

Urban Mobility: more than cars

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L.A. 3 weeks ago:
Thanksgiving 2016

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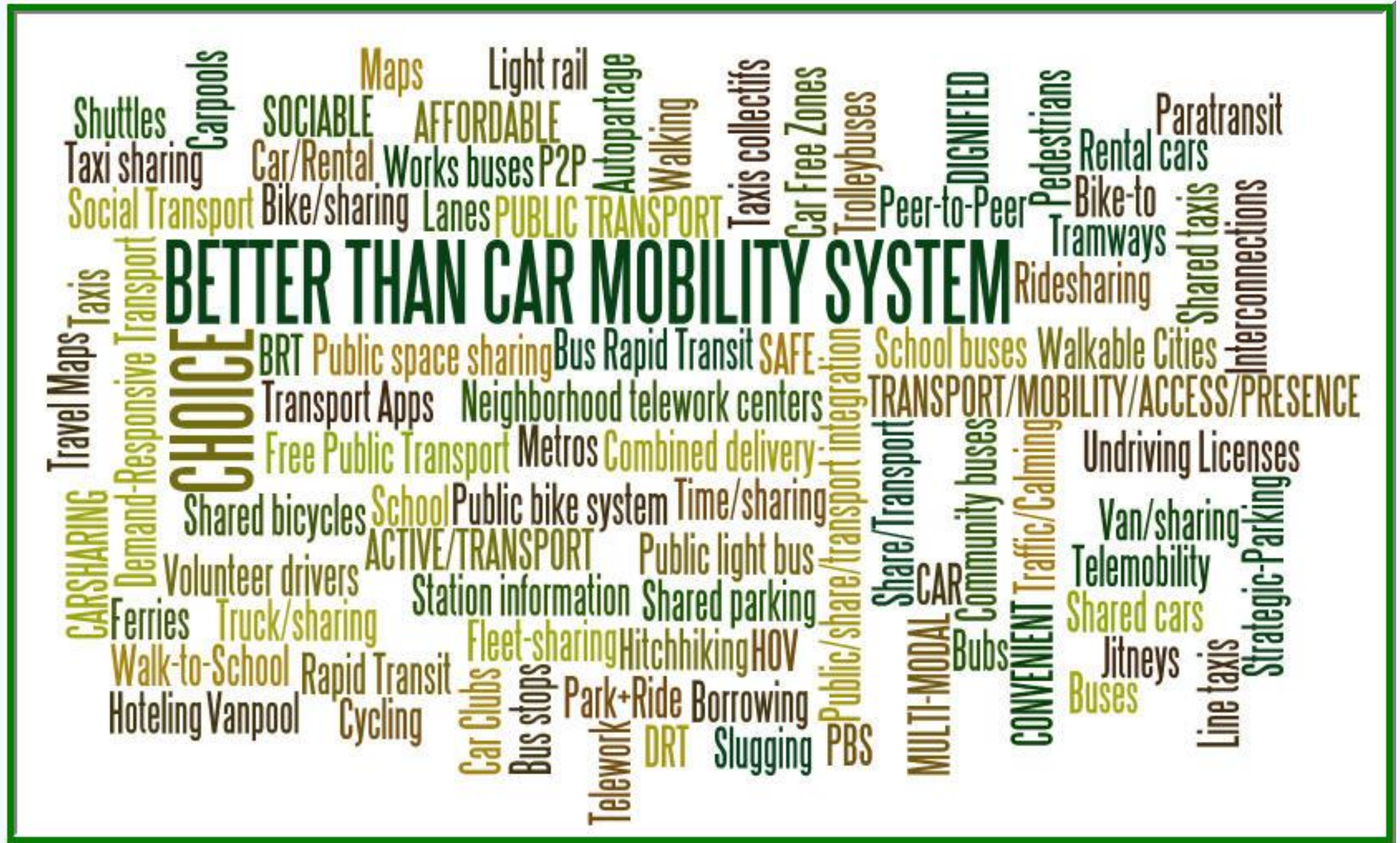
Inefficient use of transport capacity



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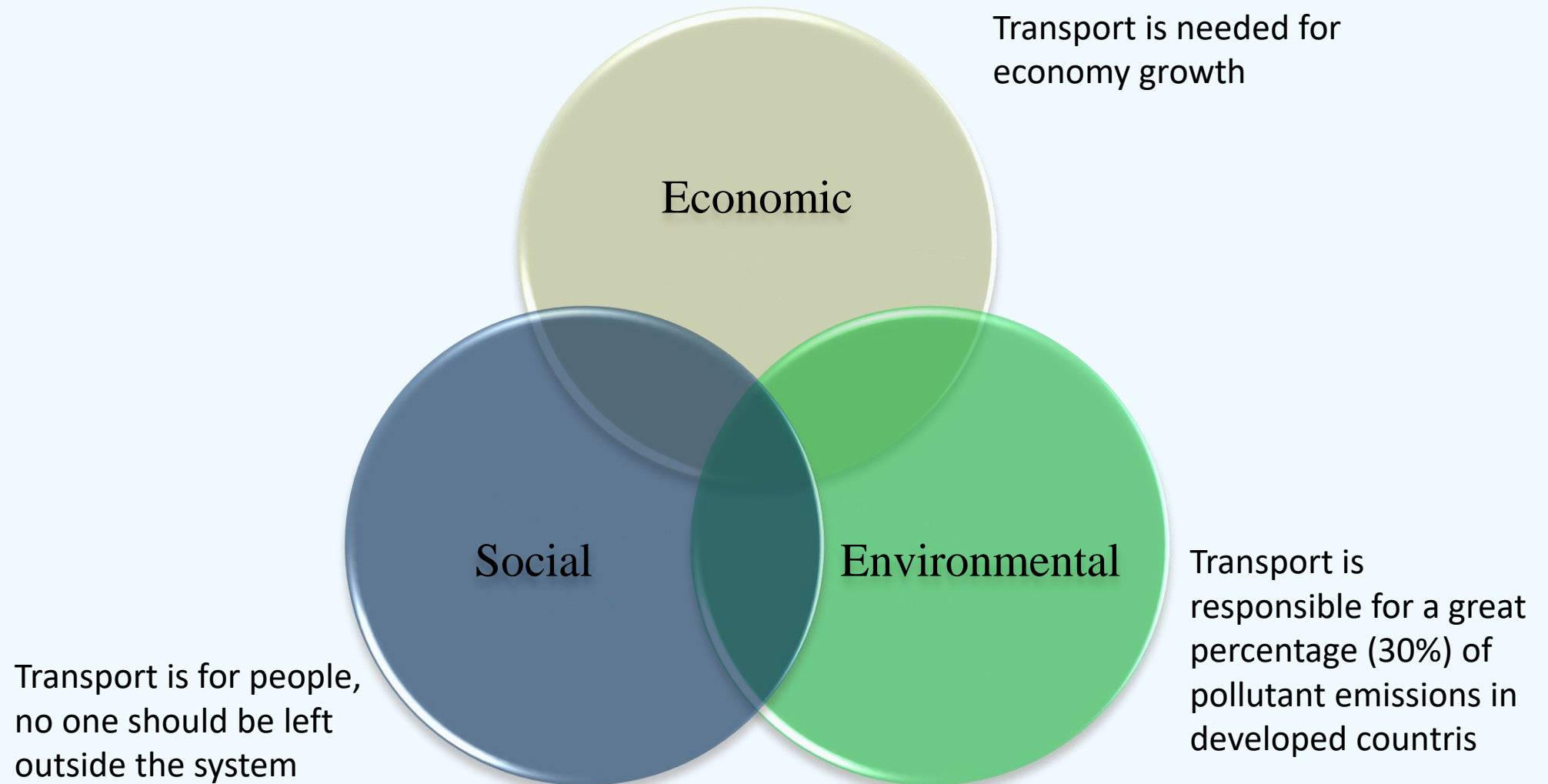
Mobility is much more than cars



