



Railway Association  
of Canada      Association des chemins  
de fer du Canada

Spring / Printemps 2016

# interchange

## THE SUSTAINABILITY ISSUE

This train removes 302 trucks from the road

## DOSSIER DURABILITÉ

Ce train remplace 302 camions

A SECTOR-BASED APPROACH TO SUSTAINABILITY  
UNE APPROCHE SECTORIELLE DE LA DURABILITÉ

PRODUCTIVITY AND INNOVATION IN CANADA'S  
RAILWAY INDUSTRY  
PRODUCTIVITÉ ET INNOVATION DANS LE SECTEUR  
FERROVIAIRE CANADIEN

### HOW RAIL SAFETY OUTREACH CREATES HEALTHIER COMMUNITIES

COMMENT LA SENSIBILISATION À LA SÉCURITÉ  
FERROVIAIRE CONTRIBUE À LA SANTÉ  
DES COLLECTIVITÉS

MORE...  
ET PLUS...

HIGH CAPACITY | PRECISION | RELIABILITY

**Plasser American**



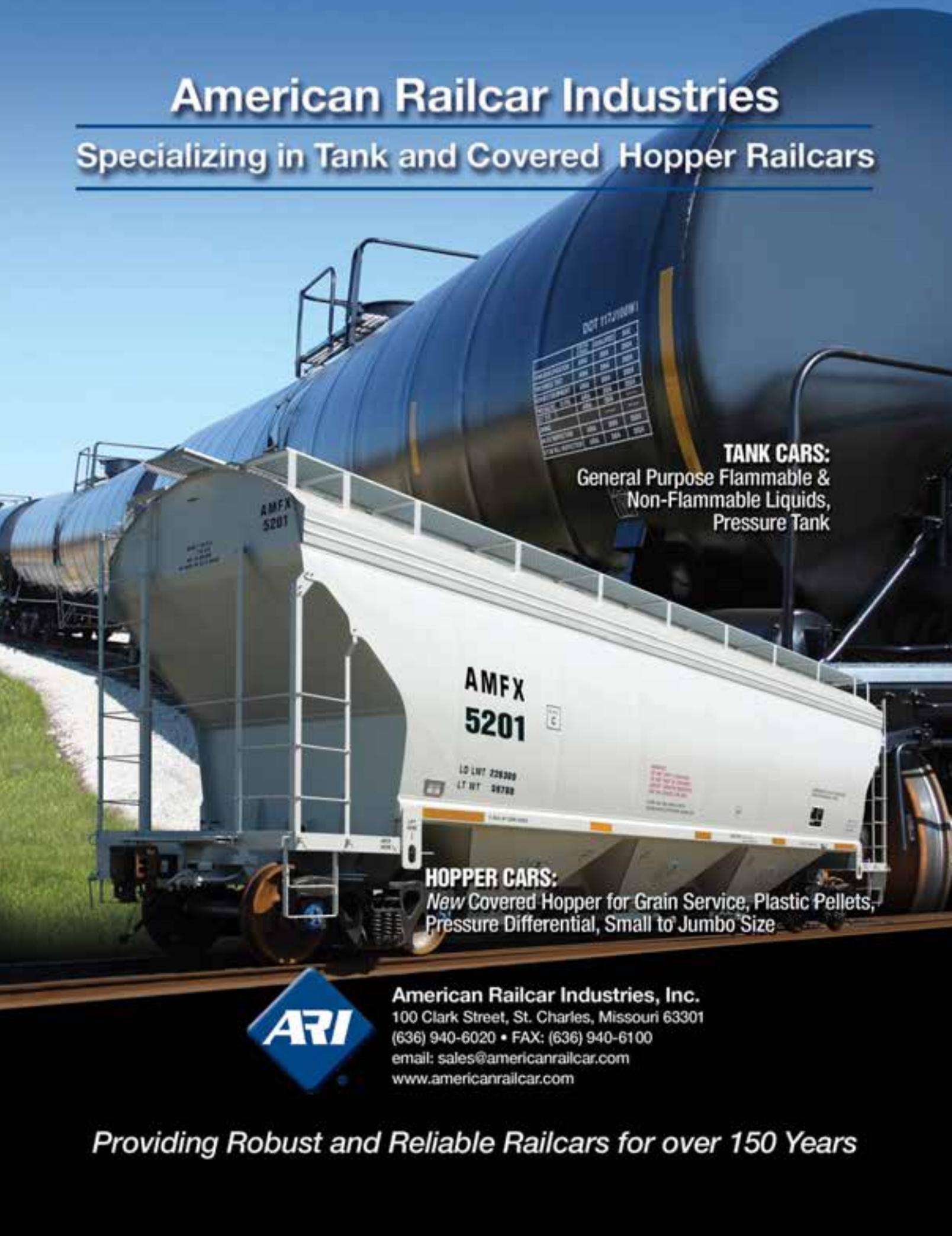
**Your partner for life**

The Plasser GRM3000T is a heavy-duty, high performance switch and production tamping machine. It is a multi-function tamping machine and has fully automatic track lifting, lining, and cross-leveling capabilities. The machine's compact design and weight allow for flexibility when transporting with flat cars or road trucks. The machine is constructed for ease of operation and maintenance. The optional GRM2X Tamping Trailer is an integrated, independently working tamping trailer that can be connected to the GRM3000T via TampLink to increase productivity levels. Plasser American – Your partner for life.



# American Railcar Industries

Specializing in Tank and Covered Hopper Railcars



**TANK CARS:**  
General Purpose Flammable &  
Non-Flammable Liquids,  
Pressure Tank

AMFX  
5201

**HOPPER CARS:**  
New Covered Hopper for Grain Service, Plastic Pellets,  
Pressure Differential, Small to Jumbo Size



American Railcar Industries, Inc.

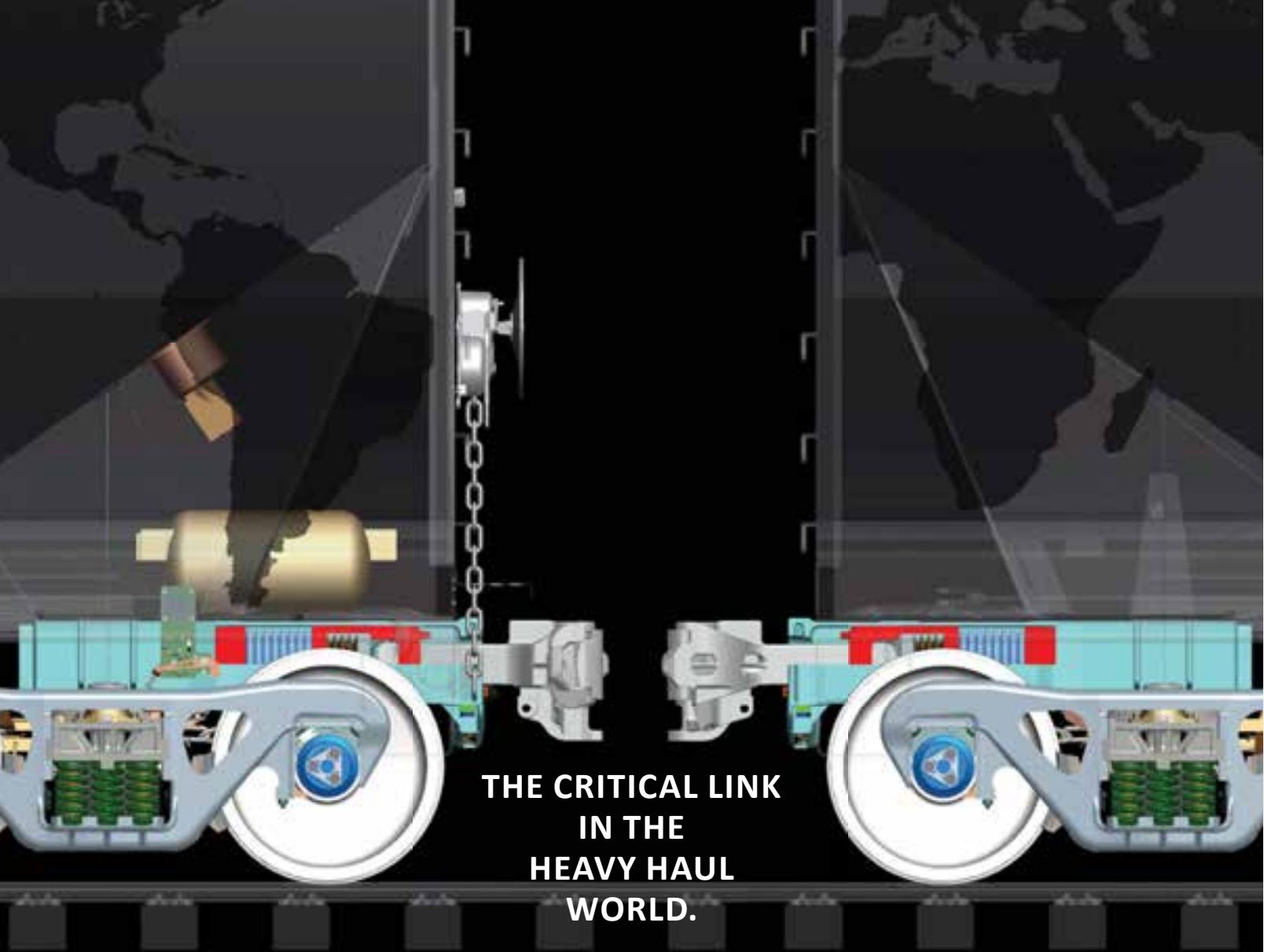
100 Clark Street, St. Charles, Missouri 63301

(636) 940-6020 • FAX: (636) 940-6100

email: [sales@americanrailcar.com](mailto:sales@americanrailcar.com)

[www.americanrailcar.com](http://www.americanrailcar.com)

*Providing Robust and Reliable Railcars for over 150 Years*



**THE CRITICAL LINK  
IN THE  
HEAVY HAUL  
WORLD.**

Last year, the nearly 3 million freight cars utilizing Amsted Rail® products delivered unmatched reliability and performance across billions of ton-miles spanning 6 continents.  
Where else in the world can you find a track record like that?

**Amsted Rail®**



**Chairman:** Claude Mongeau

**President and CEO:** Michael Bourque

**Vice President, Operations and Regulatory Affairs:** Paul Mahony

**Vice President, Public and Corporate Affairs:** Gérald Gauthier

**Director, Finance and Administration, and Treasurer:** Sandra Kazaka

**Art Direction and Design Lead:**  
Ivan Novotny (Taylor|Sprules)

**Editor-in-chief:** Alex Paterson

**Contributors:**

Michael Gullo  
Sarah B. Hood  
Sarah MacFadyen  
Paul Miller

*Published for*  
The Railway Association of Canada  
99 Bank Street, Suite 901  
Ottawa, ON K1P 6B9  
Phone: 613.567.8591  
Fax: 613.567.6726  
[www.railcan.ca](http://www.railcan.ca)

*Interchange* is published four times a year by

**NAYLOR**

ASSOCIATION SOLUTIONS  
1630 Ness Avenue, Suite 300  
Winnipeg, MB R3J 3X1  
800.665.2456  
[www.naylor.com](http://www.naylor.com)

**Publisher:** Robert Phillips

**Group Publisher/  
Sales Manager:** Angela Caroyannis

**Sales & Project Manager:** Kim Davies

**Editor:** Cody Smith

**Marketing:** Margaux Tomac

**Publication Director:** Trevor Perrault

**Advertising Sales:** Bill Biber, Kristine Dudar,  
Tracy Goltzman, Ralph Herzberg,  
Trevor Perrault, Matt Pierce, Megan Stanley,  
Norma Walchuk, Maya Wisher

**Layout & Design:** Barry Senyk

©2016 Naylor (Canada) Inc. All rights reserved.  
The contents of this magazine may not be reproduced by any means, in whole or in part, without the prior written consent of the publisher.

Return undeliverable Canadian addresses to:  
Naylor (Canada) Inc., Distribution Dept.  
1630 Ness Avenue, Suite 300  
Winnipeg, MB R3J 3X1

Canadian Publication Agreement #40064978

PUBLISHED FEBRUARY 2016/RAC-00216/2280



**14**

## **14 Strategic alliance**

How Canada's railways are developing a sector-based sustainability strategy

### **Alliance stratégique**

Comment les chemins de fer canadiens formulent leur stratégie de développement durable

By/Par Michael Gullo

## **22 Productivity and innovation in Canada's railway industry**

A culture of innovation in Canada's railway industry is alive and well

### **Productivité et innovation dans le secteur ferroviaire canadien**

La culture de l'innovation est bel et bien vivante

By/Par Paul Miller

## **30 Crossing over**

How the work of Operation Lifesaver impacts railway industry sustainability

### **Passages à niveau**

Effet d'Opération Gareatrain sur la durabilité du secteur ferroviaire

By/Par Sarah MacFadyen

## **37 Corridor conservation**

Metrolinx's role in the international effort to save the monarch butterfly

### **Conservation dans le corridor**

Le rôle de Metrolinx dans les efforts mondiaux pour préserver le monarque

By/Par Sarah B. Hood

## **41 Charting change**

Canadian railway companies recognized for environmental record-keeping in 2015

### **Mesurer le changement**

Hommage aux chemins de fer canadiens pour leur suivi environnemental en 2015

By/Par Sarah B. Hood

## **45 RAC News**

New report shows Canadian railways are on track with GHG emissions reductions

### **Nouvelles ACFC**

Un nouveau rapport indique que les chemins de fer canadiens sont sur la bonne voie pour réduire les émissions de GES

## **REGULAR FEATURES**

### **7 President's Message**

Paying the price for congestion

### **Message du président**

Le prix de la congestion

### **49 Index to Advertisers**



**22**

# IN THE BLACK.



Whether re-powering your existing fleet with cutting edge solutions or adding to it with the most advanced and efficient locomotives being built today, you require one thing...value. It's what you demand. It's what we supply. That's the bottom line.

**NRE**

[WWW.NRE.COM](http://WWW.NRE.COM)



By/Par Michael Bourque

## Paying the price for congestion Le prix de la congestion

**A recently announced** pilot project in Ontario will allow single motorists to use the high-occupancy vehicle, or "HOV," lanes between Oakville and Burlington for a fee. The idea is to reduce congestion by allowing some drivers (those who are willing to pay for the privilege) to use carpool lanes, leading to the term "Lexus lanes."

Most of us have been stuck in Toronto traffic or have experienced the "Don Valley Parking Lot." But is an HOV toll the right approach to reducing congestion and pollution from vehicles? Should we be encouraging people to stay in their cars, one at a time, if this contributes to congestion? Allocating a cost for doing so, in the absence of other measures, may not change the behaviour of the lone driver. Obviously, there are drivers who have no choice but to be on the road. But for many, a charge for driving in the HOV lane is not a penalty – it's actually an inducement.

The problem with congestion in our large cities is well known. Citizens are frustrated and want solutions. Recent election results across Canada have signalled that sustainability is important. If we are serious about reducing pollution and curbing climate change, we have to get people out of their cars and into more environmentally friendly modes of transportation such as commuter and passenger rail. Comprehensive congestion pricing would help dissuade those who travel alone in their vehicles when they have alternatives. There are successful models of road pricing all around the world. They provide a market approach to reducing congestion and its negative externalities,

**L'Ontario annonçait récemment** un projet-pilote qui permettra aux automobilistes seuls de payer pour utiliser les voies réservées aux véhicules multioccupants entre Oakville et Burlington. On veut ainsi réduire la congestion.

La plupart d'entre nous connaissent la gravité des embouteillages torontois, mais la création de telles « voies Lexus » est-elle la bonne solution aux problèmes de congestion et de pollution? Devrions-nous encourager les gens à utiliser leur véhicule seul? Imposer un péage risque peu de modifier le comportement des conducteurs seuls. Certains conducteurs n'ont pas le choix de prendre la route, mais pour plusieurs autres, l'imposition de frais pour utiliser la voie de covoiturage constitue un encouragement plutôt qu'une pénalité.

Le problème de congestion routière dans les grandes villes est indéniable, et la population réclame des solutions. Or, les dernières élections au pays démontrent l'importance du développement durable. Si on veut réellement s'attaquer à la pollution et aux changements climatiques, il faut pousser les gens à adopter un moyen de transport plus écologique que l'automobile, comme le train de banlieue ou de voyageurs. Une tarification complète de la congestion encouragerait les automobilistes seuls à modifier leurs habitudes de déplacement. Il existe, à travers le monde, de bons modèles de tarification routière qui réduisent la congestion et ses effets secondaires : les émissions de gaz à effet de serre (GES), la pollution et les accidents.

*"If we are serious about reducing pollution and curbing climate change, we have to get people out of their cars and into more environmentally friendly modes of transportation such as commuter and passenger rail."*

*« Si on veut réellement s'attaquer à la pollution et aux changements climatiques, il faut pousser les gens à adopter un moyen de transport plus écologique que l'automobile, comme le train de banlieue ou de voyageurs. »*

*"It's not enough to rely on rail's fuel efficiency to promote new behaviour, any more than it is to reduce driving by opening carpool lanes to individuals. We need policies that actively encourage freight customers to choose rail."*

including higher greenhouse gases (GHGs), pollution and accidents.

These policies would have the added benefit of helping governments generate a return on their investments in commuter rail, such as the Union Pearson Express and light-rail projects. VIA Rail's plan for higher-speed rail on dedicated tracks would take cars off the busy 401 highway in the Greater Toronto Area before they can add to congestion in and around cities.

This same argument holds for moving goods. Canada's freight railway industry was saddened to learn that Ontario's cap-and-trade scheme does not differentiate between railway and truck as a means of moving goods. In fact, railways will be subject to the same requirements as other modes of transportation that are less environmentally friendly. This is particularly disappointing for the province's shortline railways, which produce much less than the threshold of 25,000 tonnes of GHGs per year for fixed facilities. These railways are largely privately owned and maintain their own infrastructure, yet they compete directly with the province's subsidized trucking sector.

Ces politiques auraient l'avantage, en plus, de rentabiliser l'investissement des gouvernements dans les trains de banlieue comme l'Union Pearson Express et les trains légers. Le projet de VIA Rail d'un train plus rapide sur voie réservée diminuerait le nombre de voitures empruntant l'autoroute 401 dans le Grand Toronto aux heures de pointe.

Les mêmes arguments valent pour le transport de marchandises. Le système de plafonnement et d'échange de l'Ontario ne fait aucune différence entre le transport des marchandises par rail ou par camion, ce qui déçoit beaucoup le secteur ferroviaire. Les chemins de fer seront soumis aux mêmes exigences que les autres moyens de transport moins écologiques. Voilà qui est particulièrement décevant pour les CFIL de la province, dont la production annuelle de GES est bien inférieure à la limite de 25 000 tonnes imposée aux installations fixes. Pour la plupart, ces chemins de fer appartiennent à des intérêts privés et entretiennent eux-mêmes leurs infrastructures, mais ils doivent concurrencer le secteur du camionnage fortement subventionné de la province.

