportation education and research, CN is inspiring and helping today's youth become tomorrow's railroaders and community leaders who will shape the success of our Company and enable the North American economy. To this end, we support relevant trade and apprenticeship programs, transportation-related college and university programs, as well as science, technology, engineering and math programs.

**ENVIRONMENTAL SUSTAINABILITY:** In addition to investing in initiatives that promote more sustainable business practices, we support organizations that are actively engaged in protecting the natural environment by reducing waste and GHG emissions, conserving natural resources, and promoting the circular economy and biodiversity. In 2022, we continued our partnership with Earth Rangers, a youth focused Canadian environmental charity, to help employees and their families make a difference through our *EcoConnexions* program.

 To learn more and apply, visit: [www.cn.ca/en/delivering-responsibly/community/donations-and-sponsorships](http://www.cn.ca/en/delivering-responsibly/community/donations-and-sponsorships)

**DIVERSITY AND INCLUSION:** We believe one of the best ways to build brighter futures for communities is to actively contribute to organizations, programs, and initiatives that promote a more equitable and inclusive society. A major area of focus for CN is supporting Indigenous peoples, comprising First Nations, Inuit, and Métis communities, charities, and their allies. Examples include Indspire, the Native Women's Shelter of Montreal, and Junior Achievement's Stronger Together Diversity Program.

**CIVIC ENGAGEMENT:** At the core of our community investment strategy are our employee-driven programs to help build safer, stronger communities. These include the *CN Railroaders in the Community* program and *CN in Your Community Day*, an initiative created on CN's 100th birthday to encourage employees to give back to their communities and show their spirit of caring through volunteerism.



CN supports the greening of municipalities and Indigenous communities along our network by planting trees and shrubs to create a living legacy of sustainability for current and future generations. **ABOVE:** Tree-planting event in Winnipeg, MB.

**SPOTLIGHT**



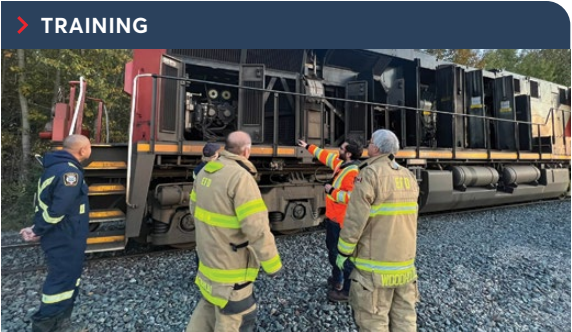
# Working Together for Safer Communities

At CN, our core value is ensuring the health and safety of our employees, the customers we serve, and the communities and ecosystems in which we operate. We are heavily engaged in the safety of the communities along our network. Every year, we take steps to enhance our emergency preparedness by focusing on safety, regulatory compliance, and effective emergency response.



**> DANGEROUS GOODS**

CN maintains teams of Dangerous Goods Officers (DGOs) and Environmental Officers strategically located throughout our network and equipped with tools and resources to provide 24/7 emergency response expertise to Company personnel and first responders. The AskRail® mobile app lets emergency responders determine the contents of any railcar through a simple search, which helps them make better-informed decisions about how to respond to a rail emergency.



**> TRAINING**

First responders trained by CN's DGOs receive information on rail safety, emergency planning, incident response, and tank cars, all of which enhances the safety of the community. The following are some of the various types of training available through CN at three levels (Awareness, Operations, and Technician): classroom training, the CN 911 Training Tank Car (a full-size railcar), and training trailers (hands-on training with tank car valves and fittings). The Dangerous Goods team also stages tabletop simulations and full-scale exercises of hazmat incidents, incorporating multiple agencies and stakeholders.



**> TRANSCAER®**

TRANSCAER® (Transportation Community Awareness and Emergency Response) is an outreach effort to train emergency personnel situated near rail lines where dangerous goods are transported. In 2022, CN participated in 283 TRANSCAER® events, bringing critical training to over 4,290 first responders. In addition, over 370 first responders attended web-based training on the CN Dangerous Goods website. Since 1988, CN has participated in over 5,950 TRANSCAER® events, reaching over 124,000 first responders and helping to improve the ability of emergency personnel to respond to dangerous goods incidents.



**> RAIL SAFETY WEEK**

Held annually in September, Rail Safety Week is a great opportunity for CNers, in partnership with community leaders, Operation Lifesaver® and other stakeholders, to raise awareness about being careful near tracks. In 2022, CN's multi-layered campaign reached 96,600 stakeholders and generated 1,100 rail safety pledges as well as 18,000 engagements and 2.8 million impressions on social media. We received expressions of support from 264 communities in 2022 for Rail Safety Week. CN also introduced the *Rail Safety Week Ambassador* program and awarded 350 certificates to individuals who helped CN spread the rail safety message.



# GOVERNANCE

PICTURED:  
CN's Head Offices, Montreal, QC

## Our Commitment

Continuously improve our culture of integrity and ethical business conduct, building trust and confidence with all our stakeholders.

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# UPHOLDING THE HIGHEST STANDARDS OF GOVERNANCE

We are committed to the highest standards of corporate governance, with an emphasis on engagement and transparency. How we deliver success is just as important as what we achieve. Therefore, we work diligently to bring integrity and excellence into everything we do.

## Ethics and Compliance

We believe that ethical conduct goes beyond compliance and resides in a comprehensive governance culture. In addition to regular reviews of our Code of Business Conduct and onboarding integrity training, we publish and enforce our Corporate Governance Manual, Anti-Corruption Policy, Supplier Code of Conduct, and Human Rights Policy. We also maintain several methods for employees and third parties to anonymously report any concerns.

## Risk Management

Our long-term viability depends on our ability to anticipate and manage risks. The Board delegates responsibility for oversight of certain risk elements to its various committees to ensure appropriate expertise, attention, and diligence. Our Enterprise Risk Management (ERM) program provides a risk management approach to identify, assess, monitor, and mitigate key business risks. Regulatory uncertainty has increased recently, and we continue to proactively monitor industry, regulatory and legislative developments, and assess the potential impacts on our business.

