



DUBAI WORLD CONGRESS  
FOR SELF-DRIVING TRANSPORT

OCT | 2019

# A pathway toward shared autonomous mobility

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[www.sdcongress.com](http://www.sdcongress.com)





**...50 years before the new green light for testing on public roads.**



**Remote control tech could be key to advance autonomous driving, WeRide CEO says**

News Automotive Autonomous vehicles

**Algorithm helps autonomous vehicles to avoid pedestrians**

10th October 2019 9:46 am

MARKETS > AUTOMOTIVE

**Why Simulation is the Key to Building Safe Autonomous Vehicles**

International - Investment in Autonomous Cars - a Race to Regulation

**Investment in Autonomous Cars – a Race to Regulation**

WHEELS

***These High-Tech Sensors May Be the Key to Autonomous Cars***

# Where are the Humans?

Worldwide Survey Highlights Growing Anticipation of Autonomous Vehicle Technology

News Automotive Autonomous vehicles

Algorithm helps autonomous vehicles to avoid pedestrians

10th October 2019 9:46 am

MARKETS > AUTOMOTIVE

Why Simulation is the Key to Building Safe Autonomous Vehicles

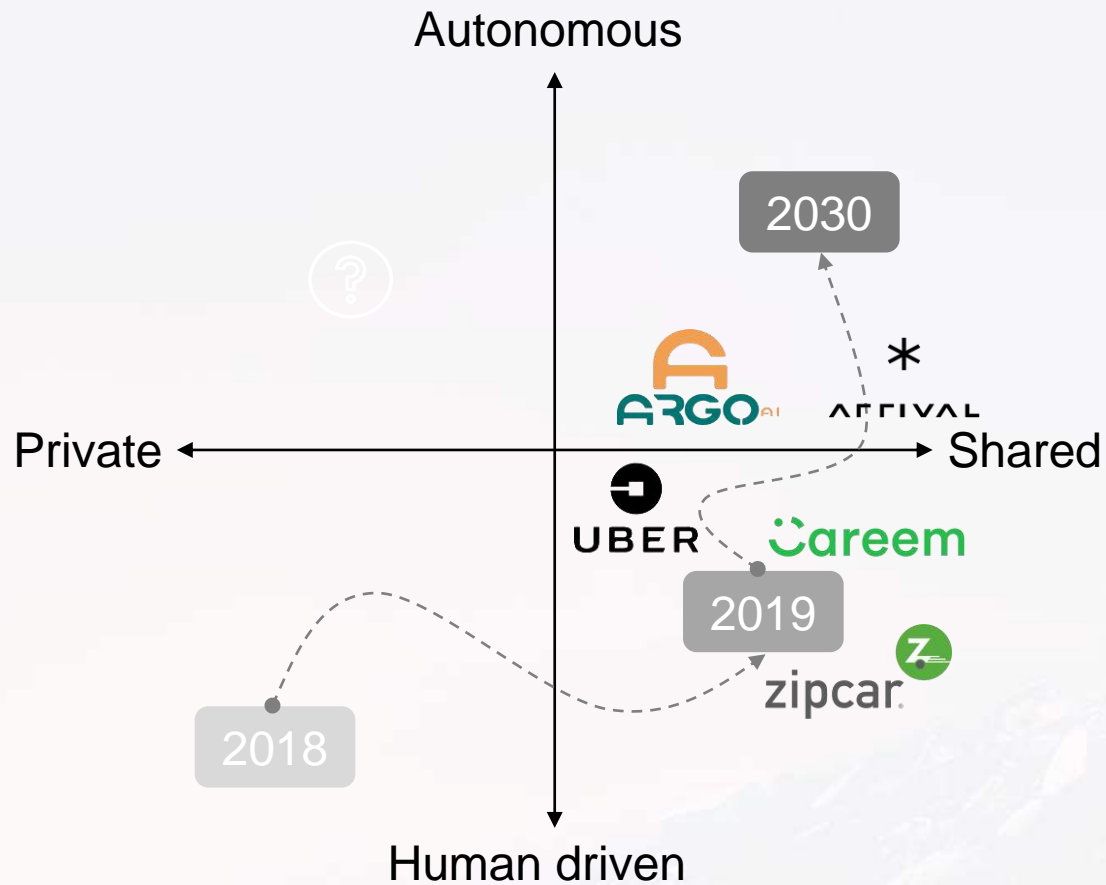
International Investment in Autonomous Vehicles

