

# The Future of Mobility in Cities

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# Message 1: Mobility represents several challenges for cities.

5 main challenges



## Congestion

The **traffic problem** is increasing day by day increasing delay, operating costs, emissions and stress



## Emissions & pollution

Transport is the main cause of **air pollution** (CO<sub>2</sub>, SO<sub>2</sub> and NO<sub>2</sub>) causing health problems



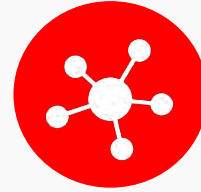
## Parking

**Parking** when going from one place to another It's one of the worst elements of vehicle ownership



## Accidents

**Road traffic injuries** cause great economic losses to individuals, their families, and nations



## Logistics

**Last mile.** the movement of people and goods from a transportation hub to a final destination

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# Movilidad y Transporte



# Medioambiente



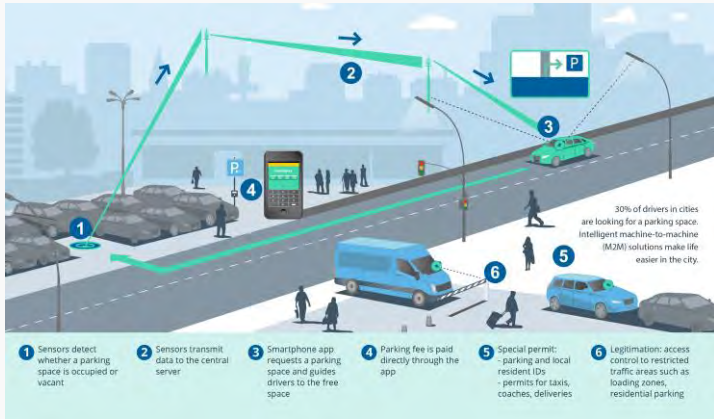
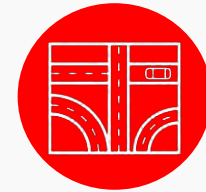
# Message 2: A portfolio of different “solutions”

