SMART FREIGHT SYMPOSIUM

TORONTO, NOVEMBER 4TH, 2019

Ontario Supply Chains

Improving the productivity of our multimodal supply chains in a trade corridor context

Policy Overall Context

Transport Minister Vision and Objectives

- **Travelers** experience
- **Safer** transportation
- **Greener** and more **innovative** transportation
- World class **waterways** and **Northern** transportation infrastructure
- Improve **trade corridors** to global markets

Federal Budget 17-18

- National Trade Corridors Fund
- Canada Infrastructure Bank
- Trade and transportation Information System

Transport Modernisation Act

- Railway operational information
- Passenger rights

Departmental Reporting

- End-to-end transit time for import containers
- End-to-end transit time for grain export

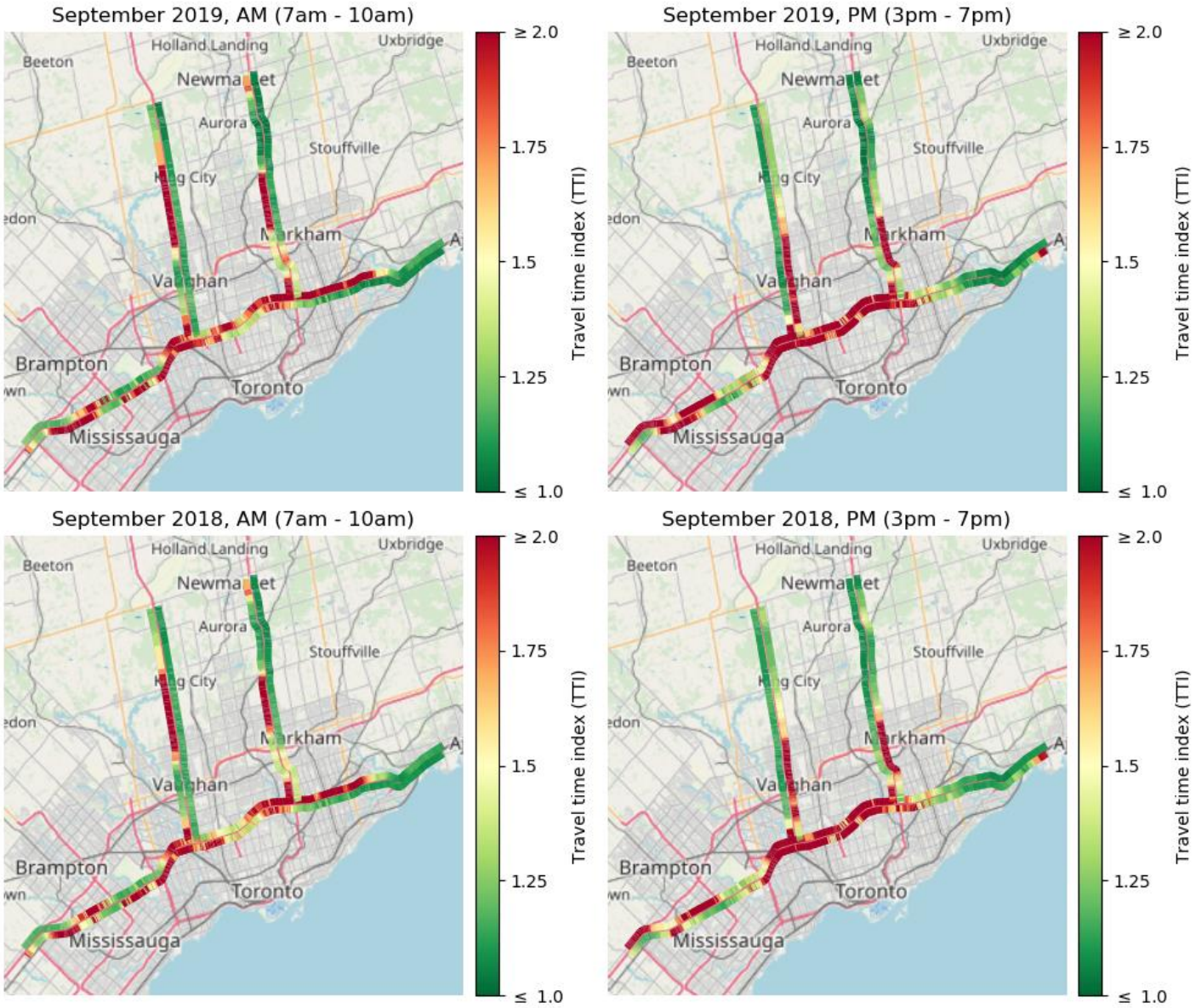
Economics

- Greater Toronto Area – it is 20% of Canada GDP and 50% of Ontario GDP
- The service sector makes up 75% of Ontario GDP and transportation is a big part of that sector
- Ontario has the busiest border crossings with the U.S. and they handle $900 million in trade
- In a 2015 Board of Trade study, Toronto scores low on productivity - 18 out of 24 major cities around the world