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Sustainable transport



Transport is needed for
economy growth

Economic

Social

Environmental

Transport is
responsible for a great
percentage (30%) of
pollutant emissions in
developed countris

Transport is for people,
no one should be left
outside the system

European Urban
Knowledge Network



Some principles for sustainable mobility

1. **Walk the walk:** pedestrian facilities
2. **Powered by people:** bicycle facilities
3. **Get on the bus:** high quality public transport
4. **Cruise control:** car if necessary, but less space, parking restrictions
5. **Deliver the goods:** clean, small, quiet, safe vehicles
6. **Mix it up:** no separation of functions
7. **Fit it in:** not expanding but concentration
8. **Connect the blocks:** in favor of walking and biking
9. **Get real:** keep unique places
10. **Make it last:** sustainable materials and maintenance
11. **Give options:** provide several alternative modes
12. **Support creativity:** explore and test new mobility solutions
13. **Facilitate:** allow good to choices to be easy
14. **Get Informed:** use all information available to understand your city
15. **Power up:** support electric mobility



1. Walk the walk

- All our trips begin and end with walking.
- Streets that are designed to prioritize pedestrians can also improve health, economic activity and safety



New York Herald Square

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2. Powered by people

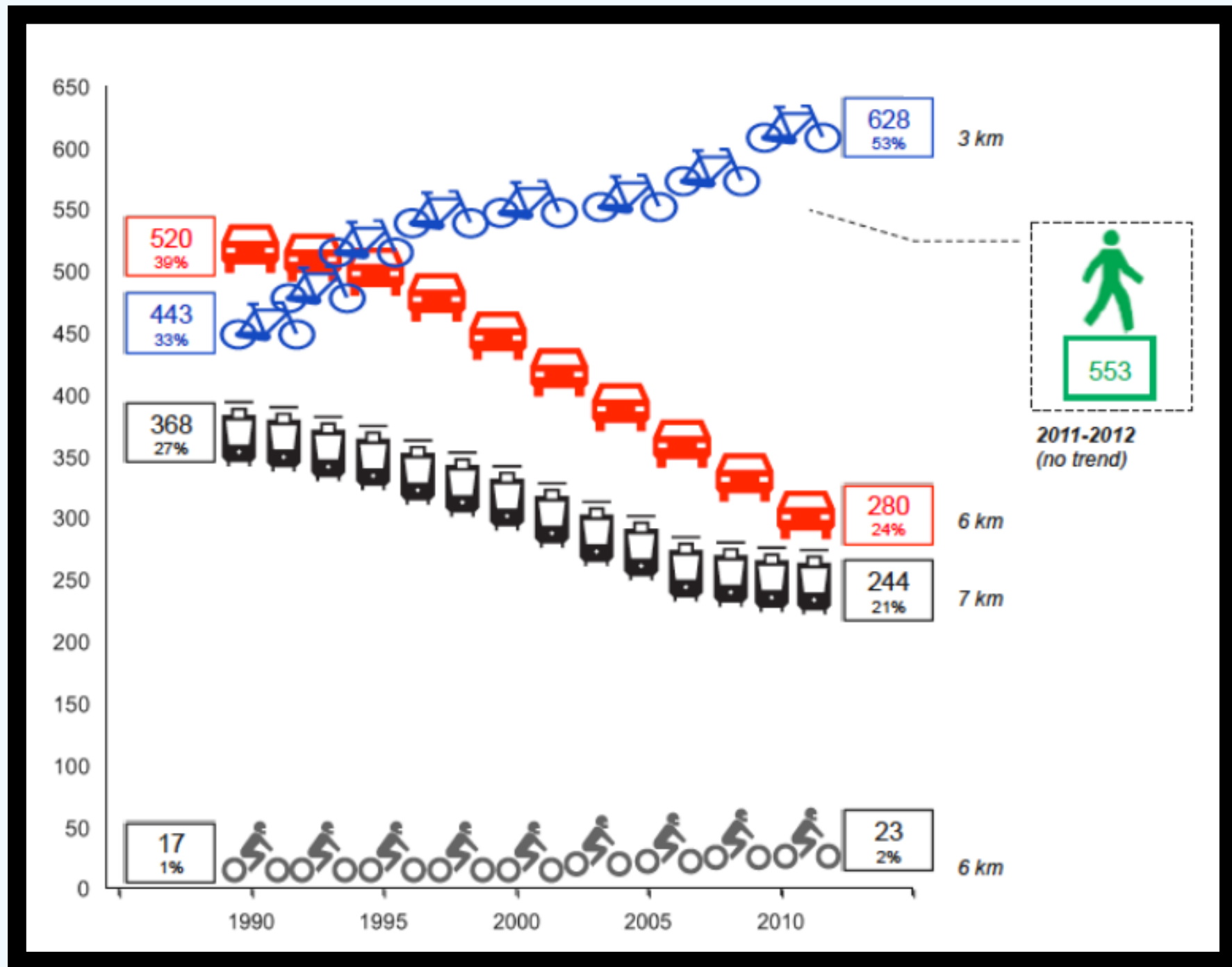
- The more bicycle use on the streets, the safer they become. When a good bicycle network is established, people continue to bicycle regardless of age, wealth or weather.



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In Amsterdam



But this does not come without costs ...

Active modes: pedestrians and cyclists

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In Lisbon

- But things will take their time ... And the infrastructure has to be accompanied by information campaigns and education.



