

# CONNECTED



*By 407 ETR*

407 ETR's Mobility & Transportation Forum



**407 ETR**  
Express Toll Route

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### Welcome to 407 ETR's second annual Mobility & Transportation Forum.

It's with great pleasure that I welcome you to 407 ETR's second annual Mobility & Transportation Forum. We appreciate this unique opportunity to meet with industry professionals to discuss emerging transportation trends, while exploring some of 407 ETR's initiatives.

As the transportation sector continues to grapple with a transformative shift in commuter habits three years post-pandemic, our customers continue to recognize the value of the service Highway 407 ETR provides, including improved productivity and the peace of mind of a stress-free, reliable drive. We continue to improve highway infrastructure to help ensure the safety of our customers, and in 2022 alone we invested over \$31.7 million in highway capital projects.

The future of transportation holds promise beyond our imagination. With electric and autonomous vehicles becoming more common, reducing carbon and improving safety on our roads, we're excited about the advancements in technology that are reshaping the way we move from point A to point B. As we look ahead, collaboration with governments, industries and communities will shape the future of the policies, standards and investments that will ultimately support this transportation revolution.

407 ETR's journey is marked by a relentless pursuit of excellence, embracing cutting-edge technologies to create a safer and more sustainable highway system.

This year, 407 ETR was proud to celebrate three million hours without an employee lost time injury, demonstrating our commitment to working safely. With our unique data-driven approach, we're eager to learn how new technologies can help us streamline and improve the way we work today.

We hope today's presentations will offer new insights that will help us move forward collectively towards a more innovative and sustainable future.

Enjoy, and see you on the road.

Javier Tamargo  
**President & CEO,**  
**407 ETR**

## Event Agenda

**8 a.m.**

Registration and Networking  
.....

**8:30 a.m.**

Welcome and Opening Remarks  
.....

**8:45 a.m.**

How Emerging Technologies can be Leveraged to Increase Safety and Efficiencies on Highways

*Presented by:* **Richard Borger**  
.....

**9:25 a.m.**

Surveying the Effects of Emerging Trends on Greater Toronto Area (GTA) Drivers and their Budgets

*Presented by:* **Dana Boehling**  
.....

**10:15 a.m.**

Assessing the Wider Economic Impact of 407 ETR

*Presented by:* **Patrick Miller**  
.....

**10:45 a.m.**

Navigating the Future: Data-Driven Insights into Workplace Activities for Traffic Forecasting in the GTA

*Presented by:* **Shakir Hussein**  
.....

