

Presentation outline

- The STM today
- The Quebec Green Bond Program
 - Governance
 - Eligible projects
- Selected STM projects
- Reporting requirements
- Progress report on funded project



The STM today



- 3rd largest public transit organization in North America
- 429,5 million linked trips in 2017 (639,1 million unlinked)
 - Over 1.4 million linked trips per average weekday



- Métro
 - 4 lines, 68 stations, 91 trains



- Bus
 - 221 bus lines, 1807 buses



- Paratransit
 - 4 million passenger trips, 31 640 clients



- 9 754 employees



- Budget: \$1.4 billion
- Replacement value of assets: \$26 billion



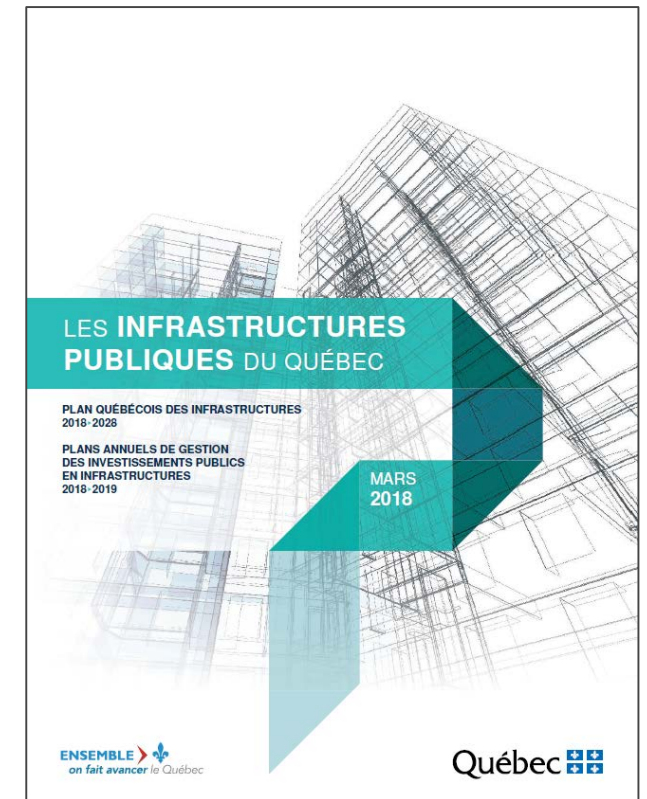
Canadian Green Bond Market

- In 2017, Canadian Green Bond issuance totalled \$3.8 billion
- The Government of Ontario issued its first Green Bond in 2014, and its fourth in 2018, for a total of \$3 billion
- The Government of Quebec issued its first Green Bond on the global market in February 2017, followed by a second issue in February 2018 and a third in June for a total of \$1.5 billion
 - Each issue is valued at \$500 million
 - 5-year maturity; 7 years for the third one



Quebec Government Green Bond Program

- The program funds projects that generate tangible benefits relating to:
 - Environmental protection
 - Greenhouse gas emission reduction
 - Climate change adaptation
- Eligible projects must be included in the Québec Infrastructure Plan (QIP)
- The value of each project must be over CAN\$25 million
- Eligible projects must belong to one of the following categories
 - Public Transit
 - Energy Efficiency
 - Renewable Energy
 - Sustainable Waste Management
 - Sustainable Land Development
 - Water Management or Water Treatment
 - Forest, Agricultural Land and Land Management
 - Climate Adaptation and Resilience
- Québec Green Bonds have the same characteristics as conventional bonds in terms of price, yield, maturity and credit ratings.