## Building Expectations Across Canada



Track • Signals & Communications  
Transit Systems • Training

*Canada's most experienced railway contractor*

 PNR  
**RAILWORKS®**  
[www.pnrrailworks.com](http://www.pnrrailworks.com)  
1.877.850.9166

Twenty percent of all railway traffic begins on a shortline railway and many industries rely on them to move products such as minerals, lumber, grain and manufactured goods. By competing directly with the trucking sector, shortlines reduce traffic and wear and tear on our highways, while curbing GHG emissions and air pollution. Trains are incredibly fuel efficient – five times more fuel efficient than trucks. New locomotives can haul a tonne of goods more than 200 km on one litre of fuel. And since GHG emissions are directly related to fuel consumption, that means moving freight by rail instead of truck lowers GHG emissions by about 75 per cent. The average freight train takes hundreds of trucks off the road.

But it's not enough to rely on rail's fuel efficiency to promote new behaviour, any more than it is to reduce driving by opening carpool lanes to individuals. We need policies that actively encourage freight customers to choose rail.

There are two ways this can happen. First, the cap-and-trade system should provide existing and prospective rail customers with offsets when they transfer their traffic to rail. This would immediately

Vingt pour cent du trafic ferroviaire part des CFIL; plusieurs industries y ont recours pour le transport de minéraux, de bois d'œuvre, de céréales et de produits manufacturés. En concurrençant directement le camionnage, ces chemins de fer réduisent l'achalandage sur le réseau routier et son usure, en plus de diminuer les émissions de GES et la de pollution de l'air. Le train est extrêmement écoénergétique, cinq fois plus que le camion. Avec un litre de carburant, les nouvelles locomotives peuvent tirer une tonne de marchandises sur plus de 200 kilomètres. Et cette faible consommation permet de réduire les émissions de GES de 75 pour cent environ. Un train de marchandises représente des centaines de camions en moins sur le réseau routier.

Or, ni l'avantage écoénergétique du train ni l'ouverture des voies de covoiturage aux mono-occupants ne suffira à modifier les habitudes. Nous avons besoin de politiques qui encourageront la clientèle du fret à opter pour le train.

En ce sens, deux avenues s'offrent à nous, à commencer par un système de plafonnement et d'échange qui dédommagerait les expéditeurs

« Ni l'avantage écoénergétique du train ni l'ouverture des voies de covoiturage aux mono-occupants ne suffira à modifier les habitudes. Nous avons besoin de politiques qui encourageront la clientèle du fret à opter pour le train. »



### TRANSTRONIC inc.

A DEVELOPER AND MANUFACTURER OF ELECTRONIC EQUIPMENT FOR THE RAILROAD AND TRANSIT INDUSTRY SINCE 1990

- POWER INVERTERS
- BATTERY CHARGERS
- VOLTAGE MONITORS
- CURRENT MONITORS
- TIMERS
- DC POWER SUPPLIES
- ELECTRONIC BELLS
- CHARGER-BOOSTERS
- CUSTOM DESIGNS

1-800-380-9424

WWW.TRANSTRONIC.QC.CA



### MORE PRODUCTS. MORE INNOVATION. MORE CUSTOMER SUPPORT.

- Exceptional Customer Support
- Expanded Field Service Resources
- Extensive Product Offerings
- Experienced Engineering/Technical Staff
- Innovative Research and Development
- Single Source Capabilities
- Worldwide Presence

**LB Foster**

www.lb foster.com  
800.255.4500



encourage shippers to review how they transport their goods to market from an environmental perspective, rather than wait for the price of carbon to rise and tip traffic from truck to rail.

The second approach is to provide shortline railways with access to funds collected under the cap-and-trade program to invest in their track and infrastructure, if it can be demonstrated to have a sustainable outcome. This would help to level the playing field against their main competitor, the trucking sector, while encouraging potential customers to switch to rail.

Any serious approach to reducing GHGs must address the transportation sector directly – as it accounts for some 30 per cent of total GHGs emitted in Canada. Other governments, including the government of Quebec, have introduced programs that induce customers to make the switch from truck to rail as means to achieving their climate change objectives. If we want a return from our policies to reduce emissions, we need to put a price on negative externalities: those lone drivers at rush hour and goods moving by truck when they could be on rail. ■

qui choisissent de passer au chemin de fer. Cela aurait un impact immédiat sur cette clientèle qui cesserait d'attendre une hausse du prix du carbone pour prendre cette décision.

La deuxième approche consisterait à permettre aux CFIL d'investir dans leurs infrastructures les fonds recueillis dans le cadre du programme de plafonnement et d'échange, à condition que ces investissements aient des répercussions durables démontrables. Cela égaliserait leurs chances vis-à-vis de leur concurrent principal, le secteur du camionnage, tout en encourageant la clientèle à adopter le train.

Toute tentative sérieuse de réduire les GES doit s'attaquer directement aux transports, ce secteur représentant 30 pour cent des émissions au Canada. D'autres gouvernements, comme celui du Québec, ont adopté des mesures qui incitent la clientèle à passer du camion au train afin d'atteindre leurs cibles écologiques. Pour rentabiliser les politiques de réduction des émissions, il faut mettre un prix sur les effets externes négatifs : les conducteurs seuls à l'heure de pointe et les marchandises transportées par camion. ■

Toll Free 855-773-3100



[www.hbi.ca](http://www.hbi.ca)

## H. BROER EQUIPMENT SALES & SERVICE INC.

### SALES | SERVICE | RENTALS



Mobile  
Railcar Movers



Locomotive Remote Controls  
& Heating Products



Railcar Door  
& Gate Openers



Rail  
Construction Equipment

Uncompromising commitment to superior equipment maintenance,  
rest assured we'll be there when you need us. —

- Equipment Inspection
- Machine Rebuilds

- Field Emergency Service
- Preventive Maintenance

- Fluid Analysis
- Machine Repair



730 TALBOT ST. WEST, AYLMER, ON, CANADA N5H 2V1





CANADA'S RAILWAYS

---

# We've done the math

Canada's shortline railways move 135 million tonnes of goods each year. That takes 9 million trucks off our roads, reducing congestion and pollution, and saving 1.7 million tonnes of CO<sub>2</sub>-equivalent emissions in the process. Unlike trucks which use publicly funded highways, railways pay to maintain their own infrastructure. That limits their ability to grow, innovate and invest.

It's time for Canada to invest in its shortline railway infrastructure – to help grow our green transportation capacity now, and for the future.

---

PULLING *for* CANADA

---



[railcan.ca](http://railcan.ca)



Railway Association  
of Canada



# KEEPING YOU ON TRACK

With our new and used trackwork, rail and OTM products, rail welding and rail take up products and services,

Progress Rail Services is a market leader in the engineering and track business, with a focus

on high quality products and dependable solutions for our customers. Now, with the acquisition of

Rail Product Solutions, we are pleased to have expanded our offerings to include anchors and fasteners

for our customers around the world. Contact us today to see where Progress can take you.



A Caterpillar Company

[www.progressrail.com](http://www.progressrail.com) • [@Progress\\_Rail](https://twitter.com/Progress_Rail)



# Maintain Tractive Effort

High-quality, pneumatic railroad sanding systems designed to transfer sand from storage to locomotive—safely and efficiently.



The **QuickSander™** is a high-performance sand-dispensing system that can be installed on service track and mainline operations.



The **SandMaster™** is a self-contained, single- or dual-position sanding station that delivers traction sand directly to a locomotive sandbox.



The **SandBagger** is an easy-to-install system that can be simple to relocate as operations change. Ideal for low-volume sanding needs.



The **SandAlong** is a durable, trailer-mounted unit with the ability to get your sand to a remote locomotive.



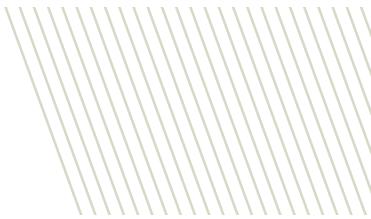
# cyclonaire

[www.cyclonaire.com](http://www.cyclonaire.com)  
Toll Free: 800-445-0730  
Phone: 402-362-2000

# Strategic alliance

**How Canada's railways are developing a sector-based sustainability strategy**

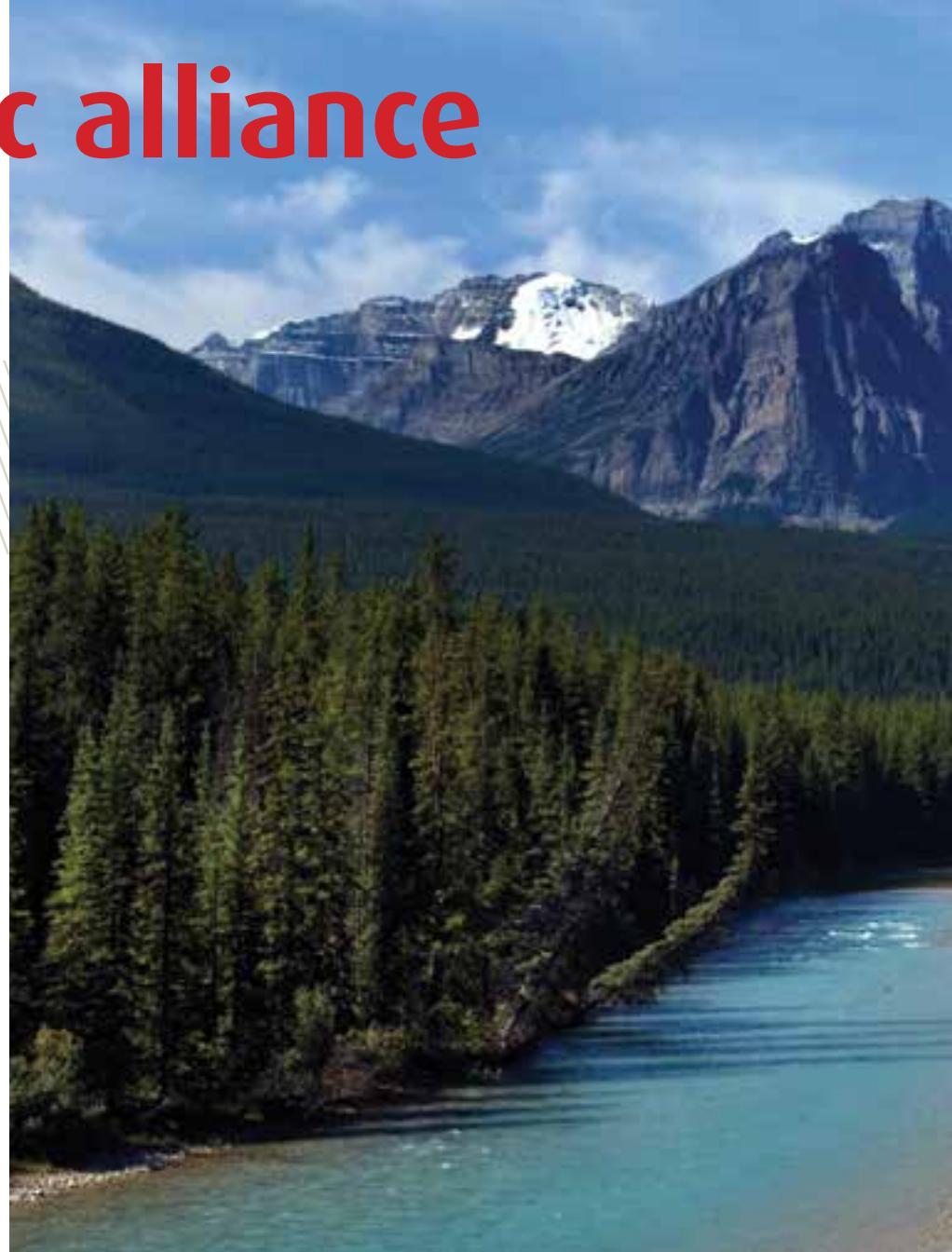
By Michael Gullo



**In 1987**, Norway's Prime Minister Gro Harlem Brundtland released *Our Common Future*, a groundbreaking report commissioned by the World Commission on Environment and Development in response to the United Nations' urgent call for a global agenda for change. Her pivotal piece of work introduced the international community to the concept of sustainable development, underscoring that development of today should not come at the expense of our ability to succeed tomorrow, and that environmental and economic objectives should not be mutually exclusive.

This concept was carried into the 1992 Earth Summit that provided the platform for discussing an international response to critical issues such as climate change and biodiversity. This summit created the Convention on Climate Change, which laid the foundation for the Kyoto Protocol – the world's first international treaty recognizing that global warming exists and that CO<sub>2</sub> emissions from human activities have caused it.

Fast forward 23 years and it would appear that not much has changed. Global warming continues to be a problem, and the international community continues to seek meaningful approaches to managing CO<sub>2</sub> emissions, with the recently introduced Paris Agreement bringing renewed focus from Canada, in particular. However,



much has changed with industry, including the railway sector, playing a more meaningful role in advancing sustainability and answering the call for improved performance.

Anchored in locomotive emissions management, Canada's railway sector has embraced sustainability as a core concept and has extended it to all facets of railway operations, from rail safety, to financial health and environmental performance. Railway Association of Canada (RAC) members actively participate in internationally recognized

sustainability programs and report on their performance regularly.

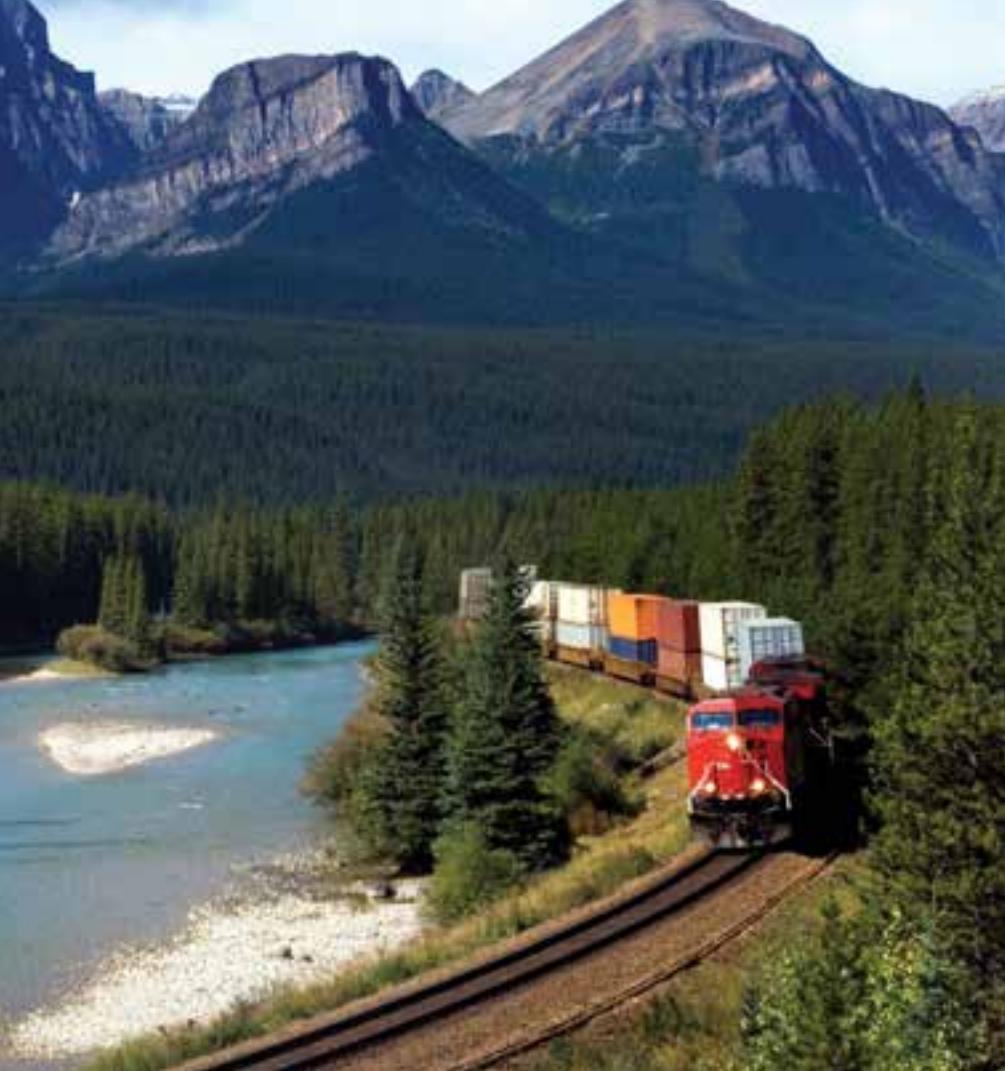
To support railway company efforts and ensure that sustainability continues to be a core concept integrated throughout the freight and passenger railway community, RAC worked in concert with its members and Board of Directors to include sustainability as one of its three key priority areas in its 2014-2016 Strategic Plan.

The industry has accomplished a lot over the course of two-plus years.

# Alliance stratégique

Une stratégie de développement durable pour le secteur ferroviaire

Par Michael Gullo



**En 1987**, la première ministre norvégienne Gro Harlem Brundtland publiait un rapport révolutionnaire, à la demande de la Commission mondiale sur l'environnement et le développement, alors que les Nations unies réclamaient un plan d'action pour le changement. Cette publication intitulée *Notre avenir à tous* a présenté le concept de développement durable à la communauté internationale, soulignant que le développement d'aujourd'hui ne devrait pas se

faire aux dépens de notre capacité à réussir demain et que les objectifs environnementaux et économiques ne doivent pas s'exclure les uns les autres.

Ce concept a été adopté au sommet de la Terre de 1992, qui a servi de plateforme de négociation en vue d'une réponse internationale aux enjeux critiques, comme les changements climatiques et la biodiversité. On y a créé la Convention-cadre sur les changements climatiques qui jetait les bases du

protocole de Kyoto, le premier traité international à reconnaître l'existence d'un réchauffement climatique causé par les émissions de CO<sub>2</sub> dues à l'activité humaine.

Vingt-trois ans plus tard, on constate bien peu de changement. Le réchauffement climatique demeure problématique, et la communauté internationale est toujours à la recherche de stratégies pour gérer les émissions de CO<sub>2</sub> (le récent accord de Paris ayant regagné l'attention du Canada). Toutefois, l'industrie, y compris le secteur ferroviaire, a beaucoup changé et tient un rôle plus important en matière de développement durable et d'amélioration de la performance.