## Business Continuity

Our Business Continuity Management Plan is designed to prevent potential threats to our business and recover quickly in the event of a disaster. In response to the COVID-19 pandemic, we deployed our multi-phase Pandemic Plan in March 2020 and continue to maintain various measures to protect our employees, customers, and the communities in which we operate. Leveraging lessons learned throughout the pandemic, we are working more closely with our supply chain partners to adjust to increasing demands for organizational reliability and resilience.

## Cybersecurity and Data Privacy

CN is highly dependent on technology for administrative and operational activities. We understand the significant operating risks as well as the importance of securing personal information. Ensuring our Company's network is secure and security controls are functioning perfectly requires a constant state of preparedness. To that end, we continuously identify cybersecurity risks and vulnerabilities to detect malicious activity and deploy a robust incident response.

## 2022 Performance Highlights

▶ **Tracy Robinson** was appointed as CN's first female President and CEO, and **Shauneen Bruder** was elected CN's first female Board Chair.



▶ We achieved our Board diversity target – 5 of the 10 independent Board members (50%) identified as women. In addition, 20% of the independent Board members identified as visible minorities.

▶ The representation of women executives increased from 17% at the end of 2021 to 27% at the end of 2022.

▶ CN joined the United Nations Global Compact initiative—a voluntary platform for the development, implementation, and disclosure of responsible business practices.



▶ We continue to conduct high-level due diligence assessments across our supply chain to identify, address, and mitigate potential human rights issues.

▶ We continue to actively engage with the Railway Association of Canada (RAC) and Association of American Railroads (AAR), to ensure the rail sector continues to be safe, competitive, and sustainable.

# Reinforcing Our Governance Culture

Responsible governance is a fundamental part of our business practices and culture. Having in place a strong governance structure is the foundation of an effective framework to support and embed our *Delivering Responsibly* philosophy and provide clear guidance on how authority is exercised within our Company.



Earned 1st place out of 219 companies listed on the S&P/TSX Composite Index in 2023 for corporate governance with a score of 98% by the Globe and Mail. Also, Tracy Robinson (below, centre-left) was named Newcomer of the Year in the Globe and Mail's 2023 list of top CEOs in Canada.

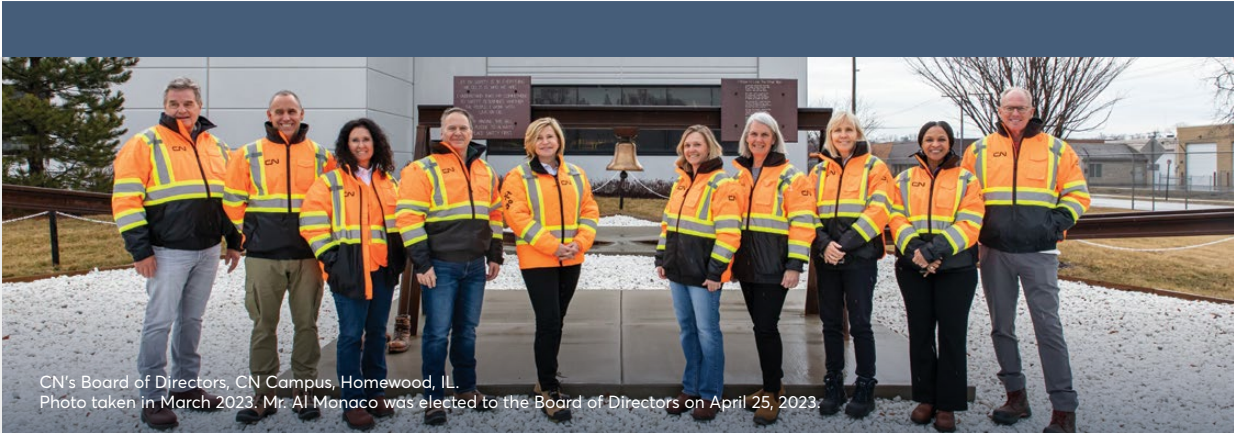
## Leading Corporate Governance

CN has an independent Board Chair with a clear corporate governance leadership mandate, and a Board of Directors that purposefully focuses its efforts on critical areas: strategy and risk, monitoring and measuring the execution of the strategy, including assuring operational performance in support of our customers, and ensuring robust talent development and succession plans.

**INTERNATIONAL STANDARDS:** As a Canadian reporting issuer with securities listed on the Toronto Stock Exchange (TSX) and the New York Stock Exchange (NYSE), CN ensures its corporate governance practices comply with the highest standards and rules adopted by the Canadian Securities Administrators, applicable provisions of the U.S. Sarbanes-Oxley Act of 2002, and related rules of the U.S. Securities and Exchange Commission. CN is exempted from complying with many of the NYSE corporate governance rules, provided it complies with Canadian governance requirements. Except as summarized on our website at [www.cn.ca/governance](http://www.cn.ca/governance), CN's governance practices comply with the NYSE corporate governance rules in all significant respects.

**BOARD STRUCTURE:** Reflecting evolving best practice trends in Canada and the U.S., we updated our corporate governance policies in 2021 to reduce the Board size to 10 independent directors plus the CEO; ensure all directors are subject to a 14-year tenure limit; lower the retirement age for directors; and permit directors to serve on a maximum of two or three public boards, including CN. In 2022, the Board adopted a Director Independence Protocol for determining the independence status of directors at the time of appointment and on an ongoing basis.

**BOARD DIVERSITY:** The Board embraces the benefits of diversity in its membership as a competitive advantage, including the potential for richer discussions and decision making. As set out in our Board Diversity Policy, when identifying and considering qualified candidates for the Board, the Governance, Sustainability and Safety (GSS) Committee, in consultation with the Board Chair, gives careful consideration to such factors as age, diversity (including women and other under-represented groups), geographic location, and their independence, qualifications, financial acumen, business judgment as well as Board dynamics, competencies and experience.