Objectives

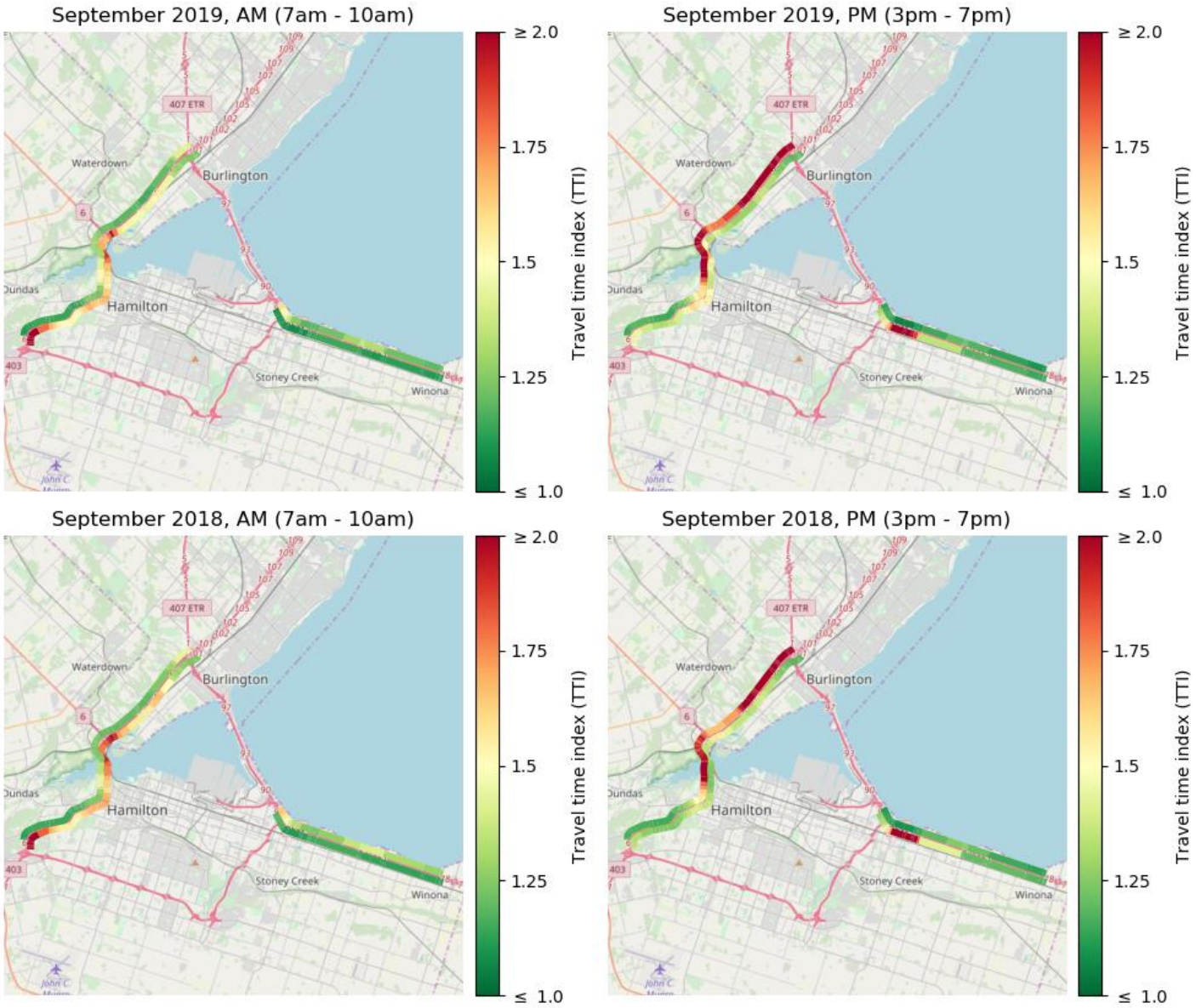
- Facilitate partnerships in the region between public and private stakeholders including the academic/research community with a focus on improving freight fluidity and Canada's competitiveness
- Innovate through new partnership and clear governance in the use of innovative data approaches on transportation issues and further leverage TC's role as an authoritative data source
- Harness analytical skills and knowledge that exists in the region and support that analysis with data available at TC
- Direct evidence-based analysis performed in the region at the multimodal and supply chain questions relevant to national objectives
- Recognize and measure the significance of urban mobility in our trade corridors
- Assist in the decarbonization of transport activities particularly in a last-mile context related to trade (imports and exports)