How cities trying to respond to these challenges



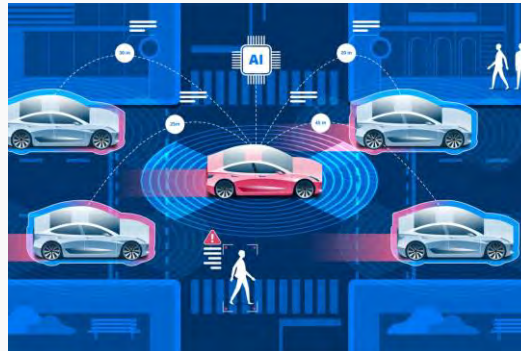
## Traditional mobility

Public transport, infrastructure, traffic flows



## Smart mobility systems

## Sharing mobility systems



## Future mobility solutions

## New urban models

15-minute city, Superblocks, “Vancouverism

## New technologies

EV, V2G, AV, V2X, 5G, blockchain, digital platforms, AI





# AI in Automotive Eco-System



Applied AI Research



Embedded Processors



Training Processors



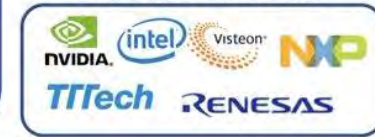
Datasets



AI Software/Middleware



AI Domain Controllers

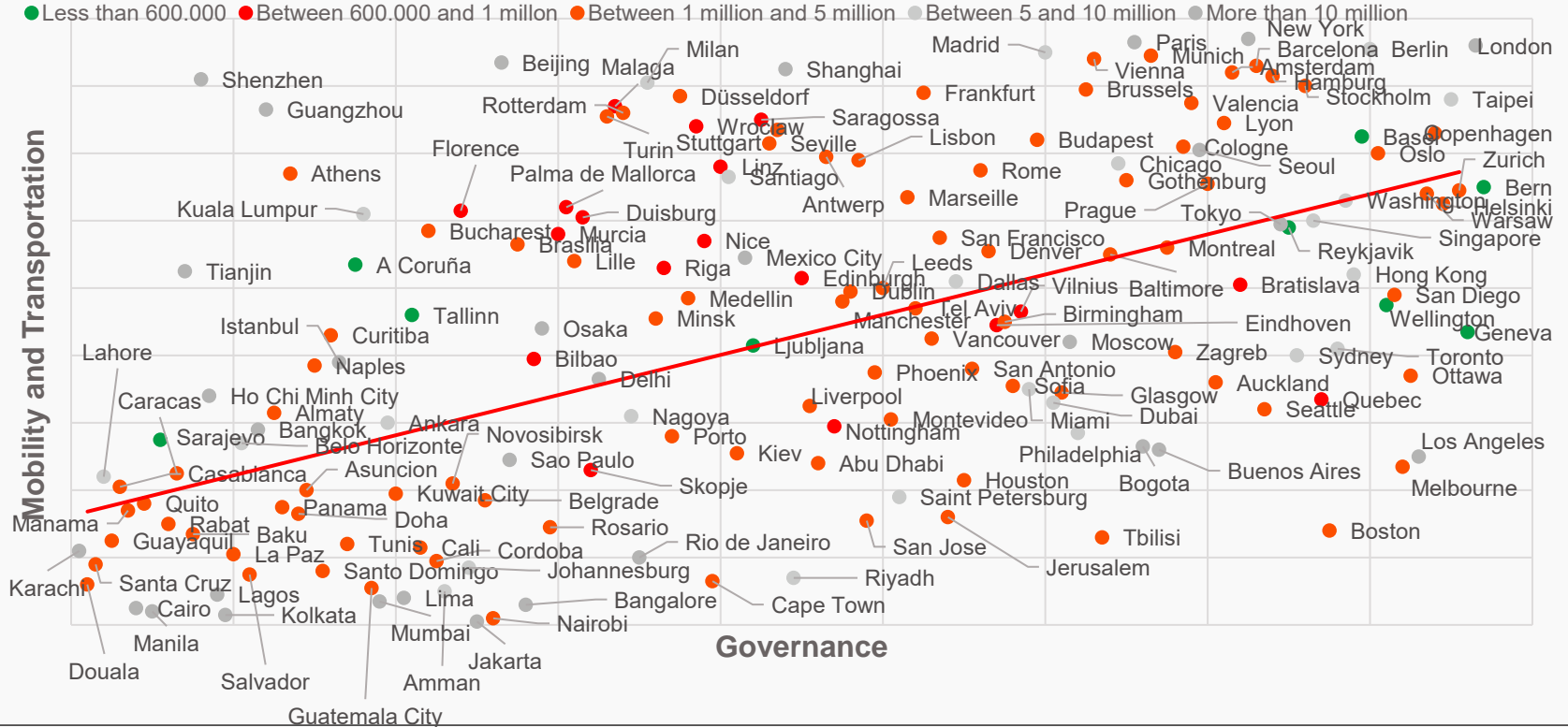


AI Frameworks/  
Development Tools



# Message 3: Smart governance is key

## Governance and Transportation

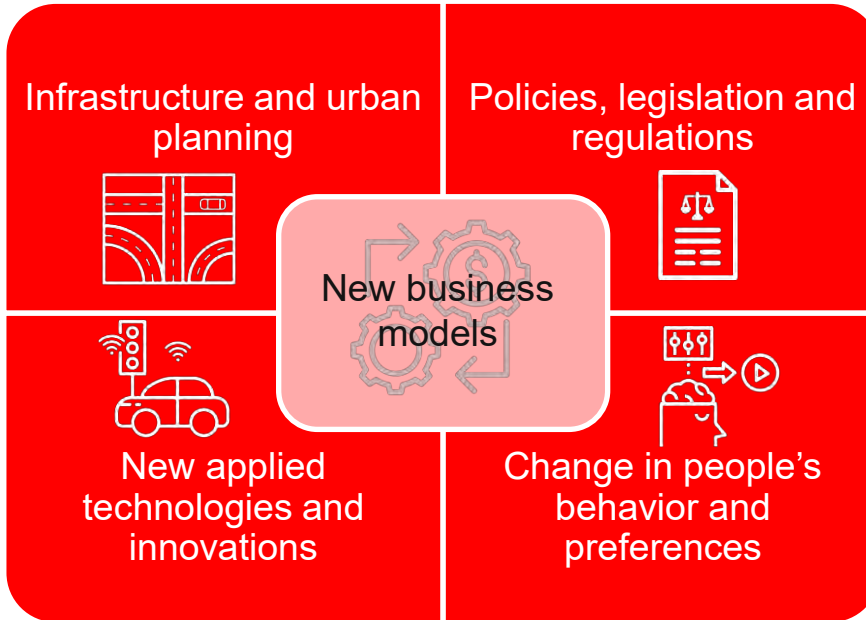
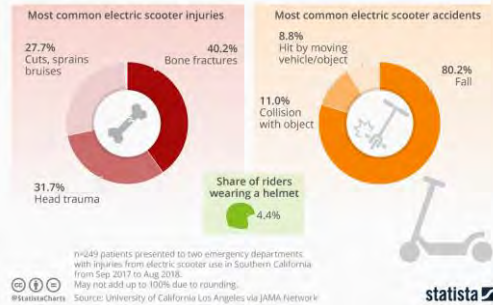


# Smart Urban Management Model

A tool

## How Dangerous Are Electric Scooters?

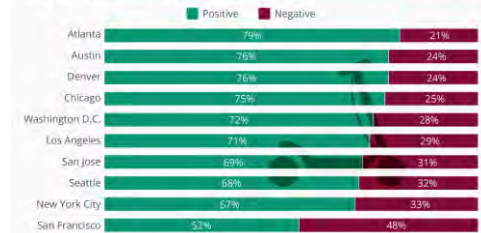
Electric scooter injuries & accidents in Southern California



- Screen for favorable and civic-minded city managers
- Proactively anticipate policies (rules of the road, public safety, parking and scooter zones, permits, liability, etc)

## Majority of U.S. City Dwellers View E-Scooters Positively

Public perception of e-scooters in major U.S. cities in 2018



BERRONE, P., RICART, J. E., FERRADANS, H., RODRÍGUEZ PLANAS, M., SALVADOR, J. (2017). 7 Forces to Success in PPPs. Smart Cities via Public-Private Partnerships. IESE Insight (34), pp. 15 - 23.