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3. Get on the bus

- Comfortable safe, high-speed public transit provides the next best option to walking or cycling

An example
is the BRT
(Bus Rapid
Transit):
Stops are
aligned with
the vehicle



Payment
on the
stop

Boarding
and
Alighting at
any door

Separate
lane

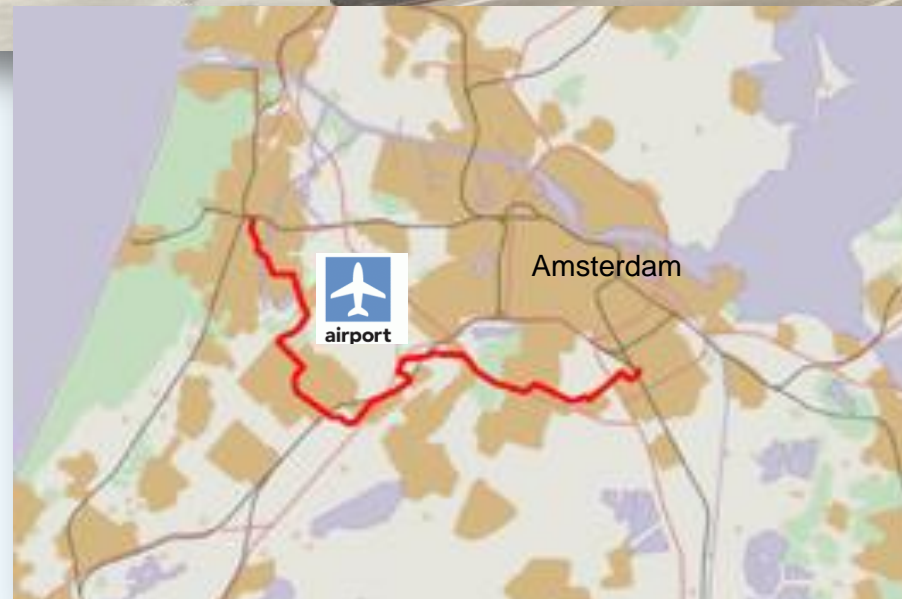


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Importing the concept to europe

- Zuidtangent line of high performance buses



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Smart Card to move in the whole Netherlands



Even for
bicycles

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The nodes



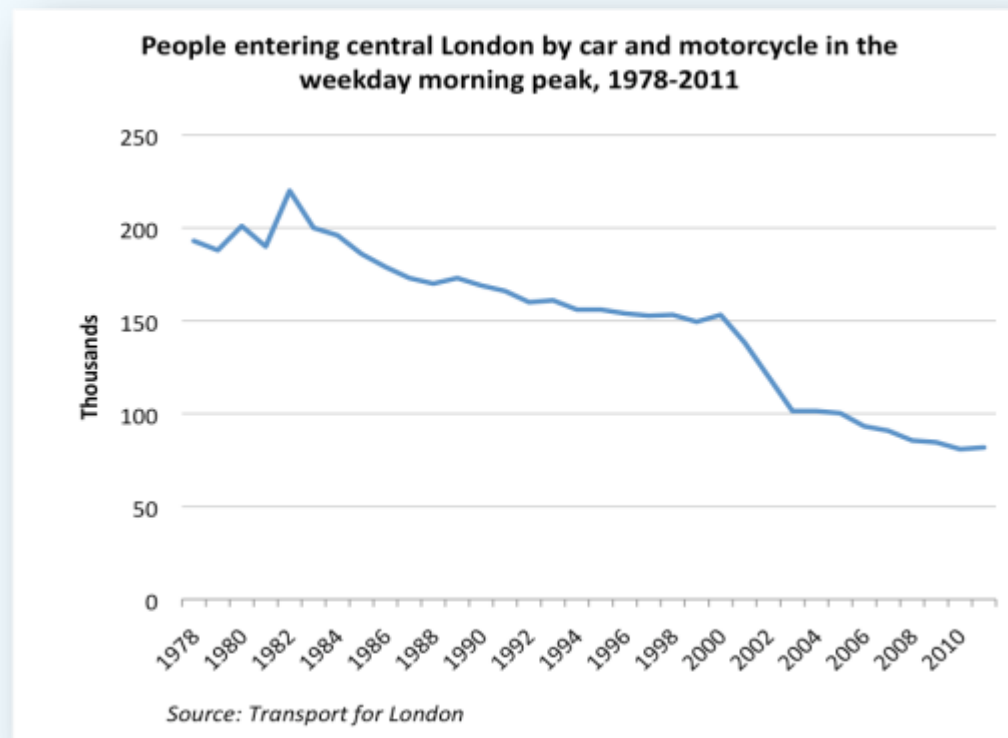
- Continue improving the experience of travelling, going beyond the network



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4. Cruise control

- Managing traffic includes getting smart (using technology), helping cars slow down, paying for the privilege, and re-routing traffic.



London congestion charging effects



2-to-1 public opposition to congestion charges turned to 2-to-1 support after voters saw how a 20% drop in traffic led to a 30-50% reduction in traffic delays. Stockholm, Sweden.

Stockholm congestion charging

5. Deliver the goods

- Sustainable cities will be cleaner, quieter, and safer by creating exo-zones, slow speed zones, and regulating the times and places where goods can be delivered



Regulate delivery times and size of vehicles in city centres to lower emissions and congestion. Paris, France.



Photo: La Petite Reine



Photo: DPA/Landov

The low emission zone, or Umweltzone, in many German cities restrict polluting lorries from entering. Only vehicles with a red, yellow or green sticker could enter the zone in 2009.

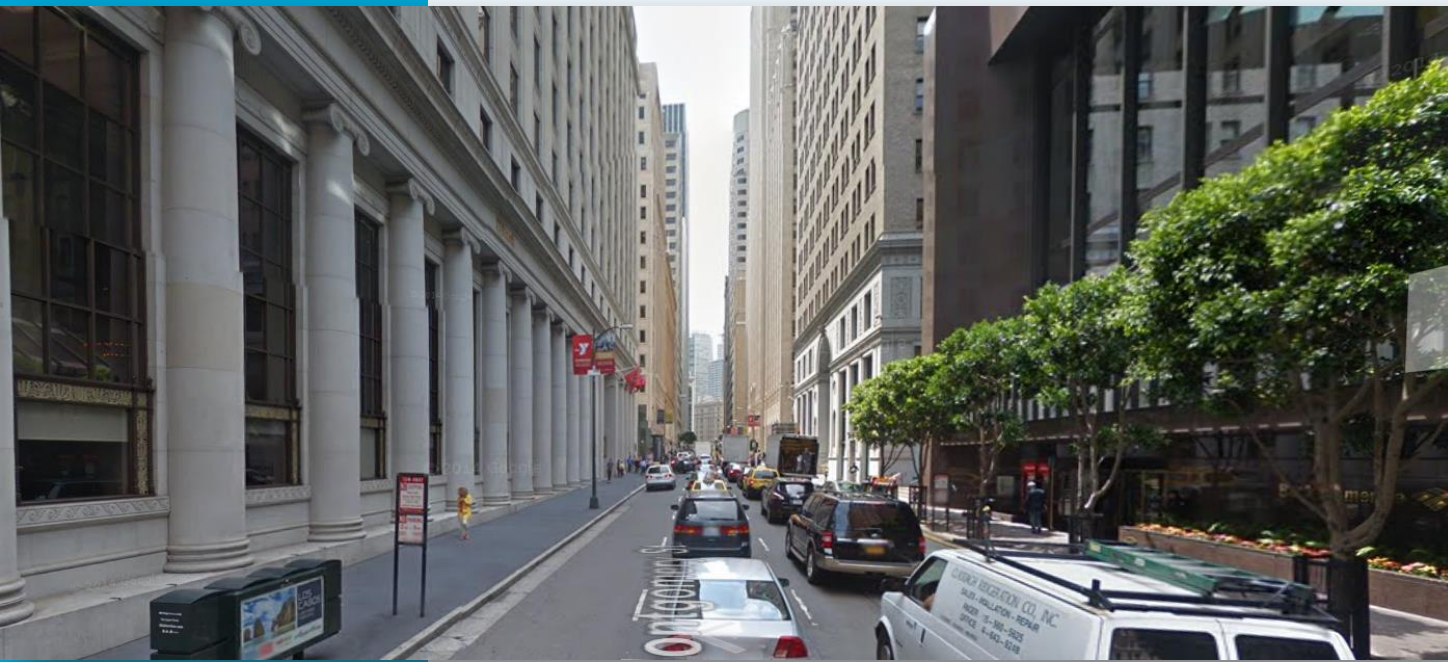
the zone in 2008
vehicles with a red, yellow or green sticker could enter
cities restrict polluting lorries from entering. Only
The low emission zone, or Umweltzone, in many German



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6. Mix it up

- Energize public space with mixed-use development and ground floor activities. Mixed use means you are closer to everything and places are safer and livelier during all hours.



