benefits of transport services using shared taxis

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Expert Group Meeting on Sustainable Urban Transport:
"Modernizing and Greening Taxi Fleets in Latin American Cities"
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Agenda

- ✓Shared-transport services
- ✓Shared-taxi services
- ✓Benefits
- ✓Santiago de Chile
- ✓Success factors / obstacles
- ✓Summary

Shared-transport services

Urban shared-transport services that enable using smaller and medium-capacity vehicles (automobiles, vans and mini-vans) shared by several passengers with greater or less flexibility of itineraries and stops depending on the type of service that is required.

- Local substitutes for regular public transport in areas of low density, at off-peak hours or specific services (airport, industrial centers, school transport, etc.).
- A little-used resource in transport planning.
- Efficacious services in answer to the demand.
- Positive environmental and social results.

Shared-transport services

- All set to become open services integrated with the urban-mobility system rather than a service for specific users.
- Aspects and tendencies to take into account as regards design or characterization of the specific shared-transport services :
  - Degree of flexibility (trade-off between flexibility of itinerary and grouping of passengers).
  - Tendency to door-to-door services: the client decides on the start, destination and time of the service; the service is excellent, similar to taxis but these are difficult for combining journeys, which calls for more vehicles (an opportunity for innovation in the use of mobile communications systems).
  - Services have fixed itineraries and pre-determined stops, and follow a timetable to facilitate grouping demand; similar to public transport, the service is also seen as being close to the regular line of public transport.

Shared-taxi services

- Possible variations:
  - Flexible service in a broad area defined with some fixed stops.
  - Driver has the flexibility to stop at intermediate points or make short deviations to the established corridor.

- The final design is purely technical but the criteria as to performance of these services should be defined by the policy priorities (kilometers, average occupation, timetables, waiting periods, etc.)

- The potential demand is difficult to quantify, but the estimated priority segments will be:
  - Young people
  - Night-shift workers
  - Low-income groups
  - All those who do not have a car (by option or for economic or health reasons)