Le secteur ferroviaire canadien a adopté le concept fondamental de la durabilité pour l'appliquer à toutes les facettes de l'exploitation ferroviaire, de la sécurité sur les rails à la santé financière, en passant par la performance environnementale. Les membres de l'Association des chemins de fer du Canada (ACFC) participent à des programmes mondiaux de développement durable et publient régulièrement leurs résultats en matière de performance.

Afin de soutenir les efforts des sociétés ferroviaires et de garder le développement durable au cœur des préoccupations de la communauté du transport ferroviaire des marchandises

## **Why a sector-based approach to sustainability?**

Over the last 20 years, environmental issues alone have steadily encroached on the business community's capacity to create value for customers, shareholders and other stakeholders. The tragic events of Lac-Mégantic have raised new awareness of the risks of rail transportation.

Industry associations representing producers and manufacturers are responding to similar pressures with strategies and programs that aim to improve the social and environmental performance of their respective industries. They are also communicating performance to stakeholders and complementing existing member-company sustainability initiatives. The

Chemistry Industry Association of Canada's Responsible Care® initiative is an example of a sector-based approach to sustainability.

## **What have we done?**

RAC was able to mobilize the exceptional level of sustainability expertise that already exists within the sector, develop an internal working group to leverage best practices and design the critical pathway for taking a collective approach to sustainability. Representatives from CN, CP, Metrolinx, VIA Rail, and one of RAC's associate members, Bombardier, meet regularly and provide the association with advice on who to consult and how to design a strategy that can address gaps and add value.

The industry prepared an ambitious work plan and reviewed seven North American freight and passenger railway sustainability reports to identify the most common themes and topics referenced in railway sustainability reporting. This exercise provided a starting point for defining what sustainability means to railways, highlighting that safety, socio-economic and environmental issues are all common topics referenced in railway sustainability reports.

The working group also advised that stakeholder engagement should be a critical process for learning more about the community's expectations for a sector-based program. To this effect, RAC partnered with the Network for Business Sustainability to design a full-day workshop involving a dozen environmental non-government organizations and universities. Stakeholders were asked to identify the priorities they felt needed to be addressed in a sustainability strategy while the railway sector listened.

A third piece of work focused on engaging directly with representatives from a more diverse group of stakeholders, including railway customers and their respective associations, investors, suppliers and regional municipalities. For this exercise,



## **IN A HURRY?**

**Give us a call and place an order and it's practically there already. Yes, we're that fast.**

**With service centres in BC, Manitoba, and Pennsylvania, we can ship our products out to you at your rail project site just as fast as you need it.**



**EVERYTHING FROM THE BALLAST UP.**

We have what you'll need in rail materials: new, relay or reconditioned.

### **CONTACT US**

toll free 1.855.440.NARP [6277]  
[www.narailproducts.com](http://www.narailproducts.com)  
[info@narailproducts.com](mailto:info@narailproducts.com)



**EXPEDITED DELIVERY. EVERY TIME.**



Photo: West Coast Express

et des voyageurs, l'ACFC, avec l'aide de ses membres et de son conseil d'administration, a inscrit le développement durable parmi les trois grandes priorités de son plan stratégique 2014-2016.

Notre secteur a déjà fait beaucoup de chemin en un peu plus de deux ans.

#### **Pourquoi se doter d'une stratégie sectorielle?**

Depuis vingt ans, les problèmes environnementaux empiètent sur la capacité de la communauté des affaires à créer de la valeur pour sa clientèle, ses actionnaires et ses autres parties prenantes. La tragédie de Lac-Mégantic a sensibilisé tout le monde aux risques du transport ferroviaire. Les associations sectorielles qui représentent les producteurs et les fabricants ont répliqué à des pressions similaires en proposant des stratégies et des programmes visant à améliorer la performance sociale et environnementale de leur secteur. En outre, elles rendent compte de leur performance à leurs parties prenantes, en plus d'apporter un complément aux projets des sociétés membres. À titre d'exemple d'approche sectorielle, pensons à l'initiative Gestion responsable<sup>MD</sup> de l'Association canadienne de l'industrie de la chimie.

#### **Qu'avons-nous fait?**

L'ACFC a mobilisé l'expertise déjà exceptionnelle du secteur en matière de développement durable pour mettre sur pied un groupe de travail qui, à l'aide des pratiques exemplaires, s'affaire à tracer la voie vers une approche collective. Les représentants du CN, du CP, de Metrolinx, de VIA Rail et de son membre associé Bombardier se réunissent périodiquement pour conseiller à l'ACFC des consultants et des moyens de concevoir une stratégie propre à combler les lacunes et à ajouter de la valeur.

Notre secteur a conçu un plan de travail ambitieux et passé en revue sept rapports nord-américains de durabilité du transport ferroviaire pour en relever les grands thèmes récurrents. Cet exercice a permis de définir ce que représente le développement durable pour les chemins de fer, en soulignant l'importance des enjeux sécuritaires, socioéconomiques et environnementaux.

Le groupe de travail a insisté aussi sur l'importance de la participation des parties prenantes, afin de savoir ce qu'elles attendent d'un programme sectoriel. L'ACFC s'est donc associée à Network for Business Sustainability pour monter un atelier d'une journée réunissant une douzaine d'ONG environnementales et d'universités. On a demandé à ces parties prenantes d'identifier les priorités auxquelles devrait s'attaquer notre stratégie sectorielle.

De plus, le groupe nous a recommandé d'élargir le cercle de représentants de parties prenantes avec qui nous interagissons, comme les clients des chemins de fer et leurs associations, les investisseurs, les fournisseurs et les municipalités régionales. Nous avons donc commandé à PriceWaterhouseCoopers

**Rail Transfer Facility  
Local and US Truck Fleet  
Warehousing & Outside Storage  
Concord - Welland**

---

191 Ridge Road  
Welland, Ontario  
Canada L3B 5N7

Canada & US 1-800-565-8823  
905-658-2592  
905-669-1988 ext 148

*"The working group identified five principal topics, including: safety culture and Safety Management Systems; dangerous goods management and emergency preparedness; growth, capacity and supply chain collaboration; energy, emissions management and railway infrastructure; and socio-economic impacts."*

PriceWaterhouseCoopers was commissioned to complete a series of one-on-one interviews where the interviewees were guaranteed anonymity and could speak freely about the issues they felt the industry should address through a sector-based strategy. More than 25 individuals participated in the interview process.

Over the course of this exercise, it became clear that railway sustainability is complex and very diverse. Community engagement, railway customer service and corporate ethics were just a few of the excellent suggestions brought forward by the stakeholder community, underlining that sustainability should focus on addressing a sector's most important headwinds rather than be limited to conventional environmental management issues, despite their incredible and timely importance in Canada and internationally.

#### **Where do we go from here?**

With more than two years worth of research behind it, the working group completed a priority-setting exercise to clarify the sector's most significant economic, environmental and social impacts. In this case, the working group aimed to identify opportunities for collective action by the membership and areas where RAC can potentially add value.

The working group identified five principal topics, including: safety culture and Safety Management Systems; dangerous goods management and emergency preparedness; growth, capacity and supply chain collaboration;

plus de 25 entrevues individuelles dont la garantie d'anonymat permettait aux participants de s'exprimer librement sur les problématiques à régler par le biais d'une stratégie sectorielle.

Nous constatons que la durabilité des chemins de fer est une question complexe et diversifiée. Parmi les suggestions qui sont ressorties, notons la participation de la collectivité, le service à la clientèle et l'éthique d'entreprise. Conclusion : le développement durable ne doit pas porter uniquement sur la gestion environnementale (malgré l'importance énorme de cette problématique) ; il doit surtout s'attaquer aux principaux vents contraires du secteur.

#### **Et maintenant?**

Le groupe de travail, fort de plus de deux ans de travaux, a procédé à un exercice d'établissement des priorités pour clarifier les principaux impacts économiques, environnementaux et sociaux de notre secteur. Il s'est intéressé aux actions collectives que pourrait mener notre effectif et à la valeur ajoutée que pourrait leur apporter l'ACFC.

Voici les cinq grands thèmes identifiés : culture de sécurité et systèmes de gestion de la sécurité; gestion des matières dangereuses et planification d'urgence; croissance, capacité et collaboration avec la chaîne d'approvisionnement; énergie, gestion des émissions et infrastructures ferroviaires; impacts socioéconomiques.

**FSR**  
www.fsr.ca      1-888-993-6738  
Elite Rail Equipment Innovation

# NAVIGATE BEYOND

## INNOVATIVE ROAD-TO-RAIL SOLUTIONS

**OTHER APPLICATIONS AVAILABLE!**

**Featuring:** Hi-Rail RotoDump with Loglift Crane

energy, emissions management and railway infrastructure; and socio-economic impacts.

Correspondingly, potential activities for RAC to pursue include: completing research and becoming a conduit for information sharing and best practices; designing and developing guidelines, tools and training programs for members; establishing sector-based performance targets and standards; and facilitating consultations with stakeholders.

2016 promises to be an exciting year, and RAC looks forward to continuing to work with its members to shape its sustainability strategy and advocate on behalf of the sector as a responsible carrier of goods and people. After all, we have a great story to tell. ■

*Michael Gullo is Director of Policy, Economic and Environmental Affairs with the Railway Association of Canada.*

Ces thèmes correspondent à des activités à envisager par l'ACFC : mener des recherches et devenir un lieu de partage de l'information et des pratiques exemplaires; élaborer des lignes directrices, des outils et des programmes de formation pour ses membres; fixer des cibles et des normes sectorielles; superviser des consultations avec les parties prenantes.

L'année 2016 s'annonce passionnante. L'ACFC compte continuer à œuvrer avec ses membres afin de façonner sa stratégie de développement durable et de démontrer la responsabilisation du secteur. Après tout, nous avons une belle histoire à raconter. ■

*Michael Gullo est directeur, Politiques, affaires économiques et environnementales, à l'Association des chemins de fer du Canada.*

*« Voici les cinq grands thèmes identifiés : culture de sécurité et systèmes de gestion de la sécurité; gestion des matières dangereuses et planification d'urgence; croissance, capacité et collaboration avec la chaîne d'approvisionnement; énergie, gestion des émissions et infrastructures ferroviaires; impacts socioéconomiques. »*



## OUR MAJOR PRODUCT RANGE

### ► Quality engineered, state-of-the-art equipment:

- Mobile and stationary car hoist system.
- Body hoists and stands.
- Spinning posts.
- Truck hoists.
- Turntables.
- Drop tables.
- Transfer tables.
- Truck assembly and test stands.
- Mobile / stationary waste removal systems.
- Portable hydraulic rerailing equipment.
- Plastic cable channels.
- Portable car movers.

**Railquip, inc.**

Toll Free: (800) 325-0296

Fax: (770) 458-5365

e-mail: sales@railquip.com

[www.Railquip.com](http://www.Railquip.com)

3731 Northorest Road

Suite 6

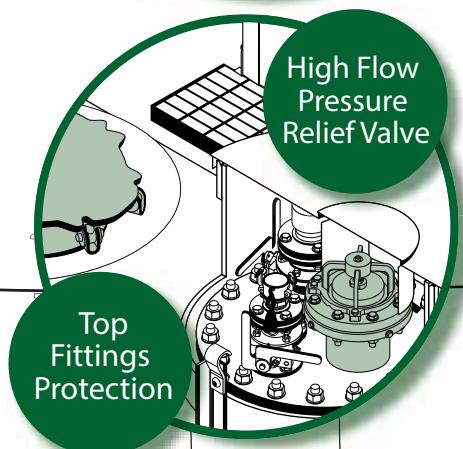
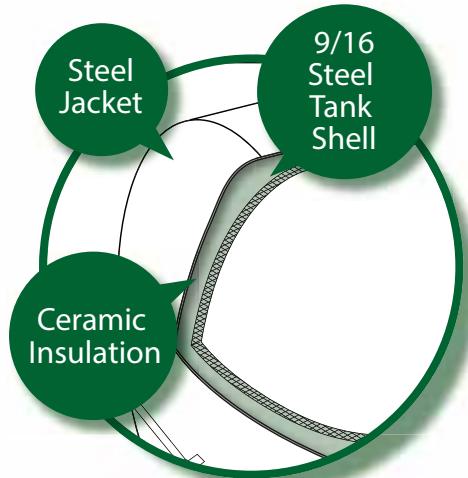
Atlanta, GA 30340



# THE TANK CAR OF THE FUTURE IS READY TODAY

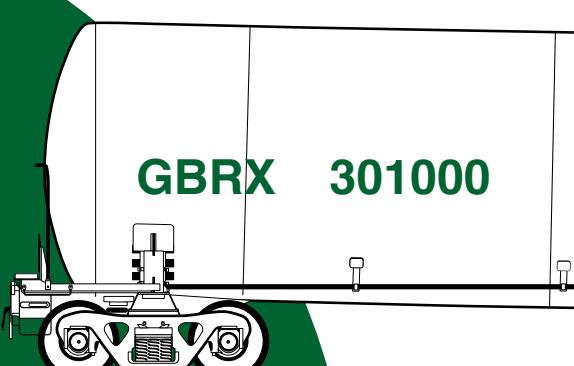
Our new *Tank Car of the Future* is designed to keep people safe, protect the natural environment, and prevent loss of valuable product. We offer two designs engineered and built to high standards for crude and ethanol service. When it comes to building new tank cars, Greenbrier is the safe choice.

Optimal Service	Crude	Ethanol
Gallon Size	28,400	30,100
Shell Thickness	9/16"	9/16"
Head Thickness	1/2"	1/2"
Pressure Relief Valve	27,000 SCFM	27,000 SCFM
Coiled	YES	NO
Insulated Jacket	YES	NO
Thermal Protection	YES	YES
Load Limit	191,800 lbs.	195,000 lbs.
Gross Weight Rail	286,000 lbs.	286,000 lbs.



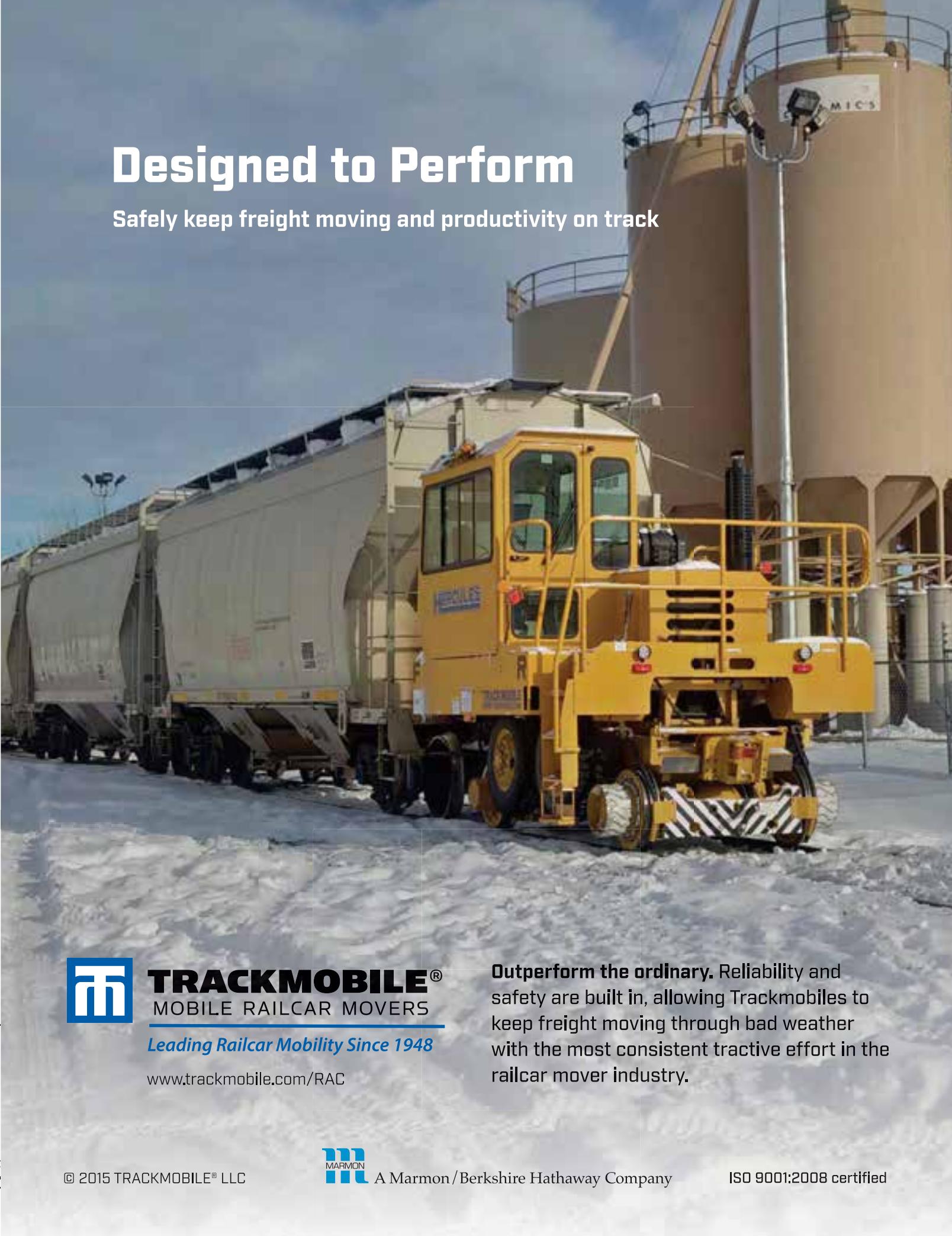
THE  
**GREENBRIER**  
COMPANIES

<http://www.gbrx.com>  
1-800-343-7188  
marketing.info@gbrx.com



# Designed to Perform

Safely keep freight moving and productivity on track



**TRACKMOBILE®**  
MOBILE RAILCAR MOVERS

*Leading Railcar Mobility Since 1948*

[www.trackmobile.com/RAC](http://www.trackmobile.com/RAC)

**Outperform the ordinary.** Reliability and safety are built in, allowing Trackmobiles to keep freight moving through bad weather with the most consistent tractive effort in the railcar mover industry.

# Productivity and innovation in Canada's railway industry

*The railway business is still viewed by many as a bygone industry characterized by steam locomotives and employees dressed in striped overalls. Paul Miller says that a culture of innovation in Canada's railway sector is alive and well – a main reason why the industry thrives in today's global logistics marketplace.*

By Paul Miller

## **According to Statistics Canada,**

"Productivity growth is closely related to growth in our standards of living."<sup>1</sup>

Productivity growth should therefore concern us all. However, Canada's performance in this area has been weak. From 1993 through 2012, multifactor productivity (MFP) growth in the Canadian business sector as a whole – calculated as the difference in growth between output and combined labour and capital inputs – was only four per cent. Fortunately, however, there were some bright spots. During the same 20-year period, MFP growth among Canada's Class 1 railways, CN and CP, increased by 64 per cent.<sup>2</sup>

And how have Canada's railways achieved this outstanding performance? According to the Conference Board of Canada, "Countries that are innovative and able to adapt to the ebb and flow of the new global economy boast high productivity and thus a superior standard of living."<sup>3</sup> Canada's railways simply could not have improved their productivity as they have without a culture of innovation shared by major freight carriers, passenger and commuter operators, shortlines, the supply industry, and academia.

