

**CASE: CONNECTED, AUTONOMOUS, SHARED, ELECTRIFIED**

**MOBILITY SYNTHESIS**



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## AV MARKET DIAGNOSIS

# Mobility trends catalyst, the car of tomorrow will be connected, autonomous, shared and electric...

### THE AUTONOMOUS VEHICLE IS A CATALYST TO NEW MOBILITY TRENDS

270% annual growth of the VTC market in France since 2013



On-demand Transport



Electric Vehicle

Cities Proactivity



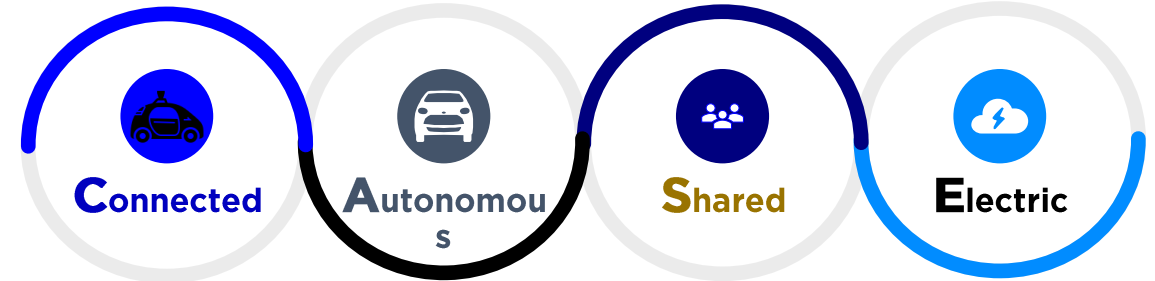
Car-sharing

60% increase of electric vehicles sales in 2015

20% of global Uber ride orders are for shared trips (UberPool)

The city of Goteborg in Sweden offers a mobility pass to its residents

### THE CAR OF TOMORROW WILL BE CASE (CAPE IN FRENCH)



- 100% of Alliance new vehicles will be connected in 2022
- 51% of today digital requests are from the car

Training of drivers to the autonomous driving via the use of ADAS

Boom of the sharing economy worldwide (car-sharing, car-pooling...)

- Improved battery life
- Decrease of the batteries price (€/kwh) of 50% by 2020

We are currently making the transition from an ownership to a usage model

## ... and should meet the challenge of major cities

### THE MAIN CHALLENGE OF MAJOR CITIES IS THE REDUCTION OF...



#### POLLUTION

- **37%** of GHG emissions are linked with road transport in major cities
- **500,000** early deaths due to air pollution in Europe



#### ELECTRICITY



#### ACCIDENTS

- **90%** of accidents are linked to human causes
- **25%** of fatal accidents in Japan are linked to senior people



#### AUTONOMOUS VEHICLE



#### CONGESTION

- **30%** of the automotive traffic in major cities is dedicated to parking
- **41% daily extra travel time** for commuters in Chengdu (China) and Los Angeles (USA)