# Message 4: Governments play multiple (and new) roles

How cities trying to respond to these challenges



## Greater efficiency

Public transport, infrastructure, traffic flows



## New urban models

15-minute city, Superblocks, "Vancouverism"



## New technologies

EV, V2G, AV, V2X, 5G, blockchain, digital platforms, AI



## New business models

MaaS, Micromobility and Startup and investing landscape



**Service provider**



**Designer**



**Facilitator (or blocker)**



**Orchestrator**

**Role of the public sector**



# The Future of Mobility in Cities



## A new **ecosystem** is emerging (**ideation**)

- Role of the Public Sector?
- Tradeoff on efficiency, affordable, sustainable, safe?
- Who leads in the platform? What is the basis for collaboration?
- Which governance for the PPP?



## Steps to be done for **orchestration**

- Data integration
- Service integration
- Tariff integration
- Planning of mobility services
- Integral management of mobility services



## Future **evolution and expansion**

- Artificial Intelligence and autonomous cars
- Disruptive technologies
- Who is best positioned?
- How can cities better prepare for it?
- Can a MasS system evolve to integrate new mobility in the future?



## **Manuel Valdes Lopez**

**Manager of mobility and infrastructures**

**Barcelona City Hall**



# Cristina Garrido

**Director of Innovation & Strategy at Anteverti - Deputy Curator Smart City Expo  
World Congress- Founding Director CitiesToBe.com**



# The Future of Mobility in Cities

## The emergence of innovative ecosystems