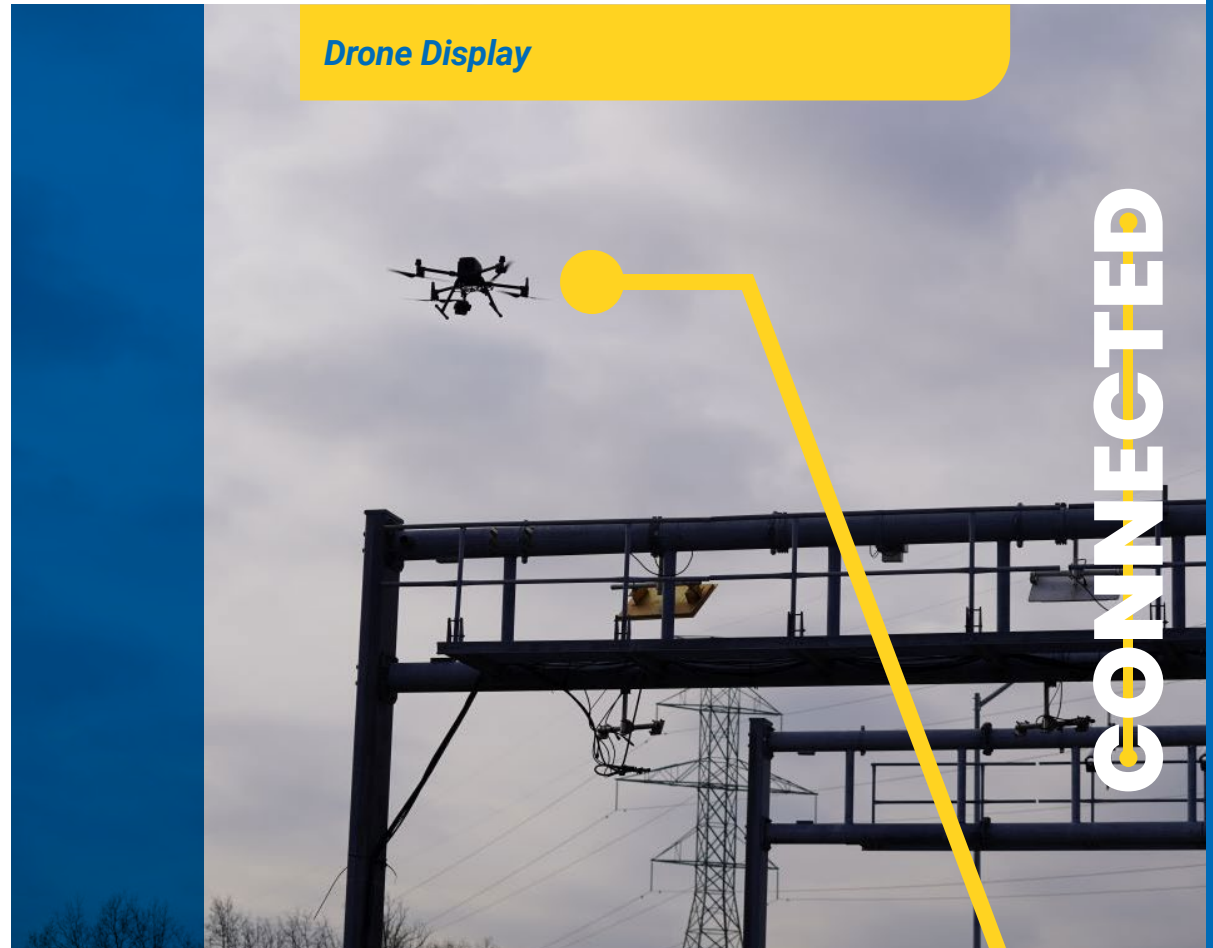
**11:45 a.m.**

Closing Remarks  
.....

**11:50 a.m.**

Networking  
.....

## Drone Display



Take a look at new and exciting Remotely Piloted Aircraft Systems (RPAS) technology, including several different drone variations featuring emerging tech.

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## Presenters



**RICHARD BORGER**

*Professor, Building and Construction Sciences,  
Mohawk College*

Richard Borger is the faculty lead for the Unmanned and Remote Sensing Innovation Centre and a full-time Professor in the faculty of Building and Construction Sciences at Mohawk College. Richard has almost a decade of experience in operating remotely piloted systems, including terrestrial rovers and aircraft systems. Richard's specialty is regulatory compliance and integration, and he has applied this skill to innovatively leverage remote sensing technologies such as LiDAR, photogrammetry, and other customized solutions to meet the needs of industry partners.

Richard holds his Remotely Piloted Aircraft Systems (RPAS) Pilot Certificate for Advanced Operations with Flight Reviewer status. Additionally, he has successfully earned more than a dozen Special Flight Operations Certificates for exceptional flight operations including RPA flights at advertised events, flights involving more than five RPAs controlled from a single control station and RPA flights carrying

explosive materials. He has also repeatedly navigated the regulatory compliance structure to fly in restricted, congested airspace over Niagara Falls and on the apron of an active international airport.

**Topic – How Emerging Technologies can be Leveraged to Increase Safety and Efficiencies on Highways**

Richard will be discussing how Mohawk College is supporting 407 ETR's mandate to integrate new technologies into highway management. By streamlining the adoption of disruptive and emerging technologies into current processes, innovations are being leveraged along the Highway 407 ETR corridor. This includes the monitoring and management of gantries, bridges and other overhead assets, the creation of a digital twin of the highway corridor and remote sensing technologies for stormwater pond lifecycle compliance.



**DANA BOEHLING**

*Senior Insights Analyst, 407 ETR*

By tying together customer sentiment and opinion with driving data and behaviours, Dana creates a comprehensive view of customers to inform data-backed decisions. Dana's work as the Survey Lead on the Data Analytics Team at 407 ETR ranges from marketing and communications to promotions and pricing to uncover insights for the business.