Investment in Autonomous Cars – a Race to Regulation

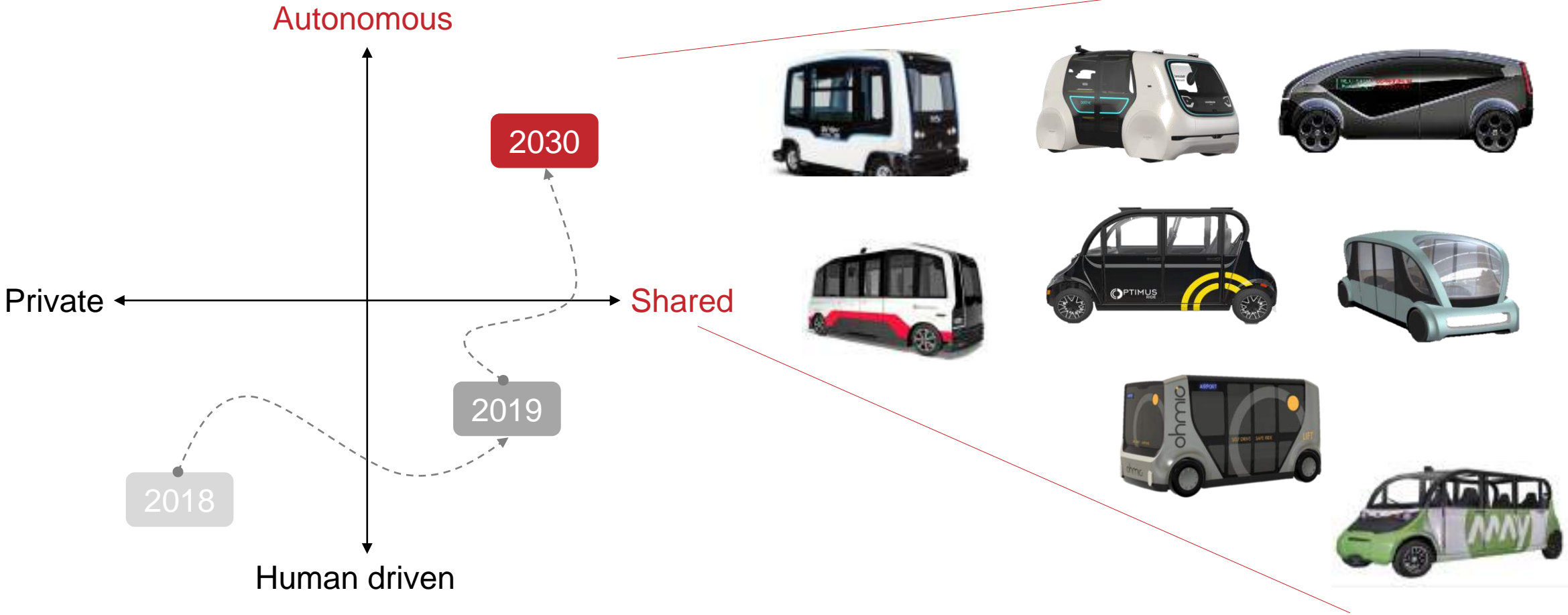
WHEELS

*These High-Tech Sensors May Be the Key to Autonomous Cars*

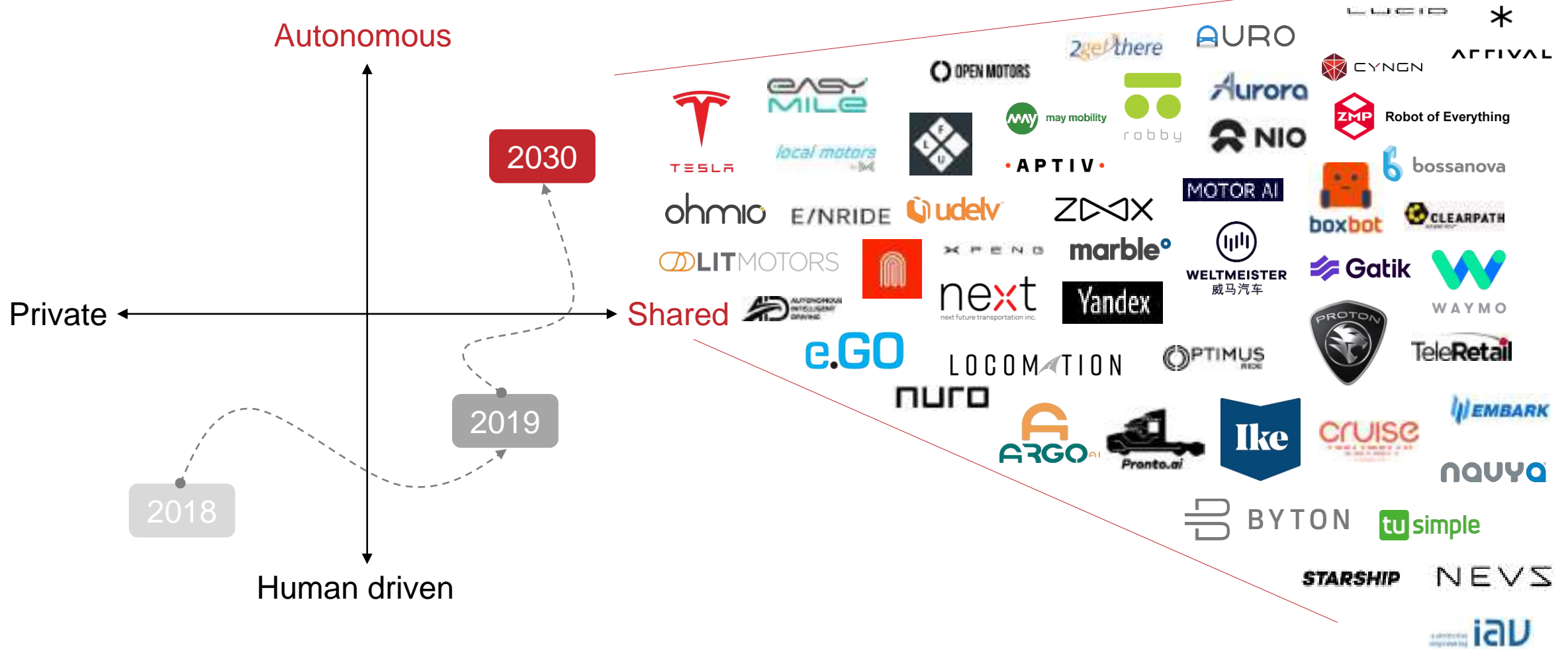
# Dreaming about a seamless transition to shared autonomous mobility



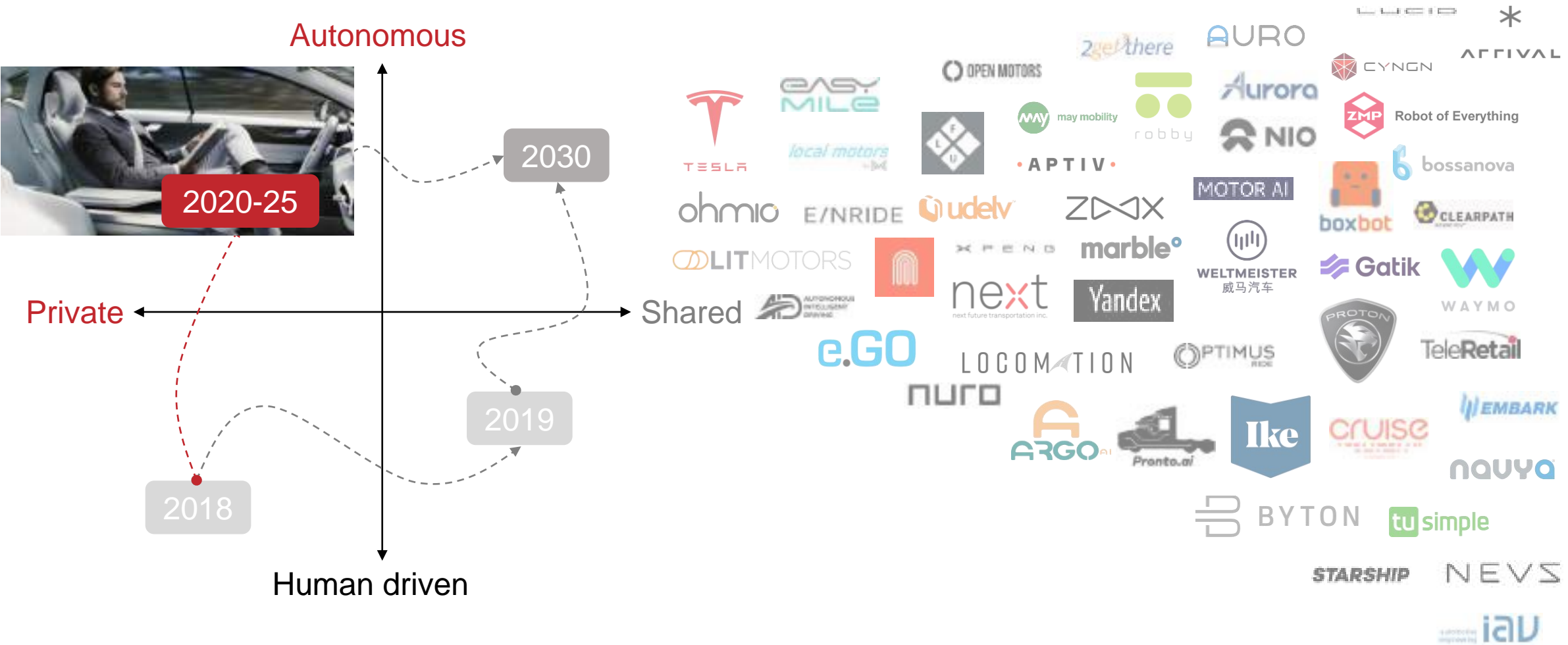
# Our urban dream: countless new shared, autonomous shuttles