CN's Board of Directors, CN Campus, Homewood, IL. Photo taken in March 2023. Mr. Al Monaco was elected to the Board of Directors on April 25, 2023.

## CN's Effective and Engaged Board

The Board of Directors has implemented, and reviews, from time to time, a comprehensive process to annually assess its effectiveness, as well as the effectiveness of its committees, the Board Chair, the Committee Chairs, and individual directors. Board members were also provided with educational/training materials and presentations on a variety of topics, including safety, technology, sustainability, ESG, climate change, and corporate governance matters.



## Managing Sustainability Governance

The Board has three committees composed entirely of independent directors and one composed of both independent directors and management. These committees help the Board develop and oversee CN's policies, strategy, and risks.

The GSS Committee has the highest level of responsibility for managing CN's environmental and sustainability issues and performance. In 2022 and early 2023, the GSS Committee oversaw CN's ESG disclosures, including CN's Climate Action Plan Report available in CN's Management Information Circular, the 2022 CDP Climate Change Response Report, and the 2021 Task Force on Climate-Related Financial Disclosures Report. The GSS Committee monitored the Company's decarbonization strategy and reviewed Canadian and U.S. environmental, safety, legal, and regulatory developments of importance to CN.

CN has a lean central Sustainability team whose mandate is to incubate new sustainability ideas and integrate sustainability initiatives across the Company. The Sustainability team is empowered to make decisions, execute change, and engage leadership, particularly on cross-functional sustainability issues. The team engages the GSS Committee regularly on critical sustainability topics. It also deploys task forces to individual business units to help with planning and initial execution of priority sustainability initiatives and builds capabilities to enable the business unit to eventually take over. This facilitates the deployment of sustainability expertise and the sharing of best practices across the Company, as well as the nimble reallocation of resources in response to the rapidly changing sustainability landscape.

↓ To learn more about governance at CN and our Board download:  
2023 Management's Information Circular and CN's Corporate Governance Manual

## OUR GOVERNANCE STRUCTURE

### Board of Directors

Supervises the management of CN's business and affairs, including monitoring of internal controls, ensuring CN's business and financial strategy, including sustainability and climate-related risks and opportunities.

#### Audit, Finance and Risk Committee

Assists the Board in overseeing and monitoring management's identification and assessment of CN's major risk exposures to its business and strategy, including climate change and other sustainability risks and how they are addressed.

#### Governance, Sustainability and Safety Committee

Assists the Board in overseeing and monitoring CN's governance, sustainability, environmental, safety, and security policies and practices relating to ESG matters such as CN's Climate Action Plan and progress against targets under such plan and related risks.

#### Human Resources and Compensation Committee

Assists the Board in overseeing and monitoring human resources policies and strategies, including diversity, equity, and inclusion. Reviews sustainability-related performance goals for determining management's annual incentive compensation.

#### Pension and Investment Committee

Composed of both independent directors and CN officers, assists the Board in fulfilling its oversight responsibilities in connection with funding and investment management activities relating to CN's pension plans and pension risk management strategy.

### Executive Leadership

The Executive Vice-President and Chief Financial Officer (CFO) is the highest-level management position with direct responsibility for sustainability and climate-related issues. Reporting to CN's CFO is the Senior Director of Sustainability who is responsible for developing and implementing CN's sustainability strategy programs, including decarbonization and climate-related initiatives.

#### Decarbonization Steering Committee

Provides strategic support and decisions regarding CN's decarbonization investments and projects.

#### Sustainability Steering Committee

Provides mitigation measures that can influence critical levers in managing CN's environmental or social impact.

### Management Teams and Employees

Support CN in delivering on its sustainability commitments by embedding sustainability principles and practices into their day-to-day work environment through various initiatives, such as CN's Employee Resource Groups that help enhance diversity, equity, and inclusion at the Company as well as CN's *EcoConnexions Employee Engagement* program that provides employees with practical knowledge and tools to minimize their environmental impact.

# DOING THE RIGHT THING EVERY DAY

We believe that an ethical business is a sustainable business. Our objective is to develop and maintain long-term, fair, and mutually beneficial relationships with our suppliers, customers, and business partners.

## Working According to the Code

Our Code of Business Conduct is a key document governing the management of risks and driving the culture within our Company. The Code is regularly reviewed to ensure it reflects our core values of integrity and respect and remains consistent with industry trends and standards. Each director, executive officer, and management employee must certify annually their compliance with the Code. Specifically, the Code addresses matters such as conflicts of interest, protection and proper use of corporate assets and opportunities, confidentiality of corporate information, fair dealing, compliance with laws, and reporting of any illegal or unethical behaviour.

In 2022, we continued to deploy an online training course on the Code to reflect the importance of protecting CN's reputation, understanding what *Doing the Right Thing* means, and how to identify and avoid potential conflicts of interest. The training is part of every new employee's onboarding program.

We also have a code adapted specifically for our suppliers. We hold all our suppliers to the same high standards we hold ourselves, especially to ensure safe and fair working conditions and promote responsible business practices.

To learn more visit: [www.cn.ca/en/delivering-responsibly/governance/lobbying-and-political-donations](http://www.cn.ca/en/delivering-responsibly/governance/lobbying-and-political-donations)

## Overseeing ESG Policies and Practices

The GSS Committee oversees the development and implementation of CN's sustainability policies, practices, and guidelines that define the expectations for our employees, suppliers, vendors, and contractors. These include policies on environment, anti-corruption, safety, human rights, protection of personal information, among others, including a zero-tolerance policy on bribery, notably through the Ombudsperson's Report.

## Lobbying and Public Affairs

We recognize the value of engaging with public authorities and other stakeholders regarding the development of various policy initiatives that impact our industry in Canada and the United States. The GSS Committee oversees the Company's strategic government advocacy, corporate memberships, and political contributions. Our engagement with government focuses on supporting the advancement of our business strategy, which is underpinned by our commitment to our *Delivering Responsibly* sustainability priorities.