Prior to joining 407 ETR, Dana earned her expertise in the retail analytics industry, holding positions at Nielsen, Canadian Tire, then Sobeys where she was part of the start-up team that launched the popular grocery delivery service, Voilà. She holds a Bachelor of Science in Mathematics and Statistics from McMaster University.

**Topic – Data Analytics: Surveying the Effects of Emerging Trends on GTA Drivers and their Budgets**

Dana will examine the impacts of post-pandemic trends in driver behaviour, including fluctuating gas prices, working from home and growing inflation. Through 407 ETR's extensive survey research, Dana will explore how these trends are affecting the behaviours and budgets of drivers across the GTA.

## Presenters



**PATRICK MILLER, PHD**

*North American Transportation Strategy Lead,  
Steer Group*

Patrick Miller leads Steer's North American Transportation Strategy team, which works with clients across the continent on complex policy, infrastructure and regional planning issues for mobility. His work focuses on developing decision-making frameworks and approaches to project governance to help decision-makers understand the trade-offs and consequences of potential projects, programs and policies to make decisions with confidence. One element of this work is analyzing and characterizing the wider impacts of infrastructure projects. Patrick's academic experience focuses on similar topics – including exploring new ways to inform decisions, managing uncertainty in decision-making and more clearly communicating complex information related to transit decision-making.

### **Topic – Assessing the Wider Economic Impact of 407 ETR**

The Steer team worked with Cintra, 407 ETR shareholder, to explore the wider economic impacts to travellers, communities and regions of Cintra's portfolio of road assets. This novel work applied socioeconomic tools and frameworks commonly used by public agencies for major infrastructure projects to over 20 global roadway assets. In this session, Patrick will share the focused results for 407 ETR, including the impact of Highway 407 ETR on travel times, safety, the environment and the wider economy. The session will also include a discussion on how these results can be used in future operations and infrastructure planning.



**SHAKIR HUSSEIN, MBA**

*Director, Traffic & Planning, 407 ETR*

Shakir is Director of Traffic & Planning at 407 ETR - the world's first all-electronic and premier open-access toll highway. He has over 18 years of comprehensive professional and master's level academic experience in highway traffic, planning and operations and leads teams responsible for management, shareholder and grantor reporting, forecasting and infrastructure planning. He has been a catalyst for transportation analytics, internet of things (IoT) and digital transformation projects. His work is focused on ensuring that the highway remains safe and free-flowing to support Ontario's economy and improve the daily lives of Ontarians.

He holds an Executive Master's of Business Administration Degree from Queen's University Smith School of Business, a Master's Degree in Civil

Engineering from The University of Toronto and is a certified Project Management Professional.

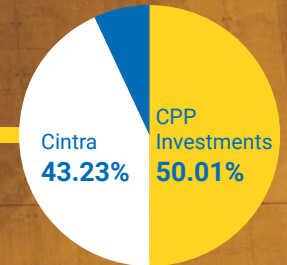
### **Topic – Navigating the Future: Data-Driven Insights into Workplace Activities for Traffic Forecasting in the GTA**

Shakir's presentation will delve into a data-driven analysis using unique datasets, shedding light on the recovery of post-pandemic workplace activity in the GTA. Moreover, he'll highlight how 407 ETR is integrating these insights to enhance the accuracy of its traffic forecasting models. This presentation offers transportation practitioners invaluable insights, showcasing new datasets and techniques to enhance traffic forecasting models.

### Getting you there Faster with Highway 407 ETR

Majority Canadian-owned

\*SNC-Lavalin  
6.76%



\*Doing business as Atkins-Réalis.

**99%** trip reliability rate

**40% lower** collision rate than alternate highways

**\$8.9M** invested in policing and enforcement in 2022

**2,300 pieces** of debris removed from the highway in 2022

**1,500+ drivers** received free roadside assistance in 2022

407 ETR is proud to be a majority Canadian owned company, serving the GTA for nearly 25 years. Since 1999, 407 ETR has invested over \$1.6 billion in extensions and expansions, and nearly doubled lane capacity on the highway to accommodate growing traffic demands, helping customers make more time for the things that matter most.

