

TALK



transformation!

Low-Carbon Transportation in Toronto

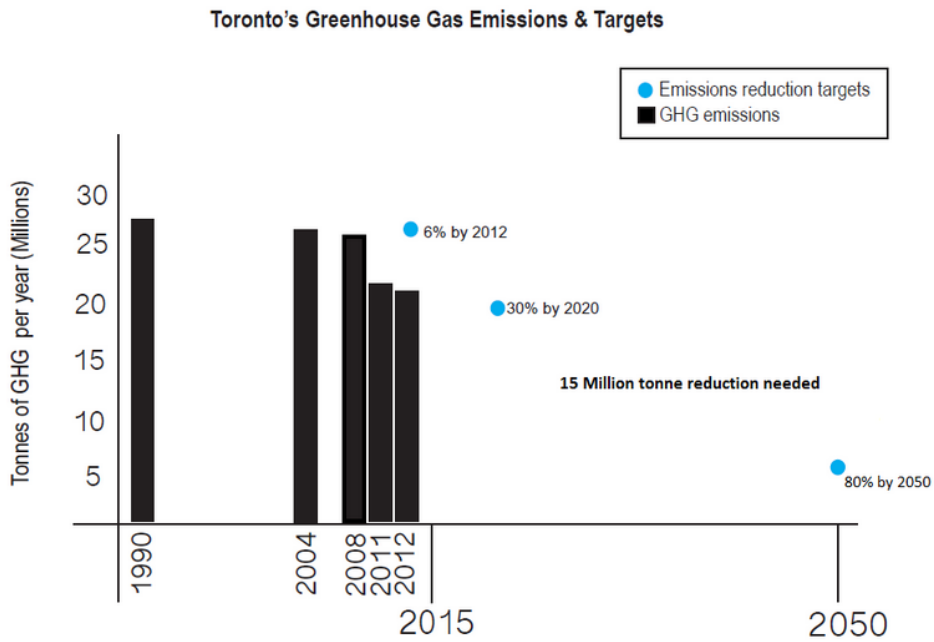
What does the community
have to say?

Summary of workbook ideas



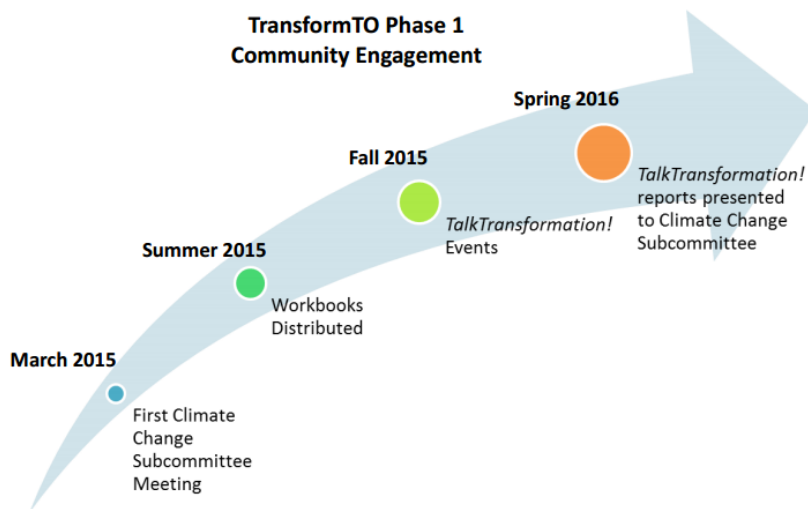
Background

Toronto has established a goal of reducing greenhouse gas emissions by 80% by 2050 to support its vision of being one of the most sustainable and resilient cities in the world.



TransformTO is an initiative that will help us achieve this goal

Building on the success of the City's plans and strategies, including the Climate Change Action Plan (2007), and the Power to Live Green (2009), **TransformTO: Climate Action for a Healthy, Equitable and Prosperous Toronto** will update Toronto's plan to reduce our GHG emissions, while encouraging collaboration and dialogue between City divisions, community members, experts and other stakeholders.



As a part of the community engagement focus of TransformTO, the City is hosting a series of TalkTransformation! events throughout the fall 2015 and winter 2016.

Each TalkTransformation! event will focus on a particular topic:

- Resilience and Adaptation to Extreme Weather
- Energy Systems and Buildings
- Low-Carbon Mobility and Transportation
- Green Spaces and Urban Agriculture Sustainable Consumption and Behaviour
- Health and Climate Change

The objective of the series is to encourage community members and experts to share their best and brightest ideas and to generate dialogue that will help to inform the actions we will take to improve our resilience and sustainability.

