

LESSONS LEARNED FROM PUBLIC TRANSIT SUCCESS IN TEN METROPOLITAN AREAS

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Principal

Transportation Choices for Sustainable Communities

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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



Ten Metropolitan Area Case Studies

Europe

5 countries, 6 regions

1. Lyon, France
2. Stuttgart, Germany
3. Frankfurt, Germany
4. Milan, Italy
5. Barcelona, Spain
6. Stockholm, Sweden

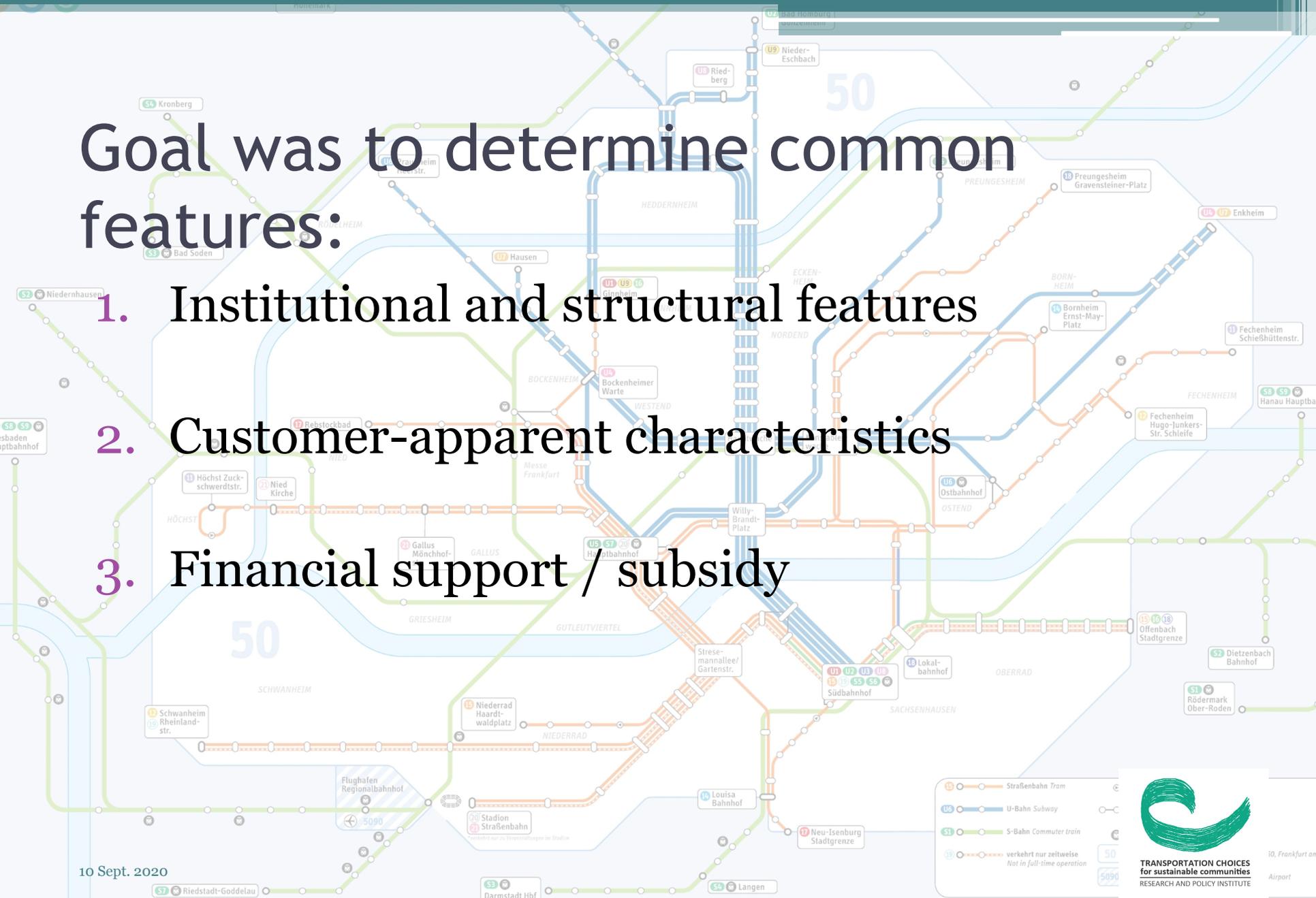
Non-European

2 countries, 4 regions

1. Sydney, Australia
2. Perth, Australia
3. Vancouver, Canada
4. Toronto, Canada

Goal was to determine common features:

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



Findings - Regional Organizational Structure

- RTC- Regional Transit Coordinator

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)

3 Basic Structures of RTCs found:

1. Coordination only agency - its role is to coordinate all the other transit agencies

- Stuttgart, Frankfurt, Lyon, Milan, Barcelona



2. Coordination agency also is the regional transit operator

- Toronto



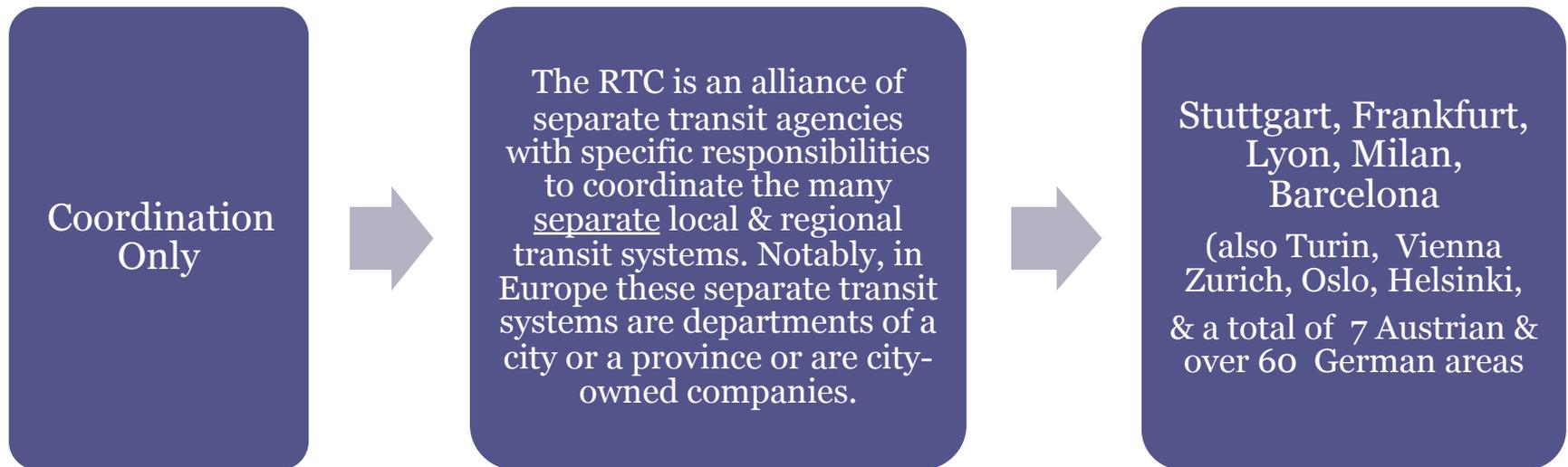
3. Complete consolidation of all transit responsibilities under one agency.

- Stockholm, Vancouver, Sydney, Perth.