Diesel locomotives, for example, now have three times the pulling power they did in 1955, and developments in freight cars and track have led to a 57 per cent increase in car capacity. Innovations like these, and many others covering all segments of railroading, have allowed Canada's railway industry to remain safe, sustainable and globally competitive.

Arguably the most important innovation in North American freight

railroading over the past two decades has been the "precision railroading" business model, pioneered by E. Hunter Harrison and now firmly in place at CN and CP. This lean production process drives high-service, low-cost, safe and reliable rail transportation. And, because it is an ongoing process – plan, do, measure, analyze, improve the plan, improve the execution, and start over – it delivers continuous productivity growth, as demonstrated by CN and CP's results. Under precision railroading, a detailed trip plan for each shipment tells operating employees exactly what must be done, when. Proposed changes are analyzed for their impacts on safety, service, people, assets and costs, and they must pass muster in all five areas.

Relentless, near-real-time measurement and analytics allow railways to identify and address traffic pattern changes, deficiencies in the plan itself, and execution issues. Management is able to focus on continuously improving a well-functioning system, instead of dealing with a multitude of random events. Customers are told in advance what the service will be, so they can make their sales, inventory, and logistics asset-decisions with confidence.

And this fundamental innovation is itself being improved. Because precision railroading provides a stable operating base, Canadian railways can look beyond their own operations, and work with other supply chain partners to improve total system throughput and reliability. Class 1 and shortline railways have been active in this area, with CN's President and CEO Claude Mongeau playing a pioneering role. This innovation, known as supply

chain collaboration, requires that all participants – including railways, shippers, terminal operators, and shipping lines – work together to optimize the flow of goods. It reflects that the throughput of the entire system is the most important output for all parties. Shared metrics, internet-based supply chain visibility systems, written agreements, and a culture of



# Productivité et innovation dans le secteur ferroviaire canadien

*Le secteur ferroviaire est encore considéré par plusieurs comme une industrie révolue caractérisée par des locomotives à vapeur et des cheminots en salopettes rayées. Paul Miller soutient que la culture de l'innovation dans le secteur des chemins de fer du Canada est bel et bien vivante – c'est l'une des grandes raisons pour lesquelles l'industrie se développe dans le marché mondial de la logistique.*

Par Paul Miller

**Selon Statistique Canada,** « la croissance de la productivité est étroitement liée à la croissance de notre niveau de vie<sup>1</sup> ».

Elle devrait donc nous intéresser tous et toutes. Or, le Canada a affiché un bien faible rendement dans ce domaine. De 1993 à 2012, la croissance de la productivité multifactorielle (PMF) canadienne calculée comme

la différence de croissance entre la production et celle des intrants n'était que de 4 %. On note cependant certaines embellies. Au cours de ces mêmes 20 ans, en effet, la croissance de la PMF parmi les chemins de fer de classe 1 du Canada, soit le CN et le CP, a été de 64 %.<sup>2</sup>

Comment ces chemins de fer y sont-ils parvenus? Selon le Conference Board

du Canada, « les pays qui innovent affichent une meilleure productivité et un niveau de vie supérieur<sup>3</sup> ». Les chemins de fer canadiens n'auraient jamais pu améliorer ainsi leur productivité sans une culture de l'innovation partagée par les grands transporteurs de fret, les exploitants de transport de voyageurs et de banlieue, les chemins de fer d'intérêt local, les fournisseurs et le milieu universitaire.

Les locomotives diesel, par exemple, ont trois fois plus de puissance de traction qu'en 1955, et les développements dans les wagons et les voies ont conduit à une augmentation de 57 % de la capacité de transport. Des innovations de ce genre ont permis à l'industrie ferroviaire du Canada de rester sûre, durable et compétitive à l'échelle mondiale.

Sans doute l'innovation la plus importante a été le modèle « d'exploitation ferroviaire précise », mis au point par E. Hunter Harrison et maintenant bien en place au CN et au CP. Ce processus optimisé procure un service haut de gamme à faible coût. Et comme il s'agit d'un processus constant, il procure une croissance permanente de la productivité comme le démontrent les résultats du CN et du CP. Dans une exploitation ferroviaire précise, chaque expédition est accompagnée d'un plan d'acheminement détaillé. Les changements proposés sont analysés pour leurs impacts sur la sécurité, le service, les personnes, les biens et les coûts. La mesure et l'analyse en temps quasi réel permettent d'identifier les changements de tendance du trafic, les lacunes du plan et les problèmes d'exécution. La direction peut se concentrer sur l'amélioration continue



# **ULTIMATELY...**

**What's *OUTSIDE THE BOX***

***Makes The Difference...***

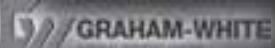
***But, The  
Light From***

***Within      Makes Innovation  
                    Possible!***

**We Make Transportation Safer, Faster and More Reliable.**

**GrahamWhite.com**

© 2016



**CRSNG** Industrial Research Chair  
**NSERC** Operation and Maintenance of Railways

A Canadian leader in research!

- Instrumentation of rolling stocks
- Real time data gathering
- Mathematical modelling
- In-train force simulations
- Railway maintenance
- Heavy haul transportation
- Customized formations, etc



(418) 962-9848 ext. 373  
luc.faucher@itmi.ca

"no surprises" have helped cement this change in thinking, to the benefit of all participants.

Precision railroading and supply chain collaboration complement the industry's ongoing safety innovations. These include plant and equipment inspection technologies, materials and design improvements, locomotive-based systems, employee training, and the basic replacement investments made possible by strong financial performance. For example, failed freight car bearings were a leading cause of derailments. But in the last 15 years, the rate of derailments caused by such failures has declined by about 70 per cent in Canada, while the freight car weight supported by each bearing has increased by 30 per cent. This improvement would be much greater if measured over a longer time span.

How was it achieved? The bearings themselves were completely re-thought, and wayside sensors were developed to detect temperature anomalies in passing bearings. Data from these "hot box" detectors (HBDs) was either fed to a central office, or used to notify passing trains via automated radio message when imminent failures were detected. Initially, costs and technology limited the railways to placing detectors about 40 miles apart on mainline routes. But over time, HBD technology improved and railways increased detector density to around every 25 miles. As telecommunications and office technology improved, skilled employees in central offices could spot warning trends before they reached alarm levels. Adjacent railroads began to share wayside detector information for cars interchanged between them, so that developing issues could be tracked. Spacing between detectors was further improved to around 15 miles on many mainline routes. In 2014, CN reported using 865 detectors across its network to scan more than three billion bearings, resulting in more than 500 cars safely taken off trains. Canada's railways are also adding "machine vision" systems, which use optical and laser

d'un système qui fonctionne bien, au lieu de traiter avec une multitude d'événements aléatoires. Les clients sont informés à l'avance du service qu'ils recevront, afin qu'ils puissent prendre avec assurance leurs décisions en matière de vente, de stocks et de logistique.

Et cette innovation fondamentale est elle-même en cours d'amélioration. Parce que l'exploitation ferroviaire précise fournit une base de fonctionnement stable, les chemins de fer canadiens peuvent regarder au-delà de leurs propres activités, et travailler avec d'autres partenaires pour améliorer le débit total du réseau. Les chemins de fer de classe 1 et d'intérêt local ont été actifs dans ce domaine. Le PDG du CN, Claude Mongeau, a même joué un rôle de pionnier. Cette innovation, la collaboration dans la chaîne d'approvisionnement, exige que tous les participants se concertent pour optimiser le flux des marchandises. Elle reflète le fait que le débit de l'ensemble du système est le résultat le plus important pour toutes les parties. Le partage des mesures, les systèmes de visibilité sur Internet, les accords écrits et une culture « sans surprise » ont aidé à cimenter le changement.

L'exploitation ferroviaire précise et la collaboration dans la chaîne d'approvisionnement complètent les innovations de sécurité en cours. Celles-ci comprennent les technologies d'inspection, l'amélioration des matériaux et conceptions, les systèmes de locomotive, la formation des employés et les investissements de remplacement rendus possibles par une solide performance financière. Les défaillances des roulements étaient par exemple l'une des principales causes de déraillements. Mais dans les 15 dernières années, le nombre de déraillements causés par ces défaillances a diminué d'environ 70 % au Canada, tandis que le poids supporté par chaque roulement a augmenté de 30 %. Cette amélioration serait beaucoup plus grande si elle était mesurée sur une période plus longue.

The advertisement features a large image of a blue AutoLOK™ II outlet gate installed on a railcar. The gate is open, revealing the interior of the railcar. The background shows a yellow building and some trees. The text "Potash OUTLET GATE" is displayed at the top right, and "AutoLOK™ II" is labeled below the gate. Below the image, the text reads:

**Miner's Versatile 30 x 30 AutoLOK™ II Improves Performance**

Our gates are reliable and easy to operate. They open and close to tight tolerances and provide full perimeter sealing. Potash shippers will enjoy these features in a proven outlet gate:

- Stainless steel frame and runner channels
- Corrosion-resistant and lining-friendly
- New larger clear opening provides easy access to car interior

**MINER**  
ENTERPRISES INC.  
W. H. MINER DIVISION  
*Perfecting Railcar Performance*

www.minerent.com/rac

Draft Gears Side Bearings Gates Unloading Systems Hatch Covers Brake Beams Tecspak® Springs  
© 2015 Miner Enterprises, Inc.

The advertisement features a black and white photograph of a ship docked at a port, with a train of railcars visible in the foreground. The text "SRY Rail Link" is displayed at the top left, with a stylized 'W' logo. Below the logo, the text "www.sryraillink.com" is shown. At the bottom, the text reads:

Southern Railway of British Columbia Ltd.  
2102 River Drive  
New Westminster, BC  
Contact: Gerald Linden,  
Director Business Development (604)-527-6316

measurements to detect car anomalies, to their wayside networks.

Most recently, the industry has applied the power of data analytics to improve wheel bearing safety. Railways are building and "mining" databases of information from previously disparate systems to identify underlying trends and relationships.

All of these innovations reflect private investment and far exceed regulatory requirements. And it's not just the wheel bearing that's being addressed in such an innovative manner – a very similar story can be told about the detection of internal rail flaws, the identification of track geometry issues, fuel efficiency and many other improvements.

Innovation in Canada's railway sector is alive and well. The productivity growth of Canada's railways could not have been achieved without a solid and enduring culture of innovation. This culture demonstrates a willingness and ability on the part of Canadian railways to develop, embrace and invest in process improvement, technology, and plant and equipment renewal. As a result, Canada's railways are well positioned to continue to play a productive and innovative role in our economy, and in the global logistics marketplace. ■

#### Sources:

1. Baldwin, John R., Wulong Gu, Ryan Macdonald, and Beiling Yan. "Productivity: What Is It? How Is It Measured? What Has Canada's Performance Been Over the Period 1961 to 2012?" *The Canadian Productivity Review*. Statistics Canada, Sept. 2014. Web. 25 Dec. 2015. <<http://www.statcan.gc.ca/pub/15-206-x/15-206-x2014038-eng.htm>>.
2. CN + CP Total Factor Productivity – InterVISTAS Consulting Inc. chain link of results from (1956-1995): W.G. Waters and M.W. Tretheway (1998), "Comparing Total Factor Productivity and Price Performance: Concepts and Applications to Canadian Railways," *Journal of Transport Economics and Policy*, Vol. 33 (2), pp. 209-220; (1996-1999): Canada Transportation Act Review: Vision and Balance, 2001, Government of Canada, p. 43; (2000-2012): Transport Canada, "Efficiency Indicators – Transport Industries" or "Price and Output Indicators, Transport Industries", various years. Other figures – Statistics Canada.
3. "Labour Productivity Growth." *How Canada Performs: A Report Card on Canada*. Conference Board of Canada. Web. 25 Dec. 2015. <<http://www.conferenceboard.ca/hcp/provincial/economy/labour-productivity.aspx>>.

*Paul Miller is Adjunct Professor in the Department of Civil & Environmental Engineering at the University of Alberta, and Railroader in Residence at the Canadian Rail Research Laboratory. He worked for CN for 34 years, retiring as Vice-President, Safety, Sustainability, and Network Transportation in 2011.*



#### Comment y est-on parvenu?

Les roulements eux-mêmes ont été complètement repensés, et des capteurs en bordure de voie ont été mis au point pour détecter leurs anomalies de température. Les données provenant de ces détecteurs de boîtes chaudes (DBC) étaient transmises à un bureau central ou utilisées pour notifier les trains par des messages radio automatisés en cas de défaillance imminente. Initialement, les coûts et la technologie permettaient seulement d'installer ces détecteurs à intervalles de 40 milles sur les voies principales. Mais au fil du temps, la technologie des DBC s'est améliorée et les chemins de fer ont pu en poser tous les 25 milles. Comme les télécommunications s'amélioraient, les employés qualifiés des bureaux centraux pouvaient repérer les tendances avant que les

RAIL GRINDERS • WELD SHEARS • TIE TAMPERS • HYDRAULIC POWER UNITS • MAINTENANCE CARTS •
RAIL SAWS • RAIL DRILLS • ANCHOR MACHINES • IMPACT WRENCHES



## RACINE RAILROAD PRODUCTS

*Serving the industry since 1970*

SPIKE PULLERS • RAIL PULLERS • CLIP MACHINES • SPIKE DRIVERS
• TIE PRESERVATIVE & PLUGGING APPLICATIONS • MATERIAL RECLAIMERS • TIE PLATE INSERTERS •



Trak Pak II Power Unit



Ultra Kut Saw – Gas



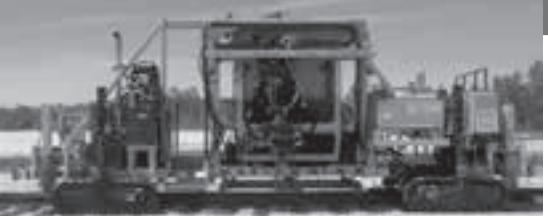
Trak Kut II Saw – Gas



High Speed Rail Drill – Gas



Impact Wrench – Gas



Ride-on Tie Plucker



Dual Anchor Spreader & Adjuster

niveaux d'alarme soient atteints. Les chemins de fer voisins ont commencé à échanger des informations, de sorte que les problèmes émergents pouvaient être suivis. L'espacement entre les détecteurs a été encore réduit à environ 15 milles. En 2014, le CN en utilisait 865 pour sonder plus de trois milliards de roulements, ce qui a permis de retirer de la voie plus de 500 wagons. Les chemins de fer ajoutent aussi des systèmes de « vision artificielle » pour détecter les anomalies.

Plus récemment, l'industrie a utilisé la puissance de l'analyse de données pour améliorer la sécurité des roulements de roues. Les chemins de fer compilent et « explorent » les données provenant de systèmes disparates pour identifier les tendances sous-jacentes et leurs relations.

Toutes ces innovations reflètent l'investissement privé et dépassent de loin les exigences réglementaires.

Et il n'y a pas que les roulements qui fassent l'objet de pareilles innovations – on observe un phénomène très similaire dans la détection des défauts internes des rails, l'identification des problèmes de géométrie de la voie, la consommation de carburant et de nombreuses autres améliorations.

L'innovation dans le secteur des chemins de fer du Canada est bel et bien vivante. La croissance de leur productivité n'aurait pu être obtenue sans une robuste et durable culture de l'innovation. Cette culture démontre la volonté et la capacité des chemins de fer d'investir dans l'amélioration des processus, la technologie et le renouvellement des installations et équipements. En conséquence, les chemins de fer canadiens sont bien placés pour continuer à jouer un rôle productif et innovateur dans notre économie et dans le marché mondial de la logistique. ■



### **Need a magnet system for your material handler?**

### **Make sure it's a SIEB magnet system!**

- Lifting Magnets
- GenSets
- Diesel, Gas, Hydraulic
- Self-contained Systems
- DC Generators
- Controllers
- Meters & Meter Packs
- Magnet/System Rentals

**Superior customer service is an integral part of who we are.**

**We offer unmatched technical support and service whether it's our system or someone else's.**

**Call us at 877-924-7548 (toll free)**

**Visit us on the web at [www.siebsales.com](http://www.siebsales.com)**

**Custom Rigging   Equipment Resale   Material Separation   Repairs   Parts**

# **HERZOG**

## **Railroad Services of Canada, LTD**

### **Car Topper**



- Tie distribution and loading
- OTM distribution and loading
- Bulk material loading and unloading
- Ability to traverse cars of varying height

### **Rail Unloading Machine**



- Safe, fast, efficient CWR unloading
- Highway and rail mobilization
- Curve, tangent, single or double unloading

### **Multi Purpose Machine**



- Self-propelled
- Grading, ditching and crossing work
- Rail, tie, ballast and OTM unloading and loading
- Rail pick up and rail shearing

### **LIDAR Truck**



- High precision GNSS inertial system and Lidar technology
- Improves ballast dumping efficiency
- Compatible with P.L.U.S. and SMART trains
- PTC asset management, clearance analysis, and engineering

### **Gen II Rail Train**



- Vertical racks are set on 30 ft spacing
- 1440 ft or 1600 ft lengths available
- Available in up to a 50 Pocket (10x5) configuration
- Compatible with railroad provided winch car or Herzog R.U.M.

### **Automated Tie Down Car**



- Clamps have more holding power than manual type tie down cars
- Reduces required work window
- Increases the safety of loading and unloading rail
- Remotely controlled
- Solar powered batteries and backup generator for operations

### **P.L.U.S. and SMART Train Ballast Unloading**



- Inside/outside dumping
- Ideal for washouts, new construction, and undercutting
- High speed ballast unloading 24 hours per day
- Inertial System used during survey to maintain accuracy during GPS outages

**ONE COMPANY FOR  
ALL OF YOUR SPECIALITY  
RAILROAD NEEDS**

**[www.hrscl.ca](http://www.hrscl.ca) | 780.955.3677**





# COUNT ON KOPPERS

## SUPERIOR QUALITY

### CROSSTIE AND JOINT PRODUCTS



## Koppers Treated Wood Ties

We manage every aspect of our wood tie production process from untreated timber to treatment and transport.