# Do we all believe in shared, autonomous mobility?



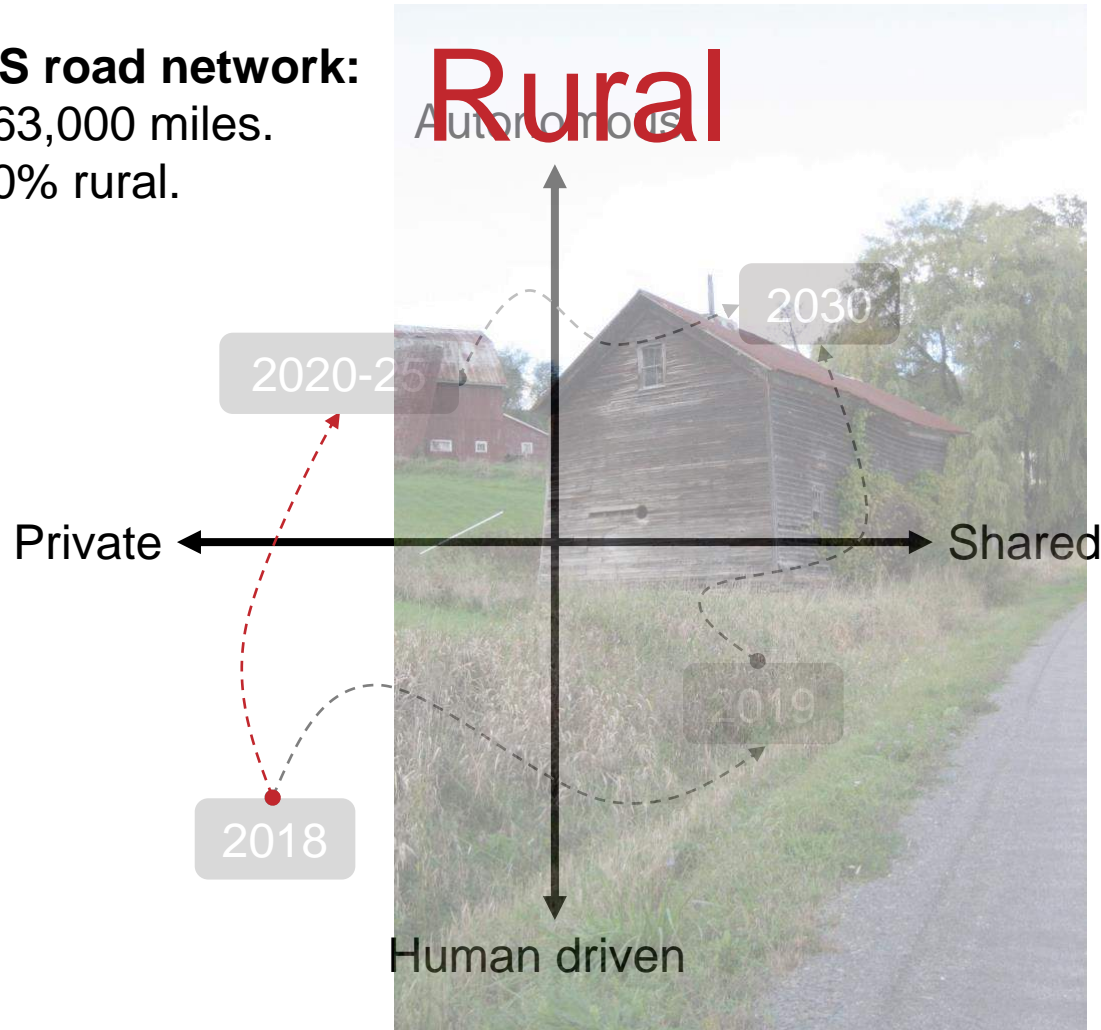
# Considering an alternate path to shared, autonomous mobility





# Multiple pathways toward a shared, autonomous future

**US road network:**  
163,000 miles.  
70% rural.



Either way, we are asking humanity to take a 'double leap'



20 years of gradual adoption toward the "revolution"



