Automated Driving; Where we are heading?

Philippe Crist, International Transport Forum
“what should we think about when we think about automated driving?”
cities
cities
cities
cities
cities
“what should we think about when we think about automated driving?”
acceleration
revolutions
convergence
acceleration
automation strategies

“something everywhere”  “everything somewhere”
automation strategies

“something everywhere”

“everything somewhere everywhere”
revolutions
data
data

21ST CENTURY KIT
SOME ASSEMBLY REQUIRED
convergence
50 min.

Cars used less than 50 minutes a day. The rest of the time they are doing something... depreciating and hemorhaging value.
50 min.
sharing
what if?
real city
realistic routes
same quality
Shared “taxis”
simultaneous ride-sharing
TaxiBus
optimised on-demand bus
high-capacity public transport
Urban Mobility: System Upgrade

Scenario: 24 hours

Shared "taxis" + TaxiBus + high-capacity public transport

number of cars required to provide the same trips as before:
Urban Mobility: System Upgrade

Scenario: 24 hours

Shared “taxis” + TaxiBus + high-capacity public transport

number of cars required to provide the same trips as before: 3%
vehicle occupancy

Private cars: 1.2
Shared taxis: 2.0-2.6
TaxiBus

+568%
eliminate all street parking
+20% kerb-to-kerb street space
Urban Mobility: System Upgrade

What we did

-80% off-street parking
-34% CO₂ emissions
Shared mobility accelerates clean tech penetration

- Intense use
- Shorter life cycle
- Rapid fleet renewal
- New technologies
- Less CO$_2$ emissions
+ access
30mn access to jobs
% of all jobs accessible in 30 minutes:
- 0-25%
- 25-50%
- 50-75%
- 75-100%

30mn access to jobs
Bus, tram, Metro

Lisbon
30mn access to jobs
Shared Taxi and TaxiBus

% of all jobs accessible in 30 minutes

- 0-25%
- 25-50%
- 50-75%
- 75-100%

Metro
Shared "taxis" -76% price

TaxiBus -57% price, -72% cost
Policy insights:

Few cities are anticipating transport disruption.
Policy insights:

Public transport, taxis and governance must adapt
Policy insights:

Overall benefits linked to system and market design
Policy insights:

Freed space must be managed to lock-in benefits
thank you