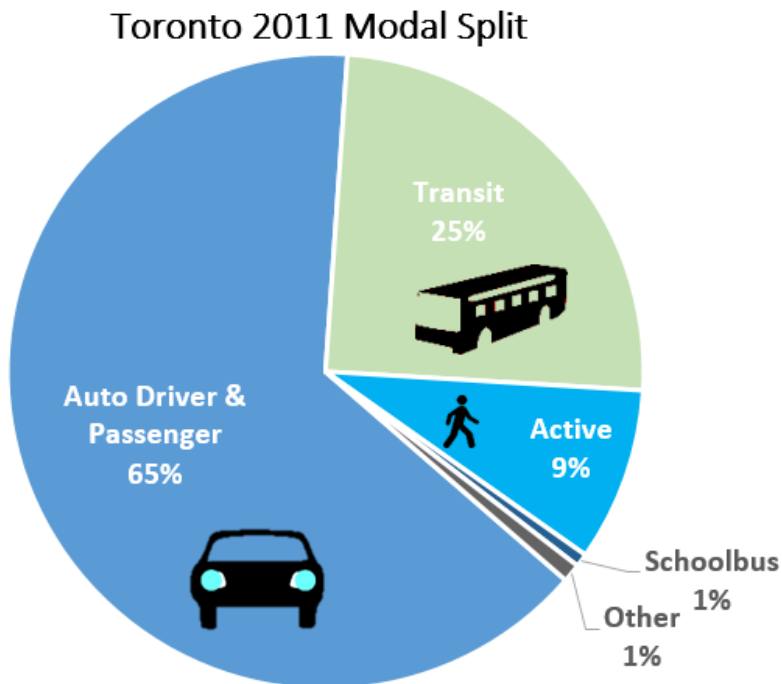
Residents are encouraged to share their ideas on each topic by completing the online **TransformTO** workbook. A summary of the comments will be presented to the panelists before each event.

This workbook summary on the topic of transportation in Toronto, is based on the comments submitted in 80 workbooks.

The **transportation** sector accounts for over 40% of Toronto's overall greenhouse gas emissions. Burning vehicular fuel results in the emission of a number of pollutants, including carbon dioxide (CO₂) and Nitrogen Oxides (NO_x), which can be harmful to our health and the environment.

The City, in collaboration with the Province of Ontario, is expanding our current public transit system with new light-rail projects. Additionally, cycling infrastructure is becoming more widespread throughout the city. Overall, more mixed-use areas are being designed in Toronto, thus promoting active transportation in our neighbourhoods. The City of Toronto is investing into our future infrastructure in order to ensure the reduction of emissions from transportation.

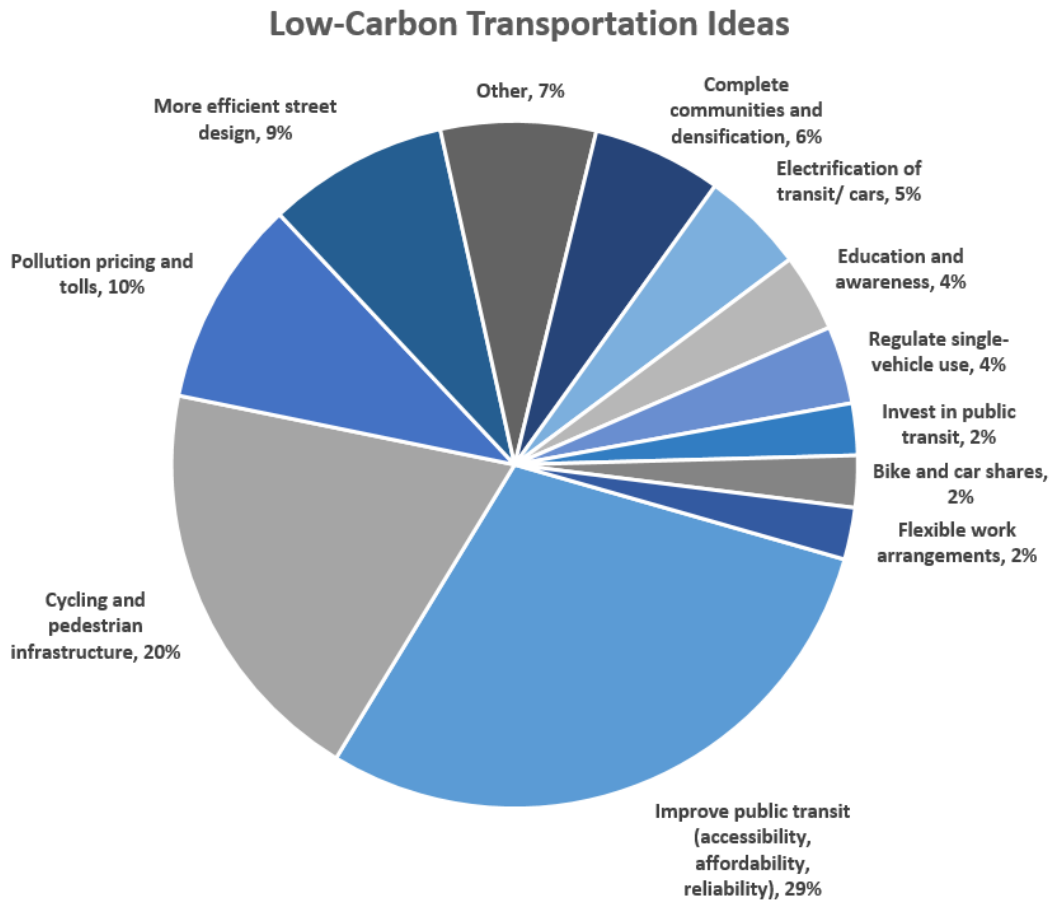
There is still a significant opportunity for behaviour change and innovation. Residents of Toronto have an opportunity to play a key role in reducing overall emissions from the transportation sector.