Toronto, ON
Monthly Travel Time Index[1]
Weekdays only, by time of day



[1] Travel time index (TTI) is the ratio of free-flow speed to average vehicle speed during the peak period.
A TTI of 1.5 indicates a trip that would take 10 minutes in free-flow conditions would take 15 minutes during the peak period.
Data from HERE Technologies. Basemap by OpenStreetMaps.

Hamilton, ON
Monthly Travel Time Index[1]
Weekdays only, by time of day



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Our approach will focus on:

- Toronto and Peel Region (Mississauga, Brampton, and Caledon)
- Golden Horseshoe (Hamilton and Niagara Region)
- Toronto- Windsor/Sarnia Corridors

Ontario Supply Chain 3 Pillars Partnerships

Toronto/Peel Region

- Universities/Smart Freight Centre
  - University of Toronto
  - York University
  - McMaster University
- Pembina Institute (alternative deliveries for last mile)
- Private Sector Firms (shippers and carriers)
- Peel Region
- City of Toronto
- MTO

Golden Horseshoe / Niagara Region

- Port of Hamilton
- City of Hamilton
- Niagara Region
- McMaster Institute for Transportation & Logistics (MITL)
- MTO
- Private Sector Firms (shippers and carriers)
- Seaway Management Corporation

Toronto- Windsor/Sarnia Corridors

- Toronto Region Board of Trade
- MTO
- Private Sector Firms (shippers and carriers)

Ontario Supply Chain
TC's Outcomes

Toronto/Peel Region

- Develop a governance model with Smart Freight Centre Data Warehouse
- Promote discussions on alternative deliveries for last mile
- Work with MTO on measuring urban mobility in a trade corridor context
- Publish Travel Time Index showing the impact of urban mobility in Toronto major trade corridors
- Cost the impact of urban mobility for our trade