San Francisco downtown



Madrid downtown

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7. Fit it in

- Density around transit stations and within the city rather than at the outskirts (This is the concept of transit oriented development).



Rotterdam



Den Haag

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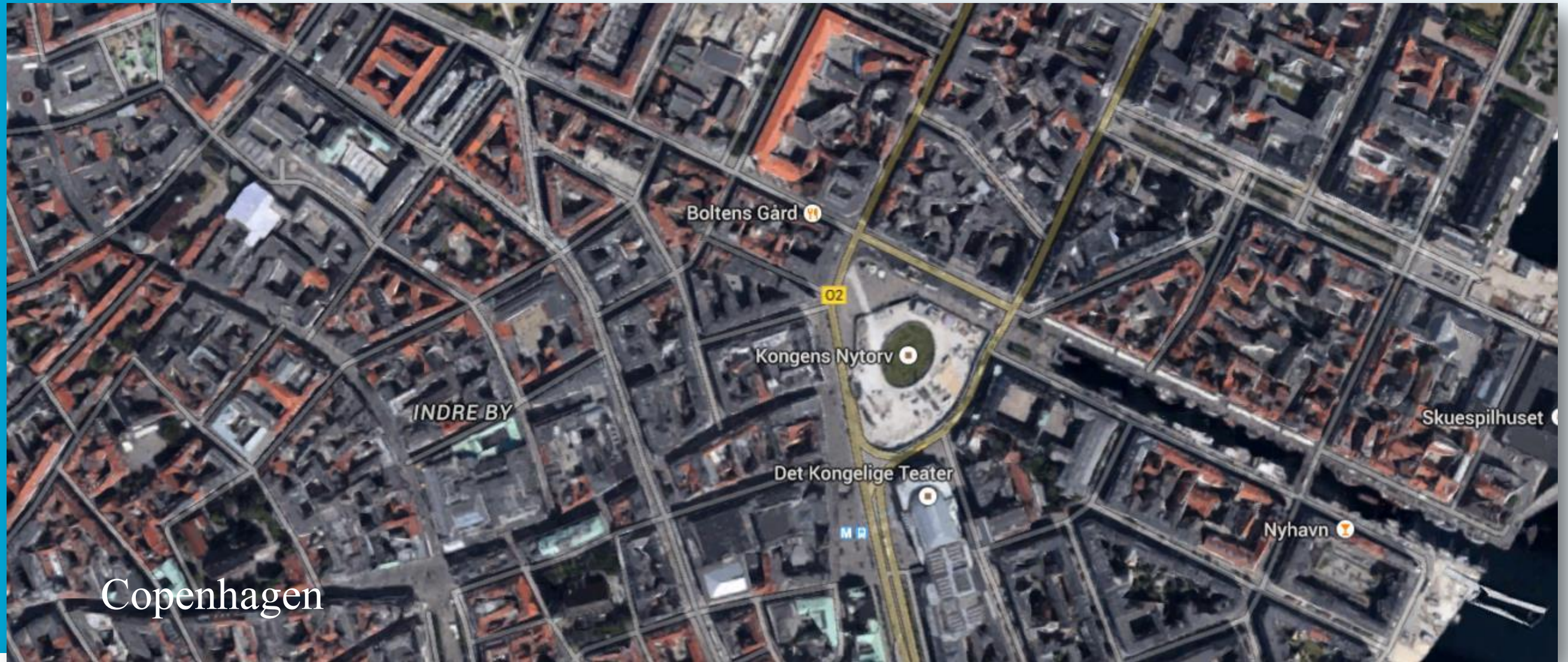
Curitiba



- Curitiba high density around the BRT routes

8. Connect the blocks

- Maximize the connectivity of walking trips with small block sizes and permeable blocks and buildings.



9. Get real

Lisbon

- Distinguish by preserving and enhancing the natural, cultural, social, and historic assets of the place. **Identity and cultural heritage becomes a competitive advantage.**



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10. Make it last

- Build for the long term. Sustainable cities bridge generations. They are memorable, malleable, built from quality materials and well maintained.