We're proud to offer a 99 per cent trip reliability rate and continue to help drivers get where they need to go safely and quickly. 407 ETR pays for all policing and enforcement along Highway 407 ETR to help keep drivers safe, and in 2021, our internal Highway Collision

Safety Review found that reported collision rates on Highway 407 ETR are 40 per cent lower than alternate highways.

Our Highway Operations Team works hard to help keep drivers safe. In 2022, crews removed over 2,300 pieces of debris from the highway and offered free roadside assistance to over 1,500 drivers.

More than **\$1.6 billion** in extensions and expansions since 1999



## Keeping the GTA Moving



**\$20.6 billion**  
in socioeconomic benefits\*

**\$17 billion**  
in user benefits  
(travel time, reliability, vehicle operating costs)

**\$2.9 billion**  
in wider economic benefits  
(productivity)

**\$730 million**  
in external benefits  
(safety and emissions)

\*Economic Impact of Cintra Assets:  
From the beginning of the concession (1999 to December 2021).  
All numbers in Canadian dollars.

**Learn more at [407etr.com/steerreport](https://407etr.com/steerreport).**

The benefits of Highway 407 ETR ripple through the GTA. A 2022 Steer Report analyzed the economic impact of the Company and found that 407 ETR has contributed \$20.6 billion in socio-

economic benefits since the beginning of the concession in 1999, including increased safety, reduced vehicle operating costs and fewer vehicle emissions.

Our customers understand that time is money and as more people return to the office and resume their regular commute, they continue to see the value of using Highway 407 ETR. In 2022, customers travelled a total of over 2.2 billion kilometres; this includes over 309,000 average workday trips and over 1,600 daily trips by public transit agencies. Traffic trips during the second quarter of 2023 were higher by 15 per cent compared to the same period in 2022, and vehicle kilometres travelled increased by 18 per cent as average trip length also increased.

To maintain the roadway's integrity, highway infrastructure is regularly inspected and improved. In 2022, we invested \$31.7 million in highway capital projects, including road resurfacing, to help ensure a safe and smooth drive.

With over 1.7 million transponders in circulation today, customers continue to recognize the value and savings of using a transponder – the best way to travel Highway 407 ETR. After just three round trips, a transponder pays for itself, helping customers save while enjoying a fast, safe and reliable trip.

### Along the Highway



**\$31.7M** invested in highway capital projects in 2022



**1.7M** transponders in circulation



**236** bridges



**408** gantries



**1,379** rear tolling cameras

### Traffic in 2022



**2.2B+** total kilometres travelled



**309,000** average workday trips



**1,600+** daily trips by public transit agencies

## Delivering an Exceptional Customer Experience

We're committed to providing a world-class experience on and off the roadway. Our Customer Service Team continues to deliver award-winning service to our valued customers, achieving an 86 per cent first call resolution rate in 2022. We're proud to be World-Class Certified by Service Quality Measurement Group (SQM) nine years in a row. Our Commercial Relations Team has earned the award for the past six years. To earn this achievement, our teams resolved 80 per cent or more of customer interactions on the first call.

In 2020, we were proud to launch live chat as a new contact channel for customers. The implementation of live chat is a component of 407 ETR's digital focus and is helping streamline and enhance our customer support process through a menu-based self-serve functionality. To increase accessibility for customers, we've extended our live chat hours to 7 p.m., allowing customers to reach us at times that are more convenient for them.

### 2022 Highlights



**86%**  
first call  
resolution  
rate



**93%**  
customer  
satisfaction  
rate



**World-class  
certified**  
by SQM Group



*"I love helping anywhere I can and strive to deliver an exceptional customer experience on every call!" - Nella*



### Meet one of the faces behind our award-winning Customer Service Team

Behind the scenes, through technology and innovation, we strive to provide a positive and effortless experience for our valued customers.

Nella is just one of the amazing Customer Service Representatives who works hard to deliver an excellent customer experience at 407 ETR.