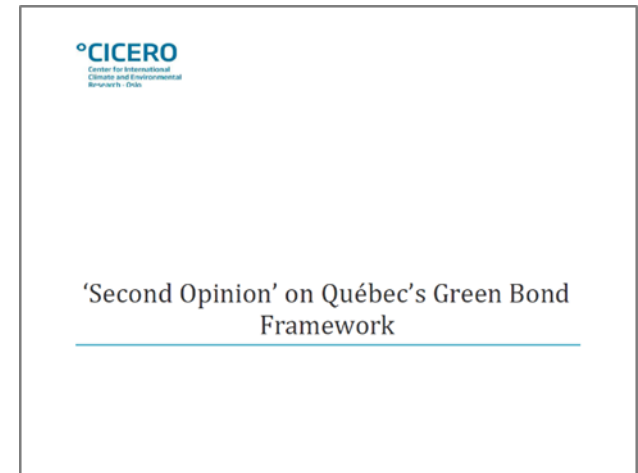
Quebec Green Bond Program Governance

- The Ministry of Finance formed the Green Bond Advisory Committee (GBAC) made up of the following representatives:
 - Ministry of Finance
 - Ministère des Finances
 - Ministry of Sustainable development, Environment and Fight against climate change
 - Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques
 - Ministry of Transportation, Sustainable mobility and Transportation electrification
 - Ministère des Transports, de la Mobilité durable et de l'Électrification des transports
 - Treasury Board Secretariat
 - Secrétariat du Conseil du trésor
- The Program draws on the Green Bond Principles



Quebec Green Bond Program Framework

- The GBAC has put in place a framework for the program that details:
 - Eligibility criteria
 - The selection process for the eligible projects
- The GBAC selects projects that fulfil the program's selection criteria.
- When issuing Green bonds, the Ministry of Finance chooses from the list drawn by the GBAC.
- **The progress of the projects, their related disbursements and environmental benefits must be regularly monitored.**
- The program's framework received the highest possible rating — dark green — from the Center for International Climate Research – Oslo (CICERO).



Projects selected for the first issue

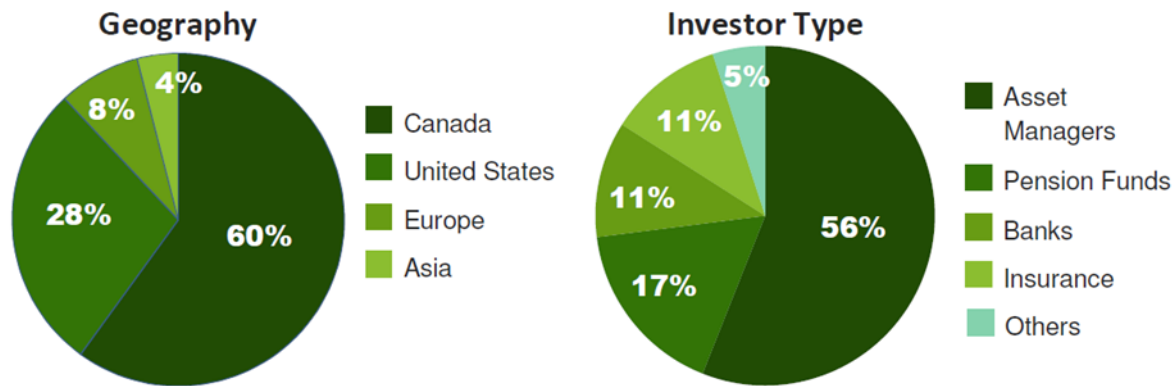
- The four projects that were selected for Quebec’s first green bond issue are STM projects:
 - Acquisition of 468 Azur métro cars
 - Réno-systèmes Program
 - Réno-Infrastructures Program
 - Acquisition of 258 hybrid buses
- These projects support the following STM targets:

Indicator	2017	Target 2020	Target 2025
Ridership (trips)	413.3M	422.8M	440.0M
Percentage of trips made using electricity	69.5%	79.7%	88.6%
GHG emissions per passenger-km (g CO2e)	47.4	46.2	44.7



Distribution of investors for the first issue

- More than 60 investors, including 40% international
- 90% of total sales come from investors with green mandates or who are signatories of the United Nations Principles for Responsible Investments (UN PRI)



- Benefits for the province of Quebec
 - Several international investors were buying Quebec bonds for the first time
 - Strengthens the position of Quebec as a world leader in the fight against climate change
 - Enhances Quebec's credibility on global financial markets

First Green Bond issue : new Azur métro cars

- In 2010, the STM signed a contract with the Bombardier-Alstom consortium to purchase 468 métro cars (52 trains).
 - \$1.2 billion investment over several years
 - Financed by the Ministry of Transportation, Sustainable mobility and Transportation electrification (75%) and the Montréal agglomeration (25%).
- The Azur métro cars offer
 - an 8% increase in passenger capacity
 - information systems with state-of-the-art technology
 - enhanced ventilation
 - doors 27% wider than the previous ones
 - an optimized layout
- 100% powered by hydroelectricity
- 92.5% recyclable at the end of their useful life.