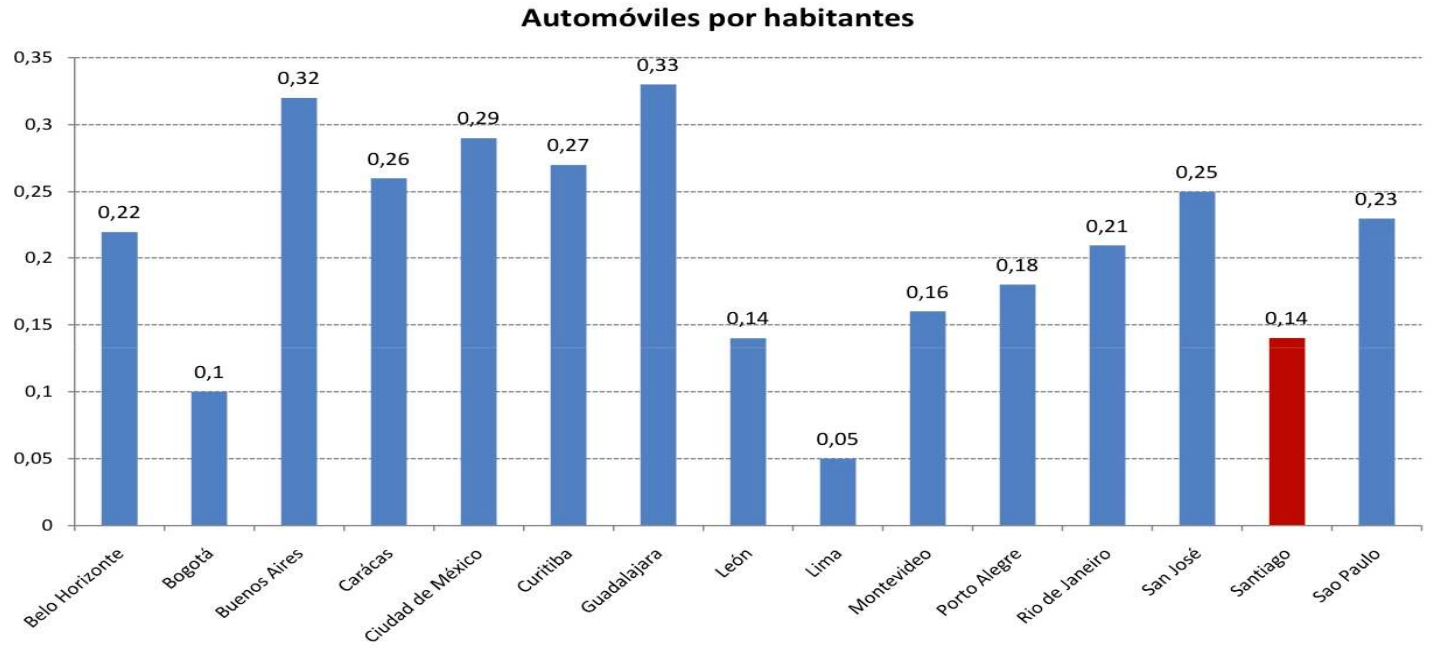
Key benefits of shared transport

- More efficiency in transport services:
  - Less vehicles needed to attend to the total demand for journeys.
  - Lower total number of journeys.
  - Less infrastructure needs (parking).
  - Less journeys with just one passenger.
- Lower total costs of mobility for automobile / regular-taxi users.
- Less environmental impact of transport services :
  - Less emissions
  - Less energy consumed
  - Less traffic congestion
- Improvements in the integral public transport system.