### Here's what one of Nella's customers had to say about their experience:

*"I placed a phone call to Customer Service and was gifted with Nella. Kind, caring, patient, and knowledgeable. Riding Highway 407 ETR just became more enjoyable knowing that you as a company are providing such a lovely person and amazing place to work." -*

M. McConnell



SQM award display at 407 ETR head office





**Helping Businesses Boost their Bottom Lines**



**90%**  
of businesses say using Highway 407 ETR helps them achieve greater efficiency and productivity  
*2021 407 ETR Business Survey*

Our Business Support Specialists are dedicated to helping our valued business customers make the most of their 407 ETR account. Get to know Meetu, Business Support Specialist with our Commercial Relations team.

**What's your typical day like?**

A typical day includes educating our business customers on the benefits of using Highway 407 ETR, including time savings and increased productivity, and of course promoting transponders to help companies save money.

**What's your favourite part of the job?**

I enjoy being part of an incredible team where we collaborate to find the best solutions for our customers.

**What's one tip to help business customers manage their 407 ETR account?**

Set up an online My Account. Having a My Account helps you maintain your licence plate inventory and order transponders in just a few quick steps.

Learn more at [407etr.com/business](https://407etr.com/business).

**LOOKING TO DRIVE SUCCESS FOR YOUR BUSINESS?**

New business customers may qualify for up to **500 free kilometres\***. Contact us to find out how.

*\*Conditions apply*



Contact us at [sales@407etr.com](mailto:sales@407etr.com) to learn more about how we can help your business grow.



## Innovating for Improved Road Safety



*"I'm optimistic the research done with Mohawk College will result in new and innovative ways of doing this work more safely."*

Tony Angelo - Director of Bridges, 407 ETR

407 ETR and Mohawk College inspecting a gantry using an aerial drone.

We're continuing to explore and invest in smart technology to help make our roadway safer. To enhance driver safety, we're using **Sentinel Impact Trackers** to track damage that occurs along the highway. Sentinel Impact Trackers are electronic sensors attached to safety systems along the highway, such as crash cushions and end treatments. This technology enhances safety as it helps to improve response times to impact sites so that we can restore affected safety systems for surrounding road users in near real-time.

**Intellicone** is being used as a means of identifying unauthorized vehicle breaches in designated work zones. These laser-enabled devices are placed at the perimeter of a work zone to create an additional digital layer of protection for road users and roadside workers. These devices sound an audible alarm to alert workers inside the work zone of an unauthorized breach. In addition, we're exploring the use of **Road Incident Detection (RIDE) Systems**. RIDE Systems are equipped with IoT sensors and are

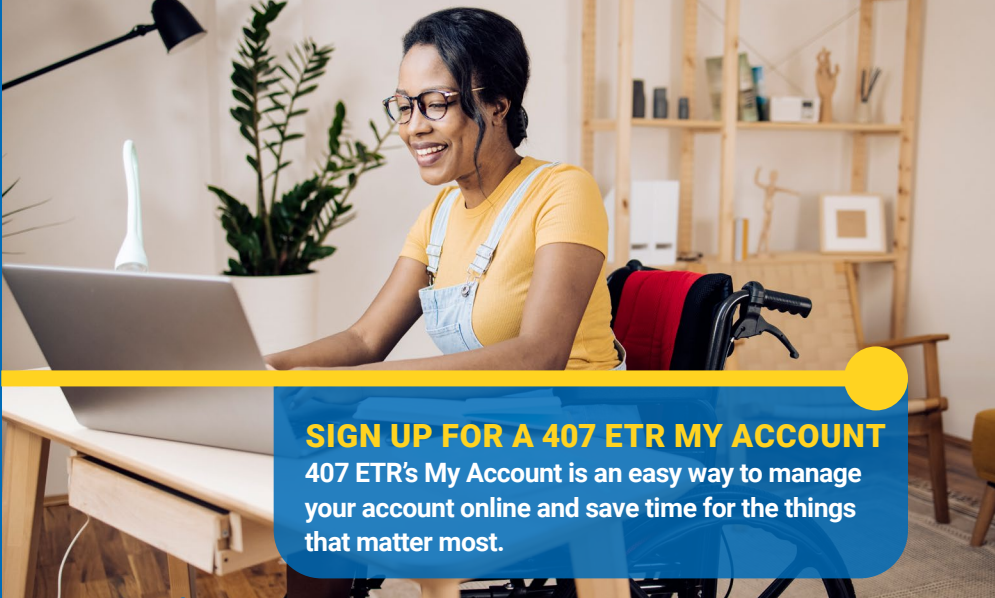
ideal for detecting incidents such as wrong way drivers, collisions and impacts, emergency stops, slow moving vehicles or queues forming, animals and/or pedestrians on the highway and potential weather events. The RIDE System can then broadcast instant safety messages to third parties like Waze or Google.

