

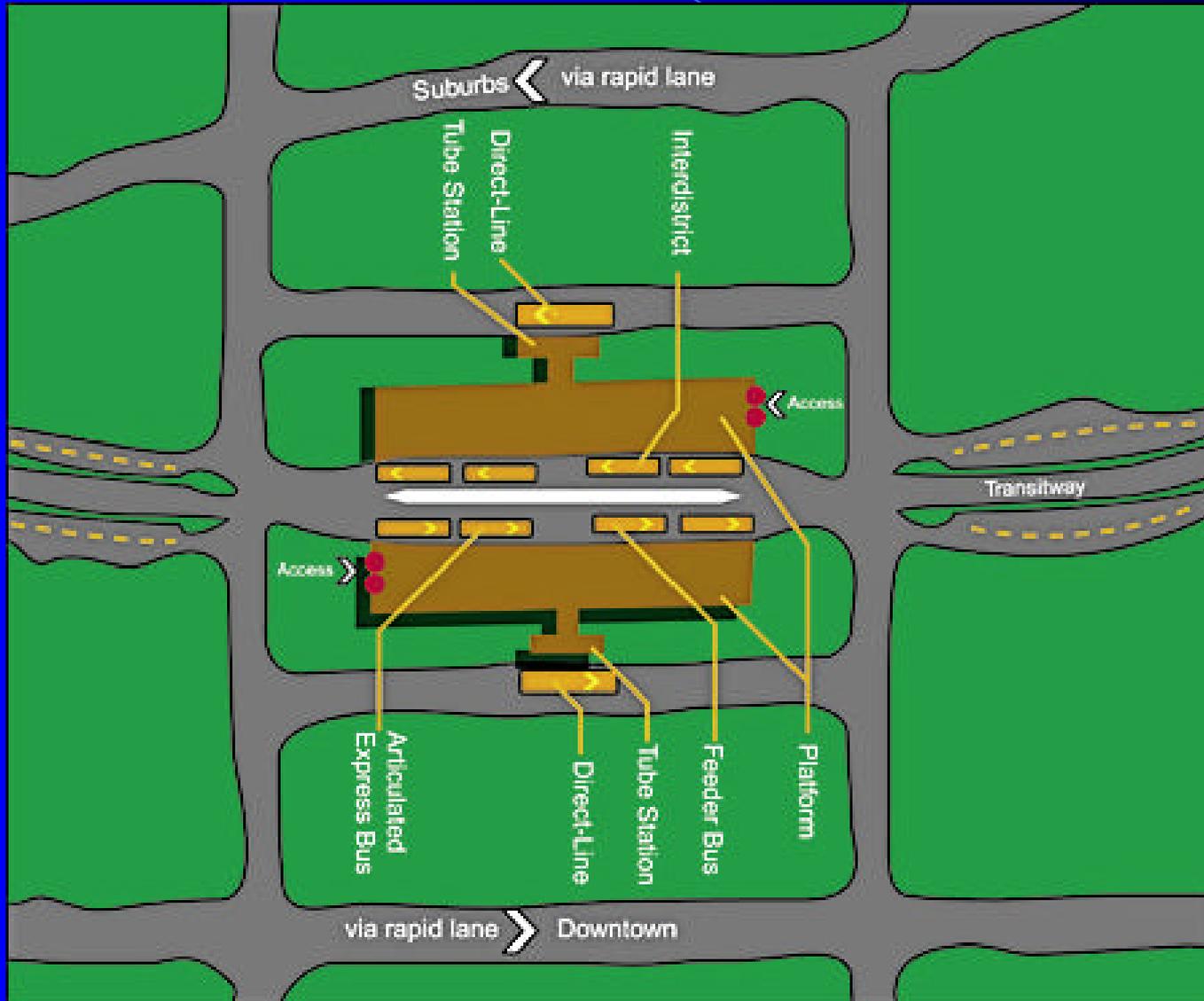
# Fundamental Principle III: Service Integration

## Integrated Transport Network (RIT or *Rede Integrada de Transporte*)

- Interdistrict (circumferential) routes introduced
  - transfer stations and terminals
  - fare integration: feeder, interdistrict, busway services



# Integration Terminal



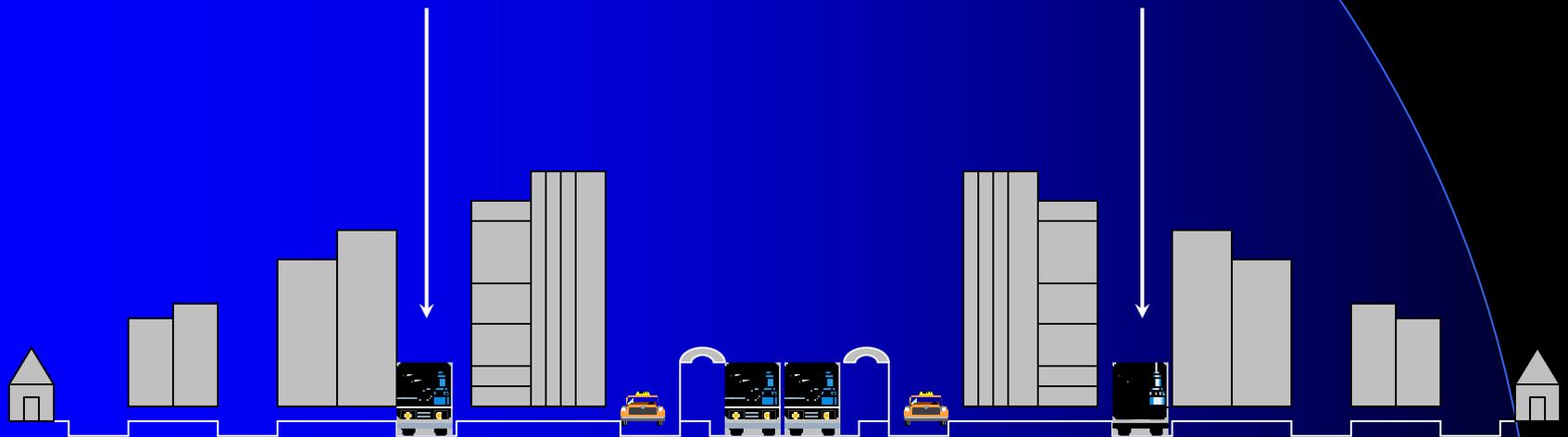
# Fundamental Principle IV: Ongoing (Affordable) Innovation

By 1990: “Victim of its own success”

- Articulated Buses on busways
  - 170 pass./bus
  - 40 second headways
  - 10,000 - 14,000 pass./lane/hour
- 1991: Express (“Direct”) Buses (*Linha Directa*)
  - Limited-stop buses
  - Boarding tubes:
    - Pre-Board Payment; Same-level Boarding

# Express (“Direct”) Buses

Running primarily on high-speed one-way streets parallel to busways



# Express (“Direct”) Buses

- 110 Passenger capacity
- 3.2 times as many passengers per hour as standard bus route
- US\$200,000 per km to build
- 9,000 passengers per direction per hour

# 1992: Bi-articulated Buses

Bi-articulated buses introduced on busways

- 270 passenger capacity per vehicle
- Built for Curitiba at local Volvo factory
- Utilizing Tube Stops
- Lower-cost alternative to Light Rail

# Bi-articulated Bus: Affordable Innovation

## 18 km North-South Corridor

	US\$ millions	
	Total Investment	US\$/km
Bus Option	\$49	\$2.7
Light Rail	\$280	\$15.6