Santiago de Chile

Car ownership expected to increase even more: Automobiles per inhabitant

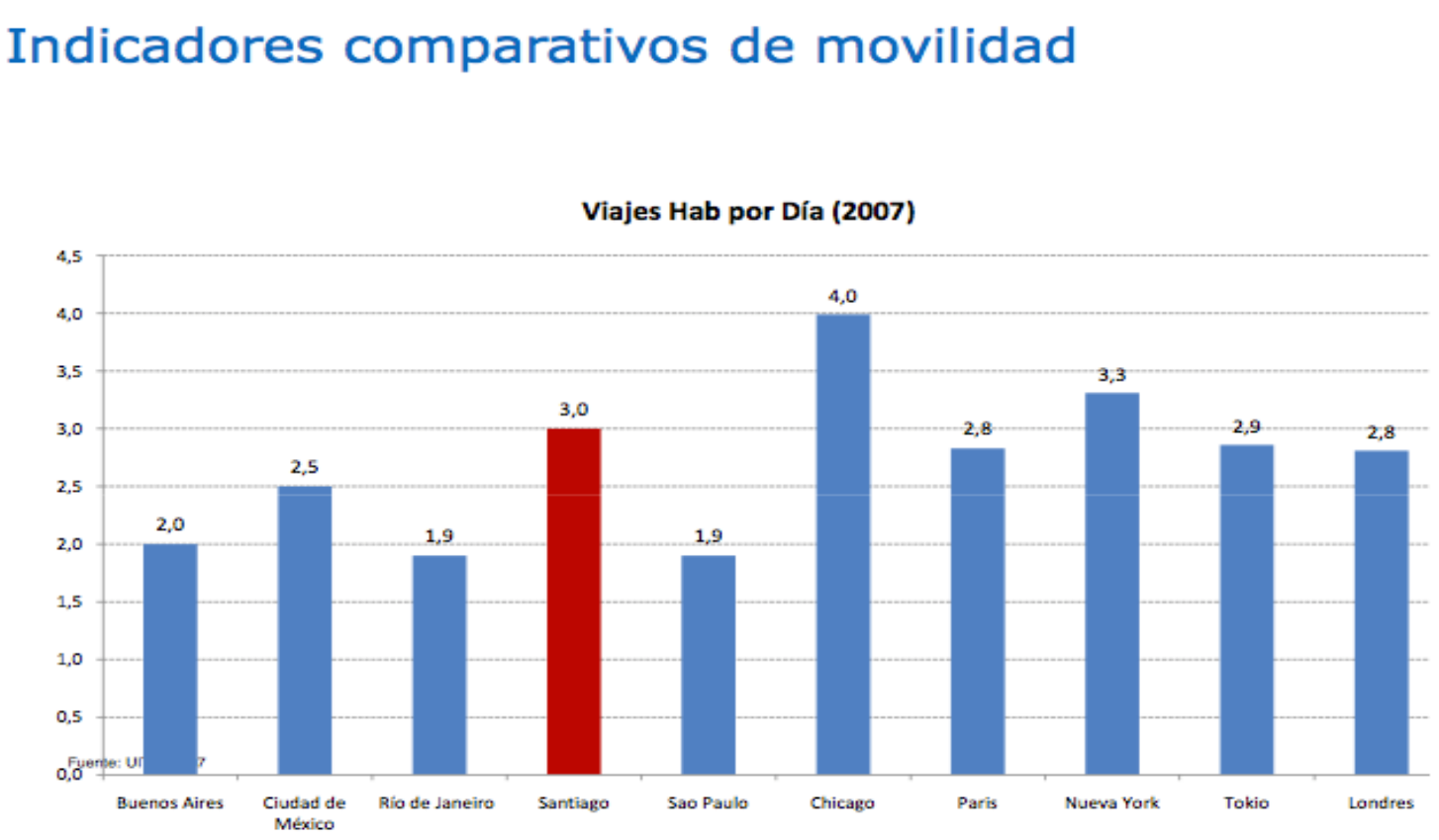
Tasa de motorización aun debe crecer