In May 2023, 407 ETR collaborated with Mohawk College's Unmanned and Remote Sensing Innovation Centre to test safer and more efficient ways of conducting visual inspections of overhead structures using **aerial drones**. Previously, employees had to physically climb overhead gantries to perform manual inspections while traffic passes underneath them.

The collaboration between 407 ETR and Mohawk College began in October 2022 as a pilot to assess the benefits of aerial drones for overhead signage and gantry inspections and continues to expand to other applications including bridges and stormwater ponds.



Intellicone in use at Highway 407 ETR work site



**SIGN UP FOR A 407 ETR MY ACCOUNT**

407 ETR's My Account is an easy way to manage your account online and save time for the things that matter most.



Get statement notifications, view your balance and pay your bills



Set up pre-authorized payments for convenience



Update your information like email address and plate



Order transponders and fasteners



Enjoy news, exclusive benefits and more



To sign up, scan the QR code or visit [407etr.com/myaccount](http://407etr.com/myaccount).

See you online!



**Paving the Way for Safe Driving Habits**

Providing a safe commute for drivers is a top priority at 407 ETR. We live this promise of promoting safety through our support of community education.

We're proud to support organizations such as Teens Learn to Drive and Accident Awareness, which provide young people with the resources to become safe and knowledgeable drivers. In addition, we're helping the Canadian Spinal Research Organization fund spinal cord injury research, the most common vehicle-collision related injury, with the aim of helping individuals who've suffered catastrophic injuries regain mobility.

[Learn more at 407etr.com](http://407etr.com).



### Supporting Biodiversity

As a toll road operator, we recognize that our responsibility goes beyond providing a fast, safe and reliable trip. While we're passionate about connecting people and businesses to communities across the GTA, we're also mindful about the effect our operations have on the environment. In 2023, to help support the growing demands of biodiversity loss and climate change, we increased our annual investment into biodiversity and the environment.

With five integral environmental partners, including Nature Conservancy of Canada, Canadian Wildlife Federation, Conservation Halton, Credit Valley Conservation and A Greener Future, we've strengthened our commitment to biodiversity. We've invested \$500,000 in 2023 to help support and restore the natural biodiversity in our communities.

We're proud to support the following organizations conserving Ontario's green spaces and bending the curve on biodiversity loss.