The high line, New York

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 TU Delft

11. Give options

- Carsharing is one of such options

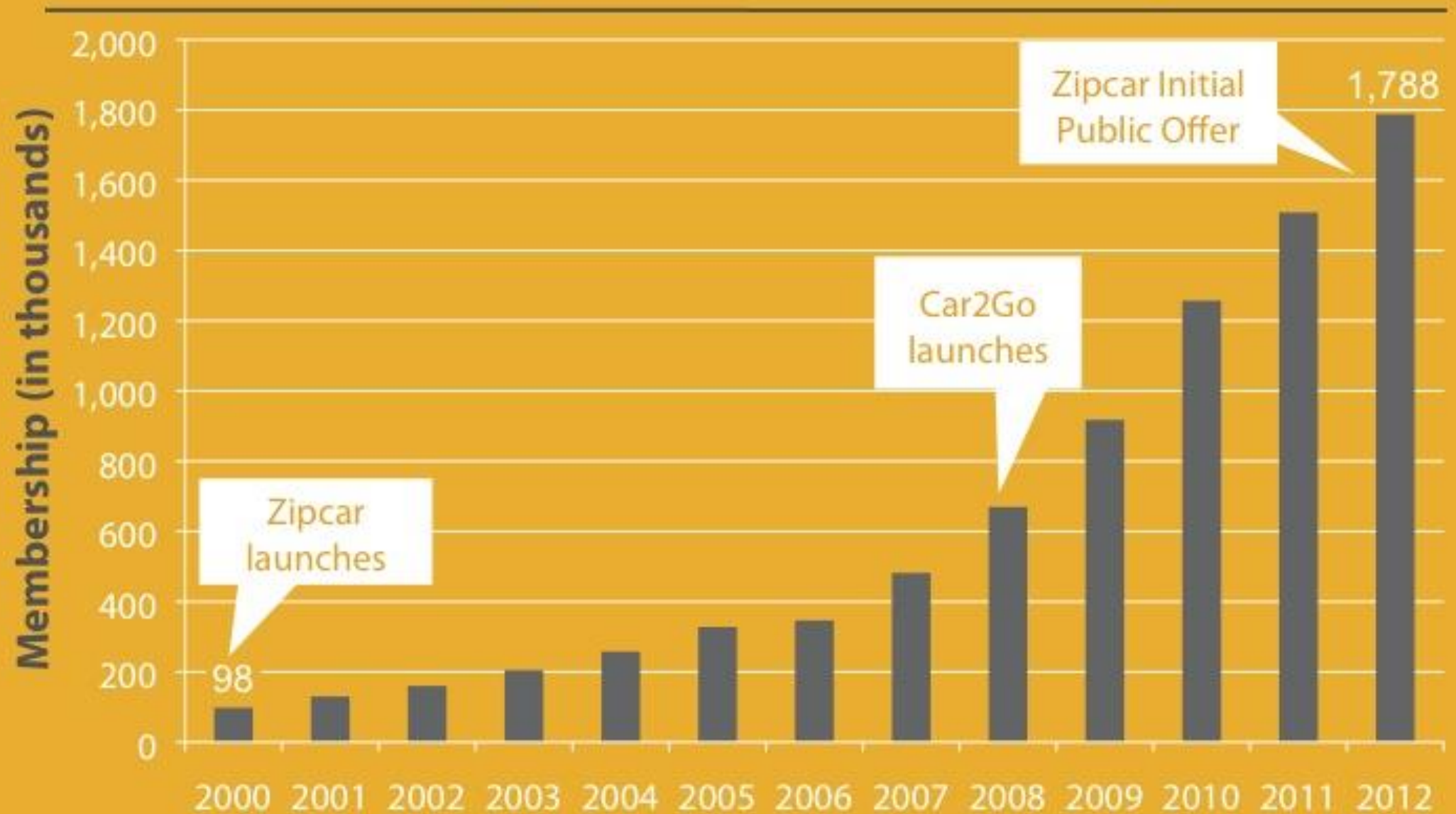


- More options means less probability of buying a car thus less car usage



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Global growth of car-sharing

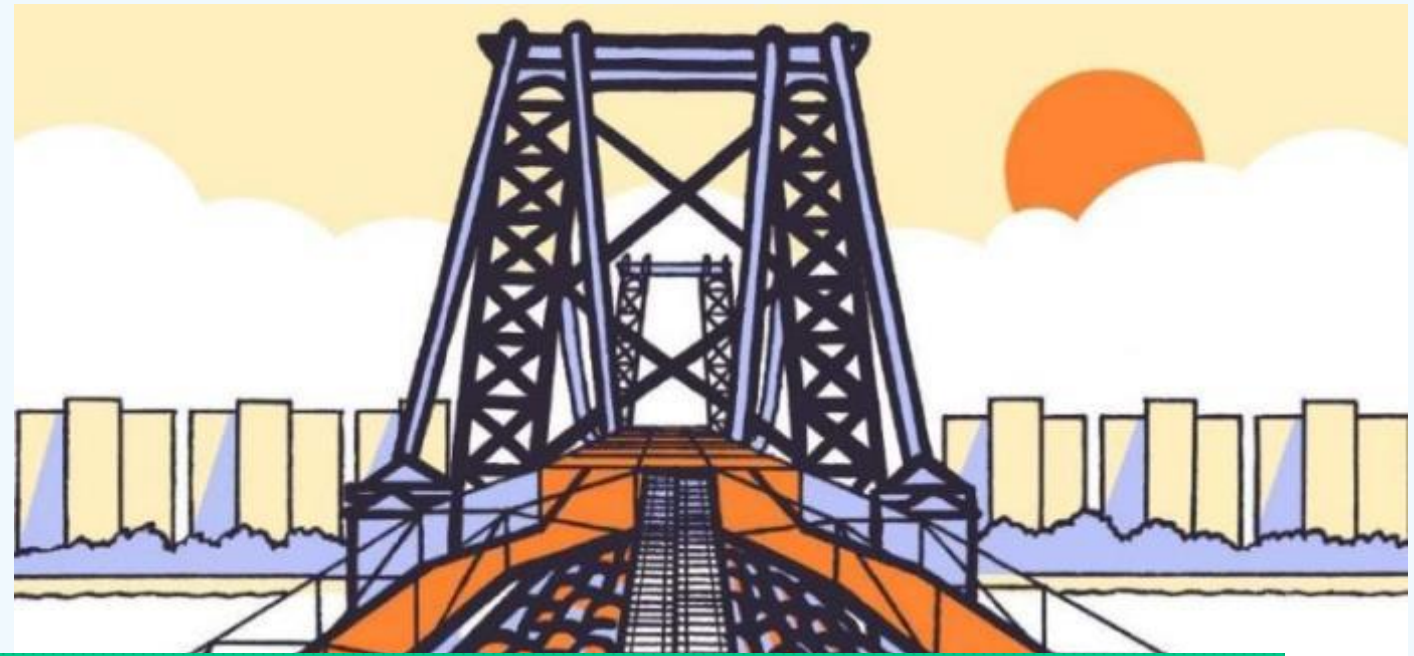


Graphic by EMBARQ. Data source: Shaheen and Cohen (2009, 2012).

 EMBARQ®

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Uber systems



Uber Loses at Least \$1.2 Billion in First Half of 2016

After touting profitability in the U.S. early this year, the ride-hailing company is said to post second-quarter losses exceeding \$100 million.



EVERYONE IN UBERS JUST WON'T FIT

- Just because it's modern it does not mean it is fantastic.
- What control over quality is there?
- Can we integrate these players?