Summary of Community Ideas

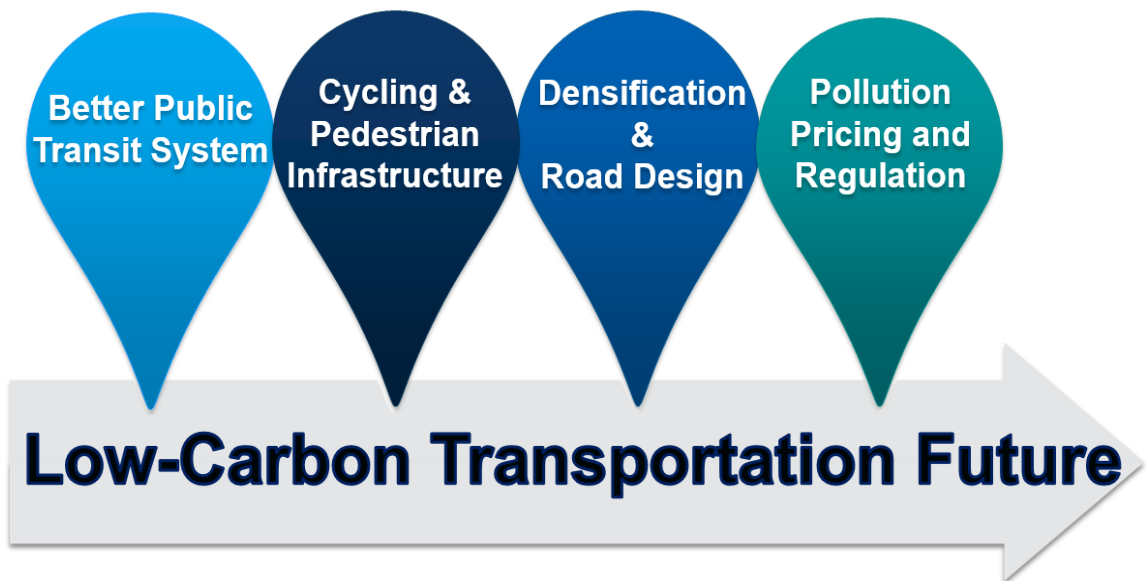
1.0 Low-Carbon Transportation Ideas

What is the one idea you think has the most potential to reduce the carbon emissions created by transportation in Toronto?



A total of 80 responses were submitted for the Transportation section of the Workbook survey. Of the 80 responses, nearly 30% of the key ideas mentioned the importance of transit reliability, accessibility and affordability. Designing the city to be more accommodating for pedestrians and cyclists was also high on the list (20%). Popular submissions also included various pollution pricing, taxation and tolling mechanisms (10%). Alternative street design that promotes better traffic flow (9%) and densification (6%) were top ideas as well. Other common ideas included electrification of transportation (5%); education (4%); regulation of single-vehicle use (4%); re-allocation of transit investment (2%); bike and car share programs (2%); flexible working hours and locations (2%).