GHG emissions avoided by public transit

- In 2016, various municipal and provincial partners and transit authorities collaborated in a study on GHG emissions avoided by public transit in the Greater Montréal area.
 - Quantification of GHG emissions avoided was realized according to the guidelines proposed in the **American Public Transportation Association's** Recommended Practice for Quantifying Greenhouse Gas Emissions from Transit, based on three factors:
 - **Mode shift to transit**
 - **Congestion relief**
 - **Land-use multiplier**
 - In addition, the **Transit Cooperative Research Program (TCRP)** methodology related to density was also used.

Total GHG emissions avoided by public transit in the Greater Montréal area are 3.9 million tons of CO₂e per year

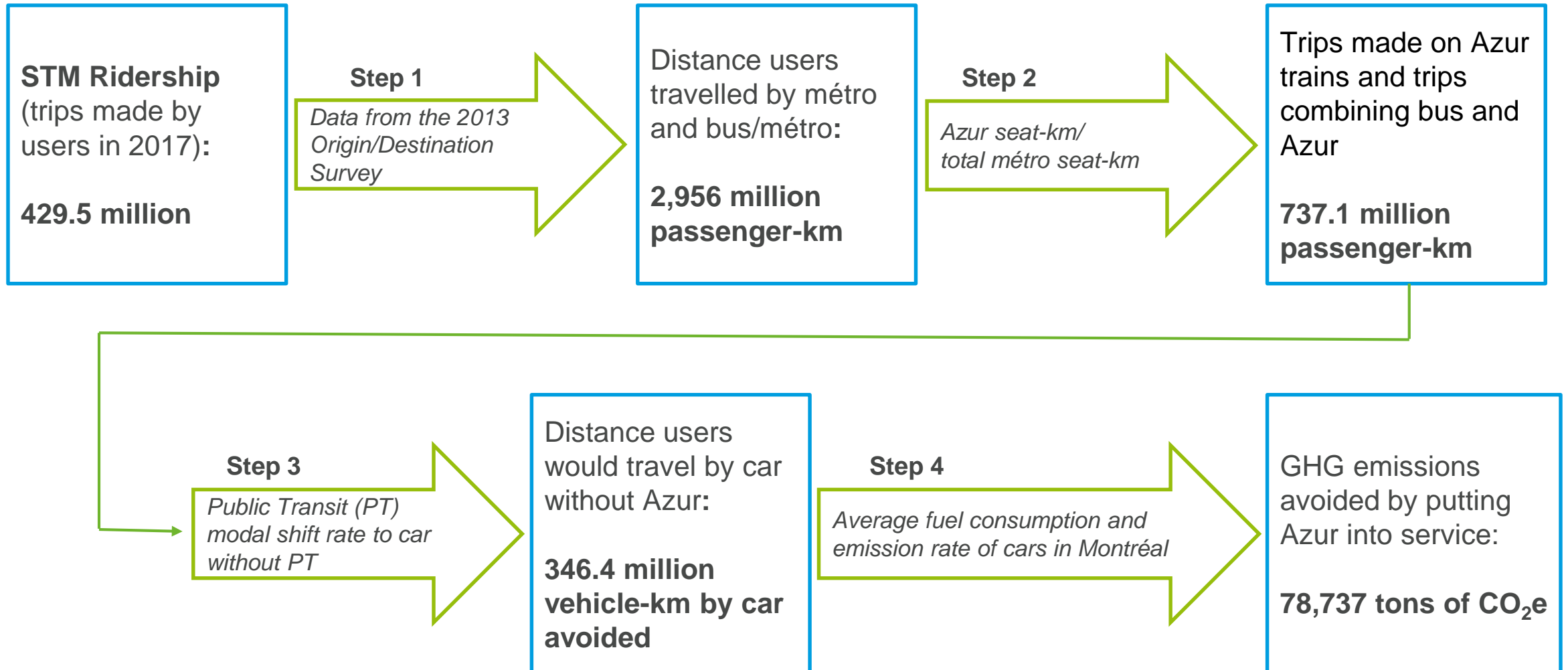


Estimation of GHG emissions avoided by the Azur trains

- ▶ The methodology used to estimate the GHG emissions avoided by using the Azur trains only takes into account the **mode shift to transit** factor.
- ▶ Key assumptions:
 - ▶ If the Azur trains had not been put into service, a part of the métro service could not be offered.
 - ▶ Trips made by users on Azur trains and trips combining bus and Azur trains would have, in part, been made by car.



GHG emissions avoided by the Azur trains in 2017





Thank you for your attention