### Koppers Benefits

- Treatment facility in **Ashcroft, British Columbia**
- Eight strategically located treatment facilities in the U.S.
- Creosote Petroleum Solution (CPS) treated ties or patented Tru-Core®<sup>1</sup> dual-treated borate and CPS ties for extended life in the harshest decay zones
- Superior quality control of preservative retentions ensures cost-effective extended service life in all decay zones

## Koppers Rail Joints

Koppers offers a full line of rail joints that integrate field-proven design, advanced technologies and superior service to ensure you get what you need when you need it.

### Proven Performance

- Bonded Insulated Joints – AREMA and Advanced
- Standard Joints – AREMA and High Relief
- Bolted Insulated Joints – ComPly™ and Poly Encapsulated

**BUILDING GREAT LINES FROM THE GROUND UP.™**



For more information visit [www.koppers.com](http://www.koppers.com)  
or call 1-888-567-8437

1 Tru-Core® is manufactured under license from Kop-Coat Inc.



# CANADIAN RAIL SUMMIT 2016

# SOMMET DU RAIL DU CANADA 2016

May 11-13, 2016

Metro Toronto Convention Centre

Du 11 au 13 mai 2016

Palais des congrès du Toronto métropolitain

SAVE-THE-DATE  
REGISTER TODAY!

RÉSERVEZ LA DATE  
INSCRIVEZ-VOUS DÈS AUJOURD'HUI!

## Don't miss Canada's leading rail industry event!

Explore cutting-edge products and services from 50 tradeshow exhibitors.

Choose from a wide variety of conference and technical sessions on key industry issues such as competitiveness, safety and emerging technologies.

Register today! Visit:  
[www.railcan.ca/crs2016](http://www.railcan.ca/crs2016)

## Ne ratez pas l'événement phare du secteur ferroviaire Canadien!

Découvrez les produits et services de pointe des 50 exposants de la foire commerciale.

Faites votre choix parmi une vaste sélection de conférences et de séances techniques sur des enjeux d'importance pour le secteur comme la compétitivité, la sécurité et les technologies émergentes.

Inscrivez-vous dès aujourd'hui! Visitez le  
[www.railcan.ca/fr/src2016](http://www.railcan.ca/fr/src2016)

For more information contact: | Au besoin, communiquez avec:

Janet Greene  
[jgreenee@railcan.ca](mailto:jgreenee@railcan.ca) | 613-564-8109

Lynn Raby  
[lynn\\_raby@railwaysuppliers.ca](mailto:lynn_raby@railwaysuppliers.ca) | 613-237-3888



# Crossing over

## How the work of Operation Lifesaver impacts railway industry sustainability

By Sarah MacFayden

The word “**sustainable**” generally refers to environmental stewardship. But for Canada’s railways, sustainability means more than just reducing their carbon footprint. It means working with Canadians to build healthier communities and, in turn, a healthier country.

“If you look at the definition of sustainability it is environmental, economic and social,” says Michael Bourque, President and CEO of the Railway Association of Canada (RAC). “It might be easier to say that we all just need to get along.”

One of the ways RAC helps railways and communities co-exist is through its support of Canada’s public-rail safety education program, Operation Lifesaver. The initiative, co-sponsored by RAC and Transport Canada, promotes railway crossing awareness and informs Canadians about the dangers of trespassing on railway property. Its goal is to keep the public safe and to prevent accidents from happening on railway lines, resulting in safer, healthier and more sustainable communities.

The Transportation Safety Board (TSB) identifies crossing accidents as one of the most serious rail safety issues, and it recognizes Operation Lifesaver’s value in raising awareness about the problem. Every year, approximately 100 people die or suffer serious injuries on railway tracks in Canada. In 2014, there were 180 incidents at rail crossings and 55 trespassing incidents.

Operation Lifesaver’s mission is to reduce these figures and, as a result, limit the number of Canadians impacted by an accident and its ripple effect, says Operation Lifesaver’s national director Mike Regimbal.

“We know that each and every incident that occurs affects 200 people in that community – from train crews and first responders, right down to the friends and families, the coroner’s office and the police,” says Regimbal.

“In any community that is not good. In a smaller community that can be devastating. Avoiding incidents – whether railway crossing incidents or pedestrian fatalities – also helps the fluidity of the network and results in a better impression of the railway operating in the community.”

For Bourque and RAC, creating and maintaining a positive relationship between railways and the communities they travel through is critically important.

“When someone is affected by an accident, it makes it harder for railways to operate in that area because people are fearful and there is a certain amount of resentment,” explains Bourque. “What Operation Lifesaver does in terms of education and raising awareness regarding the dangers around



Photo: Operation Lifesaver

# Passer le test de la sécurité

## Les bienfaits d'Opération Gareautrain sur le développement durable du secteur ferroviaire

Par Sarah MacFayden



**Habituellement, l'expression « développement durable »** fait référence à la protection de l'environnement, mais les chemins de fer canadiens y voient plus que la diminution de leur empreinte carbone. Elle représente l'amélioration de nos collectivités et de notre pays, avec l'aide de la population.

« Cette notion a des ramifications environnementales, sociales et économiques, précise le P-DG de l'Association des chemins de fer du Canada (ACFC), Michael Bourque. Cela revient à dire qu'il faut s'entendre comme collectivité. »

Pour aider la coexistence des chemins de fer et des collectivités, l'ACFC soutient Opération Gareautrain, le programme canadien d'éducation à la sécurité ferroviaire. Cofinancé par l'ACFC et Transports Canada, celui-ci sensibilise la population aux passages à niveau et l'informe au sujet des dangers des intrusions sur les emprises. Il a pour but de protéger les citoyens et de prévenir les accidents sur la voie ferrée, ce qui rend nos collectivités plus saines et durables.

Selon le Bureau de la sécurité des transports (BST), les accidents aux passages à niveau comptent parmi les problèmes de sécurité ferroviaire les plus graves. Le BST reconnaît d'ailleurs l'intérêt d'Opération Gareautrain. Chaque année, une centaine de Canadiens se tuent ou se blessent gravement sur la voie ferrée. En 2014, on a recensé 180 incidents aux passages à niveau et 55 incidents liés à des intrusions.

Opération Gareautrain a pour mission de faire diminuer ces statistiques et, du coup, de réduire le nombre de personnes touchées par un accident et ses répercussions, selon le directeur national du programme, Mike Regimbal.

« Chaque incident touche 200 personnes dans la localité où il se produit, explique M. Regimbal, des équipes de train et des premiers répondants jusqu'aux amis et aux proches de la victime, en passant par le médecin légiste et le service de police. C'est néfaste pour toute localité. En outre, en réduisant le nombre d'incidents – aux passages à niveau ou sur les voies – on améliore la fluidité du réseau et l'image du chemin de fer. »

Pour M. Bourque et l'ACFC, il est essentiel pour les chemins de fer d'entretenir de bonnes relations avec les municipalités qu'ils traversent : « Lorsqu'un accident affecte quelqu'un, la population se met à nourrir de la crainte et du ressentiment envers le chemin de fer, ce qui complique les activités. Les travaux d'éducation et de sensibilisation aux dangers autour des voies que mène Opération Gareautrain sont cruciaux; ils sauvent des vies, en plus de faire

*"If you look at the definition of sustainability it is environmental, economic and social. It might be easier to say that we all just need to get along."*

**—Michael Bourque, President and CEO of the Railway Association of Canada**

tracks is vital because it can save lives, and it has a secondary benefit of communicating the importance of our rail corridors."

Keeping rail traffic moving on the 44,000 kilometres of track across Canada is another key piece of the sustainability puzzle. Canada's railways contribute significantly to the economic health of communities and to the country as a whole. They provide local jobs and move close to one million tonnes of goods every day, delivering essential products to consumers across Canada.

As the country grows and Canadian exports enter new markets, railways will play an even more important role in fuelling the economy, says Bourque.

"We foresee, over the decades ahead, that the amount of traffic is going to grow, which means we would potentially have to expand along our existing corridor," explains Bourque.

"Sustainability for us means being able to grow and obviously being able to do that safely and in harmony with the communities that we go through."

One way Operation Lifesaver helps create this harmony is through its annual *Rail Safety*



Week event. Held at the end of April, Operation Lifesaver organizes the event as a platform to educate communities across Canada about the dangers that exist around railway property,

## FINALLY!

A portable AEI tag reader that fits in the palm of your hand and doesn't cost an arm and a leg.



### AI4100 Portable AEI Tag Reader

Quickly and Accurately Records:

- Railcar IDs
- Barcode information on items such as
  - Seals
  - Products / Parts
  - Loading / Unloading Locations

See all the benefits the AI4100 Portable AEI Reader can bring to your operation by going to

[www.aeitag.com](http://www.aeitag.com)

1098 Venetia Road • Eighty-Four, PA 15330  
Tel. 888.872.4612 or 724.942.1473  
[sales@signalcc.com](mailto:sales@signalcc.com)

**Softrail**  
Formerly Signal Computer Consultants

## ABLOY® High Security Padlocks

- Patented rotating disc system is virtually impossible to pick
- No springs or pins to wear, jam or freeze
- Superior performance
- Maximum corrosion resistance
- Ideal solutions for transportation industry
- ISO 9001 certified
- Exclusive key codes



 **ABLOY®**  
ABLOY CANADA INC.  
an ASSA ABLOY Group Brand

1 800 465 5761  
fax 1 800 730 3570  
[info@abloy.ca](mailto:info@abloy.ca)  
[www.abloy.ca](http://www.abloy.ca)



Photo : Operation Lifesaver

comprendre l'importance de nos corridors ferroviaires. »

Assurer la fluidité de la circulation sur les 44 000 kilomètres de voie ferrée au pays

constitue une pièce importante du puzzle du développement durable. Les chemins de fer contribuent largement à la santé économique des collectivités et de l'ensemble du pays. Ils fournissent de l'emploi et transportent quotidiennement plus d'un million de tonnes de marchandises, assurant le lien entre les produits essentiels et les consommateurs.

Selon M. Bourque, le rôle économique du chemin de fer va augmenter avec la croissance du pays et l'entrée des exportations canadiennes dans de nouveaux marchés : « Nous nous attendons, pour les prochaines décennies, à une hausse de la circulation ferroviaire; nous pourrions avoir à élargir le réseau le long du corridor actuel. »

« Pour nous, ajoute-t-il, le développement durable, c'est pouvoir croître sécuritairement et en harmonie avec les localités que nous traversons. »

Cette harmonie, Opération Gareautrain la nourrit par le biais de la *Semaine de la sécurité ferroviaire*. Celle-ci utilise le slogan « Voies ferrées ? Gareautrain! » comme plateforme éducative sur les dangers entourant les voies

« La notion de développement durable a des ramifications environnementales, sociales et économiques. Cela revient à dire qu'il faut s'entendre comme collectivité. »

- Michael Bourque, P-DG de l'Association des chemins de fer du Canada

TMTrademark owned by VIA Rail Canada Inc.

WHO'S  
ON BOARD

VIA Rail Canada

using the slogan "See Tracks? Think Train." Throughout the week, Operation Lifesaver's partners – including railways, police officers and its dedicated network of volunteers – distribute rail safety materials at railway stations and crossings, and conduct activities such as mock collisions.

Operation Lifesaver has held *Rail Safety Week* for the past 13 years, but its work dates back much further. This year it celebrates its 35<sup>th</sup> year as an organization educating the general public about rail safety.

If the statistics are any indication, Canadians are getting the message. Between 2005 and 2014, for example, combined crossing and trespassing accidents in Canada fell by 33 per cent. During the same period, total fatalities and serious injuries declined by 50 per cent. Regimbal calls this an "encouraging trend," especially considering the increase in vehicle and train traffic.

"If you look at it statistically, some people don't get excited about the numbers," says Regimbal. "But we believe each and every incident is preventable and keeping Canadians safe is a shared responsibility."

"You don't even recognize the benefit of it until you do see the devastation it causes when there is a fatality."

Encouraging railways and communities to co-exist harmoniously by preventing accidents is ultimately what Operation Lifesaver is all about. Bourque believes that by getting Canadians to work together, the program helps create a more sustainable rail network and, as a result, a more competitive nation.

"It is all about maintaining our corridors and being able to work collaboratively with communities, so we can run safely and continue to grow to meet the needs of the Canadian economy," says Bourque.

"Everybody needs to play a part in that." ■



Photo: Operation Lifesaver



**AMERICAN**  
TURBOCHARGER TECHNOLOGIES, LLC

ONE SOURCE ~ TOTAL SOLUTIONS  
FOR THE TURBOCHARGER INDUSTRY

American Turbocharger Technologies LLC offers a diverse range of exclusive products and solutions at affordable prices. We pride ourselves on providing high quality products and offer a quality guarantee on all items.

<p><b>TURBOCHARGERS</b></p> <p><b>EMD:</b> 567, 645 and 710</p> <p><b>ALCO:</b> 131, 165, 320, 350, 520, 720</p>	<p><b>GE:</b> All Models</p> <p><b>ABB:</b> VTC 254 (Caterpillar 3600)</p>
--	--




[www.americanturbocharger.com](http://www.americanturbocharger.com)

12685 McManus Blvd.,  
Newport News, VA 23602 | Phone: (757) 244-1456 | Fax: (757) 244-1459  
attinfo@americanturbocharger.com

**VTG Rail**



Your Goods - Our Solutions

**Railcar leasing at the highest level!**

**VTG Rail offers**

- Covered Hoppers
- Open Top Hoppers
- Pressure Differential Hoppers
- Tank Cars
- Bulkhead Flat Cars
- Gondolas

**Wanted for Purchase**

Any variety of Freight and Tank Car Portfolios

**Full Service & Net Leases Available**

www.vtg.com | (618)-343-0600 | sales.northamerica@vtg.com

VTG Rail | 103 West Vandalia Suite 200 | Edwardsville, IL 62025



ferrées et les emprises ferroviaires. À la fin d'avril, les partenaires d'Opération Gareautrain (chemins de fer, policiers, bénévoles) distribuent de la documentation dans les gares et aux passages à niveau. Ils organisent aussi des simulations de collisions.

Si la *Semaine de la sécurité ferroviaire* n'en est qu'à sa treizième édition, le programme Opération Gareautrain célèbre cette année son 35<sup>e</sup> anniversaire. Et à en croire les statistiques, la population a compris son message.

On constate, par exemple, une chute de 33 pour cent des accidents (passages à niveau et intrusions) entre 2005 et 2014. Pendant la même période, le nombre de décès et de blessés graves a réduit de moitié. M. Regimbal parle d'une « tendance encourageante », d'autant plus que la circulation automobile comme ferroviaire est en hausse.

« Nous ne sommes pas tous enthousiastes devant ces statistiques, explique-t-il, mais nous croyons que chaque accident est évitable et que la sécurité de la population est une responsabilité partagée. Il faut voir les terribles répercussions qu'entraîne un décès pour comprendre toute l'importance de ce programme. »

Opération Gareautrain encourage les chemins de fer et les collectivités à prévenir les accidents pour coexister dans l'harmonie. Selon M. Bourque, en amenant les Canadiens à collaborer, le programme contribue à améliorer la durabilité du réseau ferroviaire et, du coup, la compétitivité du Canada.

« Il s'agit de maintenir nos corridors et de collaborer avec les collectivités afin de pouvoir rouler sécuritairement et continuer à croître pour répondre aux besoins de l'économie canadienne, conclut M. Bourque. Et chacun a son rôle à jouer. » ■

## THE CANADIAN HEARTLAND TRAINING RAILWAY SERVICES INC.

### *Supporting Safe Rail Operations*

## CANADIAN HEARTLAND TRAINING RAILWAY



- Safety Management Systems
- General Rail Operating Instructions
- Risk Assessments
- Audits – SMS, Operations, Track
- Operations Training
- Track Inspection Training

A Safe Operation is a Productive Operation

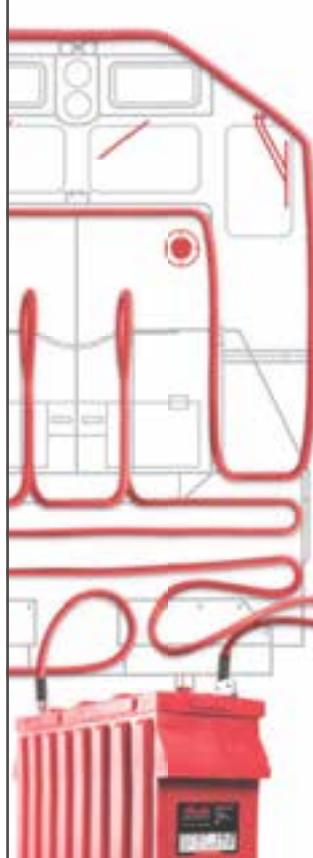
[www.chtr.ca](http://www.chtr.ca)

ROLLSBATTERY.COM

## THERE'S A LOT OF LIFE IN ONE BATTERY

The longest lasting battery for railroads.

- 33% higher cranking capacity
- Industry's largest liquid reserve, meeting 180 watering intervals
- Protective, non-breakable dual container construction
- Environment friendly; moisture tight outer cover
- Widest range of specifications available
- 5 year warranty



**Rolls**  
BATTERY ENGINEERING

---

CANADA'S RAILWAYS

---

# The fast track to reducing emissions

Canadians agree that moving more people and goods by rail reduces the amount of traffic on our roads – curbing congestion and pollution.

But railways are also doing their part to limit climate change. Since 1990,

Canada's freight and passenger railways have cut their greenhouse gas emissions intensity by more than a third.

Today, railways move 75 million passengers and 70% of all intercity freight, but produce just 3% of transportation-related GHGs – making rail one of Canada's greenest transportation options.

---

PULLING for CANADA

---



[railcan.ca](http://railcan.ca)



Railway Association  
of Canada

# Corridor conservation

## Metrolinx's role in the international effort to save the monarch butterfly

By Sarah B. Hood

The fluttering black and orange wings of the monarch butterfly are a familiar summertime sight across much of southern Ontario. But monarchs have become increasingly less common across North America. In fact, biologists estimate that 90 per cent of the population has disappeared over the past 20 years, partly because of the loss of the humble milkweed plant – the only food monarchs eat when they are in their caterpillar phase.

With monarch habitats in danger in the Greater Toronto Area, transit agency Metrolinx has partnered with the David Suzuki Foundation environmental organization to help preserve the ecosystems that the monarch butterfly and other pollinating insects rely on.

Last summer, teams representing Metrolinx's Georgetown South Project and the David Suzuki Foundation's Homegrown National Park Project joined forces with volunteers from the Weston community in northwest Toronto for the partnership's first project, which involved planting milkweed along the Kitchener GO Train rail corridor. The Georgetown South Project is part of Metrolinx's *The Big Move* transportation plan, which involves improving infrastructure to meet future commuter traffic demands. The Homegrown National Park Project encourages people to cultivate milkweed in home gardens and parks.