# A study on human adoption of autonomous vehicles and ownership



3,000  
respondents



UK



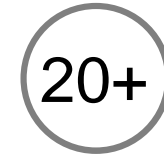
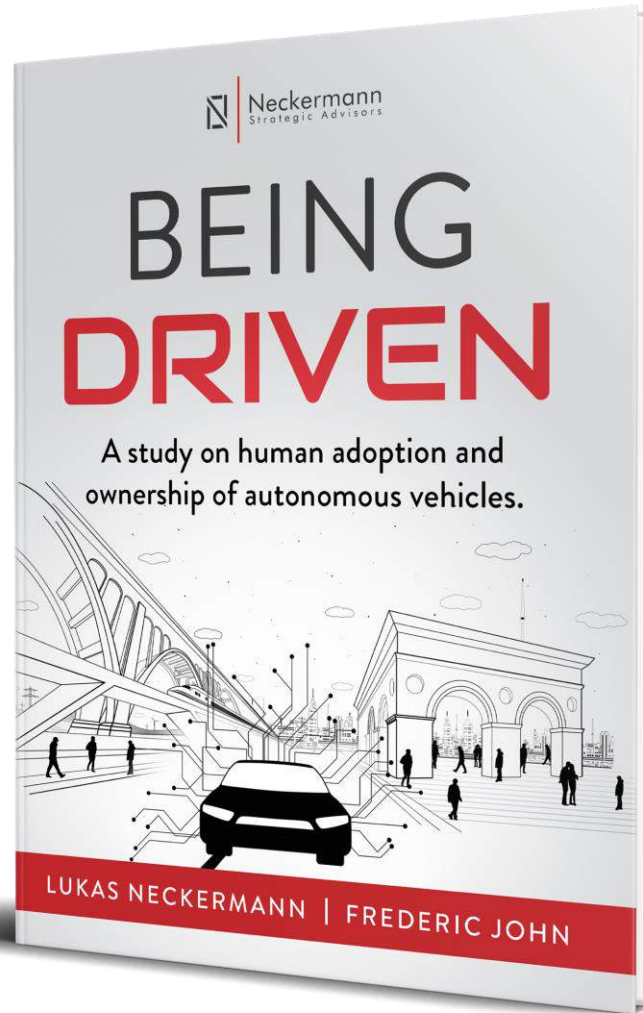
May-June 2019



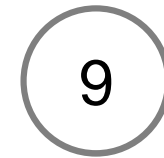
7<sup>th</sup> SENSE

Bank of America  
Merrill Lynch

Deloitte.



20+ Interviewees



9 Countries



14k words



Engineerai

HUMANISING  
AUTONOMY



next

STREETDRONE

# Politics, Economics, Technology – Largely addressed

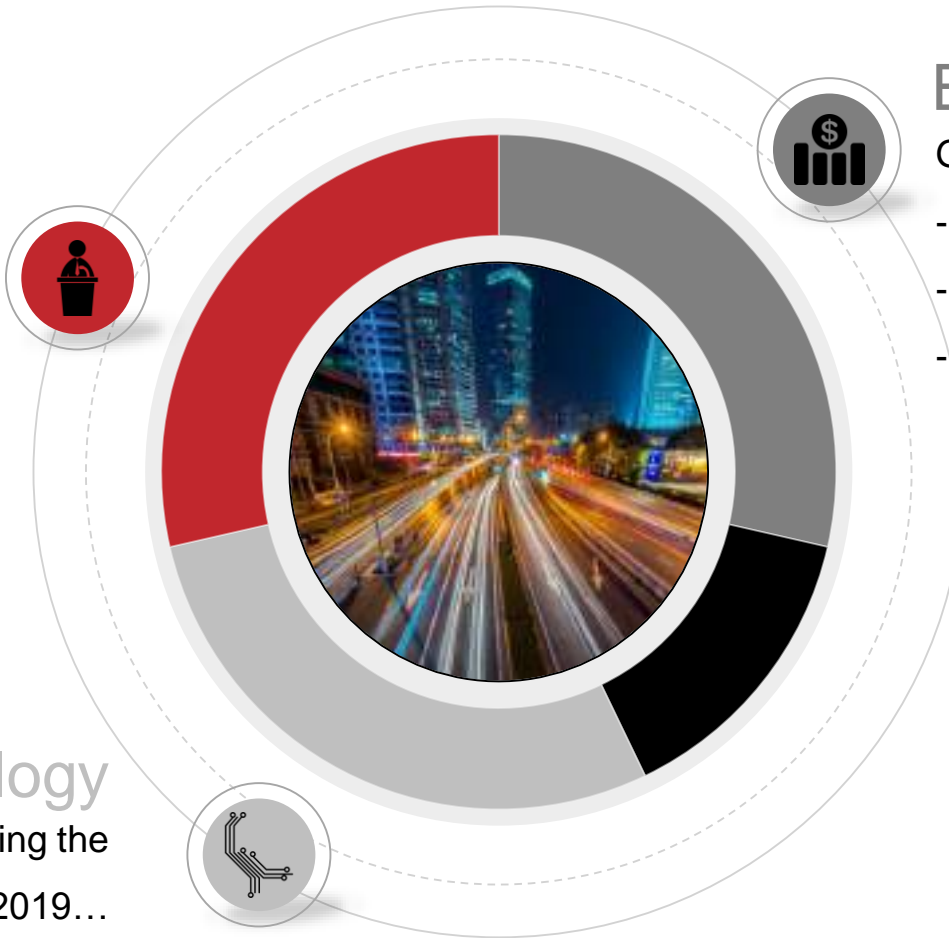
## Political and Legislative

Goodwill to implement autonomous vehicle projects: US state regulation, Queen's speech 2017, Tokyo 2020. Legislative process underway, UN and EU-wide



## Technology

Frequent catchy announcements regarding the / launch. Listen to Elon in Feb 2019...



## Economics

Global Market value by:

- 2022 | \$156B (EU report)
- 2026 | \$556B (Allied Market Research)
- 2030 | up to \$9trn (ARK MaaS forecast)