Photo provided by Nature Conservancy of Canada



## Restoring our Roadside for Native Pollinators



**8 species**

of native bees are considered at risk in Canada

**Up to 90%**

decline of insect abundance in North America

**12 hectares**

of GTA roadsides to be restored by 2025 through 407 ETR's sponsorship of CWF

**3 years**

time required to observe the results of habitat restoration efforts

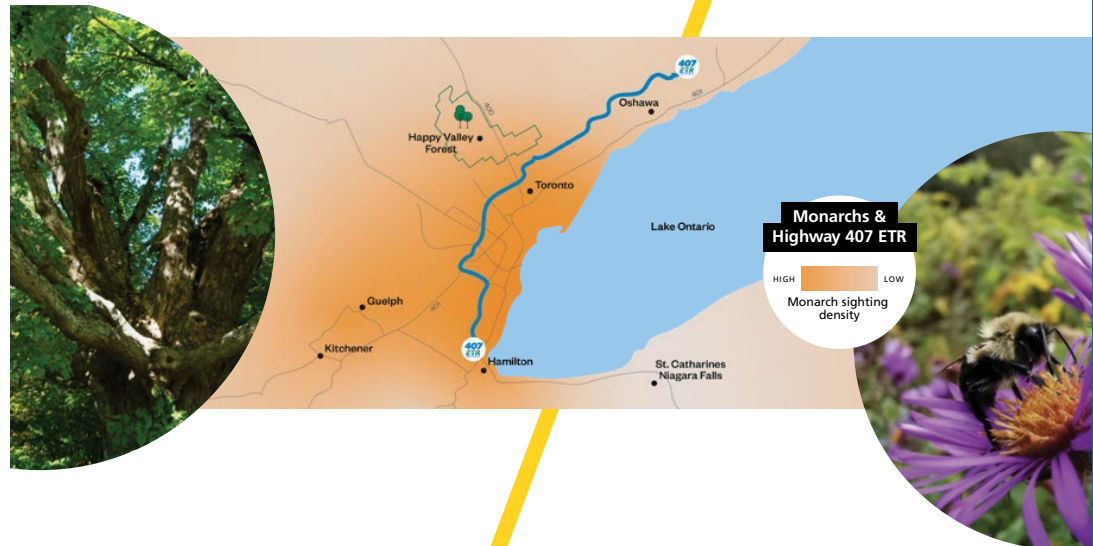
**75-80%**

population decline of the monarch butterfly in North America

In March 2023, 407 ETR announced our collaboration with Canadian Wildlife Federation (CWF) to bend the curve on biodiversity loss in Ontario by restoring the natural pollinator habitats in municipalities surrounding the Highway 407 ETR corridor. This initiative includes a commitment of over \$500,000 over three years – the time it generally takes to see the result and impact of roadside habitat restoration. Once completed, 12 hectares of land will be restored, the equivalent of 22 football fields, to enhance pollinator habitats that follow the natural migration route of monarch butterflies.

In 2022, we launched a biodiversity pilot project as part of our commitment to preserve and protect the natural biodiversity along the Highway 407 ETR corridor. The pilot project includes four sites along the highway, including land, wetlands, previously restored areas and urban locations. Through this pilot we'll investigate the existing species and biodiversity along the highway to identify risks, such as invasive species, and uncover opportunities for improvement. Learnings from this project will help us develop a plan to promote healthy biodiversity along our highway, including tree planting.

[Learn more at 407etr.com.](https://www.407etr.com)



## Striving Towards More Sustainable Business Practices

407 ETR released our 2022 Environmental, Sustainability and Governance (ESG) Report, The Better Road, which discusses the Company's major goals, targets and priorities as we work towards a more sustainable and equitable business model. We've set a target to reduce our Scope 1 and Scope 2 greenhouse gas (GHG) emissions by 25 per cent by 2030 and are continuing to work towards this goal.

To increase transparency and accountability, the report was published in alignment with the Sustainability Accounting Standards Board framework and the recommendations of the Task Force on Climate-related Financial Disclosures. Our GHG data was also assured for the first time by a third-party auditor.




Read the full report at [407etr.com/esgreporting](https://407etr.com/esgreporting).






# THE BETTER ROAD



### Highlights from the 2022 ESG Report

-  **25% by 2030** target to reduce Scope 1 & 2 GHG emissions.
-  **14% reduction** of Scope 1 & Scope 2 GHG emissions against 2018 baseline.
-  **2.8M lost time free hours** as of December 31, 2022.

-  **\$2M+** invested in **GTA communities** in 2022 through sponsorships, donations and free travel.
-  Added **first electric vehicle** to the highway patrol fleet.
-  **Launched pilot project** to better understand biodiversity along the highway.

-  **\$8.9M** invested in enforcement and policing services to help keep the highway safe.
-  **\$20.6B in socio-economic benefits** contributed to the region since 1999.
-  **38% female representation** on Board of Directors, exceeding 2022 target of 30%.

-  Awarded **multiple best in class certifications and recognitions** for world class customer service.
-  **Secured sustainability-linked loan** that incentivizes and holds our performance accountable to three key areas related to GHG emissions, diversity of Board of Directors and employee health and safety.

**Keep Moving™ by 407 ETR**



Since 2015, Keep Moving™ by 407 ETR has invested over \$850,000 into youth sports sponsorships and is on track to support over 3,000 youth across the GTA by the end of the 2023 season.