Altogether, participants planted approximately 1,400 milkweed and pollinator plants on vacant condominium property adjacent to the rail corridor near Keele Street and St. Clair Avenue West in Toronto.

# Conservation dans le corridor

## Le rôle de Metrolinx dans la survie du monarque à l'échelle mondiale

Par Sarah B. Hood

Dans une bonne partie du Sud ontarien, la saison estivale est marquée par le battement des ailes noires et orangées du monarque. Or, ce papillon se fait de plus en plus rare en Amérique du Nord. Selon les biologistes, sa population aurait diminué de 90 pour cent depuis 20 ans. Ce déclin serait dû en partie à la disparition de l'humble asclépiade, seule plante dont se nourrit la chenille du monarque.

L'habitat du monarque étant menacé dans le Grand Toronto, l'agence de transport Metrolinx s'est alliée à la Fondation David Suzuki dans le but de préserver les écosystèmes dont le monarque et les autres insectes polliniseurs ont besoin.

L'été dernier, des équipes du projet Georgetown South de Metrolinx et du projet Homegrown National Park de la Fondation David Suzuki ont formé un premier partenariat avec des bénévoles de la municipalité de Weston afin de planter des asclépiades le long du couloir ferroviaire GO Train Kitchener. Le projet Georgetown South s'inscrit dans le plan de transport *Le Grand Projet* de Metrolinx, qui vise à améliorer les infrastructures en vue de combler la demande future en déplacements. Le projet Homegrown National Park de encourage la culture de l'asclépiade à domicile et dans les parcs.

Les participants ont planté 1 400 asclépiades et autres sources de pollen sur des terrains de copropriétés vacants jouxtant le couloir ferroviaire près de la rue Keele et de l'avenue St. Clair Ouest à Toronto.

En 2016, la Fondation Suzuki entamera des recherches sur les plantations d'asclépiades et leur croissance le long



Photos: Rachel Potkin



In 2016, the Suzuki Foundation will begin field research to study milkweed plantations and growing characteristics along three corridors in southern Ontario, including the Uxbridge Subdivision on Metrolinx's Stouffville GO Train corridor. This is part of a multi-year project being undertaken by researchers at the University of Guelph in an effort to better understand how to support monarch populations.

Trains and butterflies are not commonly associated, but this initiative afforded Metrolinx the opportunity to partner with a recognized environmental research group and conserve ecosystems along its rail corridors, says Emily Cosburn, System Safety Specialist with GO Transit, a division of Metrolinx.

"Finding ways to support innovative programs within our community demonstrates Metrolinx's commitment to environmental, social and economic sustainability," says Cosburn.

"By allowing researchers to safely access our less active corridors, we can help build the connections needed to facilitate monarch butterfly migration. We can also learn from research findings to inform how to better manage the vegetation in our corridors and on our properties to benefit pollinating insects."

"The research team started their work this summer," Cosburn says, "but research on our corridor specifically will start next spring and continue there until the fall of 2017. We are open to future partnerships in this project, and are optimistic that the research will identify best practices that we can implement moving forward."

Known for its billowing clouds of silken seeds in late summer, milkweed is viewed as a weed, and commonly eradicated by gardeners and farmers.

For several years, the David Suzuki Foundation has been raising awareness of the importance of milkweed to the survival of monarchs through its "Got Milkweed?" campaign and the Homegrown National Park Project.

In order to be useful to monarch populations, milkweed needs to be available across a wide geographical area with few gaps. This essentially entails coordinating international efforts at one end of the scale and individual backyard gardeners at the other. Managers of rail and utility corridors have a special part to play because the nature of the space they manage lends itself to creating long strips of unbroken plantings.

"The U.S. has taken tremendous strides," points out Rachel Plotkin, Ontario Science Projects Manager with the David Suzuki Foundation. "In Canada, the government has lagged behind on this front, so we decided to reach out to managers of linear corridors. They present a tremendous opportunity to advance monarch recovery. Our overall hope would be twofold.

de trois couloirs sud-ontariens, dont la subdivision Uxbridge du couloir GO Train Stouffville de Metrolinx. Ce projet, qui s'étalera sur plusieurs années, est entrepris par des chercheurs de l'Université de Guelph afin d'apprendre à mieux aider les monarques.

On associe rarement trains et papillons, mais cette initiative a permis à Metrolinx de faire équipe avec un groupe de recherches environnementales renommé et de protéger les écosystèmes qui longent ses couloirs, selon Emily Cosburn, experte en sécurité des systèmes chez GO Transit, une division de Metrolinx.

« En soutenant des programmes novateurs dans la collectivité, Metrolinx démontre son engagement envers la pérennité environnementale, sociale et économique, dit-elle. En donnant aux chercheurs l'accès à nos couloirs plus tranquilles, nous espérons tisser les liens nécessaires pour faciliter la migration du papillon monarque. Nous espérons aussi apprendre à mieux gérer la végétation dans nos couloirs et nos emprises, pour le bienfait des insectes pollinisateurs. »

« L'équipe de recherche a entamé ses travaux cet été, poursuit-elle, mais les recherches dans notre couloir commenceront au printemps pour s'étendre jusqu'à l'automne 2017. Nous sommes ouverts à de futurs partenariats dans le cadre de ce projet et nous avons bon espoir que l'équipe pourra nous recommander des pratiques. »

Connue pour les nuages de graines soyeuses qu'elle produit à la fin de l'été, l'asclépiade est perçue et traitée par les jardiniers et les agriculteurs comme une mauvaise herbe.

Depuis plusieurs années, la Fondation David Suzuki sensibilise la population à l'importance de l'asclépiade pour la survie du monarque par le truchement de sa campagne « Got Milkweed? » et du projet Homegrown National Park.

Pour bien servir les populations de monarques, l'asclépiade doit être accessible à travers une vaste étendue géographique comportant peu de lacunes. Cela nécessite, à un bout de l'échelle, une coordination internationale et, à l'autre, la participation des jardiniers amateurs. Les gestionnaires de couloirs ferroviaires et utilitaires ont un rôle particulier à jouer, puisque le type de territoire qu'ils gèrent se prête bien à la création de longues bandes ininterrompues de plantations.

« Les États-Unis ont fait d'énormes progrès », souligne Rachel Plotkin, coordonnatrice des projets scientifiques de la Fondation David Suzuki en Ontario. « Le gouvernement canadien, lui, tire de l'arrière. C'est pourquoi nous avons décidé de contacter les gestionnaires de couloirs. Ceux-ci peuvent faire beaucoup pour le rétablissement des populations



One would be to advance recovery, recognizing that we're not the only influencers, and second would be to raise awareness in the public, not only about monarchs, but about other pollinators as well."

"Projects such as the one undertaken by Metrolinx make an important contribution to the overall Canadian approach," adds Plotkin.

The 1,400 plants that volunteers sowed last summer is an encouraging start.

"For us to be successful in the recovery of species at risk in Canada, including the monarch butterfly," says Elizabeth Rezek, Acting Manager of Ecosystem Conservation with Environment and Climate Change Canada, "[it] will depend on the actions and co-operation of all Canadians."

Cosburn says that the initiative aligns with Metrolinx's long-term goals and could encourage other innovative sustainability projects.

"Metrolinx feels very fortunate to be a part of this exciting work being completed by researchers at the David Suzuki Foundation and the University of Guelph," says Cosburn.

"This project fits well into our sustainability objectives, as we feel that our activities can have a real impact in this area of study. It is through research such as this that we can continually improve as an organization and act in our community in a way that is responsible and forward-thinking." ■

de monarques. Nous espérons donc faire progresser ce rétablissement - tout en reconnaissant la présence d'autres facteurs - et sensibiliser la population aux monarques et aux autres insectes pollinisateurs. »

« Les projets comme celui de Metrolinx apportent beaucoup à l'approche globale du Canada », ajoute-t-elle.

Les 1 400 plants semés l'été dernier constituent un premier pas encourageant. « Pour réussir à rétablir les espèces à risque au Canada, dont le papillon monarque, nous aurons besoin de la coopération de l'ensemble de la population », explique Elizabeth Rezek, directrice par intérim de la conservation des écosystèmes au ministère canadien de l'Environnement et du Changement climatique.

Selon Mme Cosburn, cette initiative est en phase avec les buts à long terme de Metrolinx; elle pourrait encourager la création d'autres projets de développement durable.

« Metrolinx est chanceuse de participer aux recherches de la Fondation David Suzuki et de l'Université de Guelph, affirme-t-elle. Ce projet cadre bien avec nos objectifs de développement durable : nos activités peuvent avoir des répercussions concrètes dans ce champ de recherche. Et c'est par des travaux comme ceux-ci que nous pouvons améliorer notre organisation et contribuer à la collectivité de manière responsable et progressiste. » ■

The Roll Form Group and Stanrail have been serving the railcar and rail transportation industry as an innovative supplier of custom made steel formed products for over 35 years. We specialize in supplying one-piece structural railcar components that serve as the "backbone" of a railcar and have demanding requirements. That's not all, we are a full parts and components supplier for all railcar types, including passenger car, auto carriers, open top and covered hoppers, well cars, etc.

#### Engineering Resources for Product Enhancements and Development Custom Manufactured Resource for:

- » Boxcar Doors and Replacement Parts      » Service Parts for all types of Freight Cars
- » Boxcar Roofs and Floors      » Uncoupling Levers



**1-800-233-6228** [www.rollformgroup.com](http://www.rollformgroup.com)

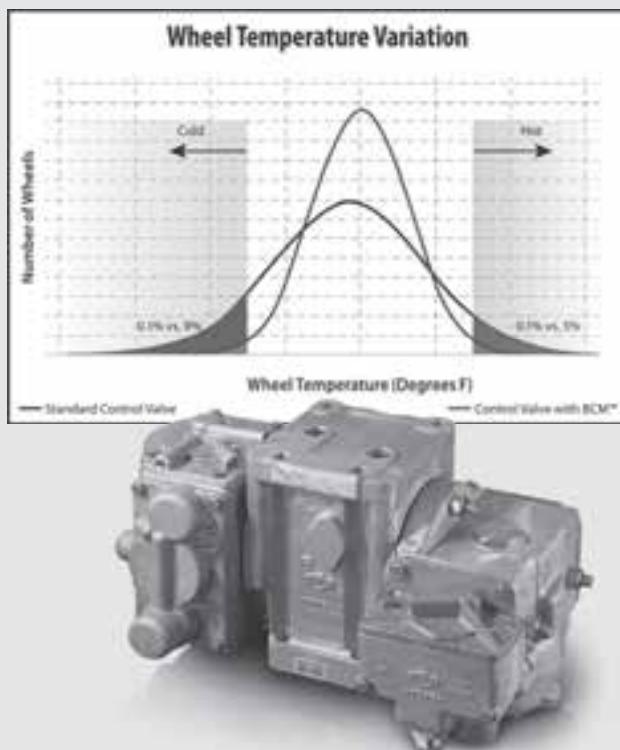
**“WHERE IDEAS  
TAKE FORM”**

43.4298° N

89.1589° W

# DESTINATION: **INCREASED PRODUCTIVITY**

**FEWER FALSE, COLD WHEEL READINGS? NOW YOU'RE GETTING WARM.**



To identify cars with bad brakes, more hot/cold wheel detection systems are being deployed along the nation's freight rail lines. New York Air Brake's innovative DB-60 II Control Valve with **Brake Cylinder Maintaining™ (BCM™)** improves the accuracy of these wayside detection systems – identifying cars with truly worn and dangerous brakes, while avoiding unnecessary set outs:

- Brakes in good condition remain fully able to respond and 'run warm' – earning a passing grade at automated inspection stations.
- Conversely, truly faulty or worn brakes genuinely unable to respond will be accurately flagged as 'running cold' – triggering necessary repairs or service.
- BCM enables you to maximize car in-service time while increasing safety by restoring up to 85% of braking power that would otherwise be lost due to brake cylinder leakage.

**Get there.** Learn how our DB-60 II Control Valve with BCM can help reach an ideal balance of safety and uptime – call us at 613-389-4660, visit [www.nyab.com](http://www.nyab.com) or e-mail [Greg.Dodds@NYAB.com](mailto:Greg.Dodds@NYAB.com) for a copy of our position paper, **How Cold Wheel Detection Systems Work.**

**NEW YORK AIR BRAKE**  
Engineered to Outperform



# Charting change

**Canadian railway companies recognized for environmental record-keeping in 2015**

By Sarah B. Hood

**Railways in Canada** move 75 million people and close to 70 per cent of all intercity surface goods each year, while producing less than 3 per cent of the country's transportation-related greenhouse gas (GHG) emissions. They're also best-in-class when it comes to disclosing information about their carbon footprint.

In November 2015, international non-profit organization CDP (formerly known as the Carbon Disclosure Project) identified three Railway Association of Canada (RAC) members – CN, CP and CSX – as leaders for the quality of their environmental record-keeping and transparency. CDP helps companies and cities measure, disclose, manage and share environmental information.

At the time of the announcement, CDP Executive Chairman and Co-Founder Paul Dickinson said that reliable information about how companies transition to a low-carbon future will be more valuable than ever.

Both CN and CP earned spots on its Canada Climate Disclosure Leadership Index (CDLI), while Jacksonville, Fla.-based CSX was one of five U.S. industrial companies – and the only railway – to be included on the Climate A List 2015 in CDP's Global Climate Change Report. It was the sixth year that CSX received a top ranking.

CN's Director of Sustainability Chantale Després says the recognition of Canada's railways as leaders in climate change transparency reflects well on the industry and sends a positive message to other transportation businesses.

"The transportation sector is responsible for about 20 per cent of emissions on the planet," says Després. "When countries or industries think about where we want to focus,

# Documenter les changements

**Des chemins de fer canadiens reconnus pour la tenue de leurs dossiers environnementaux en 2015**

Par Sarah B. Hood



**Les chemins de fer canadiens** transportent, chaque année, 75 millions de voyageurs et assurent près de 70 pour cent du transport interurbain de marchandises par voie terrestre, tout en produisant moins de trois pour cent des émissions de gaz à effet de serre (GES) attribuables aux transports.

Ils sont aussi les meilleurs en matière de divulgation des données concernant leur empreinte carbone.

En novembre 2015, l'organisme sans but lucratif international CDP (l'ancien Carbon Disclosure Project) a conféré le titre de leader à trois membres de l'Association des chemins de fer du Canada (ACFC), soit le CN, le CP et CSX, pour la qualité de leurs dossiers environnementaux et leur transparence. CDP aide les sociétés et les villes à mesurer, divulguer, gérer et partager des données environnementales.

En faisant cette annonce, le président-directeur et cofondateur de CDP, Paul Dickinson, a déclaré que les données fiables sur la transition des sociétés vers un avenir sobre en carbone seront plus précieuses que jamais.

Le CN et le CP ont été inclus à l'indice canadien de leadership en matière de divulgation climatique (CDLI), tandis que CSX de Jacksonville, en Floride, est l'une des cinq sociétés industrielles américaines (et le seul chemin de fer) à figurer sur la liste Climate A List 2015 du rapport mondial sur les changements climatiques de CDP. C'est la sixième fois que CSX obtient la plus haute note.

Selon Chantale Després, première directrice Développement durable au CN, cette reconnaissance rejaillit sur le secteur : « Le secteur des transports produit 20 pour cent des émissions de GES sur la planète. Les pays et les industries qui souhaitent réduire leurs



## Your Customs Broker Speaks Many Languages to Smooth Your International Trade Needs.

SIMA

Tariffs change by the minute. Customs Rulings change by the hour. Borders can change daily. Your customs broker

CITES

never stops keeping you ahead of change. Red tape is

D&T

our territory; clear thinking is

EEC

our remedy. Trucks, trains,

FTA

planes and boats move your

GATT

goods but your professional customs broker smooths

GST

the path.

ISO

Having problems with the 75,392 import tariffs and their regulations?

NAFTA

Get professional help and with it, peace of mind and an improved bottom line.



### Summit Customs Brokers

A Division of Summit International Trade Services Inc.

Offices throughout British Columbia and the Yukon

1-800-663-4080

## North America's Leader In Precast Concrete Signal And Communication Foundations

Dixie Precast offers a full line of concrete and galvanized steel foundations. Retaining Wall solutions in galvanized steel and precast concrete, all in stock

All products meet or exceed applicable **AREMA standards** and specifications

For additional information contact:



Dixie Precast Inc.  
2950 Angelette Drive, Austell, Ga. 30001  
Office: (770) 944-1930 • FAX: (770) 944-9136  
[www.dixieprecast.com](http://www.dixieprecast.com)



Dixie Precast DPS-90-14  
Metrolinx - Toronto, ON

transportation will often come up because it's a heavy-emitting industry. The benefit to the rail sector is that it's not a heavy-emitting sector. We believe that rail can be part of the carbon solution on the planet."

Fuel efficiency is at the centre of CN's sustainability strategy, says Després. "Our efforts in fuel efficiency link into our overall corporate strategy in terms of our long-term focus on cost control and efficiency, and then more specifically to our environmental strategy, which is focused on minimizing or reducing our carbon footprint."

Environmental and business goals go hand in hand, she adds.

"It's good for business. For all of us in the rail sector, fuel is one of our biggest expenses, so paying attention to fuel efficiency allows us to focus on cost control and at the same time allows us to reduce our carbon footprint."

Over the past 20 years, CN has improved its fuel efficiency by 35 per cent, and today, the company consumes 15 per cent less fuel per gross ton-mile than the industry average.

These achievements are due in large part to initiatives such as CN's Fuel Management Excellence Program and its asset-lean precision railroading model, among others, says Després.

The company has also developed a GHG (greenhouse gas) calculator that enables its customers to determine their carbon savings in switching their shipping from truck to rail, and it maintains an internal program called EcoConnexions that informs and engages employees on fuel conservation and environmental matters.

"We believe that to be a truly sustainable organization, [sustainability] needs to be embedded in the corporate culture; EcoConnexions is the program that was created to support our environmental strategy," says Després.

In 2014, RAC developed a sector-based sustainability strategy. The recognition its members received in 2015 speaks to the industry's commitment and progress in this area.

CP, for example, set a company record for fuel efficiency in 2014, and has reduced GHG emissions by more than six per cent since 2008.

"CP continues to focus on the most sustainable and efficient operations, and it's an honour to again be named as a leader in this area by the CDP," said CP Vice President and Chief Risk Officer Laird Pitz at the time of the announcement. "We remain steadfast in our belief that transparency and accountability are imperative when it comes to protecting our environment."

In addition to its inclusion in CDP's Global Climate Change Report, CSX was named to the Dow Jones Sustainability Index (DJSI) for North America, which selects sustainability leaders from a range of sectors, for the fifth consecutive year in 2015.