# Our greatest challenge is public acceptance, education, trust

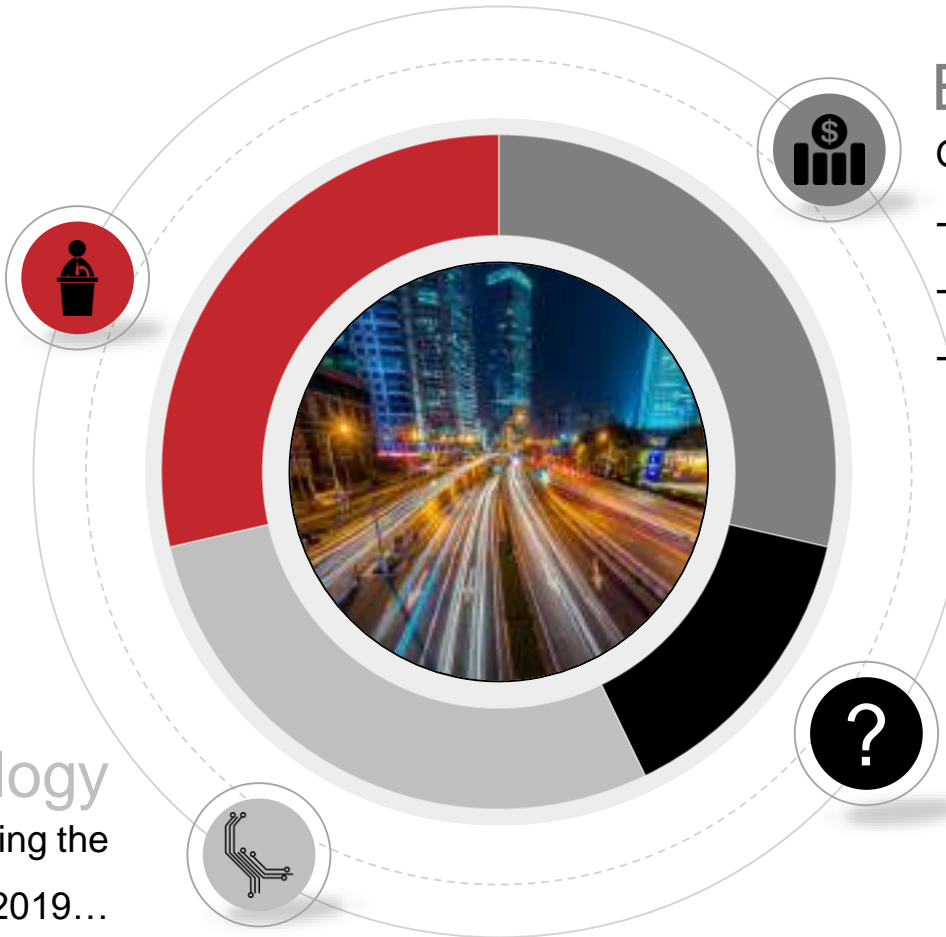
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Frequent catchy announcements regarding the first AV launch. Listen to Elon in Feb 2019...



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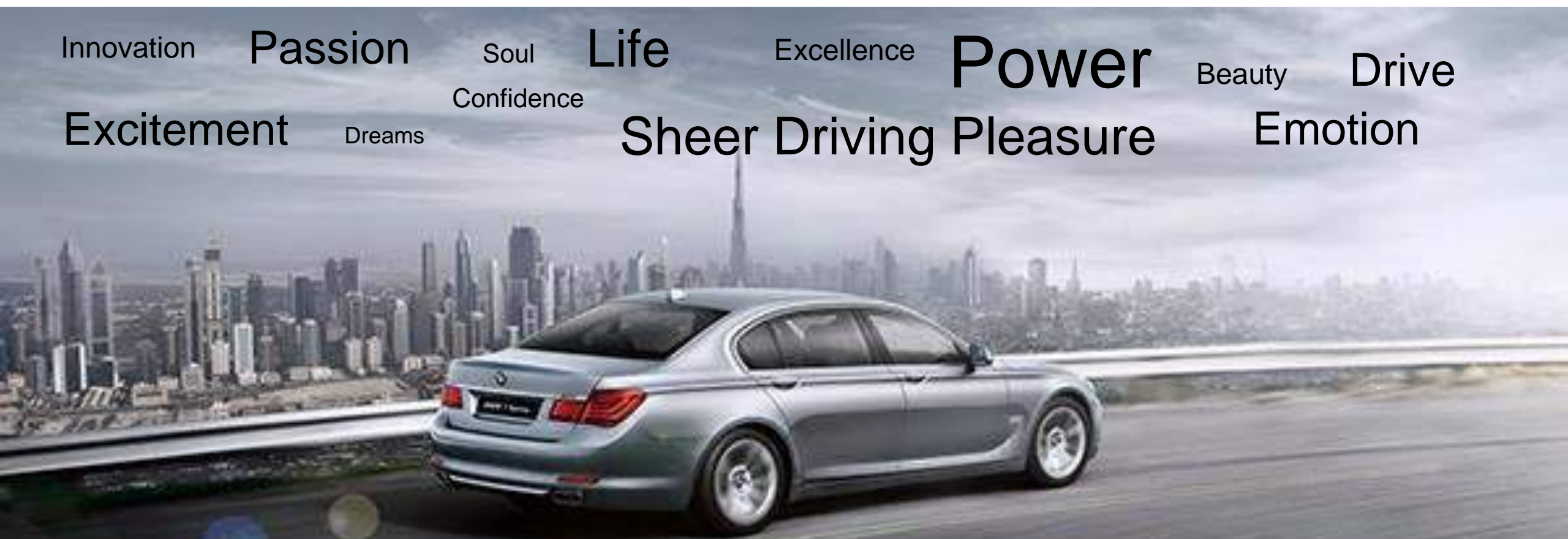
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## People

What about user acceptance, adoption, education and trust?

# \$45+ bn global, yearly advertising spend on “driving” and “passion”

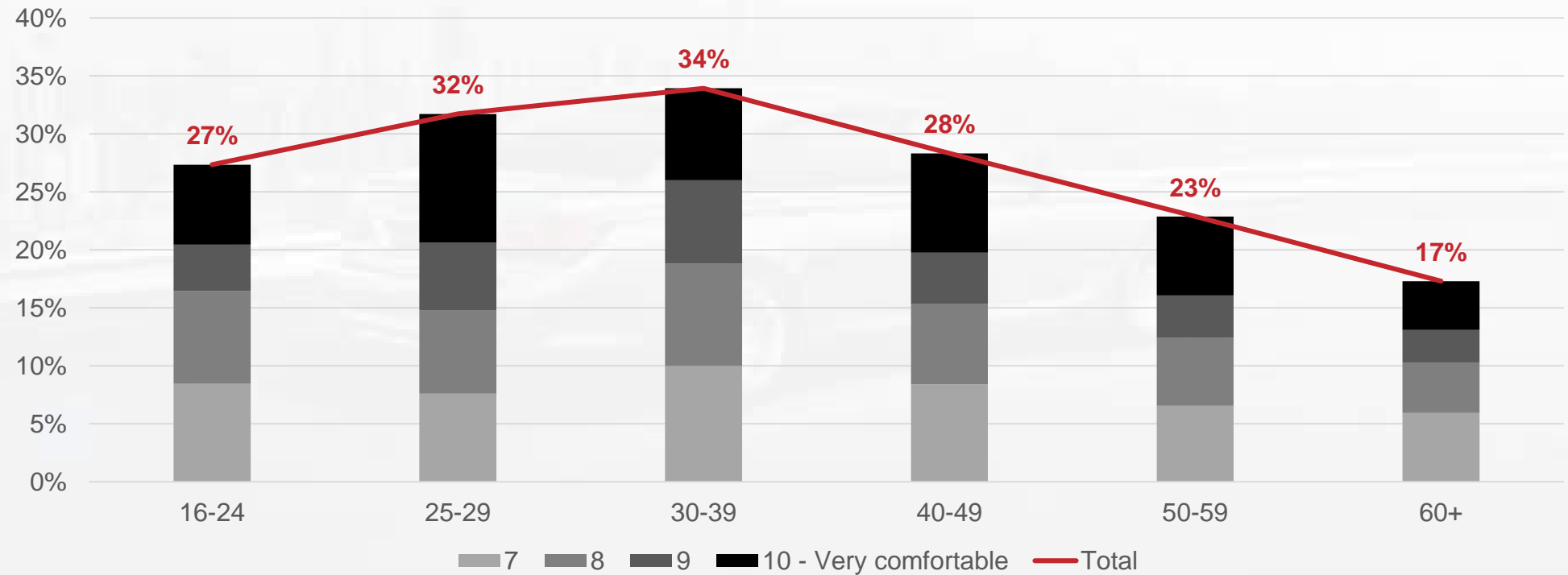
Innovation Passion Soul Life Excellence Power Beauty Drive  
Excitement Dreams Confidence Sheer Driving Pleasure Emotion



