

MTI Research Snaps:

# LESSONS LEARNED FROM PUBLIC TRANSIT SUCCESS IN METROPOLITAN AREAS

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Presented by Michelle DeRobertis, PhD, P.E.

Principal

Transportation Choices for Sustainable Communities



July 30, 2020



# Study Purpose

- What are the replicable factors in **metropolitan-wide public transportation** that make transit an effective competitor to the private motor vehicle?”
- Methodology: Case studies from ten metropolitan areas in Europe, Canada, and Australia

# Goal was to determine common features:

1. Institutional and structural features
2. Customer-apparent characteristics
3. Financial support / subsidy

# Ten Metropolitan Area Case Studies

<b>Europe</b> <b>5 countries, 6 regions</b>	<b>Non-European</b> <b>2 countries, 4 regions</b>
<ol style="list-style-type: none"><li>1. Lyon, France</li><li>2. Stuttgart, Germany</li><li>3. Frankfurt, Germany</li><li>4. Milan, Italy</li><li>5. Barcelona, Spain</li><li>6. Stockholm, Sweden</li></ol>	<ol style="list-style-type: none"><li>1. Sydney, Australia</li><li>2. Perth, Australia</li><li>3. Vancouver, Canada</li><li>4. Toronto, Canada</li></ol>



# Findings - Regional Structure

- All ten case study metropolitan areas have an entity that is responsible for regional transit coordination
  - Consortium of cities and counties
  - Specially created agency (created by a government political body: the state or province)
- RTC- Regional Transit Coordinator

# 3 Basic Structures of RTCs found:

1. Coordination only agency - distinct agency from transit agencies owned & operated by local and state governments

- Stuttgart, Frankfurt, Lyon, Milan, Barcelona



2. Coordination agency is the regional transit operator and coordinates all other transit modes /operators

- Toronto



3. Complete consolidation of all transit agencies under one agency.

- Stockholm, Vancouver, Sydney, Perth.



# Structure of RTCs & Examples

## Example 1. Coordination Only



**Agenzia TPL**

Agenzia del Trasporto Pubblico Locale del bacino della  
Città Metropolitana di Milano, Monza e Brianza, Lodi e Pavia