In 2022, we actively engaged with the RAC and AAR to ensure the rail sector continues to be safe, competitive, and sustainable. We evaluate our engagement with these trade associations to ensure alignment with the goals of the Paris Agreement.



## Sustainability Policies Guide Our Daily Decisions

In addition to complying with applicable laws and regulations, we have established company-wide policies that bring our sustainability commitments to life:

- Safety Policy
- Anti-corruption Policy
- Harassment-free Policies
- Human Rights Policy
- Employment Equity Policy
- Protection of Personal Information Policy
- Information Security Policy
- Workplace Violence Prevention Policy
- Environmental Policy
- Workplace Alcohol and Drug Prevention Policy

To learn more: [www.cn.ca/en/delivering-responsibly/governance/code-of-business-conduct](http://www.cn.ca/en/delivering-responsibly/governance/code-of-business-conduct)

**Committed to Human Rights**

At CN, we recognize the fundamental importance of human dignity and equality. We believe that economic growth and social progress go hand in hand and, as such, we strive to provide a workplace that reflects these values.

We are committed to protecting human rights through our operations and business relationships. This commitment is anchored by our Human Rights Policy, which draws on international standards and best practices, including the Declaration on Fundamental Principles and Rights at Work by the International Labour Organization. Our Supplier Code of Conduct is an extension of our Code of Conduct and Human Rights Policy and strives to ensure our suppliers are guided by these same values and standards.

We support the Guiding Principles on Business and Human Rights endorsed by the United Nations Human Rights Council in 2011. In 2022, we joined the UN Global Compact initiative — a voluntary global standard on human rights, labour, the environment, and anti-corruption.

**Conducting Due Diligence**

We conduct high-level due diligence assessments across our value chain to proactively identify, address, and mitigate potential human rights issues. In 2022, our high-level review consisted of management-level interviews and a desktop review covering employees, suppliers, customers, and community groups.

Through the process, we identified nine areas where we are focusing our efforts: health and safety, diversity, Indigenous people, discrimination and harassment, forced labour and child labour, work hours, wages and benefits, freedom of association, and community engagement.

The recognition of human rights is embedded in our business, including through employment policies and standards; supplier standards and audits; community engagement practices, assessments and outreach programs; Indigenous peoples programs; and labour agreements. In 2021 and 2022, no material human rights violations were reported.

**Taking Action to End Modern Slavery**

Building on our existing human rights and supply chain due diligence practices, we are taking action to identify and mitigate risks associated with modern slavery. Canada’s Modern Slavery Act, which introduces new reporting measures to address the use of forced and child labour in global supply chains, was passed on May 11, 2023. We will file our first mandatory Modern Slavery report to the Federal Minister of Public Safety and Emergency Preparedness on or before May 31, 2024.

**Reporting Concerns**

Employees, supply chain workers, and people in the community can make requests, report concerns, or disclose misconduct or potential wrongdoing through a variety of channels. These include our Law Department, Human Resources Centre, CN Police Service, and CN Ombudsperson, who plays an integral role in ensuring equitable resolution of concerns. We also have a confidential CN telephone hotline: 1-800-925-5974.

**HUMAN RIGHTS REINFORCEMENT MEASURES**

We are focused on operating in a socially responsible way. The recognition of human rights is embedded in our business through a variety of measures.

**Employment Policies and Standards**  
Cover topics related to diversity, equal opportunities, health and safety, labour conditions as well as discrimination and harassment.

**Supplier Standards and Audits**  
Ensure we promote human rights in our supply chain, which is part of our vendor management program.

**Community Engagement**  
Includes environmental and social impact assessments, when required, and ongoing outreach programs that create positive societal impacts.

**Indigenous Peoples Programs**  
Aim to build positive and sustainable relationships and partnerships by working alongside Indigenous communities across the CN network.

**Labour Agreements**  
Focus on fair and respectful working conditions as well as ensure our employees’ voices are heard at all levels of the Company.

↓ To learn more:  
[Human Rights Policy](#)  
[Anti-corruption Policy](#)

# PROTECTING STAKEHOLDER VALUE

Risk management is essential to protecting, enhancing and creating shareholder value, operating efficiently, and providing a safe and healthy environment for employees, customers, and other stakeholders. Our approach covers four broad categories of risk: strategic, operational, reporting, and external. In our assessments, we take a precautionary approach when considering the likelihood and severity of possible impacts from environmental and social risks.

## Governing Risk

At CN, the Board ensures management identifies and evaluates the significant business risks that the Company is exposed to and implements processes and programs to manage these risks. The Board performs this oversight through strategic review of significant risks and issues, and business updates with the President and CEO and executives. The overviews may cover, among others, risks related to general economic conditions; environment, including climate change; human capital; foreign currency and interest rates; capital investments; information technology and cybersecurity; ongoing operations, such as labour disputes; and developments in regulations.

In 2021, the Board streamlined its committee structure and delegated responsibility for overall enterprise risk monitoring, assessment and management to the Audit, Finance and Risk (AFR) Committee. Oversight of specific risks that naturally fall within the mandate of one of the other committees is delegated to that committee. For example, climate change risk is reviewed at the GSS Committee, cybersecurity risk at the AFR Committee, and talent risk at the Human Resources and Compensation Committee. The GSS Committee ensures proper oversight of risks across committees. The AFR Committee is made aware of the work of other committees through regular reporting so it can have a holistic view of all risks the Company faces.

## Identifying, Assessing and Mitigating Risks

Our identification and assessment of risk is based on the Chartered Professional Accountants of Canada's Framework for Board Oversight of Enterprise Risk. The risk assessment covers internal and external trends impacting our business.

Our ERM program provides a framework to identify, assess, monitor, and mitigate key business risks. The ERM program functionally reports to the Chief Financial Officer. Management provides an annual ERM update to the AFR Committee with regular risk updates. Risks are rated based on an assessment of residual risk, after considering mitigating processes and controls in place. Each risk is assigned to members of senior management who develop and implement controls to mitigate the risks. In addition, the AFR Committee requests that an independent review of the mitigating controls be performed on the identified risks on a rotational basis.