Fuente: CAF, 2009

Santiago de Chile

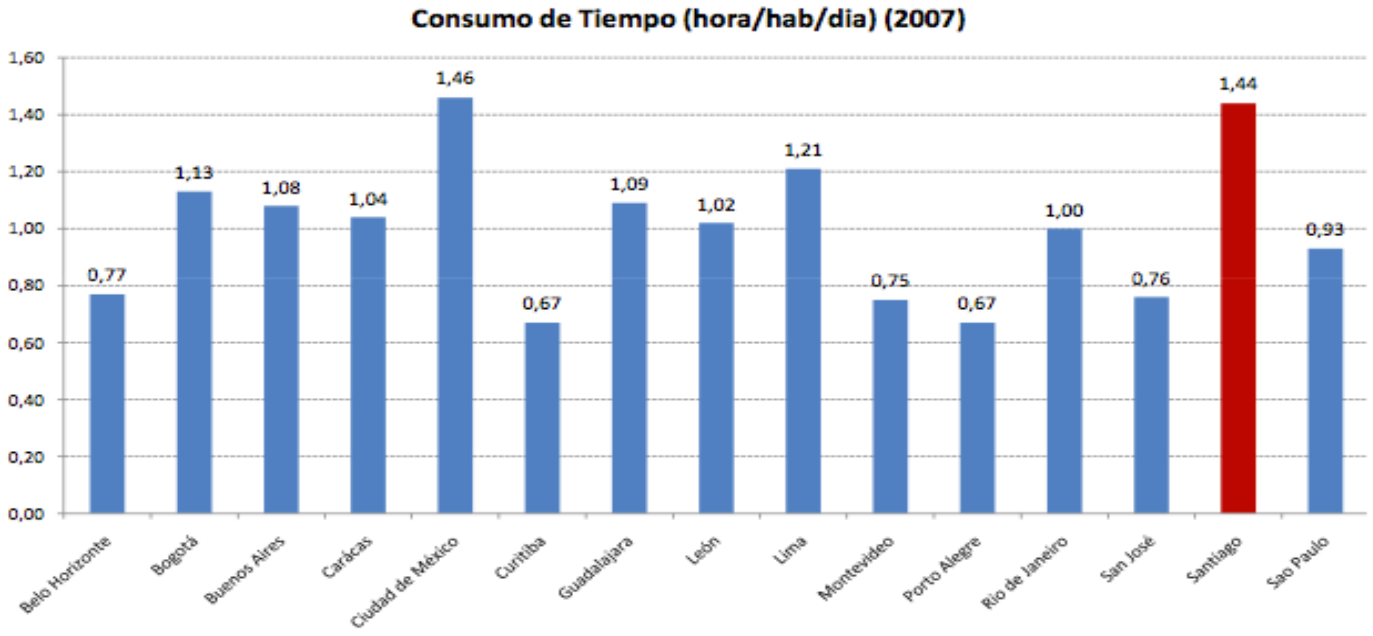
Comparative mobility indicators: Journeys – inhabitant per day (2007)