Àrea de Barcelona  
Autoritat del Transport  
Metropolità



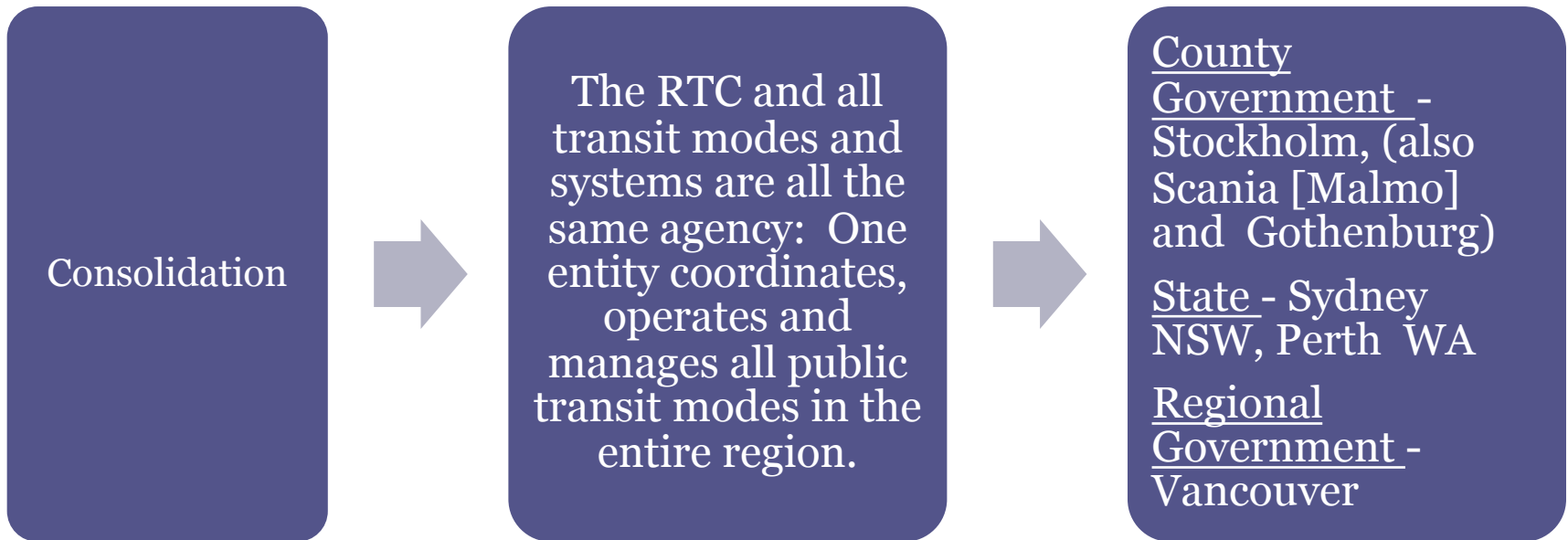
# Structure of RTCs & Examples

## Model 2. Coordinates all transit operators + operates regional transit

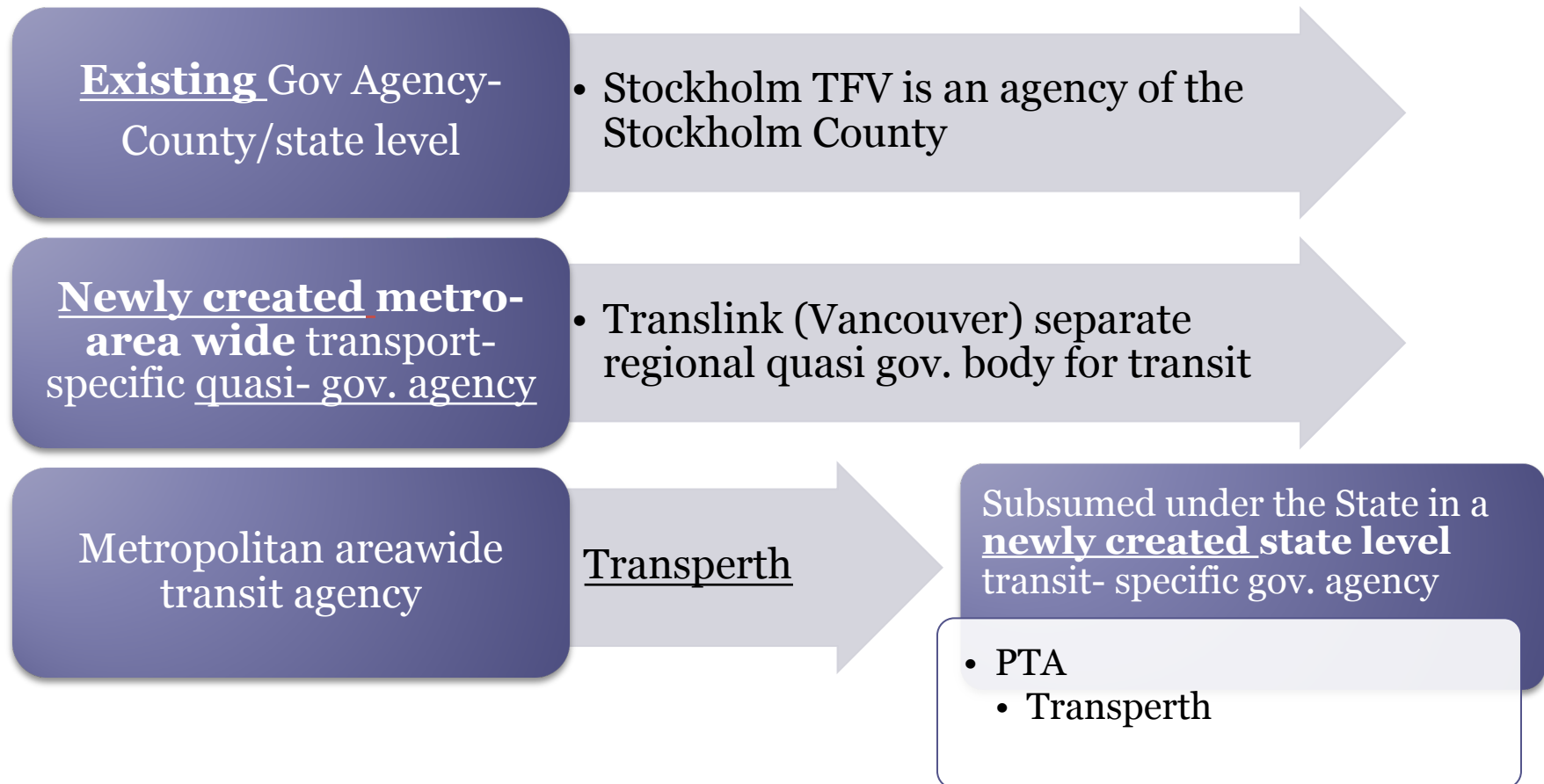


# Structure of RTCs & examples

## Model 3. Consolidation

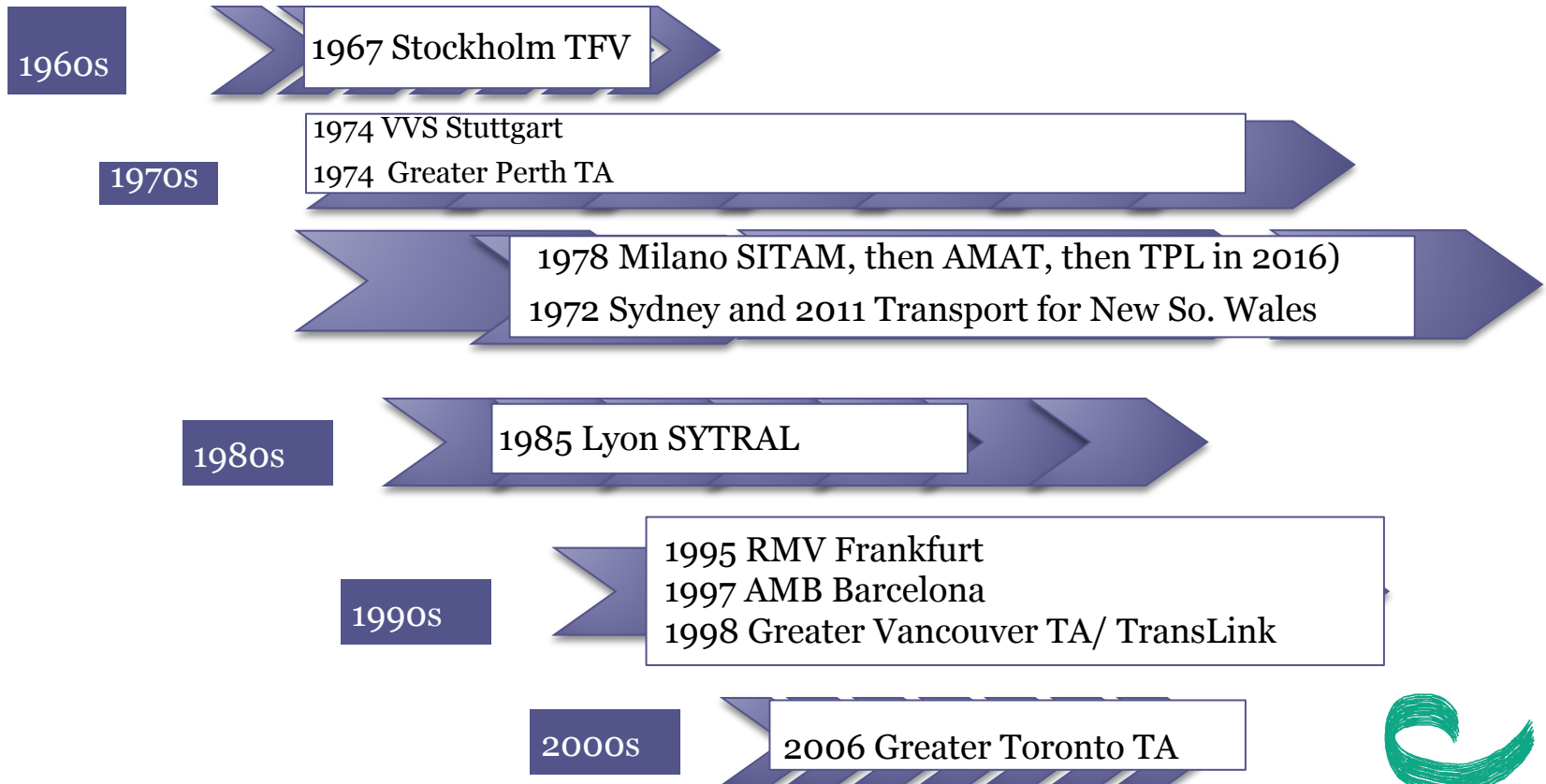


# Many variations-even for Complete Consolidation





# Year Regionwide Transit Coordination began



# Customer Apparent Features

## 1 Transit supply

### Geographic extent

- Frequency
- Temporal – hours of the day

## How does this come together in practice?

- Milan's 12 suburban commuter train lines
- 6 am to midnight, 7 days a week
- run 10-30-minute minimum headways
  - Even late night at 11 pm, or an early weekend morning, or midday Saturday, the maximum wait time for a train is 30 minutes



- S1 Saronno-Milano Passante
- S2 Mariano C-Milano Passante
- S3 Saronno-Milano Bovisio-MI Cadorna
- S4 Camnago Lentate-Milano Bovisio-MI Cadorna
- S5 Varese-Milano Passante
- S6 Novara-Milano Passante
- S7 Lecco-Molteno-MI P. Garibaldi
- S8 Lecco-Carnate-MI P. Garibaldi
- S9 Saronno-Seregno-MI Gr. Albairate
- S11 Chivasso-Como S. Giovanni-MI P. Garibaldi-Rho
- S12 Melegnano-Milano Passante
- S13 Pavia-Milano Passante-MI Bovisio
- S10 Como S. Giovanni-Chivasso-Mendrisio-Bellinzona
- S40 Como S. Giovanni-Chivasso-Mendrisio-Varese FS
- S50 Malpensa-Varese FS-Mendrisio-Bellinzona