In 2022, the AFR Committee reviewed the results of our ERM program, including the identification of the Company's net risks, which included different scenarios and the identification of climate change physical and transition risks. Specifically, the AFR Committee reviewed and concurred with our climate risk mitigation controls and initiatives to integrate climate risk management activities into our business plan.

## Monitoring Regulatory Uncertainty

Regulatory uncertainty has increased recently; it is among the top risks for the Company and remains a focus area for senior leaders. We continue to proactively monitor industry, regulatory and legislative developments, and assess the potential impacts on our operations, competitive position, and access to capital. We also advocate for more harmonization among standard setters regarding ESG disclosure requirements via stakeholder forums.

↓ To learn more about CN's risk management disclosure download: [2023 Management's Information Circular](#)

## Aligning Executive Compensation

Our executive compensation program aims to appropriately incentivize sustainable performance. It has been designed to encourage the right behaviours, mitigate risks, and align with our shareholders' long-term interests. For example, risk mitigation strategies include capped incentive payout opportunities with no minimum guaranteed payout, clawback policies, and stock ownership guidelines. Our executive compensation program is made up of a base salary, annual incentive bonus, long-term incentives, and pension benefits. The annual bonus is tied to financial and ESG factors, specifically through our fuel efficiency, safety, and employee engagement performance expectations.

# EMBEDDING FLEXIBILITY AND RESILIENCE

We understand our crucial role in keeping the economy running smoothly, and the importance of preparing for the unexpected. Our goal is to have the right plans, processes, and measures in place to continue to meet the needs of our customers safely and efficiently.

Our Business Continuity Management Plan enables us to protect against and recover from incidents in a timely manner, while ensuring the health and safety of employees, customers, and the public. It ensures we have the organizational resilience to restore, manage, and maintain critical operations in the event of a natural disaster, weather-related event, cyberattack, or other business disruption.

### Supporting Business Continuity

Our multi-phase Pandemic Plan, deployed on March 9, 2020, ensured we continued to run a solid operation to serve our customers and keep the economy moving, while protecting the health and safety of our people. We have learned through the pandemic, and through the uncertainties that followed, that the performance of global supply chains needs to improve to adjust to increasing demands for organizational reliability and resilience. We are working more closely with our supply chain partners to build the performance that our customers need to succeed.

### Preparing for Climate-Related Risks

Another aspect of our continuity and resiliency planning is assessing and preparing for climate-related risks. Extreme temperatures can present a risk to our network operations and infrastructure. For example, rail misalignments and track buckling are possible as a result of thermal rail expansion. On the other hand, extreme cold can result in broken rails, frozen switches, and high rates of wheel replacements. Further, flash floods can lead to landslides and mudslides, and cause overflows damaging the rail bed, support structures and tracks. Temperature extremes can also increase the number and intensity of tornadoes, mainly in the U.S.

To manage these risks, we have several programs to respond to the physical impacts of climate change, including extreme weather readiness plans, an emergency response planning program, inspection programs, and strategies to deploy non-rail modes of transport. For example, we have established rapid-deployment teams to rework train schedules and deploy and manage needed equipment and repair crews to restore operations quickly.



Oban, SK  
Photo by CN employee **Nicholas Back**

## Readying for Extreme Weather

2021 and 2022 tested both CN and the industry. There were devastating wildfires and floods in B.C. that caused prolonged disruptions to CN's mainline (our route to Vancouver was out for a total of five weeks in July and November 2021), droughts across the Prairies and Hurricane Ida in the United States. In December 2022, CN's mainline was disrupted by more than 36 hours of blowing snow. On December 24, 2022, CN halted all traffic on the Kingston Subdivision to restore the track to a safe and usable state.

A significant portion of CN's investments in 2022 was dedicated to track maintenance to support safe and efficient operations, including the replacement of rail and ties, bridge improvements, crossing refurbishments, as well as other general track maintenance.

↓ To learn more download CN's: [Winter Plan](#) and [Grain Plan](#) and [CDP Response](#)

# 448

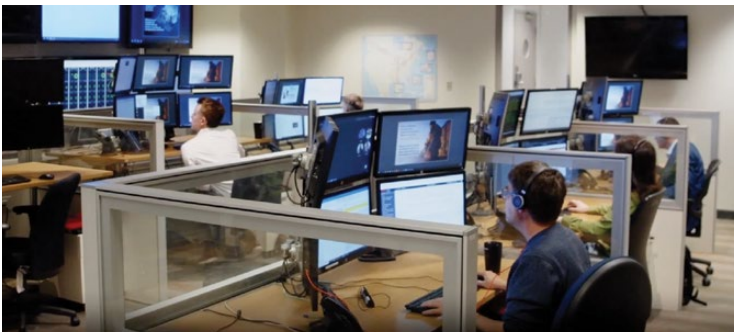
RAIL CROSSINGS REFURBISHED IN 2022 TO PROTECT THE SAFETY AND RESILIENCY OF OUR NETWORK

# KEEPING INFORMATION TECHNOLOGY SAFE

Our business is highly dependent on technology for our operations as well as our administrative activities. Ensuring our Company's network is secure and validating that security controls are perfectly functioning is fundamental at CN, now and for the future.

## Protecting CN and Our Stakeholders

To enhance cyber resilience, we have a robust security program that continuously identifies risks and vulnerabilities, protects data, detects malicious or suspicious activity, and can deploy an effective incident response against multiple threats. Regular testing is a key component of our program. This includes exercising incident response plans and auditing our program maturity to identify opportunities for improvement. Our investments in talent, technology, and processes are allowing us to protect normal operations in an ever-evolving threat environment.



We continue to invest to meet evolving network and data security expectations and regulations as well as to enhance our ability to mitigate security and privacy risks.