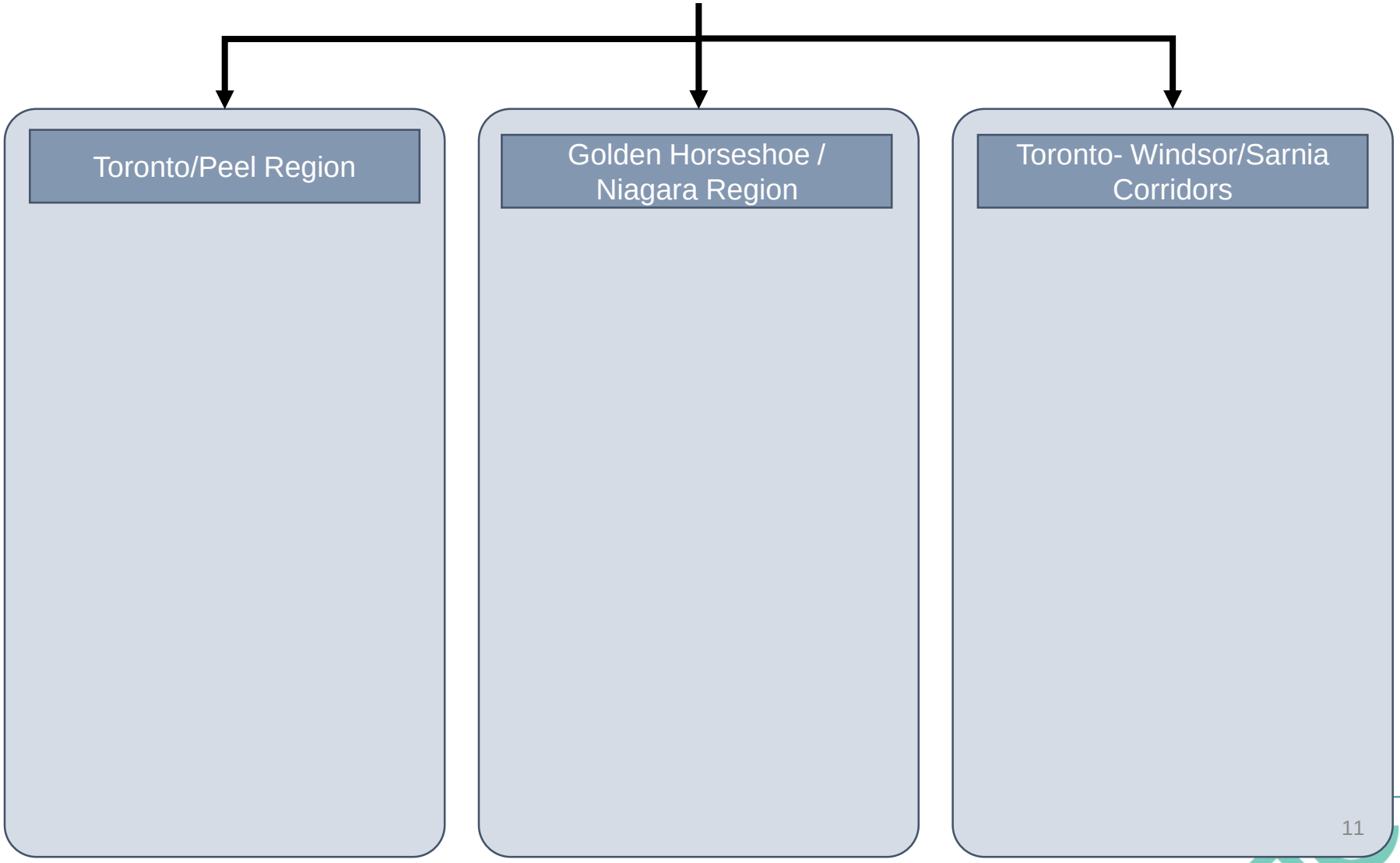
Golden Horseshoe / Niagara Region

- Develop a governance model for data warehouse to support their analytics
- Support Trade diversification and export of bulk agricultural products
- Improve freight fluidity in our surface trade corridors
- Integrate technological developments at the Port of Hamilton with the City of Hamilton freight plan
- Publish Travel Time Index showing the impact of urban mobility in Hamilton trade corridors
- Monitor and Publish Border wait times in near real-time

Toronto- Windsor/Sarnia Corridors

- Develop a governance model for data warehouse with the Toronto Regional Board of Trade to support their analytics
- Support Trade Diversification efforts and growth in e-commerce import /export
- Publish Travel Time Index for Ontario cities in that trade corridor
- Monitor and Publish Border wait times in near real-time
- Predictability of import container trade from overseas

Ontario Supply Chain
Stakeholders' Outcomes - Compiled on Nov 19



Data Governance

More open ⟷ Less Open

Closed

Open data (publicly available)

- CCTD
- e.g., Municipal open data portals
- e.g., Provincial open data portals

Data available to public through purchase

- e.g., Trade data from Statistics Canada
- e.g., US Customs data
- e.g., econometric data
- e.g., IATA data
- e.g., Rail Inc.
- Etc.