# Customer Apparent Features

## 2. Fares and Fare Policy

- Single fare structure across all modes & operators
- Price the journey from origin to destination, not the individual modal trip.
  - Mode- and operator-blind
  - Essentially means free transfers regionwide
- Affordable
- Fare policies to encourage transit use



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# Single-ticket journey-based fares

How does this come together in practice?

- All transit modes & operators accept the same ticket or pass: no need to obtain or purchase a “transfer” or to purchase passes from different transit operators.
- One single-journey ticket is typically valid for 70–100 min, using as many modes as you need to: take bus to the train or subway, use the train, then light rail—several cities several operators but one fare-one ticket.
- Passes encouraged—all modes and operators use the same pass: local busses, subway, commuter rail, light rail, funiculars.
- Many options for passes: day, multiday, week, month, annual
- Discounts for students up to age 26.
- Children < 12 are free or deeply discounted.
- On weekends, monthly passholders can bring the family
- Or can bring-a-friend-for-free.



# Funding of Transit

- Subsidies varied, but of course, there are subsidies
- Unapologetically fund public transit
- Future plans to expand their rail networks
- Coordinating agency ensures that the long-term planning and funding is also coordinated
- Financial commitment, both past and present, to building and maintaining the infrastructure and operations to support it

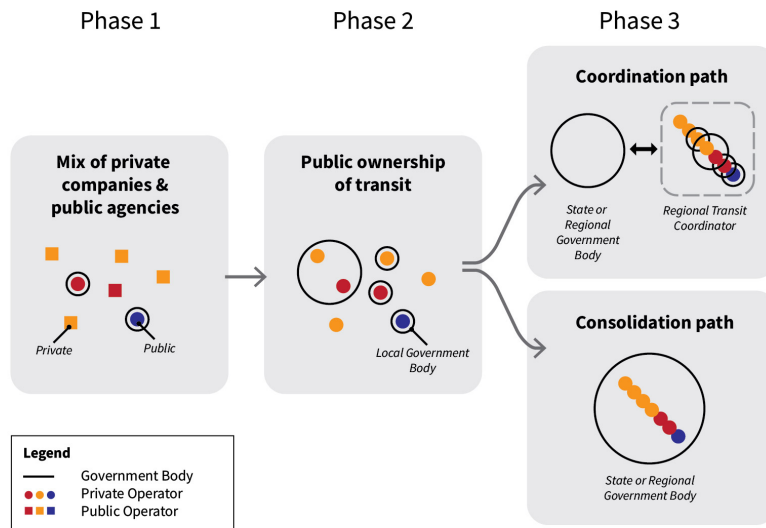
# Conclusion-Regional Transit Coordinator

**RTC is the logical next phase of urban transit**

## Key duties of the coordinator

- A common fare structure regionwide.
- Schedule coordination among different modes / operators.
- Consolidated procurement and contracting with resulting economies of scale.
- Branding, marketing, public information.
- Monitoring operations to ensure quality control
- Coordinated long-range planning to serve the entire region.
- .

### Conceptual Phases of Public Transit Operations





# Other Conclusions

- Fare policy - All case studies had some degree of fare integration, and most had complete regionwide fare integration.
- Affordability - Transit service from a regional perspective was frequent, abundant, and affordable in all cases.
- Supply – excellent existing supply and a commitment to expand the range of rapid and rail transit
- Funding is key to this; the laws that created new RTC agencies also ensured that:
  - the total transit dollars increased;
  - transit funding comes from many sources: parking fees, developer fees, gas taxes, sales taxes, and more.

*Elementary, my dear Watson.*

*—The Adventures of Sherlock Holmes 1891*

A steady, sufficient,  
reliable funding stream  
is fundamental to world-  
class, reliable public  
transportation.

# Questions?

## **Contact information:**

**m.derobertispe@gmail.com**

## **Full report to be available at:**

**<https://transweb.sjsu.edu/research/publications>**

Thank you for joining us for:

## Lessons Learned from Public Transit Success in Metropolitan Areas

View the full report at: (coming soon) <https://transweb.sjsu.edu/research/publications>

**Tune in for our next MTI Research Snap “Rising to the Transportation Challenge– Students Applying STEM Solutions to Improve Transit” on August 20, 2020 at 10 a.m.!** Visit <https://transweb.sjsu.edu/events> for details and registration.

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