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12. Support creativity

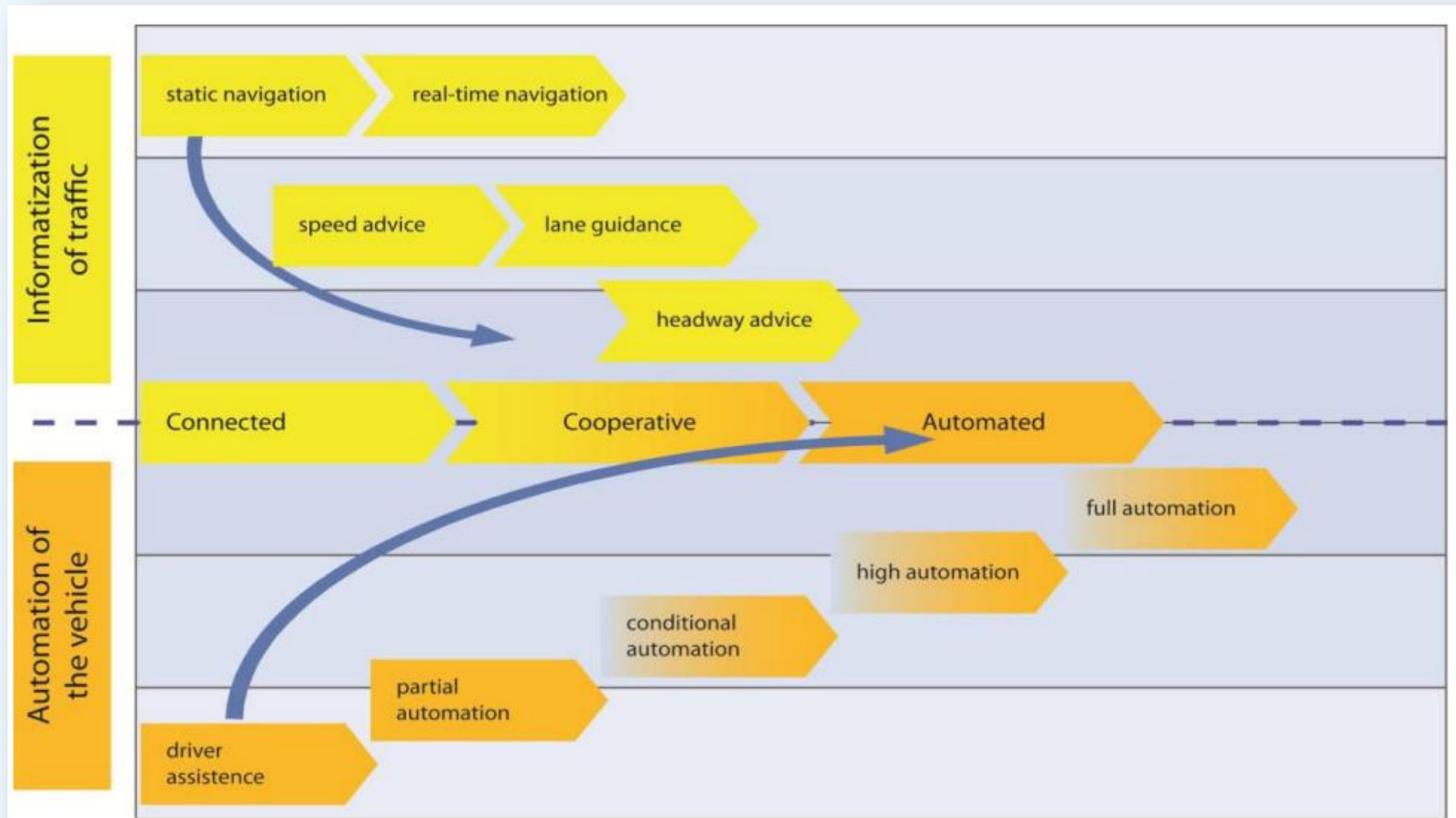


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Melanie Schultz van Haegen, Minister of the Infrastructures and the environment
January 2016, Wageningen University

The declaration of Amsterdam



Connected, cooperative and automated driving developments should come together to harvest societal benefits.

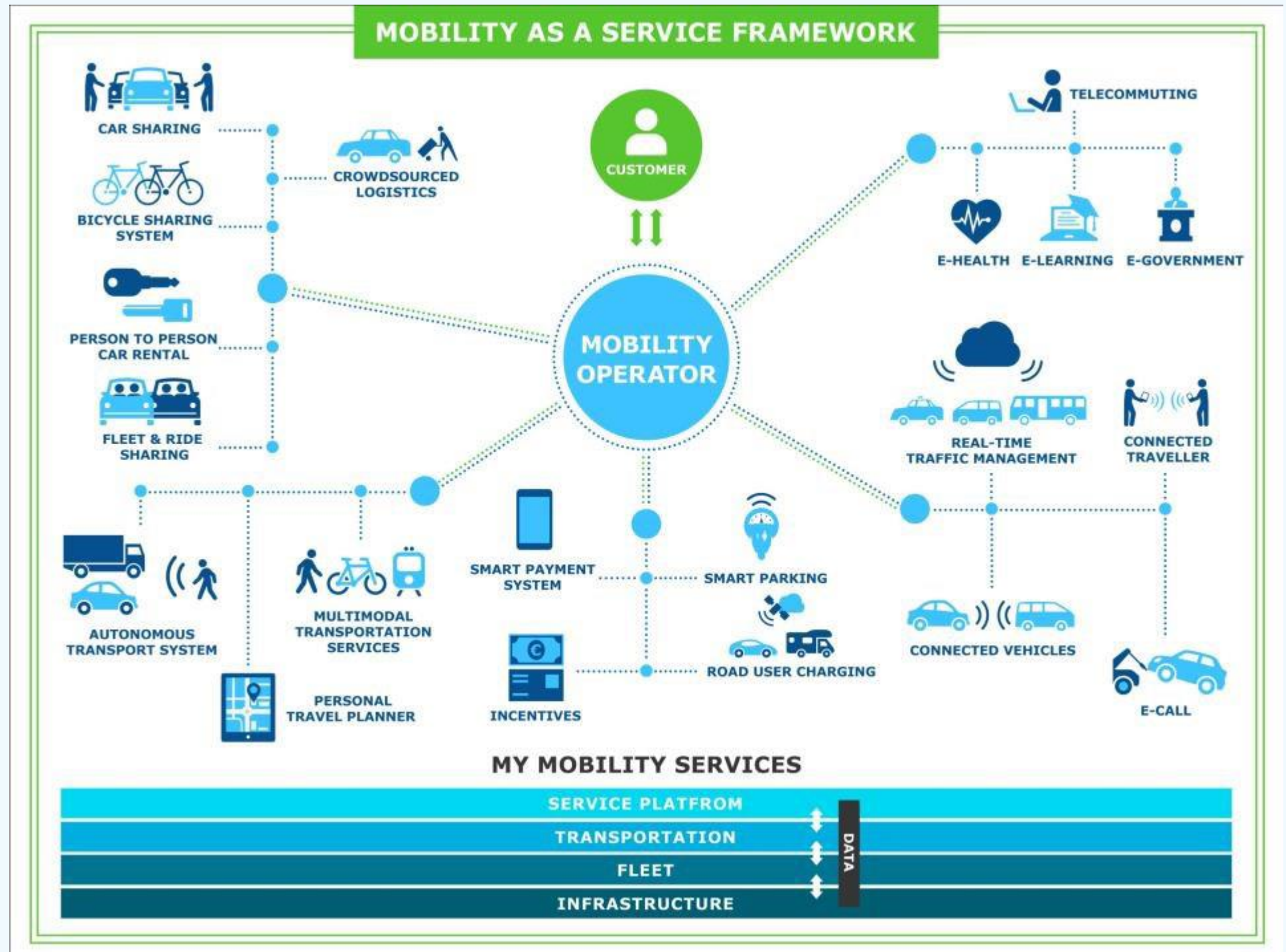
14th of April. In this document the Netherlands, the European Commission, EU member states and the transport industry pledge to draw up rules and regulations that will allow autonomous vehicles to be used on the roads.



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13. Facilitate

- Integrate everything and allow travellers to make easy choices and easy use of the mobility options.