Structure of RTCs & Examples

Example 1. Coordination Only



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Agenzia TPL

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

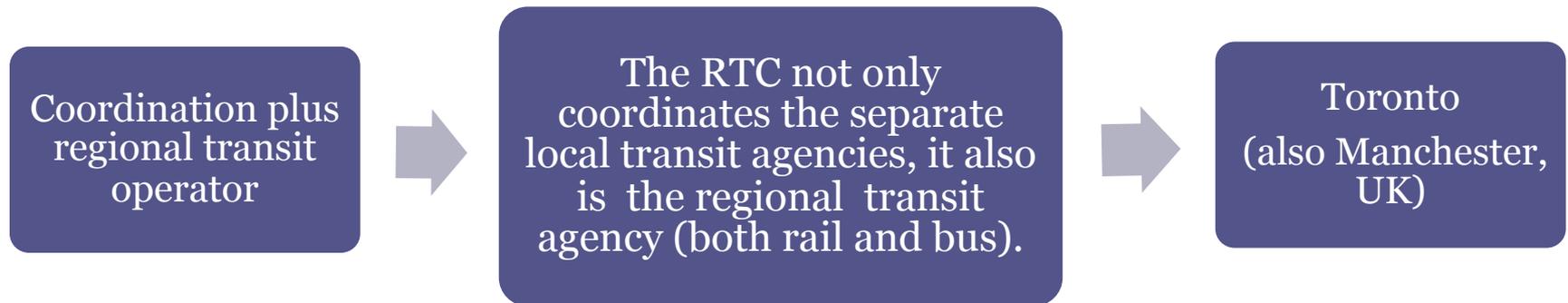