# Our Study: Autonomous vehicles with a negative perception



How comfortable are you with vehicles operating at L4 or L5 right now?



# Our Study: 4 root causes for a negative perception of AV



01 Human Nature

02 Communication / Education

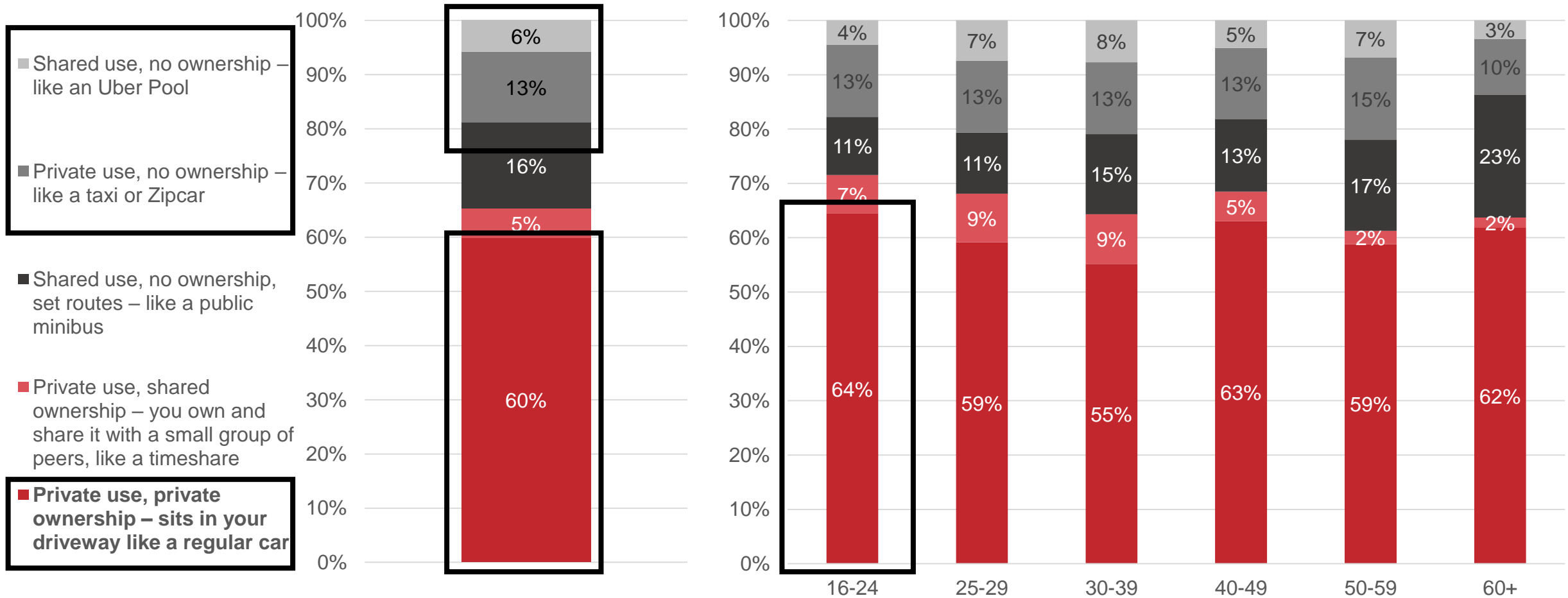
03 Lack of Standardisation

04 Survey bias



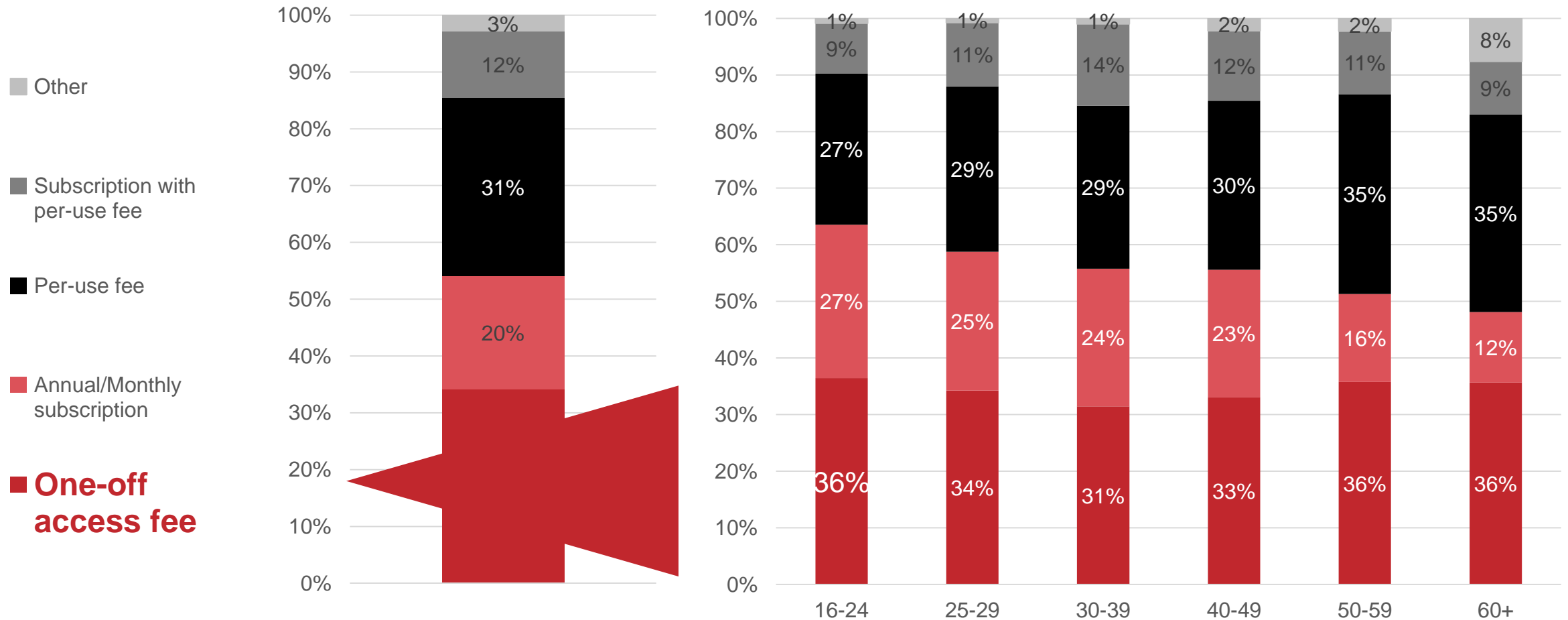
# Our Study: Private ownership and use of AV vastly preferred