## Overseeing Cybersecurity Risks

We actively monitor and manage cybersecurity and privacy risks through stringent oversight and governance of digital technology. Cybersecurity is a formal component of CN's overall risk management framework. The AFR Committee oversees the Company's cybersecurity program and reports to the Board at least once per year. The Board has several directors with experience in managing and mitigating cybersecurity risks.

Our cybersecurity program is under the direction of an experienced Chief Information Security Officer (CISO) supported by a professional staff and aligned with the National Institute of Standards and Technology Cybersecurity Framework. The CISO reports to the Executive Vice-President and Chief Information and Technology Officer.

Our Cybersecurity Policy is available to all CN employees and relevant third parties responsible for the management of our information and technology assets. The policy outlines security measures to protect the confidentiality, integrity, and availability of our information and technology assets. It also ensures alignment with business requirements and relevant laws and regulations. In 2021 and 2022, we did not identify any evidence of material cybersecurity incidents.



## Respecting and Protecting Private Information

We are committed to respecting and protecting privacy and the confidentiality of the information we collect about individuals and organizations that interact with CN during its activities. The Senior Vice-President and Chief Legal Officer, in collaboration with other stakeholders within CN, oversees CN's privacy program.

All employees have a role in supporting CN's compliance with privacy laws and regulations. CN's privacy training is designed to provide employees with the skills and knowledge they can use to protect personal information appropriately, understand their privacy obligations, and conduct day-to-day business activities in a compliant manner.

In 2023, we published our Confidentiality Notice and Commitment. It outlines the ways in which we help protect privacy and the confidentiality of information, explains how we collect, use, and disclose customer and other organizations' information, and describes individual rights and choices.

↓ To learn more download: [CN's Confidentiality Notice and Commitment](#)

# Bolstering Cybersecurity Mitigation Measures

Our cybersecurity policies and practices continue to evolve to securely protect administrative and operational activities as well as personal and company data.

**> POLICIES AND PROCEDURES**

Our cybersecurity policies are available to all employees and reinforced with a formal cybersecurity training program. We also conduct awareness campaigns and proactive communications to employees on this topic.

**> INFORMATION SHARING AND COLLABORATION**

We participate in the AAR's Rail Information Security Committee for industry-specific threat intelligence, benchmarking and sharing of best practices to combat evolving cybersecurity threats.

**> EXTERNAL AUDITS AND VULNERABILITY ANALYSIS**

We engage independent third parties for penetration testing and assessment of our cybersecurity program on at least an annual basis and have defined monitoring and incident response processes.

**> INCIDENT RESPONSE PROCESS**

Our robust Cybersecurity Crisis Management process, reviewed semi-annually, provides a documented framework for handling high-severity incidents and facilitates coordination across the Company.

▶ Watch the video to learn more about CN's commitment to cybersecurity and a data-driven culture: [vimeo.com/820641872](https://vimeo.com/820641872)



**PICTURED:**  
CN's Information and Technology department works to provide the Company and our customers with a solid cybersecurity foundation.  
Montreal, QC



# OUR REPORTING

PICTURED:  
CN grain train, Fitzwilliam, BC. Photo by CN employee Tim Stevens

## Our Commitment

Our *Delivering Responsibly* suite of reports are part of our commitment to be open about our business and to communicate our progress with focus, clarity, and comparability.

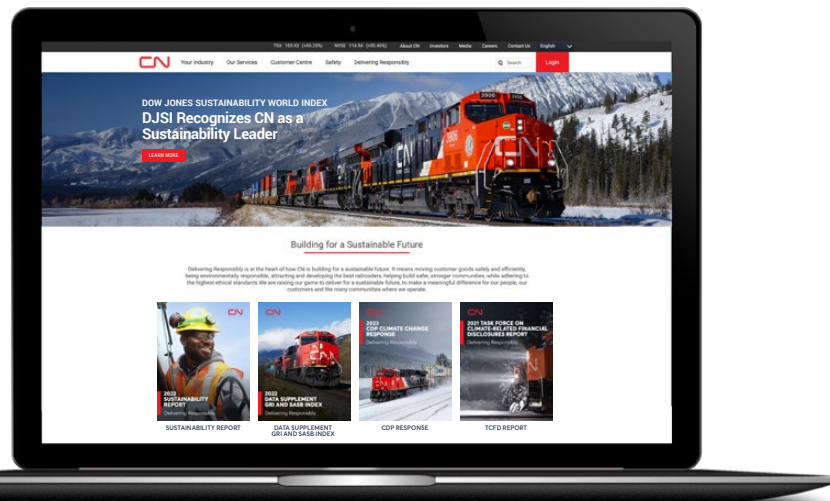
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# ABOUT THIS REPORT

Our ninth *Delivering Responsibly* sustainability report is a demonstration of CN's commitment to provide consistent and comprehensive disclosure of the Company's sustainability performance and the topics that matter most to our stakeholders and our business. Our reporting helps to evolve our strategy, align our initiatives, and track our progress toward building a sustainable future.



## Our Approach and Scope

The scope of information covered in this report relates to our operations in Canada and the U.S. during the 2021 and 2022 calendar years, unless otherwise noted. All financial information reflected in this document is expressed in Canadian dollars and determined on the basis of United States generally accepted accounting principles (GAAP), unless otherwise noted. We issue our report on a biennial basis. Previous reports can be accessed at [www.cn.ca/investors/reports-and-archives](http://www.cn.ca/investors/reports-and-archives)

## Reporting Standards

This report has been prepared in accordance with Global Reporting Initiative (GRI) Standards. The GRI is an independent institution that provides a standard framework for sustainability reporting across companies and industries that facilitates comparability. This report has also been prepared in accordance with the Rail Transportation Sustainability Accounting Standard developed by the Sustainability Accounting Standards Board (SASB). SASB connects businesses and investors on the financial impacts of sustainability. An index of our conformance to the GRI standards and SASB's Rail Transportation Sustainability Accounting Standard reporting requirements can be found at [www.cn.ca/delivering-responsibly](http://www.cn.ca/delivering-responsibly)