Àrea de Barcelona
Autoritat del Transport
Metropolità



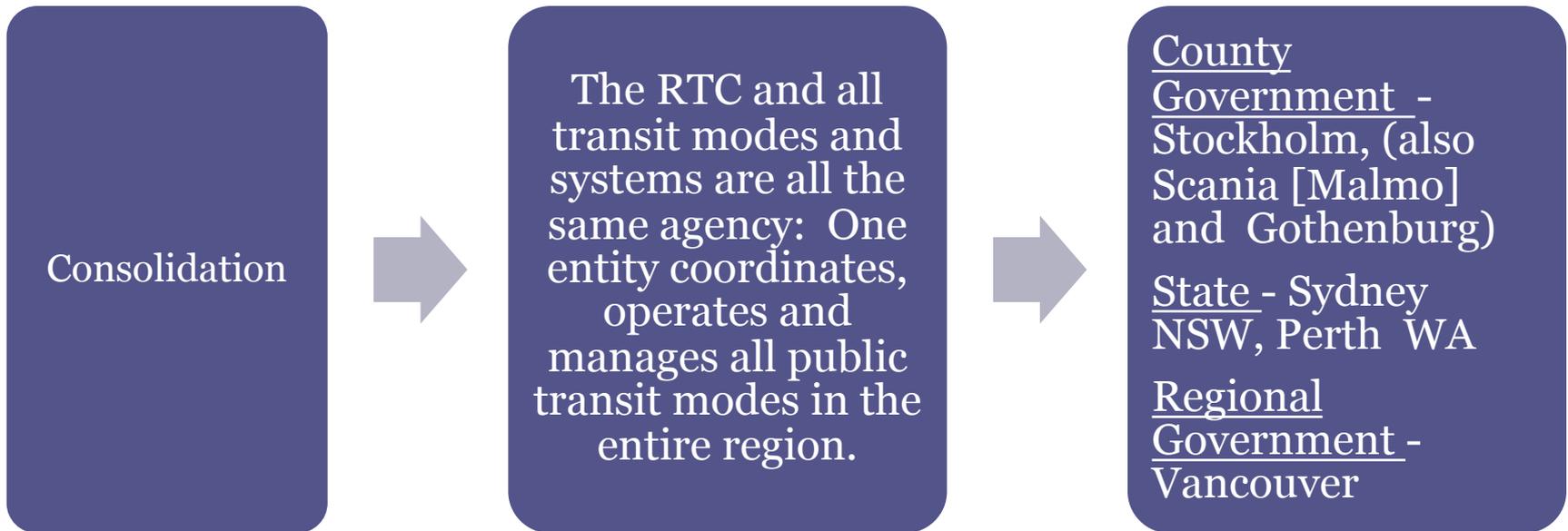
Structure of RTCs & Examples

Model 2. Coordinates all transit operators + operates regional transit



Structure of RTCs & examples