Which one of these would be the most appealing way to access autonomous transport?



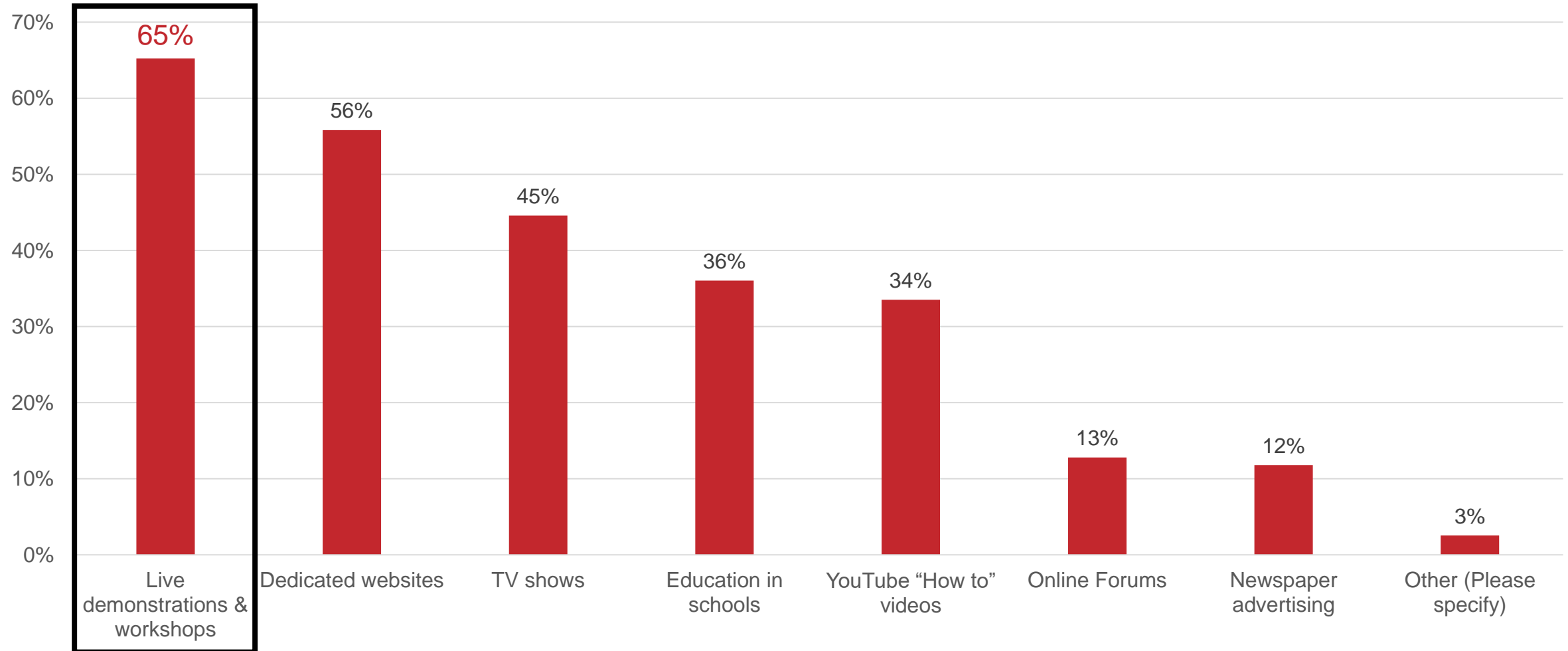
# Younger users especially prefer one-off fees for personal transport

Which one of these would be the most appealing way to pay for access to autonomous transport?