We also provide information to CDP, S&P Global and other organizations that assess our sustainability performance. An index of our conformance to the Task Force on Climate-related Financial Disclosures' (TCFD) recommendations is now part of our CDP Response, which is submitted annually. These disclosures are also available on our website at [www.cn.ca/delivering-responsibly](http://www.cn.ca/delivering-responsibly)

## External Assurance

We are dedicated to continuously improving our sustainability reporting and believe that independent assurance leads to quality and process improvements. Our environmental data related to greenhouse gas (GHG) emissions from Scope 1 (locomotive emissions), Scope 2 (electricity consumption) and Scope 3 (locomotive fuel production, purchased goods and services, capital goods, and upstream transportation and distribution) were verified independently by KPMG LLP to a limited level of assurance in accordance with the Canadian Standards on Assurance Engagements 3410 Assurance Engagements on Greenhouse Gas Statements (CSAE 3410), issued by the International Auditing and Assurance Standards Board with guidance for the validation and verification of GHG assertions. KPMG LLP has also served as the Company's independent financial auditors since 1992. The GHG verification statements can be found at [www.cn.ca/delivering-responsibly](http://www.cn.ca/delivering-responsibly)

### READ MORE

The *Delivering Responsibly* section of our website provides online access to our complete sustainability reporting suite, including the most current editions of our Sustainability Report, Data Supplement, CDP Response, and TCFD Index.

[www.cn.ca/delivering-responsibly](http://www.cn.ca/delivering-responsibly)

# OUR PRIORITIES

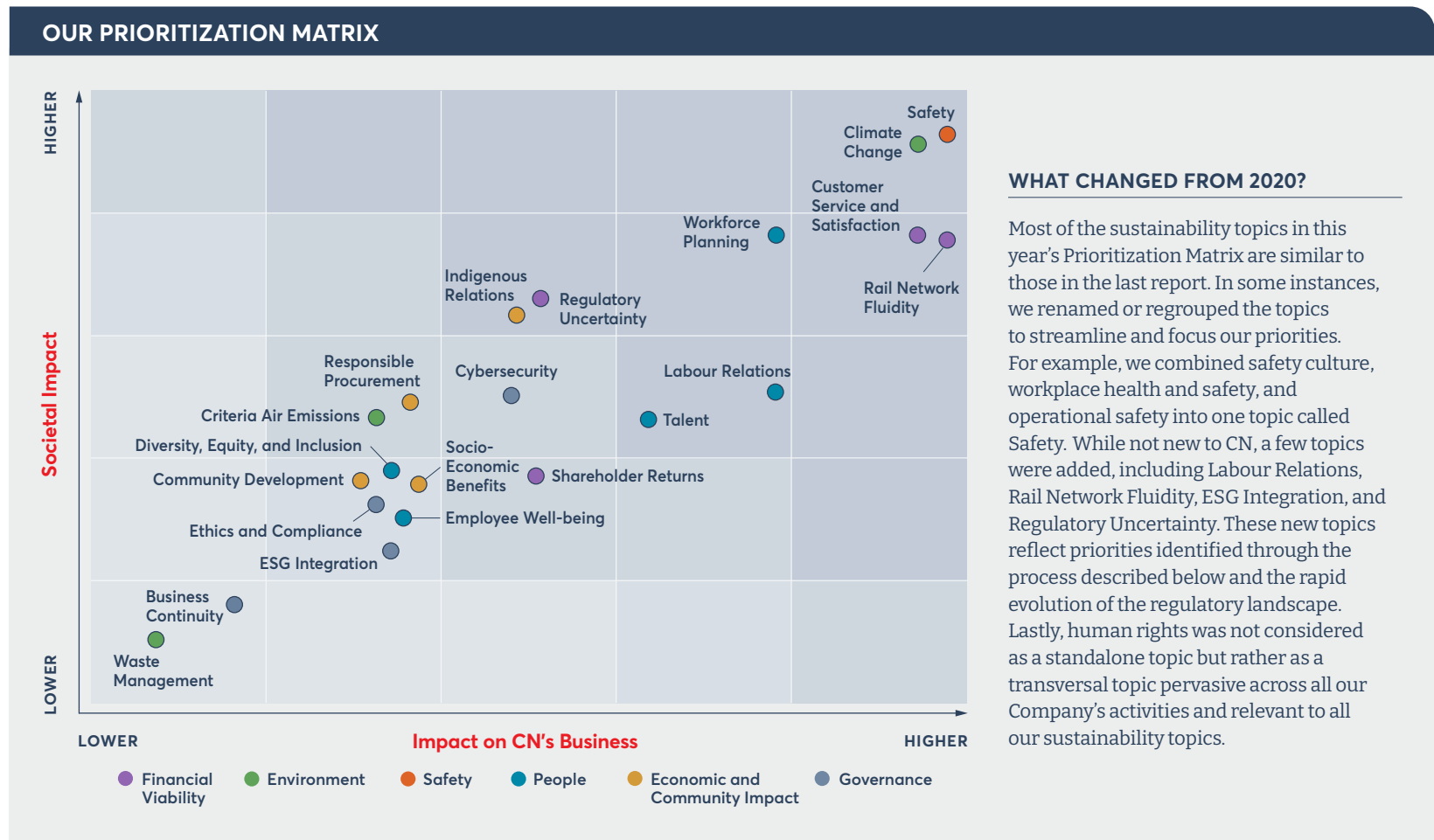
We apply the principles of materiality and stakeholder inclusiveness to prioritize the topics that matter most to our business and our stakeholders, which helps us to focus our strategic priorities, refine our reporting, and inform the evolution of our sustainability programs.

In 2022 and 2023, we conducted our most recent biennial materiality assessment to identify and prioritize our sustainability topics and applied the principles of double materiality from a business and social impact perspective. Our process leveraged the expertise of a third-party consultant through two key phases.