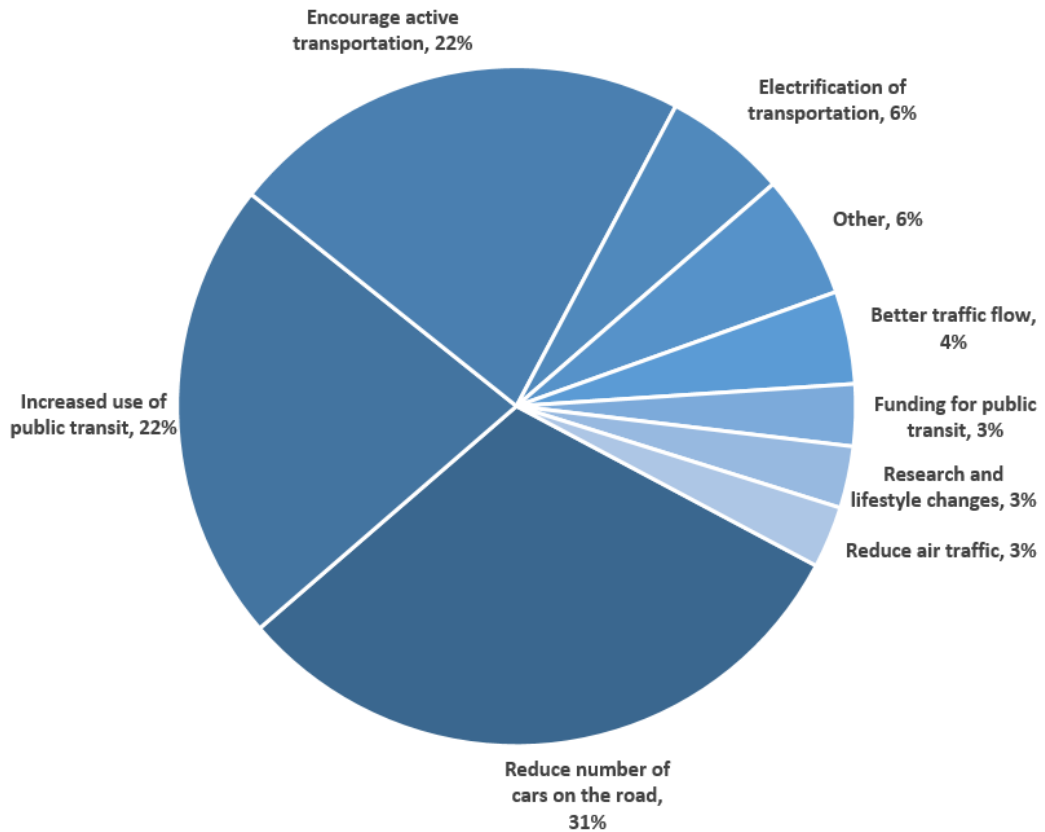
Overall, according to our community, key strategies that will help us address emissions from transportation in Toronto are...



2.0 Overall focus for achieving low-carbon transportation

How will [your idea] reduce the greenhouse gas emissions of Toronto's transportation systems?

Overall focus for low-carbon transportation



Many of the respondents attribute the reduction of emissions from transportation in Toronto to (1) the overall reduction of cars on the road (31%); (2) increased use of public transit (22%); and active transportation (walking, cycling, etc.) (22%). Other important changes include electrification of all transportation types (6%); better traffic flow (4%); more funding for public transit (3%); lifestyle changes and research (3%); and less air traffic (3%).

Based on community responses, Toronto's low-carbon transportation future should include...

Fewer cars



Public transit



Active transportation



3.0 Examples of low-carbon transportation initiatives

There are many examples of successful traffic and emission reducing programs around the world. What follows is a selection of examples submitted by residents of Toronto.

3.1 Congestion Pricing in London, UK

The City of London uses a "congestion charge" to help reduce emissions associated with vehicular traffic. Any vehicle present within the downtown core between 7 am and 6 pm on weekdays is charged a fee. The charge, introduced in 2003, has been an effective tool to reduce overall traffic within the city central area. London was one of the first major urban centres, following pioneering cities Singapore and Oslo, to introduce congestion pricing. Several other cities, including Stockholm and Milan, have followed since.