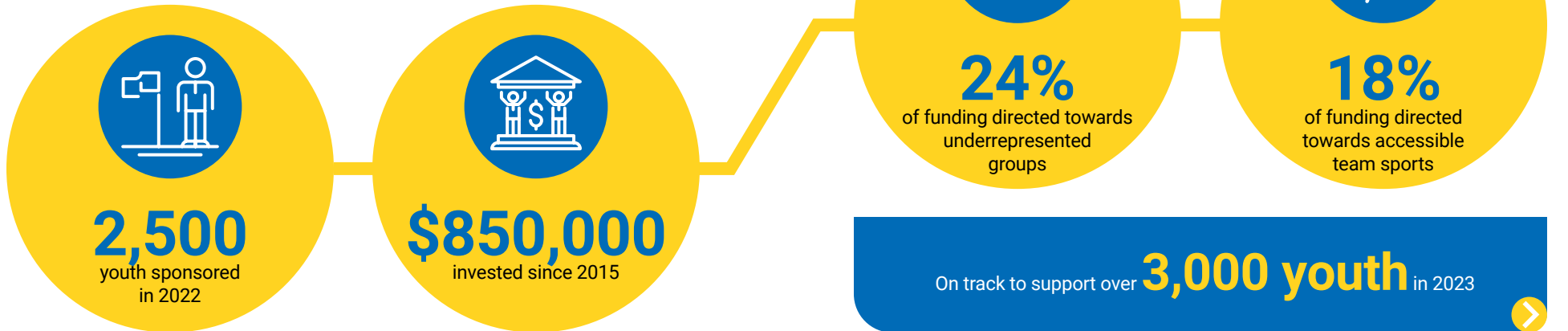
This year, the program has expanded into more accessible spaces including Soccability Canada and its

groundbreaking Blind Soccer program, enabling blind athletes to fall in love with the game, and Seaside Hockey, which provides visible minority youth in the GTA an opportunity to learn the sport under its leading-edge hockey-based mentorship program by removing financial barriers for families.



407 ETR aims to promote an active and healthy lifestyle and connect kids to sports through Keep Moving™ by 407 ETR, our youth team sponsorship program. The program sponsors

kids ages four to 18 in the GTA who participate in team activities from dance and swimming to baseball and hockey. In 2022, we sponsored over 2,500 youth.



## Interested in Exploring a Career with 407 ETR?

### What's in it for you?

- Competitive salary packages
- Comprehensive benefits packages
- Social events and team building activities
- Ongoing learning and development opportunities
- Vibrant and inclusive company culture
- Free travel on Highway 407 ETR (taxable benefit)

407 ETR's culture is based on our values of excellence and integrity. We're looking for passionate collaborators who understand that success is a team effort, and that your enthusiasm will drive the innovation that sets us apart. Find a rewarding career in one of our many departments, including Customer Service, Finance, Highway Operations, Information Technology, Data Analytics and more.

If you're interested in a career opportunity with one of the safest, most advanced highways in North America, visit [407etr.com/careers](https://407etr.com/careers) to view and apply for available positions.

## Connecting Students to STEM

407 ETR is a company rooted in innovation, with about half of our workforce employed in a STEM-related field (science, technology, engineering and math).

In July, we announced a \$400,000 multi-year donation to help fund York University's Lassonde School of Engineering k2i program through the 407 ETR Path2STEM fund. This donation will allow the school to continue to increase equity, diversity and inclusion, and create opportunities to move more students towards a STEM path to ensure the next generation of innovators can thrive in their desired field.

To ensure our workforce represents the diverse cultures of the communities we serve, we're working to implement metrics to track our progress on more granular levels, so we can expand on our efforts to be an organization that is representative of the communities we serve.

To learn more about the sponsorship, visit [407etr.com/newsroom](https://407etr.com/newsroom).

*"We're proud to support the Lassonde School and York University's work to move more youth into the pipeline towards rewarding academic and professional careers in STEM."*

Javier Tamargo -  
President & CEO,  
407 ETR



## Scan the QR code and share your feedback for a chance to win!\*

Please complete our confidential survey to tell us your opinion about 407 ETR's Mobility & Transportation Forum. You could win a **\$250 407 ETR gift card**.

*\*Full Terms and Conditions apply.*

### Get in Touch

Interested in exploring  
innovation with us?

Contact us at  
[communications@407etr.com](mailto:communications@407etr.com)



**407 ETR**  
Express Toll Route

Follow us on social media to stay in the know about maintenance alerts, traffic updates customer service tips, 407 ETR news and more.  
[@407etr](#)