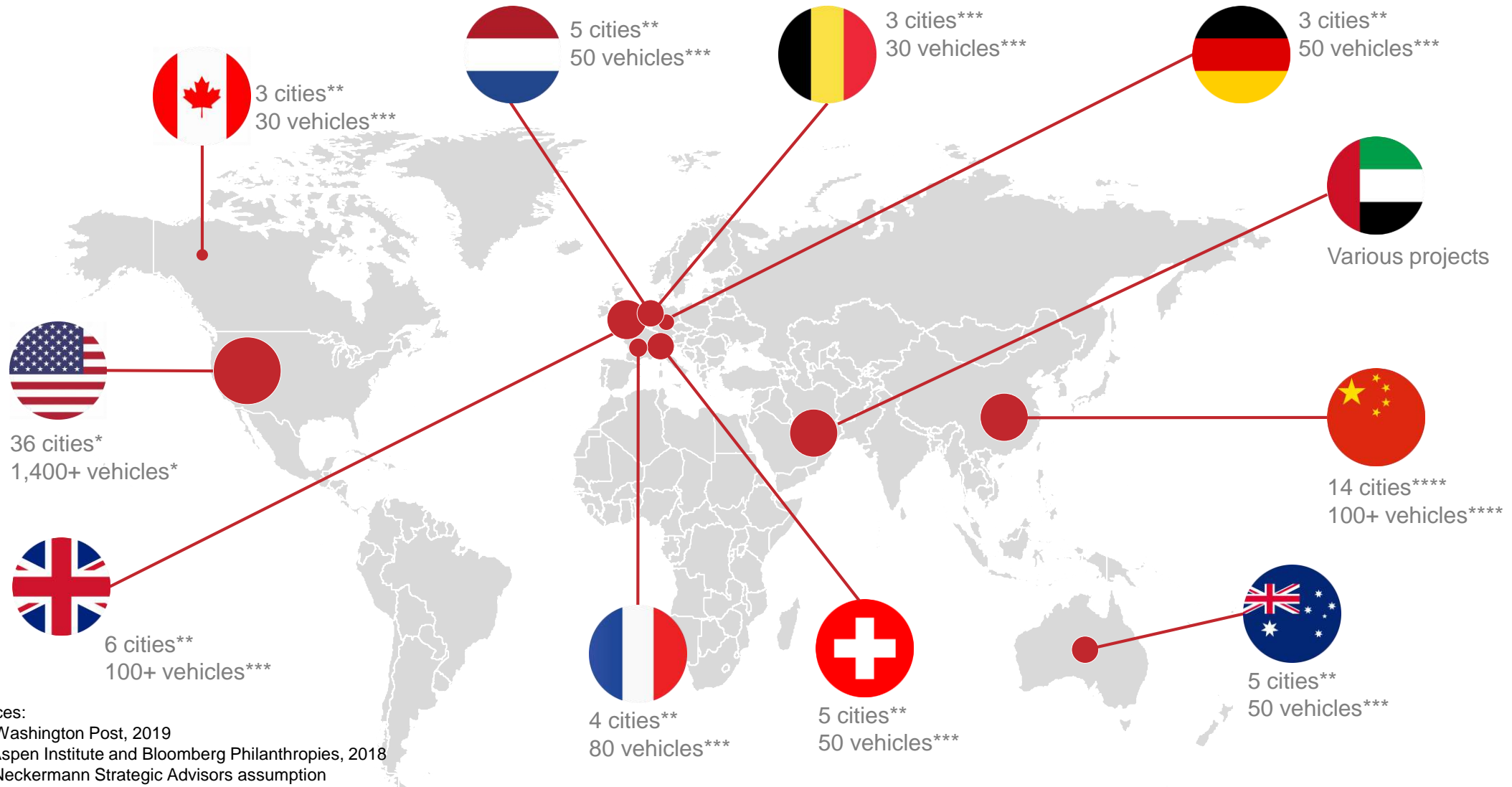


# Educating on autonomous: a strong preference for live experience

In your opinion, which three ways would be best to educate people about CAVs? \*



# Global AV test beds: More than 100 cities testing vehicles



Sources:

- \* Washington Post, 2019
- \*\* Aspen Institute and Bloomberg Philanthropies, 2018
- \*\*\* Neckermann Strategic Advisors assumption
- \*\*\*\* China Daily, 2018

# Communicate benefits of autonomous in all scenarios – today



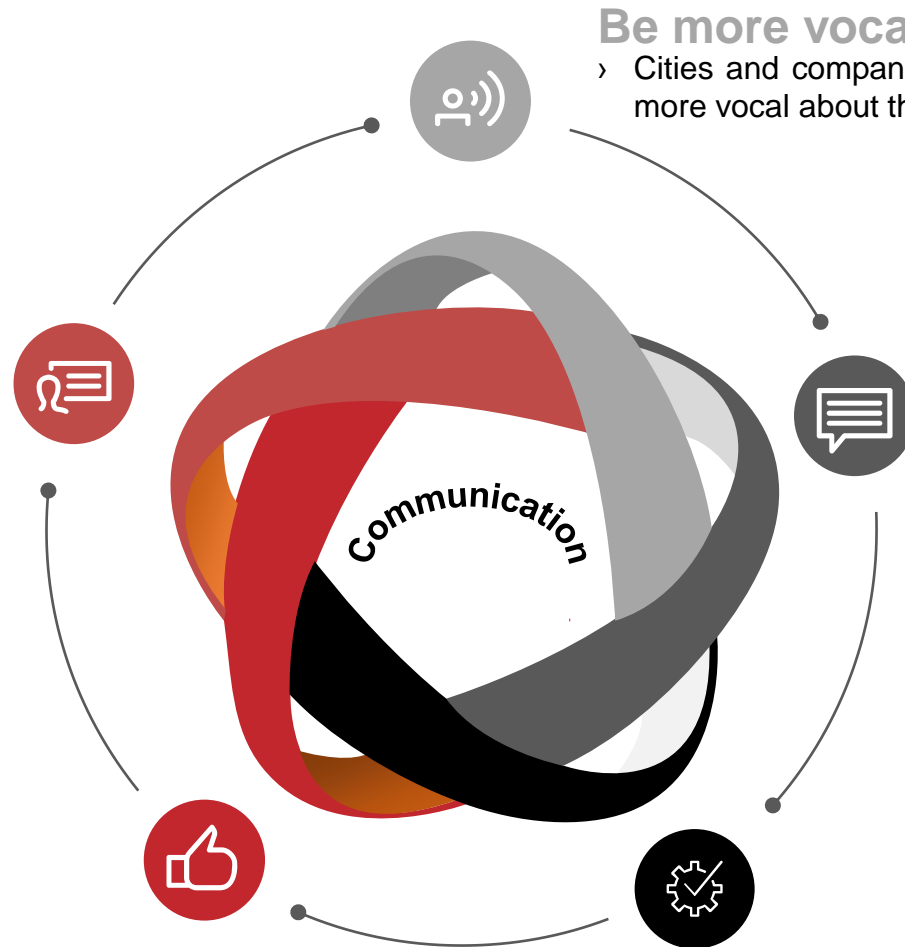
# Our Study: How to communicate with future AV users?

## Adapt language

- › AV manufacturers should avoid promoting features such as “automated”, “self-driving”, “autonomous”, “autopilot” or “driverless”. It creates confusion in the user’s mind.

## Include future users

- › Cities should develop an inclusive dialogue with the future users through focus groups and specific events



## Be more vocal

- › Cities and companies should be more vocal about the vision

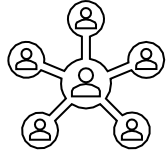
## Align message

- › Public and private parties should align their message to show consistency both in topic and terminology

## Change the subject

- › Mobility stakeholders should talk about safety, quality and use-cases, rather than software and hardware

# The road to AV – What needs to be done



## Create Experiences

45 minutes is what a user needs to trust an AV. The creation of test centers and on-site demonstrations – in various scenarios – is critical to changing user AV perceptions.



## Advocate

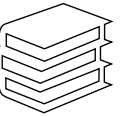
Groups concerned about air quality, congestion, quality of life, ... are all potential AV advocates. There is a need for a single unified voice to promote AV interests.

01

03

02

## Educate



Homogeneous and proactive communication and education towards future users will significantly facilitate the AV introduction.

Thank you!



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