3.2 High-occupancy vehicle (HOV) lanes

One of the common measures to encourage carpooling and reduce the number of cars on the road is high-occupancy vehicle (HOV) lanes. Generally, vehicles with 2+ passenger, electric vehicles and buses are allowed to access the HOV lanes, thus providing an efficient way to move more people. HOV lanes are common on major highways in Toronto and nearby areas. During the 2015 Toronto Pan-Am Games, temporary HOV lanes were extended to the city's downtown core where they helped regulate traffic flow.



3.3 Bike shares

Having an easy access to a bicycle can encourage individuals to choose to cycle instead of driving or taking a taxi. Many urban centres have a bike sharing program that allows residents to quickly get to their destinations. Bike Share Toronto has a network of 80 stations within the city's central neighbourhoods. For a low daily fee, or a longer-term subscription, residents can gain access to the system. The program is designed to complement the City's public transit network and encourage the use of low-carbon transportation options. Over a million bike trips have been taken since the program launched.

To learn more, visit [Bike Share Toronto's webpage](http://BikeShareToronto.com).



3.4 Light-rail transit

The construction of light-rail transit systems has become a common way to address urban public transportation congestion and traffic. Light-rail transit (LRT) systems are typically powered by electricity and thus contribute to emission reduction in cities. There are several LRT projects currently underway in Toronto. The Eglinton Crosstown, an LRT system spanning 19 kms in the centre of the city, is expected to be completed by 2020. Two more projects, the Finch-West LRT and the Sheppard East LRT, are expected to get underway in 2016. LRT projects are a collaboration between TTC and Metrolinx, and part of the Metrolinx - the Big Move regional transportation plan.

For more updates on the Toronto LRT projects visit the [Metrolinx, Crosstown web-page](#).



3.5 Cross-city bike paths in Toronto

Cycling is a zero-carbon transportation option that can be an effective contributor to emission reductions in urban centres. Consequently, major cities in North America are investing into the expansion of bike lanes and cycling infrastructure. Toronto has been consistently expanding the bike network within the city. In 2014 alone, over 22 km of designated cycling routes were installed. Cycling ridership is increasing as well. Toronto's main waterfront path, Martin Goodman Trail, attracts more than 6,000 riders per day. The City is currently working to develop a 10-year cycling plan that will help to grow and connect Toronto's bike paths.

To learn more about the Bike Plan visit the [Toronto Cycling Network webpage](#).

For more information about Cycling in Toronto, visit the City of Toronto's [webpage](#).



3.6 Carbon tax in the British Columbia

A tax on carbon is used to encourage behaviour change that will lead to overall emission reduction. The tax is based on greenhouse gas (GHG) emissions that are produced from burning fuel, and is typically applied on fuel purchases. There are several types of carbon taxation practices worldwide. The Province of British Columbia, for example, currently has a carbon tax on all fuel purchases (approximately 7 cents per litre of gas). In the four years after implementation in 2008, GHG emissions in the province decrease by nearly 6%. Additionally, the revenue generated by the tax has allowed the province to reduce other taxes for residents and businesses. Similar initiatives can be created on a municipal level, however, carbon taxation mechanism are most commonly created at the provincial or federal level.



3.7 Specialty fare pricing for public transportation

Specialty fare pricing can be used to incentivize public transportation use. Some cities offer discounted or free fares to certain individuals or groups. TTC currently offers discounted fares to seniors and students as well as free fares for children under 12 years of age. TTC also offers Volume Incentive Passes (VIP), which allow organizations to purchase TTC passes in bulk to help their employees save money. Smart Commute, a program of Metrolinx, offers TTC VIP passes to their clients.

To learn more about the TTC VIP program and Smart Commute, visit the Smart Commute – Toronto Central [web page](#).



3.8 Air travel

Aviation is one of the major contributors to greenhouse gas (GHG) emissions worldwide. In 2008, aviation accounted for nearly 5% of the overall emissions from the transportation sector in Canada. Emissions from aviation must be addressed to ensure the successful achievement of local and international GHG emission targets. Due to the geographic scope of air transportation, sector regulation is overseen by the federal government. As a part of *Canada's Action Plan to Reduce Greenhouse Gas Emissions from Aviation* (the Action Plan), the government of Canada and the Canadian Aviation Industry have set a target to reduce emissions for the air transportation sector by 2 per cent per year. Consumers can offset the emissions associated with their air travel by purchasing emission offsets from most airline companies. Air travel can also be minimized through the use of technologies like teleconferencing.

To learn more about Canada's emissions targets related to aviation, visit the [Transport Canada webpage](#).