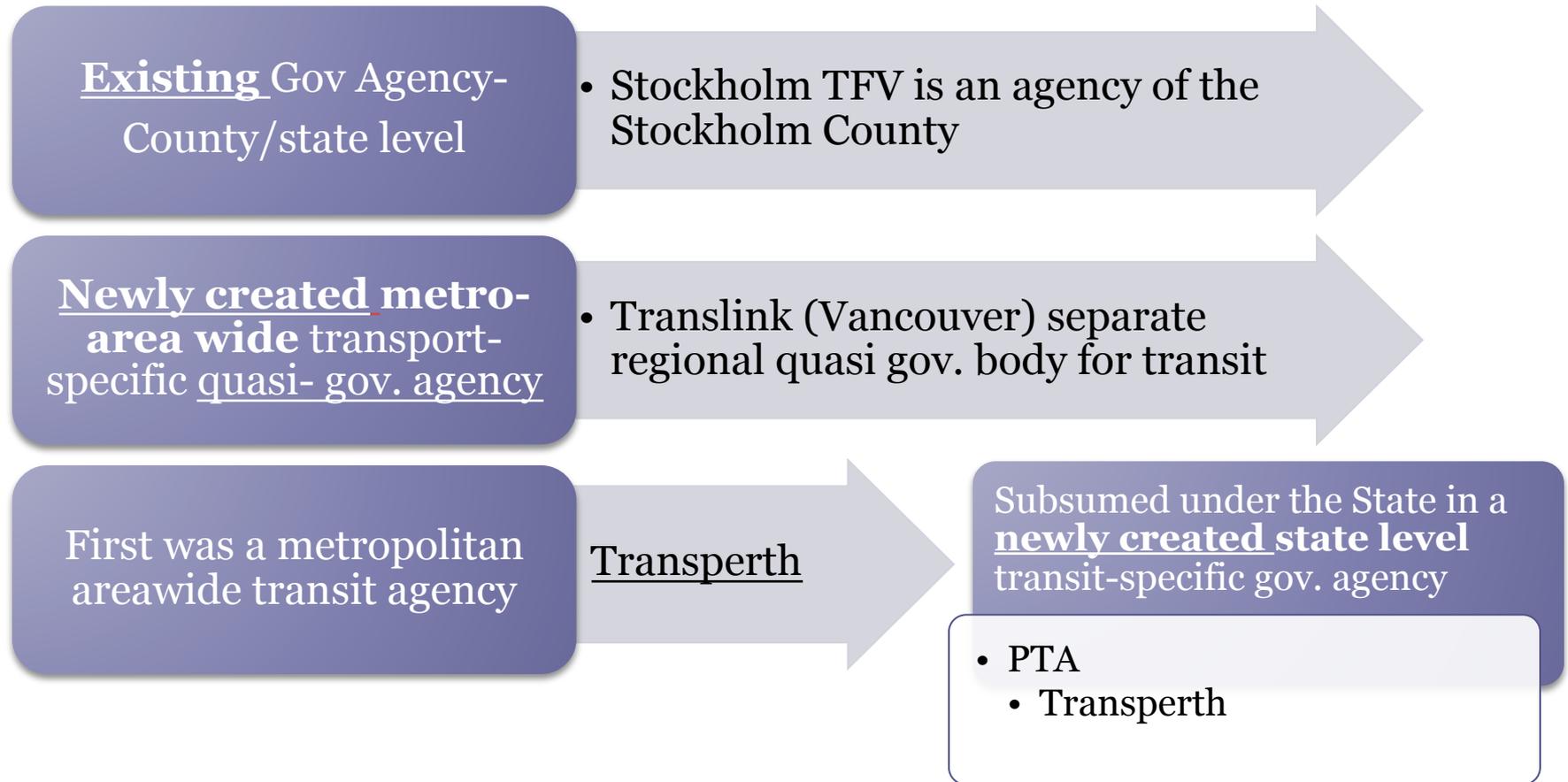
Model 3. Consolidation



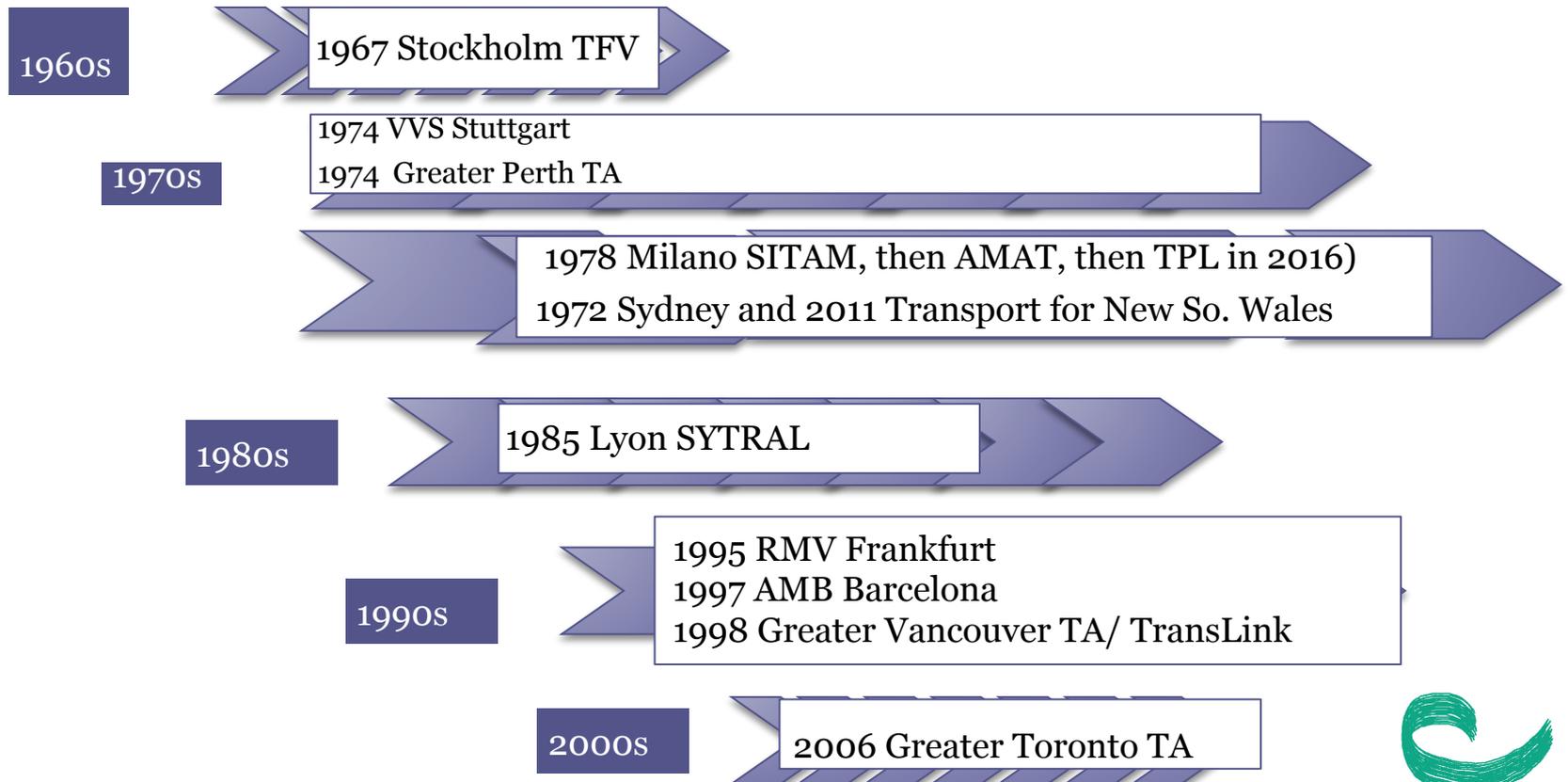
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Many variations-even for Complete Consolidation