Santiago de Chile

Comparative mobility indicators: Time spent (hour/inhabitant/day)

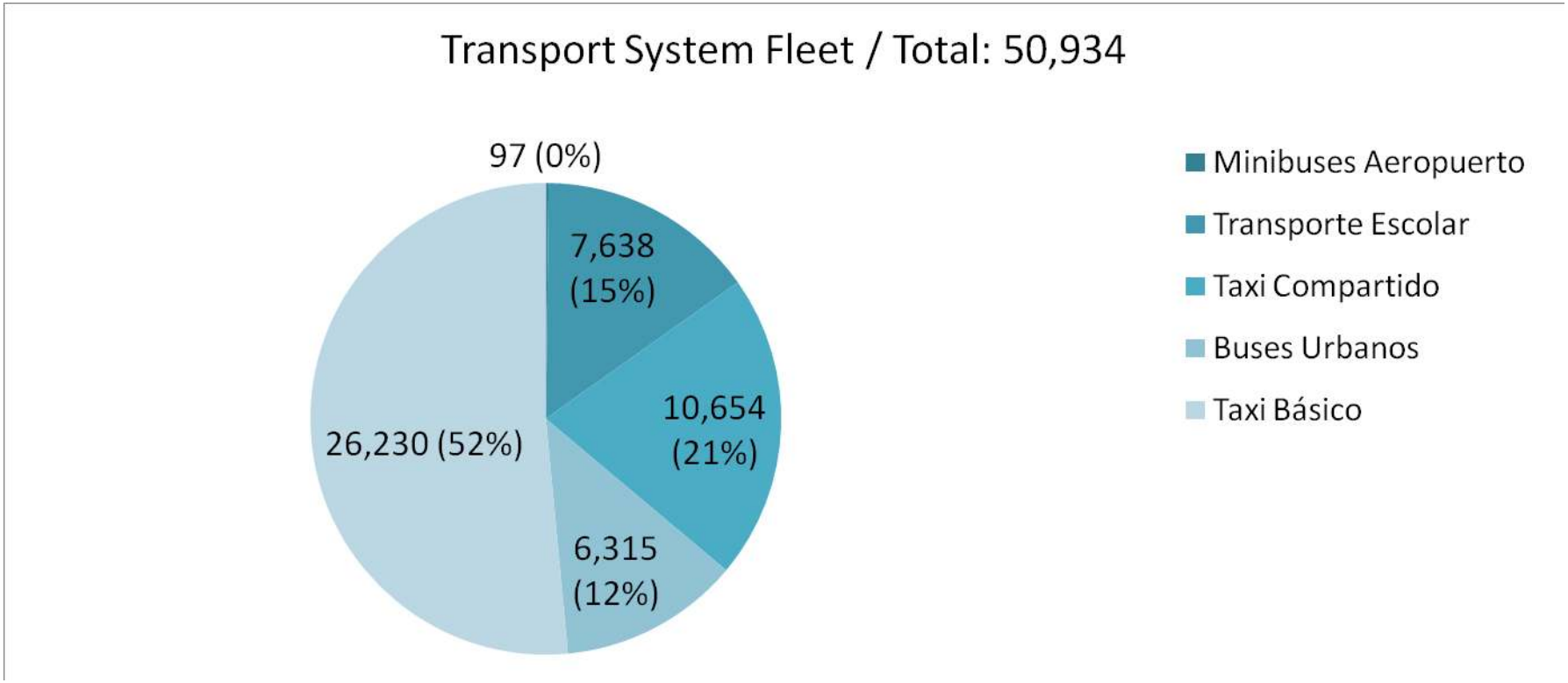
Indicadores comparativos de movilidad



Fuente: CAF, 2009

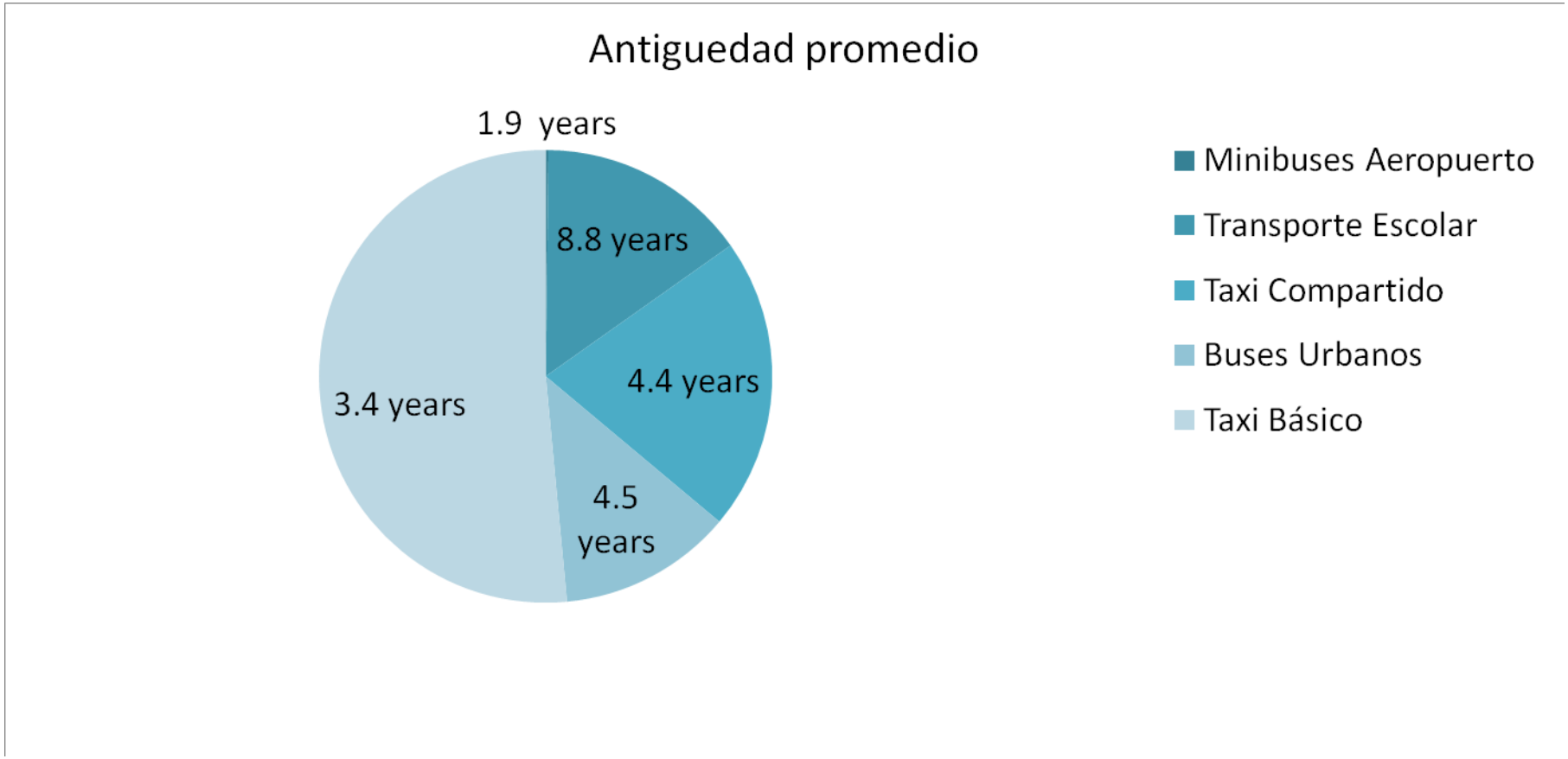
Santiago de Chile

Airport minibuses/School transport/Shared taxis/Urban buses/Regular taxis



Santiago de Chile

Average age of fleet: Airport minibuses/School transport/Shared taxis/Urban buses/Regular taxis



Santiago de Chile
(shared taxis)

- Shared taxis / “Collectives”:
  - Authorized services contributing to a less than optimal situation.
  - Excess supply (+contamination, +congestion, +empty journeys).
  - Atomization (thousands of owners of 1-2 vehicles grouped together in Associations of Micro Owners who operate specific “lines” (specific services).
  - 330 “lines” – Services with an average fleet of 32.3 vehicles
  - Low entrepreneurship – low productivity – low level of technological application.
  - Very little integrated to the TP System: Bus-Metro (for example, use of exclusive corridors).

Santiago de Chile
(shared transport at the airport)

- Shared-transport services to and from the airport
  - Entrepreneurship.
  - More efficiency and application of technology.
  - Services:
    - ✓ Accident insurance
    - ✓ Communication with central office
    - ✓ Air-conditioned
    - ✓ Professional drivers
    - ✓ Maximum waiting time at airport (15 min.)
    - ✓ GPS-controlled vehicles

Supporting efficient and sustainable development of transport

JULIO VILLALOBOS & ASOCIADOS

Success factors – shared transport

System:

- Mobility problems in cities require a wide variety of services.
- Growth in population density facilitates developing shared-transport options.
- Transport systems should include and integrate as many modalities as possible.
- Greater citizen consciousness and flexibility to seek innovative mobility solutions (Shared Taxi, Car-sharing, etc.).
- Government support.
- Penetration of Information and Communications Technology (TIC).