3.9 Complete communities design (mixed-use areas)

The need for driving can be significantly reduced if we live in close proximity to our every-day destinations. Mixed used areas, also known as complete communities, generally include residential, commercial, cultural and sometimes industrial areas within close proximity. This type of urban design enables residents to walk more easily between all of their key destinations, thus reducing the need for a car. Designing our city to include more mixed-use areas could decrease the number of cars on the road, and reduce emissions. In recent years, mixed-use development projects have become more common in Toronto, and more are currently under construction.

To learn more about specific mixed-use development projects in Toronto, visit the City's [Community Planning](#) web-page.



3.10 Electric Vehicles

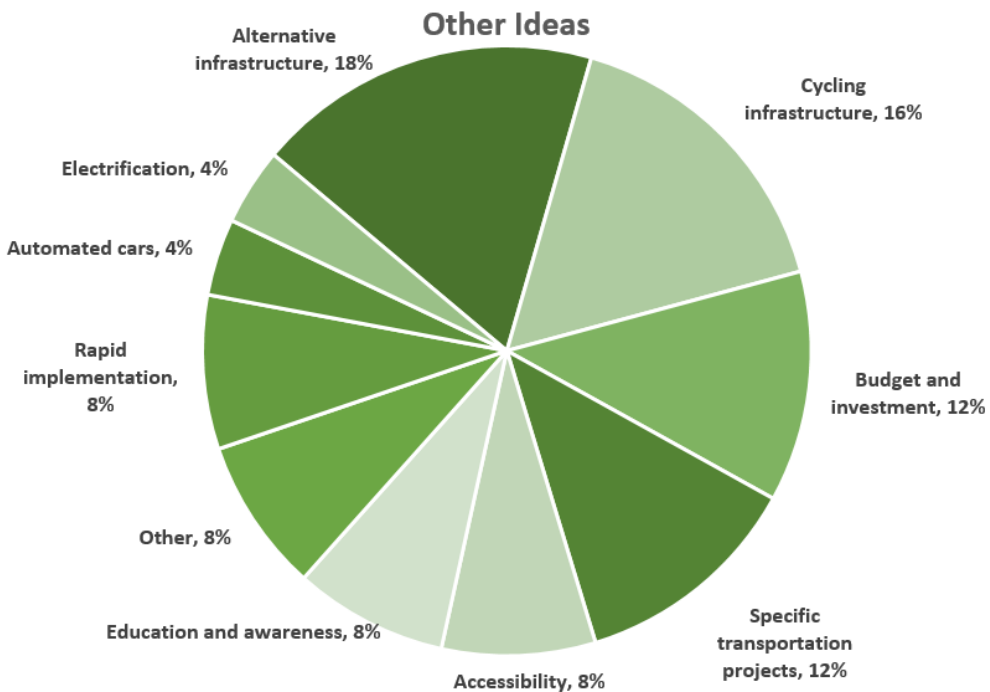
Using electricity to power cars can drastically reduce emissions associated with fuel combustion. To encourage the ownership and use of electric vehicles (EVs), the Province of Ontario provides rebates on EVs and EV charging stations. As electric vehicles becoming more common in Toronto, the need for charging stations is also on the rise. The City of Toronto has installed several charging stations and is conducting pilot studies to install even more.

To learn about the EV rebate program, visit the Ministry of Transportation, [Cars are Evolving](#) page.



4.0 Other ideas

What other ideas and questions would you like to hear discussed at the TalkTransformation! Transportation event?



Additional ideas included more discussion about innovative infrastructure changes, such as no parking, no traffic lights, small cars (18%); cycling infrastructure (16%); redistribution of funds for transportation (12%); discussions about specific projects such as the Eglinton LRT, subway extensions (12%); accessibility considerations for elderly & disabled (8%); achieving goals and targets faster (8%); more outreach (8%); planning for automated cars (4%) and electrification (4%). Other comments (8%) included critiques of the TransformTO project and overall City goals.

Examples of specific comments and questions:

"What are other cities doing? [What are] their experiences and successes? And what lessons are considered most appropriate for the GTA?"

"How is Toronto preparing for driverless cars?"

"Bicycle and pedestrian focused infrastructure!"

"Create an awareness campaign that highlights the degree to which car drivers are subsidized by the taxpayer as compared to transit users, pedestrians and cyclists..."

"Walking streets - converting King or Queen West into a pedestrian/cycling/transit thoroughfare, and changing the other to a car focused thoroughfare."

www.toronto.ca/TransformTO

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