Year Regionwide Transit Coordination Began





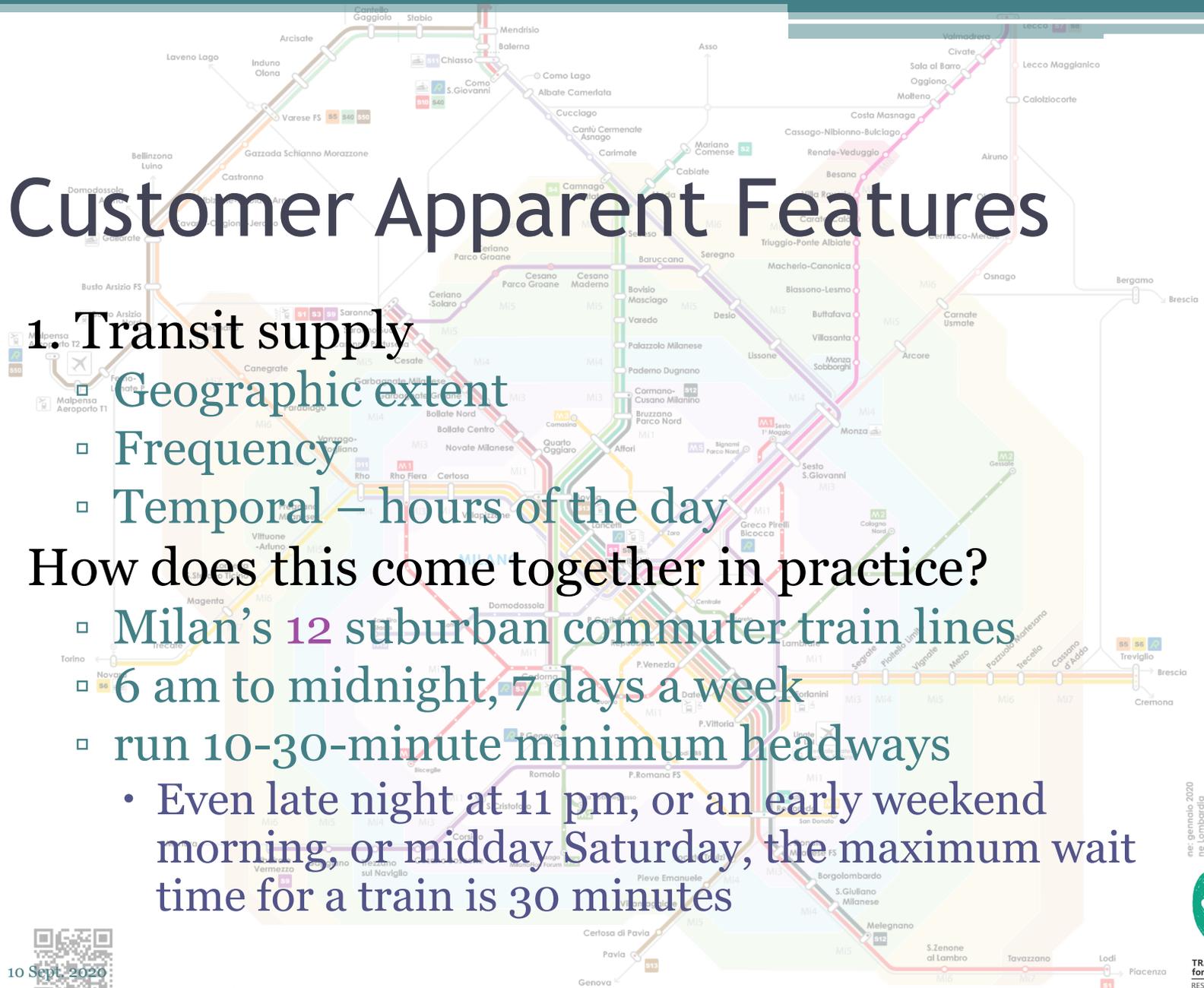
Customer Apparent Features

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



Suburban lines

S	Suburbana • Suburban lines
S1	Saronno-Milano Passante MI Rogoredo
S2	Mariano C-Milano Passante MI Rogoredo
S3	Saronno-Milano Bovisama-MI Cadorna
S4	Comnago Lentate-Milano Bovisama-MI Cadorna
S5	Varese-Milano Passante Treviglio
S6	Novara-Milano Passante Treviglio
S7	Lecco-Molteno-MI P. Garibaldi
S8	Lecco-Carnate-MI P. Garibaldi
S9	Saronno-Seregno-MI P. Garibaldi
S11	Chiasso-Como S. Giovanni MI P. Garibaldi-Rho
S12	Melegnano-Milano Passante MI Bovisama
S13	Pavia-Milano Passante-MI Bovisama
S10	Como S. Giovanni-Chiasso Mendrisio-Bellinzona
S40	Como S. Giovanni-Chiasso Mendrisio-Varese FS
S50	Malpensa-Varese FS-Mendrisio-Bellinzona
R	Regionale • Regional railway
M	Linee Regionali e Regioni Metropolitane • Underground
M1	Sesto 1° Maggio FS-Bisceglie/Rho Fieramilano
M2	Assago/P.zza Abbiategrasso-Cologno Nord/Gessate
M3	Comasina-San Donato
M5	Bignami - San Siro Stadio
S1	Linea e stazioni suburbane Suburban lines and stations
S1	Linea e stazioni metropolitane Underground lines and stations
S1	Capolinea • Terminus
S1	Collegamento pedonale Pedestrian connector
S1	Zone tariffarie STIBM STIBM Milano fare zone
S1	Limite tariffa regionale il fare limit