## Determining Relevant Topics

We began by updating our previous list of topics through a review of our prior materiality assessments, our most recent Enterprise Risk Management (ERM) priorities, and sustainability-related information requested by third parties.

We then engaged internal and external stakeholders to get their perspectives and received input from 248 stakeholders through an electronic survey. The results helped us understand the sustainability topics that most influence their decisions or perspectives of CN. Diverse groups were engaged, including employees, suppliers, governments, railway associations, customers, investors, unions, Indigenous peoples, community groups, and NGOs. The selection of stakeholders considered their geographic location as well as their influence and interest in our business.



## WHAT CHANGED FROM 2020?

Most of the sustainability topics in this year's Prioritization Matrix are similar to those in the last report. In some instances, we renamed or regrouped the topics to streamline and focus our priorities. For example, we combined safety culture, workplace health and safety, and operational safety into one topic called Safety. While not new to CN, a few topics were added, including Labour Relations, Rail Network Fluidity, ESG Integration, and Regulatory Uncertainty. These new topics reflect priorities identified through the process described below and the rapid evolution of the regulatory landscape. Lastly, human rights was not considered as a standalone topic but rather as a transversal topic pervasive across all our Company's activities and relevant to all our sustainability topics.

## Identifying, Assessing, and Prioritizing Significant Impacts

Applying the double-materiality principles, we identified actual and potential negative and positive impacts across our value chain. We assessed the significance of each impact in alignment with our ERM framework and considered the likelihood and severity of the

impact on our business and on society, including the economy, environment, and people. The most important topics are plotted on our prioritization matrix above and are covered in this report.

↓ For more information about our materiality process, outcomes and material topics: [2022 Double Materiality Process and Outcomes](#)



## CONTACT

We welcome comments, questions, and feedback on this report. Please contact:

François Bélanger  
 Senior Director, Sustainability  
[francois.belanger@cn.ca](mailto:francois.belanger@cn.ca)

Telephone: 514-773-6647

Canadian National Railway Company  
 935 de La Gauchetière Street West  
 Montreal, Quebec H3B 2M9

Telephone: 1-888-888-5909

**PICTURED:**  
 Mixed freight train travels between Chambord and Garneau in Quebec.

As used herein, "Company" or "CN" refers to Canadian National Railway Company and, as the context requires, its wholly owned subsidiaries.

**FORWARD-LOOKING STATEMENTS:** Certain statements included in this report constitute "forward-looking statements" within the meaning of the *United States Private Securities Litigation Reform Act of 1995* and under Canadian securities laws, including statements based on management's assessment and assumptions and publicly available information with respect to CN. This forward-looking information also includes but is not limited to, statements relating to our environmental, social and governance (ESG) strategies and targets, including our climate goals and sustainability commitments. By their nature, forward-looking statements involve risks, uncertainties and assumptions. CN cautions that its assumptions may not materialize and that current economic conditions render such assumptions, although reasonable at the time they were made, subject to greater uncertainty. Forward-looking statements may be identified by the use of terminology such as "believes", "expects", "anticipates", "assumes", "outlook", "plans", "targets" or other similar words.

Forward-looking statements are not guarantees of future performance and involve risks, uncertainties and other factors which may cause actual results, performance or achievements of CN to be materially different from the outlook or any future results, performance or achievements implied by such statements. Accordingly, readers are advised not to place undue reliance on forward-looking statements. Important risk factors that could affect the forward-looking statements include, but are not limited to, general economic and business conditions, including factors impacting global supply chains such as pandemics and geopolitical conflicts and tensions; industry competition; inflation, currency and interest rate fluctuations; changes in fuel prices; legislative and/or regulatory developments; compliance with environmental laws and regulations; actions by regulators; increases in maintenance and operating costs; security threats; reliance on technology and related cybersecurity risk; trade restrictions or other changes to international trade arrangements; transportation of hazardous materials; various events which could disrupt operations, including illegal blockades of rail networks, and natural events such as severe weather, droughts, fires, floods and earthquakes; climate change; labor negotiations and disruptions; environmental claims; uncertainties of investigations, proceedings or other types of claims and litigation; risks and liabilities arising from derailments; timing and completion of capital programs; the availability of and cost competitiveness of renewable fuels and the development of new locomotive propulsion technology; and other risks detailed from time to time in reports filed by CN with securities regulators in Canada and the United States. Reference should also be made to Management's Discussion and Analysis (MD&A) in CN's annual and interim reports, Annual Information Form and Form 40-F, filed with Canadian and U.S. securities regulators and available on CN's website, for a description of major risk factors relating to CN.

Forward-looking statements reflect information as of the date on which they are made. CN assumes no obligation to update or revise forward-looking statements to reflect future events, changes in circumstances, or changes in beliefs, unless required by applicable securities laws. In the event CN does update any forward-looking statement, no inference should be made that CN will make additional updates with respect to that statement, related matters, or any other forward-looking statement.



# OUR SUSTAINABILITY COMMITMENT

*Delivering Responsibly* is at the heart of how CN is building for a sustainable future. It means moving our customers' goods safely, efficiently, and in an environmentally responsible manner; attracting, developing, and retaining diverse talent; helping build safer, stronger communities; while adhering to the highest governance standards. Five principles anchor our commitment:

## ENVIRONMENT

Conduct our operations in a manner that seeks to minimize our environmental impact, while providing cleaner, more sustainable transportation services to our customers.

## SAFETY

Be the safest railroad in North America by establishing an uncompromising safety culture and implementing systems designed to minimize risk and drive continuous improvement.

## PEOPLE

Provide a safe, supportive, and diverse work environment where our employees can grow to their full potential and be recognized for their contributions to our success.

## COMMUNITY

Build safer, stronger communities by investing in community development, creating socioeconomic benefits, and ensuring open dialogue with all stakeholders, including Indigenous peoples.

## GOVERNANCE

Continuously improve our culture of integrity and ethical business, building trust and confidence with all our stakeholders.

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