"Environmental sustainability is fundamentally intertwined with CSX's business, from the fuel efficient locomotives that power our railroad to the technology systems that help us monitor and measure our environmental footprint," said CSX Chairman and CEO Michael J. Ward at the time of the announcement. ■

émissions font souvent porter leurs efforts sur les transports. L'avantage du secteur ferroviaire, c'est qu'il est moins polluant. Et nous croyons qu'il fait partie de la solution mondiale. »

L'efficacité énergétique est au cœur de la stratégie du CN en matière de développement durable. « Nos efforts en ce sens s'inscrivent dans notre stratégie d'entreprise, pour ce qui est du contrôle des coûts et de l'efficacité à long terme et, plus particulièrement, dans notre stratégie environnementale », explique Mme Després.

Les objectifs environnementaux et commerciaux du CN vont de pair, ajoute-t-elle : « C'est bon pour les affaires. Le carburant est l'un des plus gros postes budgétaires pour tous les joueurs du secteur ferroviaire. En portant attention à l'efficacité énergétique, nous contrôlons mieux nos coûts tout en réduisant notre empreinte écologique. »

Depuis 20 ans, le CN a amélioré sa consommation de carburant de 35 pour cent. Aujourd'hui, sa consommation par tonne-mille brute est inférieure de 15 pour cent à la moyenne sectorielle.

Selon Mme Després, ces réalisations sont le résultat, en grande partie, d'initiatives comme le programme Excellence en gestion de carburant et le modèle d'exploitation ferroviaire précise optimisant les actifs du CN.

En outre, la société a conçu une calculatrice de GES qui permet à la clientèle d'évaluer l'économie en carbone que représente le passage du camion au train. Elle anime aussi un programme interne, ÉcoConnexions, qui informe les employés et les fait participer à la conservation du carburant et aux dossiers environnementaux.

« Nous croyons qu'une organisation réellement durable doit intégrer le développement durable à sa culture, ce que fait ÉcoConnexions », avance Mme Després.

En 2014, l'ACFC s'est dotée d'une stratégie sectorielle en matière de développement durable. Les éloges recueillis par ses membres en 2015 témoignent des progrès réalisés.

Par exemple, le CP a battu son record d'efficacité énergétique en 2014 et réduit ses émissions de GES de plus de six pour cent depuis 2008.

« Le CP se concentre sur les activités les plus durables et efficaces, a déclaré son vice-président et chef de la gestion des risques, Laird Pitz, lors de l'annonce; nous sommes honorés que CDP voie, à nouveau, en nous un leader dans ce domaine. La protection de l'environnement passe obligatoirement par la transparence et la responsabilité. »

En plus de figurer dans le rapport mondial de CDP sur les changements climatiques, CSX a obtenu, en 2015, sa cinquième mention consécutive au Dow Jones Sustainability Index (DJSI) nord-américain, qui sélectionne les leaders du développement durable dans divers secteurs.

« La viabilité environnementale est intrinsèque aux affaires de CSX, de l'efficacité énergétique des locomotives qui tirent nos trains aux systèmes informatiques qui mesurent notre empreinte écologique », a déclaré le PDG de CSX, Michael J. Ward, au moment de l'annonce. ■

# InnoTrans 2016

20–23 SEPTEMBER · BERLIN

International Trade Fair for Transport Technology  
Innovative Components · Vehicles · Systems

[innotrans.com](http://innotrans.com)



## THE FUTURE OF MOBILITY

### Contact

InnoTrans North American Representative  
33 Prince Place · 07739 Little Silver · NJ  
T +1-732-933-1118  
F +1-866-204-4238  
[mjbalve@globaltradeshow.com](mailto:mjbalve@globaltradeshow.com)

 Messe Berlin



### Innovative Rail Support Services

Preferred service provider for leading blue chip industrial and transportation companies across North America.

- Industrial Rail Switching & Material Handling
- Transload Services
- Track Construction & Maintenance
- Railcar & Locomotive Repair
- Railcar Storage
- Rail Reclamation & Material Sales
- Short Line Railway Operations

Seamlessly meeting customers' needs for more than 35 years.



✉ info@candoltd.com ☎ Toll-Free 1.866.989.5310

**candoltd.com**

**More Than Just GPS**

**Lat-Lon** a **bsm** company

**CONNECTING RAIL**

[www.ConnectingRail.com](http://www.ConnectingRail.com)

**TRACK OMAHA EQUIPMENT**

**CALL AND ASK US ABOUT OUR NEW CREEP DRIVE SYSTEM!**

- BRAND NEW WESTERN STAR HI-RAIL GRAPPLE TRUCKS FOR SALE OR RENT
- MANY USED HI-RAIL GRAPPLE TRUCKS FOR SALE
- BRAND NEW HI-RAIL PICKUPS FOR SALE OR RENT
- NEW ROTARY DUMP AND MECHANIC TRUCKS FOR SALE OR RENT

ANDY WISKERCHEN - SALES MANAGER  
715-570-8885  
[ANDY@OMAHATRACK.COM](mailto:ANDY@OMAHATRACK.COM)

**OT**  
OMAHA TRACK

# RAC News

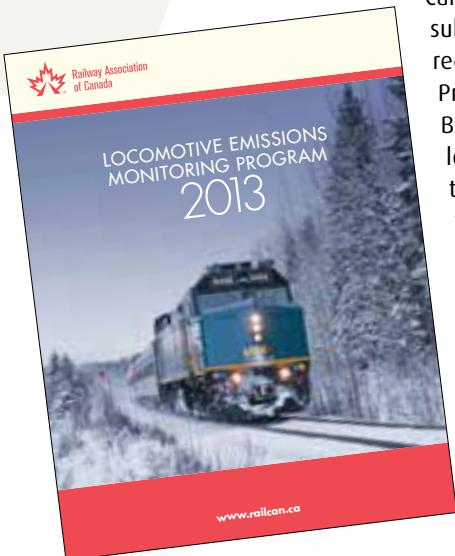
## New report shows Canadian railways are on track with GHG emissions reductions

**Canada's railways are** well positioned to meet their greenhouse gas (GHG) reduction targets, according to the latest Locomotive Emissions Monitoring (LEM) Program report released in December by the Railway Association of Canada (RAC). The report documents emissions of GHGs and criteria air contaminants (CAC) from locomotives operating in Canada between 2012 and 2013.

"Investments in more efficient locomotives, among other fuel-management technologies and policies, have allowed Canada's railways to make substantial emissions reductions," said RAC President and CEO Michael Bourque. "Today's locomotives can haul a tonne of goods more than 200 km on a single litre of fuel, and in doing so, remove more than 300 trucks from the road – limiting harmful emissions and reducing road congestion."

Since 1990, Canada's freight and passenger railways have reduced their GHG emissions intensity by more than a third, despite increasing freight and passenger rail traffic. According to the LEM Report, in 2013, GHG emissions from all railway operations in Canada declined by 1.6 per cent from 2012.

The railway industry's achievements complement Canada's goal to reduce overall emissions by 30 per cent below 2005 levels by 2030. They also support the international commitment to keep the average global temperature rise well below two degrees, as agreed to at the 2015 United Nations Climate Change Conference in Paris. Despite moving 75 million passengers and close to 70 per cent of all intercity surface goods in Canada each year, railways produce less than four per cent of our country's



# Nouvelles ACFC

## Un nouveau rapport indique que les chemins de fer canadiens sont sur la bonne voie pour réduire les émissions de GES

**Les chemins de fer du Canada** vont atteindre leurs objectifs de réduction des gaz à effet de serre (GES), selon le dernier rapport du Programme de surveillance des émissions des locomotives (SEL) publié en décembre par l'Association des chemins de fer du Canada (ACFC).

Le rapport traite des émissions de GES et des principaux contaminants atmosphériques (PCA) provenant des locomotives exploitées au Canada en 2012 et 2013.

« Des investissements dans des locomotives plus efficaces, en plus d'autres technologies et politiques sur la gestion du carburant, permettent aux chemins de fer canadiens de réduire considérablement leurs émissions, a dit le président-directeur général de l'ACFC Michael Bourque. Les locomotives d'aujourd'hui peuvent transporter une tonne de marchandises sur plus de 200 km avec un seul litre de carburant, ce qui permet de retirer plus de 300 camions de la route – limitant les dangereuses émissions et réduisant la congestion routière. »

Depuis 1990, les chemins de fer marchandises et voyageurs du Canada ont réduit l'intensité de leurs émissions de GES de plus d'un tiers, malgré l'augmentation du transport de marchandises et de voyageurs. Selon le rapport du SEL, en 2013, les émissions de GES provenant de toutes les opérations ferroviaires au Canada ont diminué de 1,6 pour cent par rapport à 2012.

Les réalisations du secteur ferroviaire contribuent à l'atteinte de l'objectif du Canada de réduire les émissions globales de 30 pour cent sous les niveaux de 2005 d'ici 2030. Elles soutiennent également l'engagement international à maintenir l'augmentation de la température mondiale



People You Know | Quality You Trust  
Service You Value



Keeping Your Business on track for Over 35 years



Railgear | Roto | Remote | Custom  
**MANUFACTURED WITH PRIDE.**

404.875.1512 | sales@DMFatlanta.com | www.dmfatlanta.com



transportation-related greenhouse gas emissions – making rail one of Canada's greenest transportation options.

This is the third report released under the 2011-2015 Memorandum of Understanding (MOU) between RAC and Transport Canada. The MOU, which encourages RAC's Class 1 freight, shortline and intercity passenger railway members to voluntarily cut their emissions intensity, has been extended to the end of 2016. ■

moyenne bien en deçà de deux degrés, comme cela a été convenu à la Conférence 2015 des Nations unies sur les changements climatiques qui s'est tenue à Paris.

Même s'ils transportent 75 millions de voyageurs et près de 70 pour cent de toutes les marchandises expédiées entre des villes par voie terrestre au Canada, chaque année, les chemins de fer produisent moins de quatre pour cent des émissions de gaz à effet de serre liées au transport – et sont donc l'une des options de transport les plus propres du Canada.

C'est le troisième rapport publié au titre du Protocole d'entente 2011-2015 (PE) entre l'ACFC et Transports Canada. Le PE, qui encourage les chemins de fer de classe I, les chemins de fer d'intérêt local et les chemins de fer voyageurs offrant des services intervilles membres de l'ACFC à réduire volontairement l'intensité de leurs émissions, a été prolongé jusqu'à la fin de 2016. ■

**Sumitomo Canada Limited is proud to be a supplier to Canadian Railways for more than 30 years.**

**Sumitomo is your global source for rail, tieplates, OTM, ties, wheels, axles and other components.**

Providing service in:

- Project Development
- Finance
- Transportation
- Investment
- Joint Ventures
- Trade

Working as

- Information Specialist
- Project Manager
- Consultant
- Investor
- Partner

**Sumitomo Canada Limited**

Railway Products Your contact  
Denis Schaeffer  
denis.schaeffer@sumitomocorp.com

Suite 3131, 380 St. Antoine West  
Montreal, Quebec, H2Y 3K7  
Tel: 514-878-0104  
www.sumitomocanada.com



**GREAT PLAINS RAIL CONTRACTORS INC.**

A Universal Rail Contractors Company

Box 19, Group 210, RR2, Winnipeg, Manitoba R3C 2E6  
Phone: 204.633.0135 • Fax: 204.694.2623  
info@greatplainsrail.com

**LORAM**

3900 Arrowhead Drive  
Hamel, Minnesota 55340  
(763) 478-6014 \* www.loram.com

**Self-propelled rail grinders, ditch cleaners, shoulder ballast cleaners, undercutters, track lifting, rail-mounted excavator/vacuum, friction management, data services and rail handling equipment**



# TTX® AT YOUR SERVICE. NOW RESERVING 2016 SHOP SPACE

**Trust your fleet repair needs to the team that has been an industry leader since 1955.** At our advanced, fully equipped repair facilities, TTX can provide everything from light repairs and routine maintenance to heavy repairs, car modifications and extensive fabrication.

## TTX staff can perform many repair functions for your railcars, including:

- Wreck repairs
- Rule 88 rebuilding
- Car Scrapping
- AAR running repairs
- Air brake system testing and maintenance programs
- Painting and re-stenciling
- Component reconditioning
- Warranty repairs
- Extensive railcar modifications
- Preventive maintenance programs

Our four full-service shops are ready to serve your railcar maintenance needs!

- Jacksonville, FL • North Augusta, SC • Waterford, MI • Mira Loma, CA •

For more information, please contact [Felix.Castillo@txx.com](mailto:Felix.Castillo@txx.com).



UNITED STEEL  
& FASTENERS

[www.unitedsteelandfasteners.com](http://www.unitedsteelandfasteners.com)  
[www.nationaltrackwork.com](http://www.nationaltrackwork.com)



NATIONAL  
TRACKWORK



***Supplier of track hardware, mechanical hardware, and switch stands for North American railroad market***

1500 Industrial Drive | Itasca, IL 60143 | P: (630) 250-0900 | F: (630) 250-0220 | E: us\_f@msn.com

MECC is an industry leader in the supply, installation and integration of Specialty Rail Systems:

- Overhead Contact Systems
- Traction Power Systems
- Signalling and Train Control
- Communications and Control Centres

\$3 billion in successfully completed systems work on-time and within budget

- Light Rail
- Commuter Rail
- Third Rail
- Subway
- Heavy Rail
- Streetcar
- Freight



ISO 9001:2008 Certified Quality Program  
[www.masselec.com](http://www.masselec.com)  
(972) 505-4781 info@masselec.com

#### WE SELL AND RENT:

- > BRIDGES
- > SHORING TOWERS
- > HEAVY LONG NEW AND USED BRIDGE BEAMS



**VERSA-STEEL INC.**

"Helping Build Firm Foundations Since 1976"

[www.versasteel.com](http://www.versasteel.com) • 10 YARDS ACROSS THE USA  
Phone: 800-678-0814 • Fax: 800-287-7483



**DAVANAC INC.**

TÉL.: (514) 421-0177  
FAX: (514) 421-0188

**"DISTRIBUTOR OF M.O.W., FREIGHT AND LOCOMOTIVE PARTS SINCE 1920"**

1936 ST-REGIS  
DORVAL, QC H9P 1H6  
[lcovello@davanac.com](mailto:lcovello@davanac.com)



## Index to Advertisers

### AIR BRAKE EQUIPMENT

New York Air Brake Corp./Knorr Brake Ltd.....40  
[www.nyab.com](http://www.nyab.com)

### BATTERIES

Surette Battery Company Limited .....35  
[www.rollsbattery.com](http://www.rollsbattery.com)

### BOGIES, AXLES, WHEELSETS & SUSPENSION COMPONENTS

Amsted Canada Inc.....4  
[www.amstestrail.com](http://www.amstestrail.com)

### BRAKE EQUIPMENT

Graham-White Mfg. Company.....24  
[www.grahamwhite.co](http://www.grahamwhite.co)

### BRIDGE BEAMS/BEARINGS/PARAPETS

Versa-Steel, Inc. ....48  
[www.versasteel.com](http://www.versasteel.com)

### CONSTRUCTION EQUIPMENT

Herzog Railroad Services Canada Ltd.....27  
[www.hrscl.ca](http://www.hrscl.ca)

### CONSTRUCTION/BUILDING SERVICES

Marathon Drilling Co. Ltd.....52  
[www.marathondrilling.com](http://www.marathondrilling.com)

### CONSULTING SERVICES

Sandy Cooke Consulting Inc. ....53  
[www.scrts.ca](http://www.scrts.ca)

### CONTRACTING SERVICES

Cando Rail Services Ltd.....44  
[www.candoltd.com](http://www.candoltd.com)

Great Plains Rail.....46  
[greatplainsrail.com](http://greatplainsrail.com)

PNR RailWorks Inc. ....8  
[www.pnrrailworks.com](http://www.pnrrailworks.com)

### CRANES, RERAILING & LIFTING EQUIPMENT

Railquip, Inc. ....19  
[www.railquip.com](http://www.railquip.com)

### CROSSTIES

Koppers Inc. ....28  
[www.koppers.com](http://www.koppers.com)

### CUSTOMS BROKERS

Summit Customs Brokers.....42  
[www.summitcb.com](http://www.summitcb.com)

### DEPOT & WORKSHOP EQUIPMENT

Railquip, Inc. ....19  
[www.railquip.com](http://www.railquip.com)

### EDUCATION INSTITUTIONS

Cégep de Sept-Îles .....24  
[www.cegep-sept-iles.qc.ca](http://www.cegep-sept-iles.qc.ca)

### ELECTRICAL CONTRACTORS

Mass Electric Construction Company.....48  
[www.masselec.com](http://www.masselec.com)

### ELECTRONIC BELLS

Transtronic Inc. ....9  
[www.transtronic.qc.ca](http://www.transtronic.qc.ca)

### EMERGENCY EQUIPMENT

Railquip, Inc. ....19  
[www.railquip.com](http://www.railquip.com)

### EXHAUST SYSTEMS

Railquip, Inc. ....19  
[www.railquip.com](http://www.railquip.com)

### FASTENERS

United Steel and Fasteners, Inc. ....48

### FLEET MANAGEMENT

American Railcar Industries, Inc. ....3  
[www.americanrailcar.com](http://www.americanrailcar.com)

### FREIGHT ROLLING STOCK

Procor Limited .....53  
[www.procor.com](http://www.procor.com)

## POWER SUPPLIES

### Railway & Industrial

Rugged, reliable, power conversion solutions designed & manufactured to meet your application requirements.

**ABSOPULSE**

ELECTRONICS LTD.