Operators:

- Concentration / Professionalization.
- Improve the capacity to apply technology in processes.
- Energy Efficiency / Carbon Footprint Certification.
- Innovation in services.

Possible obstacles

- Operators lacking the capacity and management structures to improve productivity and apply and exploit technologies.
- Low cost of current mobility.
- Urban transport systems with high levels of informality in their operations.
- Lack of government support to integrate shared-transport services with the overall design of urban mobility.

Complementary ideas

- Carbon Footprint Certification or transport operations:
  1. Measuring emissions = exhaustive and verifiable control of fuel consumption (40%-60% of total operation costs).
  1. Reduction Plan (Eco Driving, itinerary optimization, maintenance strategies, configuring fleets, selecting technologies, etc.).

  Energy Efficiency = Reduction of Emissions = Operational Excellence = Productivity

- Technologies for coordinating services and attending to customers, as well as designing innovative services.
- Car-sharing: the optimization tendency that appeals to higher awareness and the need of the population to move toward sustainable models of transport.

Summary

- Sustainable mobility in Latin America cities calls for :
  - More variety and flexibility of services.
  - Greater integration of the different services.
  - Better operation of the services – Professionalization of management structures – Energy Efficiency / Carbon Footprint.
- Shared-transport services are an alternative that offers flexible and efficient mobility to many cities in the world, to the extent that they are duly integrated with the public-transport system and comply with standards of operational excellence.
- Shared-transport systems should be designed customized and adapted to the needs and particular characteristics of each city.

many thanks!

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