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Medium

249 €/mo. Includes HSL Helsinki season ticket + 5.500 Whim points

Transport providers: HSL HRT, TAXI, SIXT, VEHO

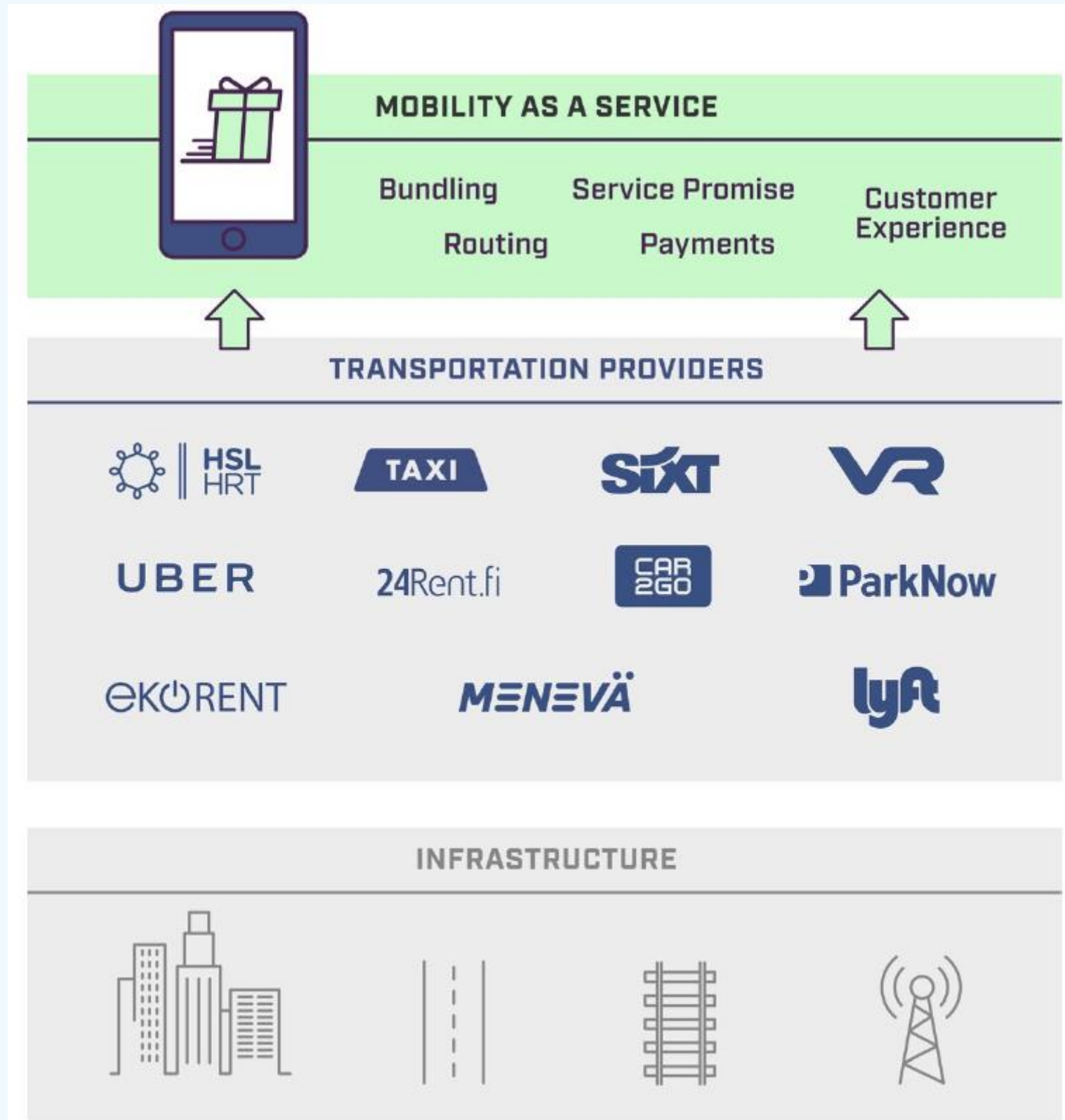
Use your 5.500 Whim points as you like, for example:

- 8 taxi trips (~10 km/trip) daytime
- + Unlimited local public transport
- + 2 days with a rental car

You can upgrade your package with these:

- HSL Region season ticket + 50 €
- Whim Leasing Add a car

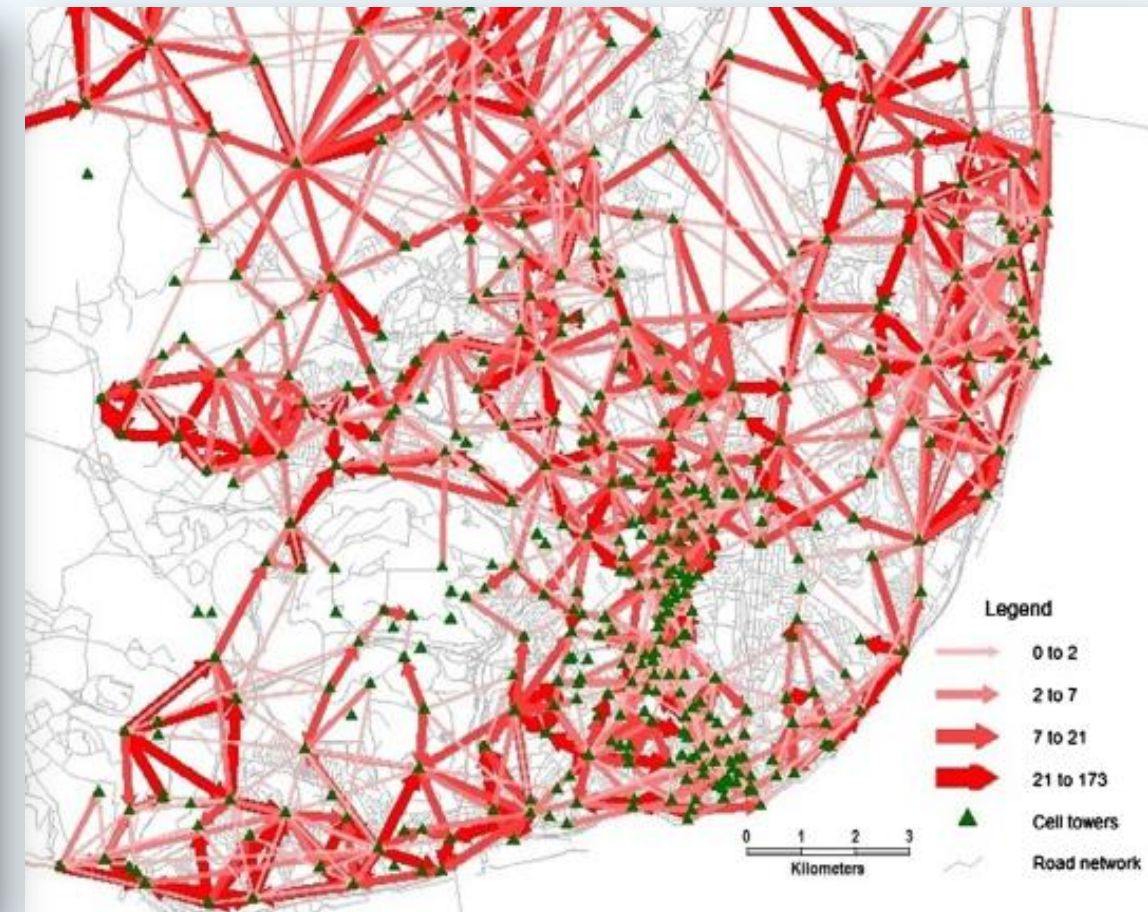
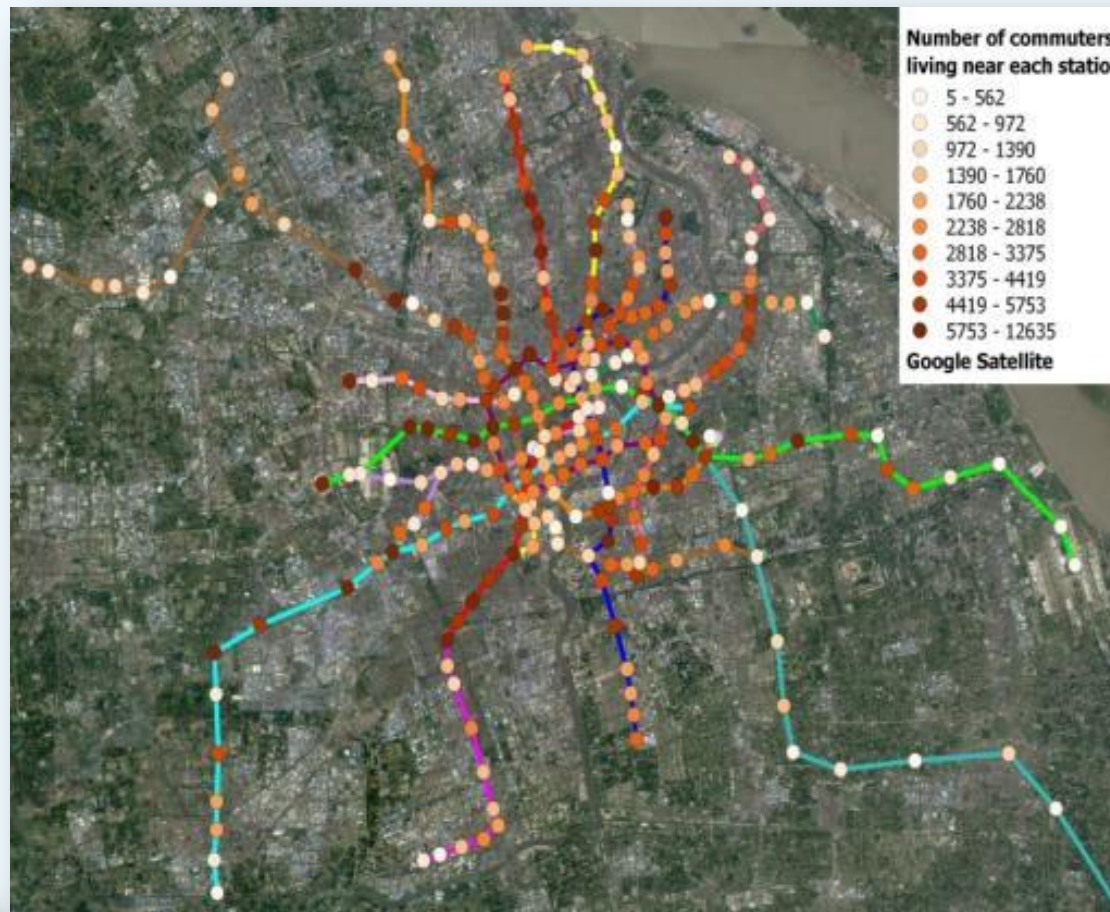
whim



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14. Get informed

- Use all the information you can get. For example cellphone or smart ticketing.



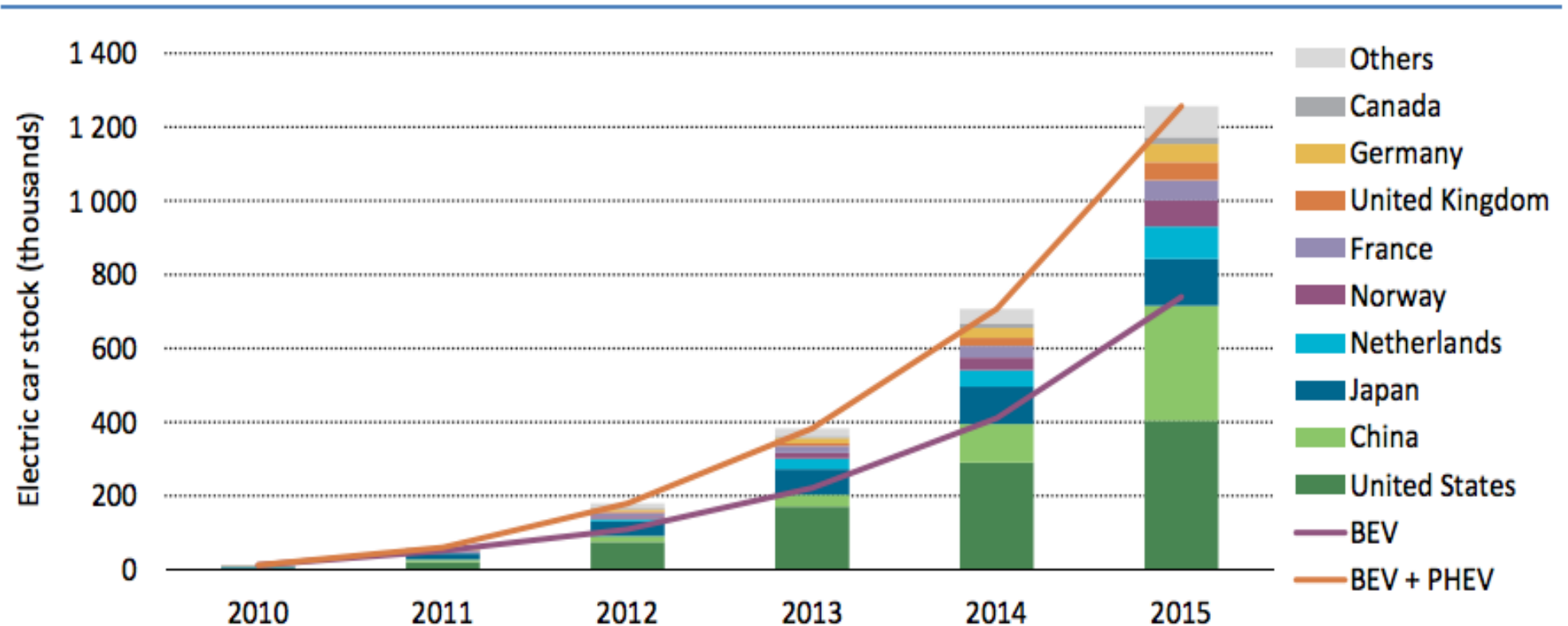
Xangai metro users

Cellphone call
transfers in Lisbon

15. Power up

- Support electric mobility. EVs are more efficient and there are no local pollutants ...

Figure 1 • Evolution of the global electric car stock, 2010-15



Note: the EV stock shown here is primarily estimated on the basis of cumulative sales since 2005.

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- Networks of charging stations support not only private electric vehicles but also electric carsharing



Let's preserve the beautiful urban heritage Europe has to offer the World!