[www.absopulse.com](http://www.absopulse.com)

**Wirth Rail**

SUPPLYING RAILS WORLDWIDE SINCE 1993  
 FOURNISSEUR MONDIAL DE RAILS DEPUIS 1993

[www.wirthrail.com](http://www.wirthrail.com)  
 Tel: 514 369-7245

740 Notre-Dame West, Suite 1240  
 Montréal, QC, Canada H3C 3X6

**MOLEY**  
**MAGNETICS** INC.



### Tilt-Rotators: Standard/Quick Connect

- Tilt Angle of 40°
- 360° of Bi-directional Rotation



### ESB 12/24V Magnet System

- NO Generator Needed
- Railroad Turnkey Solution - Time Saver
- Pre-Wired for Convenience



### Railroad Ballast Buckets

- 24-Month Warranty
- Safety Holding Valve
- Hardox Steel Construction



### NEW! 28" ESA Moley Magnet

- For Rubber Tired Backhoes & Mini Excavators
- Hook-up Hydraulic Cables & Go
- Low weight (882 lbs.)/Low oil flow (5 to 8 gpm)

[moleymagneticsinc.com](http://moleymagneticsinc.com) | 1 (844) M-MAGNET (662-4638)  
[sales@moleymagneticsinc.com](mailto:sales@moleymagneticsinc.com)



## Index to Advertisers

### FREIGHT VEHICLE EQUIPMENT & COMPONENTS

Roll Form Group ..... 39  
[www.rollformgroup.com](http://www.rollformgroup.com)

### GPS TRACKING & MONITORING EQUIPMENT

Lat-Lon, LLC ..... 44  
[www.lat-lon.com](http://www.lat-lon.com)

### HI-RAIL EQUIPMENT

Hi-Rail Leasing ..... Inside Back Cover  
[www.hirailleasing.com](http://www.hirailleasing.com)

### INDUSTRIAL LOCOMOTIVES

Railquip, Inc. ..... 19  
[www.railquip.com](http://www.railquip.com)

### INDUSTRIAL PRODUCTS

American Railcar Industries, Inc ..... 3  
[www.americanrailcar.com](http://www.americanrailcar.com)

### LEASING & SERVICING

VTG Rail ..... 34  
[www.vtg.com](http://www.vtg.com)

### LOCOMOTIVE SPARE PARTS/ SERVICES/REPAIR

Services Techniques DHG ..... 50  
[www.servicetechniquesdhg.com](http://www.servicetechniquesdhg.com)

### LOCOMOTIVES

H. Broer Equipment Sales & Service Inc ..... 10  
[www.hbi.on.ca](http://www.hbi.on.ca)  
 NRE ..... 6  
[www.nre.com](http://www.nre.com)

### MAGNETIC MATERIAL HANDLING EQUIPMENT

Moley Magnetics, Inc ..... 49  
 Sieb Sales & Engineering Inc ..... 27  
[www.siebsales.com](http://www.siebsales.com)

### MAINTENANCE OF WAY EQUIPMENT

Loram Maintenance of Way Inc ..... 46  
[www.loram.com](http://www.loram.com)  
 Omaha Track, Inc ..... 44  
[omahatrack.com/](http://omahatrack.com/)  
 Racine Railroad Products ..... 26  
[www.racinerailroad.com](http://www.racinerailroad.com)

### METAL FABRICATION

Diversified Metal Fabricators ..... 46  
[www.dmfatlanta.com](http://www.dmfatlanta.com)

### MOBILE RAILCAR MOVERS

H. Broer Equipment Sales & Service Inc ..... 10  
[www.hbi.on.ca](http://www.hbi.on.ca)  
 Railquip, Inc ..... 19  
[www.railquip.com](http://www.railquip.com)  
 Trackmobile Inc ..... 21  
[www.trackmobile.com](http://www.trackmobile.com)

### OUTLET GATES

Miner Enterprises ..... 25  
[www.minerent.com](http://www.minerent.com)

### POWER CONVERTERS/INVERTERS

Absopulse Electronics, Ltd ..... 49  
[www.absopulse.com](http://www.absopulse.com)

### PRE-CAST CONCRETE UNITS

Dixie Precast ..... 42  
[www.dixieprecast.com](http://www.dixieprecast.com)

### PROFILE MEASURING EQUIPMENT

Railquip, Inc ..... 19  
[www.railquip.com](http://www.railquip.com)

### RAIL CARS

TTX ..... 47  
[www.ttx.com](http://www.ttx.com)

### RAIL CONTRACTORS

Cando Rail Services Ltd ..... 44  
[www.candoltd.com](http://www.candoltd.com)  
 Great Plains Rail ..... 46  
[greatplainsrail.com](http://greatplainsrail.com)

### RAIL JOINTS

Koppers Inc ..... 28  
[www.koppers.com](http://www.koppers.com)

Services Techniques DHG Ltée

WE BRING YOU THERE!

LOCOMOTIVE PARTS SINCE 1993

NEW PARTS | REBUILT OUTRIGHT  
REPAIR & RETURN | UTEX

180 BROSSARD STREET, DELSON, QC J5B 1X1 CANADA  
PHONE: (450) 635-2525 FAX: (450) 635-2326  
[SALES@SERVICETECHNIQUESDHG.COM](mailto:SALES@SERVICETECHNIQUESDHG.COM)  
[www.servicetechniquesdhg.com](http://www.servicetechniquesdhg.com)

## Soulanges Railway Services

For storage of empty & loaded railcars at Les Cèdres QC, off the CN main line between the Ontario border and Montreal.

[\(450\) 452-0404](mailto:srs@soulanges.net)

## Signal Training Solutions

- Apprentice Training Program
- Advanced & Refresher Courses
- Online & Onsite Training Programs

Your Complete Signal Training Resource!

[www.signaltrain.com](http://www.signaltrain.com)

200-A NE Woodbury Dr. / Grain Valley, MO 64029  
 816.847.5800

## Index to Advertisers

### RAIL PARTS

L.B. Foster Company ..... 9  
[www.lbfoster.com](http://www.lbfoster.com)

### RAIL PRODUCTS

Sumitomo Canada Limited ..... 46  
[www.sumitomocanada.com](http://www.sumitomocanada.com)

### RAIL SERVICES

Cando Rail Services Ltd. ..... 44  
[www.candoltd.com](http://www.candoltd.com)  
 RailTerm ..... 51  
[www.railterm.com](http://www.railterm.com)

### RAIL WELDING

Great Plains Rail ..... 46  
[greatplainsrail.com](http://greatplainsrail.com)

### RAIL, WHEEL & AXLE TESTING

NDT Technologies, Inc. ..... 53  
[www.ndt.ca](http://www.ndt.ca)

### RAILCAR MANUFACTURING

American Railcar Industries, Inc ..... 3  
[www.americanrailcar.com](http://www.americanrailcar.com)

### RAILCAR MOVERS

Falcon Equipment Ltd. ..... 18  
[fsr.ca](http://fsr.ca)  
 Railquip, Inc. ..... 19  
[www.railquip.com](http://www.railquip.com)

### RAILCAR PARTS

American Railcar Industries, Inc ..... 3  
[www.americanrailcar.com](http://www.americanrailcar.com)

### RAILCAR REPAIR

American Railcar Industries, Inc ..... 3  
[www.americanrailcar.com](http://www.americanrailcar.com)  
 Cando Rail Services Ltd. ..... 44  
[www.candoltd.com](http://www.candoltd.com)

### RAILCAR STORAGE

Cando Rail Services Ltd. ..... 44  
[www.candoltd.com](http://www.candoltd.com)  
 Soulange Railway Services Inc. ..... 50

### RAILROAD FREIGHT CAR MANUFACTURERS

The Greenbrier Companies ..... 20  
[www.gbxr.com](http://www.gbxr.com)

### RAILROAD SOFTWARE & AEI PRODUCTS

Softrail Inc. ..... 32  
[www.softrail.com](http://www.softrail.com)

### RAILS

M.F. Wirth Rail Corporation ..... 49  
[www.wirthrail.com](http://www.wirthrail.com)

### RAILWAY COMPANIES

Cando Rail Services Ltd. ..... 44  
[www.candoltd.com](http://www.candoltd.com)  
 CN-Canadian National ..... Outside Back Cover  
[www.cn.ca](http://www.cn.ca)  
 Southern Railway of British Columbia ..... 25  
[www.sryraillink.com](http://www.sryraillink.com)  
 VIA Rail Canada ..... 33  
[www.viarail.ca](http://www.viarail.ca)

### RAILWAY CONTRACTORS

Great Plains Rail ..... 46  
[greatplainsrail.com](http://greatplainsrail.com)

### RAILWAY PARTS

Davanac Inc. ..... 48  
[www.davanac.com](http://www.davanac.com)  
 North American Rail Products ..... 16  
[www.narailproducts.com](http://www.narailproducts.com)  
 Progress Rail Services ..... 12  
[www.progressrail.com](http://www.progressrail.com)

### ROAD-RAIL VEHICLES

Railquip, Inc. ..... 19  
[www.railquip.com](http://www.railquip.com)

**Smith Systems Inc.**

6 Mill Creek Center  
Brevard, NC 28712,  
USA  
Ph: (828) 884-3490  
Fax: (828) 877-3100

Speed, Motion, and Temperature Sensors

Custom-designed for your application

ISO 9001 TS Compliant IRIS Certified

[www.smith-systems-inc.com](http://www.smith-systems-inc.com)

YOUR RAIL SERVICES PARTNER

- We are an experienced, safety-focused leader in high-performance track & signal system maintenance.
- We deliver turn-key signal, communications and software systems from track circuit to control office and everything in between.
- We are the largest and most technologically advanced third-party dispatcher in North America.

**WE ARE RAILTERM**  
Go with us. We'll take you further.

1-877-344-8043 | [info@railterm.com](mailto:info@railterm.com) [www.railterm.com](http://www.railterm.com)

**RAILTERM**



## Transforming the Way We Travel

### Train Control Systems Services

- Systems and Application Engineering
- Systems Integration
- Project Oversight and Management
- Hardware Selection and Integration

Connect with GAI. | [f](#) [t](#) [y](#) [in](#) [r](#)

ENGINEERING, PLANNING, & ENVIRONMENTAL CONSULTING SINCE 1958



1



2

## THREE STEPS TO QUICKER RAIL CHANGEOUTS



3

**IMPROVED DURABILITY**  
Trak-Star® has the tools for making your next rail changeout faster and easier. Lightweight, powerful, reliable tools and accessories help minimize down time. Let the company that developed the one-person rail drilling system show you how to speed up changeouts, make high-quality holes and accurate rail cut-offs, all saving you time and money.

**Trak-Star®** 866-245-3745  
[www.trak-star.com](http://www.trak-star.com)

Hydraulic & Gas Rail Drills • Hydraulic & Gas Rail Saws • Twister Bits • Gas Impacts • Rail Accessories



Culvert Inspection, Installation and Repair  
Track & Siding Construction  
Slope Stabilization & Ditching  
Loading Services and Equipment Rental  
Tunnelling & Trenchless Technologies

## Index to Advertisers

### SAND HANDLING SYSTEMS

Cyclonaire Corp ..... 13  
[www.cyclonaire.com](http://www.cyclonaire.com)

### SECURITY EQUIPMENT/SERVICES

Abloy Canada ..... 32  
[www.abloy.ca](http://www.abloy.ca)

### SENSORS

Smith Systems, Inc. ..... 51  
[www.smith-systems-inc.com](http://www.smith-systems-inc.com)

### SIGNALLING & TRAIN CONTROL SYSTEMS

GAI Consultants, Inc. ..... 52  
[www.gaiconsultants.com/rail](http://www.gaiconsultants.com/rail)

### SIGNALLING MAINTENANCE/RENEWAL

PNR RailWorks Inc. ..... 8  
[www.pnrrailworks.com](http://www.pnrrailworks.com)

### SWITCH - HEATING CONTROL/MONITORING EQUIPMENT

PNR RailWorks Inc. ..... 8  
[www.pnrrailworks.com](http://www.pnrrailworks.com)

### TOOLS

PortaCo, Inc. ..... 53  
[www.portaco.com](http://www.portaco.com)

### TRACK MAINTENANCE

Great Plains Rail ..... 46  
[greatplainsrail.com](http://greatplainsrail.com)  
PNR RailWorks Inc. ..... 8  
[www.pnrrailworks.com](http://www.pnrrailworks.com)

### TRACK MAINTENANCE/CONSTRUCTION

Cando Rail Services Ltd. ..... 44  
[www.candoltd.com](http://www.candoltd.com)

### TRACK MAINTENANCE EQUIPMENT

Hougen Canada ..... 52  
[www.trak-star.com](http://www.trak-star.com)  
Plasser American Corporation ..... Inside Front Cover  
[www.plasseramerican.com](http://www.plasseramerican.com)

### TRACK MAINTENANCE EQUIPMENT/ SERVICES

PNR RailWorks Inc. ..... 8  
[www.pnrrailworks.com](http://www.pnrrailworks.com)

### TRACK MATERIALS

Cando Rail Services Ltd. ..... 44  
[www.candoltd.com](http://www.candoltd.com)

### TRACK MATERIALS/PERMANENT WAY EQUIPMENT

PNR RailWorks Inc. ..... 8  
[www.pnrrailworks.com](http://www.pnrrailworks.com)  
Railquip, Inc. ..... 19  
[www.railquip.com](http://www.railquip.com)

## Index to Advertisers

### TRACK REMOVAL

Cando Rail Services Ltd.....44  
www.candoltd.com

### TRADESHOWS/RAILWAYS

Messe Berlin GmbH.....43  
www.publictransport-interiors.com

### TRAIN WASHING PLANT/EQUIPMENT

Railquip, Inc. ....19  
www.railquip.com

### TRAINING & EDUCATION

The Canadian Heartland Training Railway Services Inc.....35  
www.chtr.ca  
Signal Training Solutions, Inc.....50  
www.signaltrain.com

### TRANSLOAD/TRANSPORTATION

Ontario Steel Haulers Inc. ....17  
www.ontariosteelhaulers.com

### TURBOCHARGERS

American Turbocharger Technologies .....34  
www.americanturbocharger.com

### VEGETATION CONTROL

Great Plains Rail.....46  
greatplainsrail.com

### VEHICLE LIFTING EQUIPMENT

Railquip, Inc. ....19  
www.railquip.com

### WEIGHING SYSTEMS

Railquip, Inc. ....19  
www.railquip.com

### WELDING PRODUCTS/SERVICES

Great Plains Rail.....46  
greatplainsrail.com

### CONSULTING SERVICES

#### Sandy Cooke Consulting Inc.

4 Chadwick Drive  
Ajax, Ontario L1S 5W6  
Tel: (905) 427-8668  
Fax: (905) 427-4703  
E-mail: sandy@sandycookeconsulting.com  
Web: www.scrts.ca

Trusted throughout the Canadian railway industry for over a quarter-century, SCRTS can create and implement a scalable training and regulatory package that will suit your operation regardless of size.

**NDT**  
Technologies Inc.  
*Measuring & Testing Systems  
for Rails, Wheels & Axles*

20 275 Clark Graham, Baie d'Urfe,  
Montreal, QC Canada H9X 3T5  
1 (514) 457-7650 1 (514) 457-7652  
info@ndt.ca www.ndt.ca

**PortaCo**

SAFE      ERGONOMIC      RELIABLE      EFFICIENT

**Railroad Tools**      **Power Units**

RAIL JOINING      RAIL SERVICES      MEASUREMENT      TOOLS & MACHINES      EQUIPMENT

MEMBER OF **GOLDSCHMIDT**  
THIEMANN GROUP

218-236-0223  
www.portaco.com

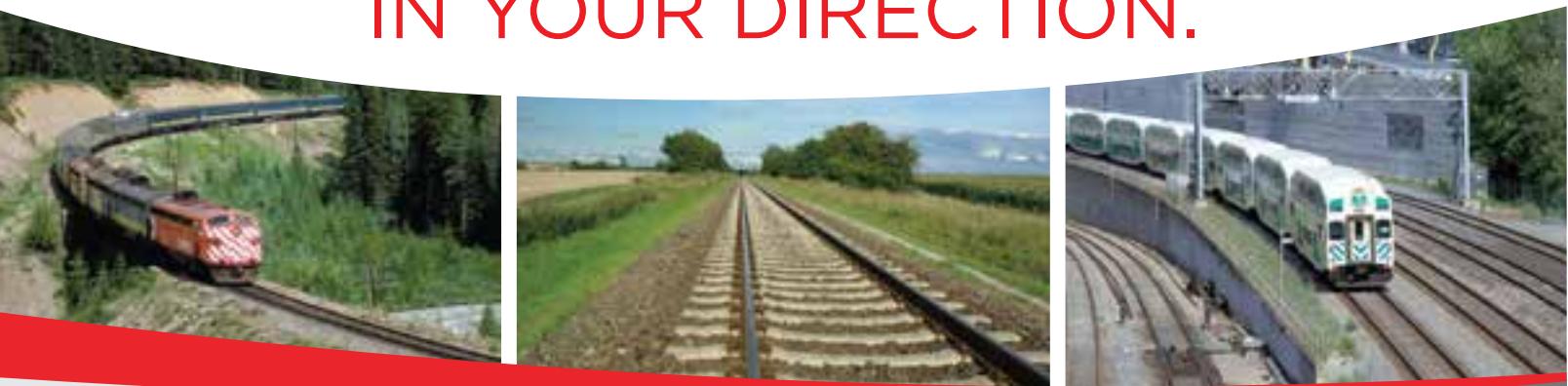
**PROCOR**  
*Value & Reliability for the Journey*

Procor is the leading provider of tank cars and other specialized rail cars in Canada. At Procor, full service leasing has been our core business for over 60 years. Your Procor team offers a wide range of value-added services with a nationwide support infrastructure.

[www.procor.com](http://www.procor.com)

A Marmon/Berkshire Hathaway Company.

# STEER CANADA'S RAILWAY OPERATORS AND SUPPLIERS IN YOUR DIRECTION.



Explore the many ways you can advertise in the Railway Association of Canada's media program.

- ❖ RAC represents nearly 100% of Canada's freight and passenger railways, and more than 60 leading rail supply companies.
- ❖ Our members invest more than \$10 billion annually in infrastructure upgrades.
- ❖ Both print & online advertising opportunities are available in a variety of sizes and price points.



*Interchange* quarterly magazine in print and digital  
RAC Daily Newsletter  
Website Sales

**Kim Davies**  
*Project Manager*  
(800) 665-2456 ext. 4423 | (204) 975-0423  
kdavies@naylor.com

**NAYLOR**  
ASSOCIATION SOLUTIONS



Railway Association  
of Canada

Association des chemins  
de fer du Canada

# #1 IN SERVICE

## SPECIALTY VEHICLES

## LEASING & SALES

## HI-RAIL CREW PICK UP TRUCKS AND VANS



With a large modern fleet of specialty Hi Rail equipped vehicles available for immediate delivery across Canada.



- ▶ Hi Rail equipped F350, F550, Rotodump, Grapple Trucks, Thermite Welding and Mechanic Trucks
- ▶ Gas & diesel
- ▶ Short & long term leases
- ▶ Specialized Hi Rail vehicles
- ▶ Non-hirail vehicles and equipment
- ▶ Have a Hi Rail requirement? We will build to suit your needs



37 Perini Road, Elliot Lake, ON, P5A 2T1  
Fax: 1-705-848-4775  
Email: [info@hirailleasing.com](mailto:info@hirailleasing.com)  
[www.hirailleasing.com](http://www.hirailleasing.com)

For More Information: **1-866-572-7314**



**\$18B**  
of capital  
investments  
in the last  
10 years

**\$2.7B**  
invested in  
capital projects  
in 2015

# Building for the Future

With our supply chain partners  
for operational and service excellence.