Aggregated anonymized data

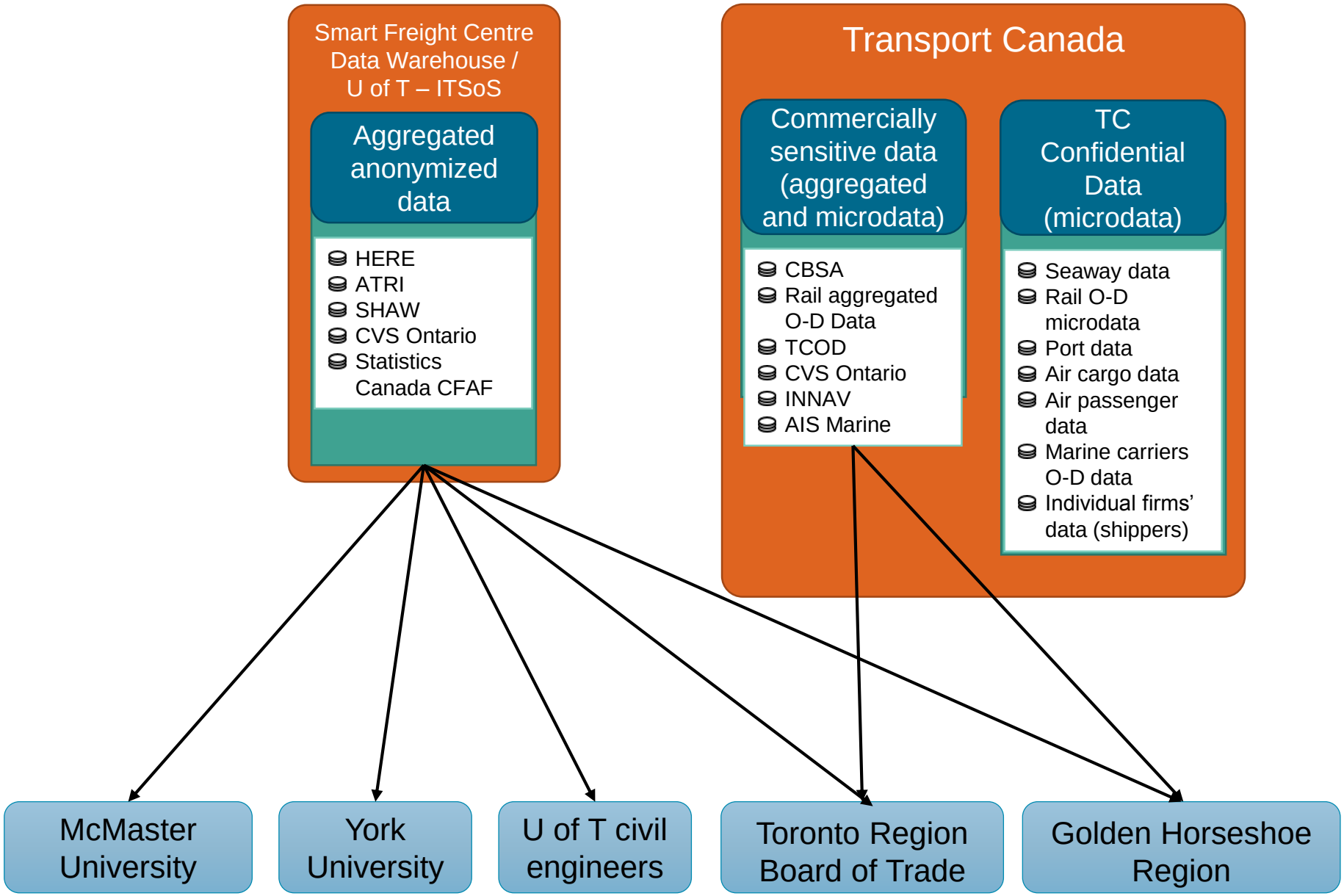
- HERE
- ATRI
- SHAW
- CVS Ontario
- Statistics Canada CFAF
- Coast Guard INNAV

Commercially sensitive data (aggregate and microdata)

- CBSA
- Rail aggregated O-D Data
- TCOD
- CVS Ontario

TC Confidential Data (microdata)