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Orari dei trasporti pubblici su www.muoversi.regione.lombardia.it

nei gennaio 2020 ne Lombardia



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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



Single-ticket journey-based fares

How does this come together in practice?

- All transit modes & operators use 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: multiple cities & operators but one fare - one ticket.
- Passes area affordable and 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

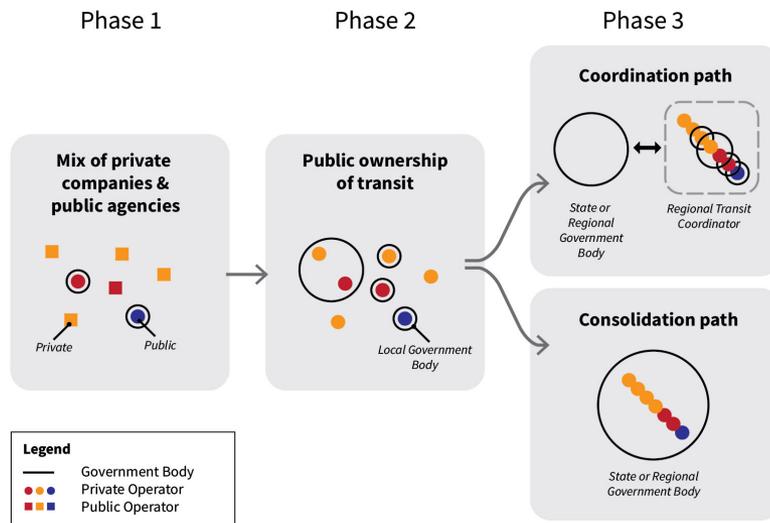
Conclusion-Regional Transit Coordinator

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 -that is single fare policy across all operators and modes.
- 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;
 - often specified new funding sources including 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 public transportation.

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Full report to be available at:

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

Fares (2017)

	Single ride main city-(or inner zone) (€)	Single ride Metro area (€)	Monthly pass main city (€)	Monthly pass Metro Area (€)
Barcelona	2.15	3.00	52.75	71
Milan	1.60	4.4	39	87 (107 all of Lombardy)
Stuttgart	2.50	8.6	67	221
Frankfurt	2.90	15.5	87	270
Lyon*	1.80	1.80	63	63
Stockholm*	4.50	4.50	86	86

* Flat fee - entire metropolitan area is a single fare zone.