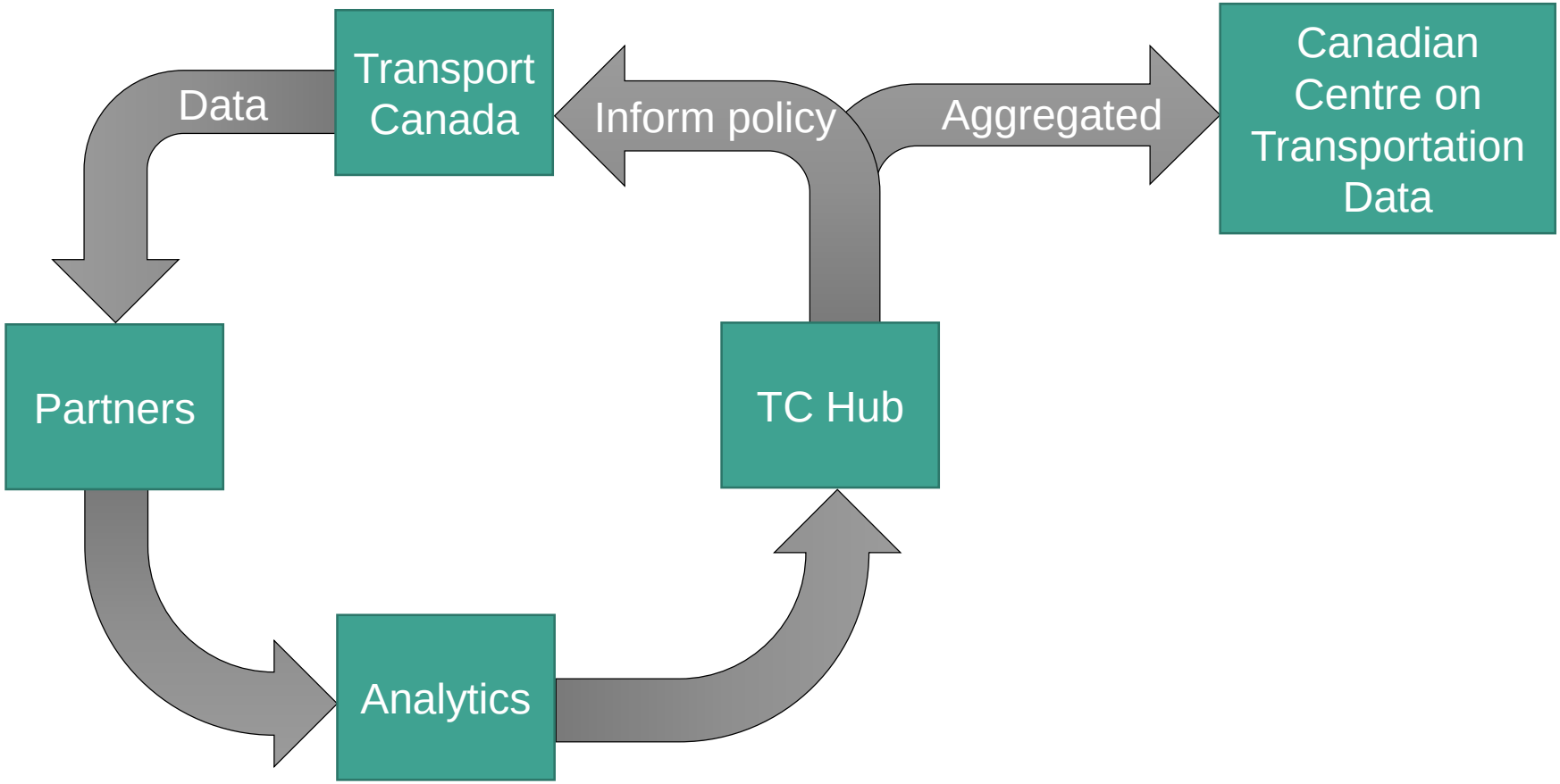
- Seaway data
- Rail O-D microdata
- Port data
- Air cargo data
- Air passenger data
- Marine carriers O-D data
- Individual firms' data (shippers)


Smart Freight Centre Data Warehouse / U of T – ITSoS
Aggregated anonymized data
HERE
ATRI
SHAW
CVS Ontario
Statistics Canada CFAF
Transport Canada
Commercially sensitive data (aggregated and microdata)
CBSA
Rail aggregated O-D Data
TCOD
CVS Ontario
INNAV
AIS Marine
TC Confidential Data (microdata)
Seaway data
Rail O-D microdata
Port data
Air cargo data
Air passenger data
Marine carriers O-D data
Individual firms' data (shippers)
McMaster University
York University
U of T civil engineers
Toronto Region Board of Trade
Golden Horseshoe Region

Stakeholder Responsibilities of Data Sharing

- Sharing agreements between the three pillars
- Identifying (to TEA) potential entities the data will be shared with and also what data will be shared
- Identifying (to TEA) the purpose of the use of the data
- Receiving approval (from TEA) before release of any results based on the TC data
- Providing NDA process for data sharing
- Safeguarding the safety, security and integrity of the data
- Maintaining cybersecurity, physical security, following secure file transfer protocols
- Ensuring disposal and destruction of the data is carried out once the agreement is terminated

TEA = Transportation and Economic Analysis-Transport Canada


Transport Canada
Data
Inform policy
Aggregated
Canadian Centre on Transportation Data
Partners
TC Hub
Analytics

Merci/Thank You