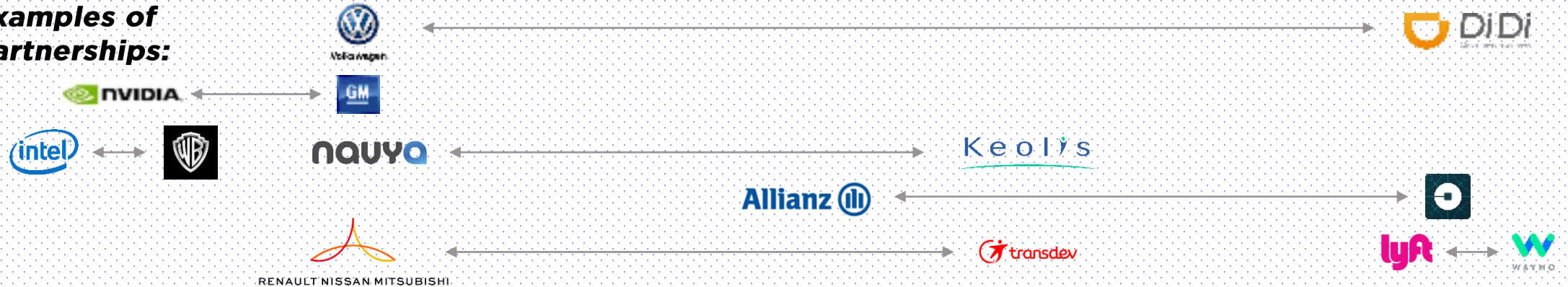
#### CONNECTIVITY

# The actors along the value chain position themselves on this promising autonomous vehicle market

## THE AUTOMOTIVE VALUE CHAIN IS COMPLEXIFIED WITH THE ARRIVAL OF NEW ENTRANTS

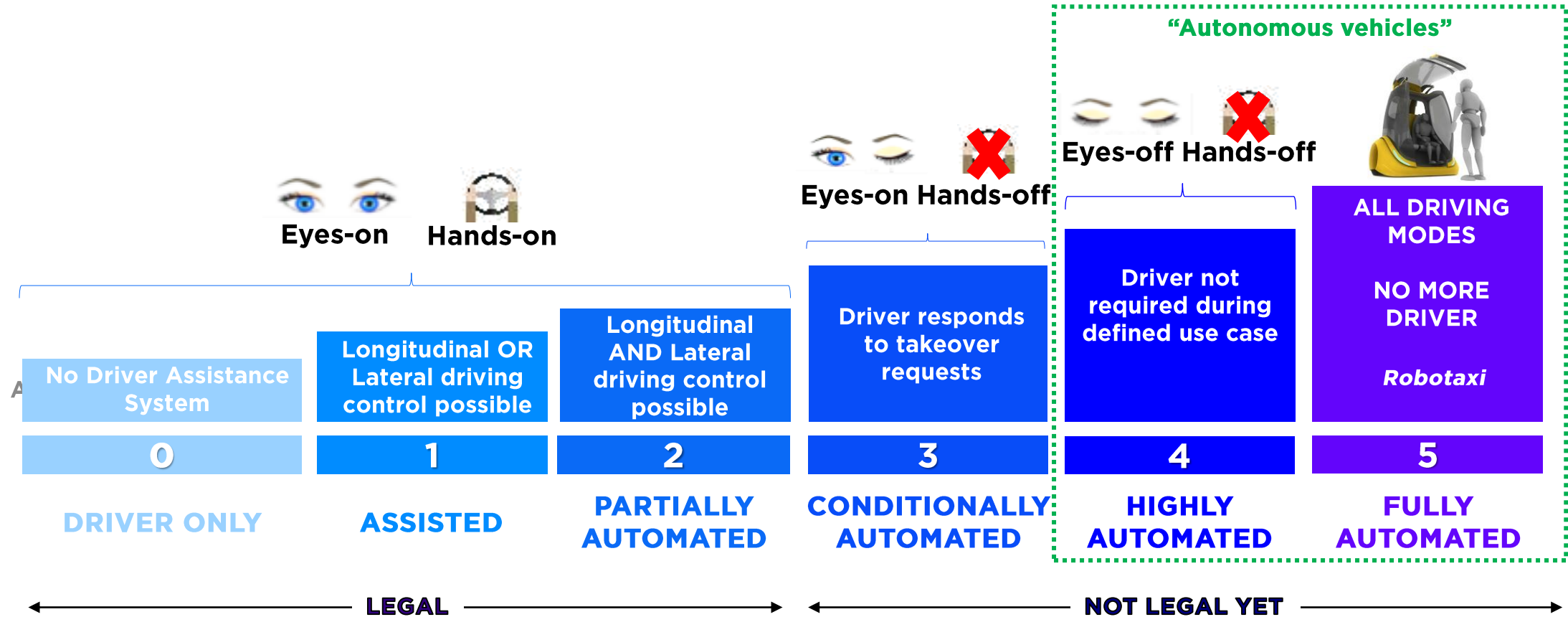


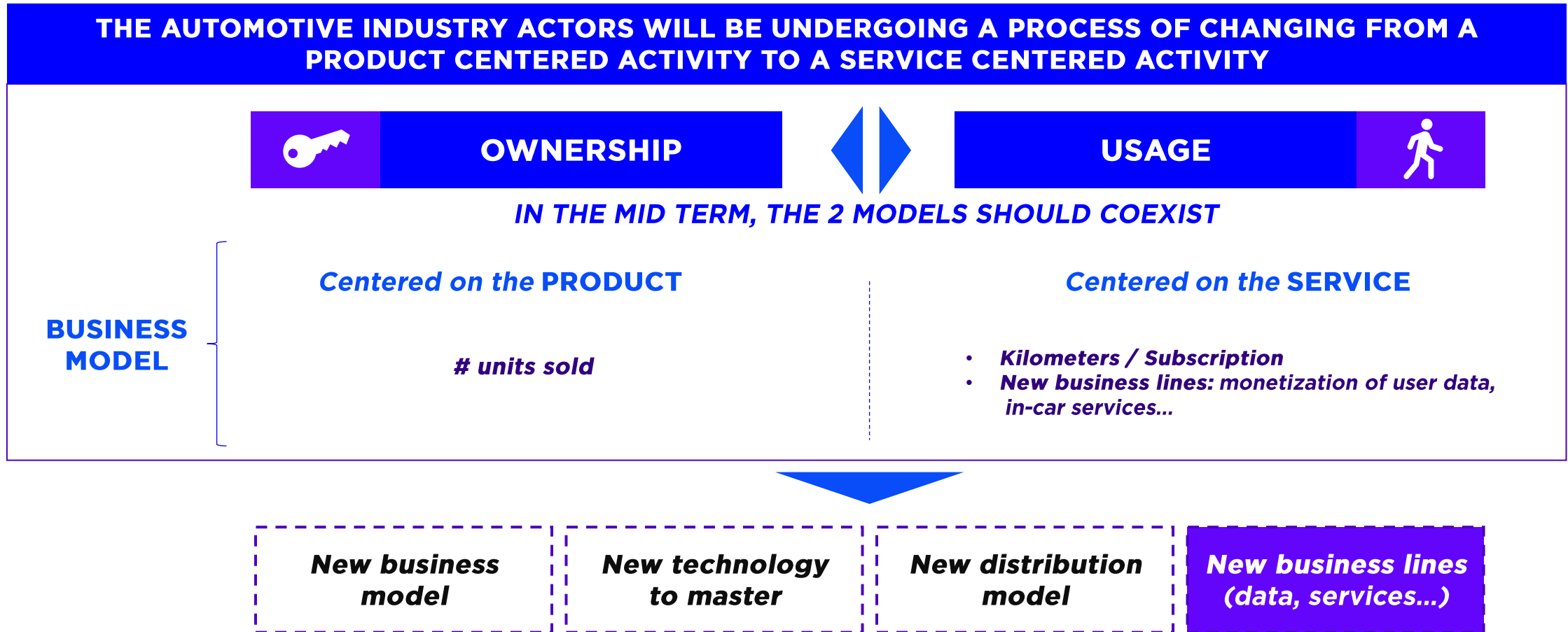
### Examples of partnerships:



The business agility of new entrants and the value chain fragmentation foster partnerships

# Based on SAE standards, The autonomous vehicle can be defined from level 4 thanks to the eyes-off benefit







# The AV will involve NEW BUSINESS MODELS OPPORTUNITIES from data and services offers

## THE AV WILL TRANSFORM THE CAR FROM A PRODUCT TO A SERVICE...

## ... INVOLVING NEW BUSINESS MODELS OPPORTUNITIES

### LEVELS 1, 2

### LEVEL 3, 4

#### ADAS

#### AD

Driving offer



Adaptive cruise control

Parking assistance

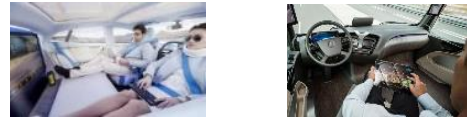


Automated driving

In-car offer



Infotainment



Leisure (music...)

Working tools

Geoloc. services



Usage

Ownership

Usage

### 1 Driver / vehicle data :

- Automated Driving mode
- Predictive Maintenance



### 2 Complexification & digitalization of the in-car offer

- Digital services (on-demand music...)
- "Car real estate"



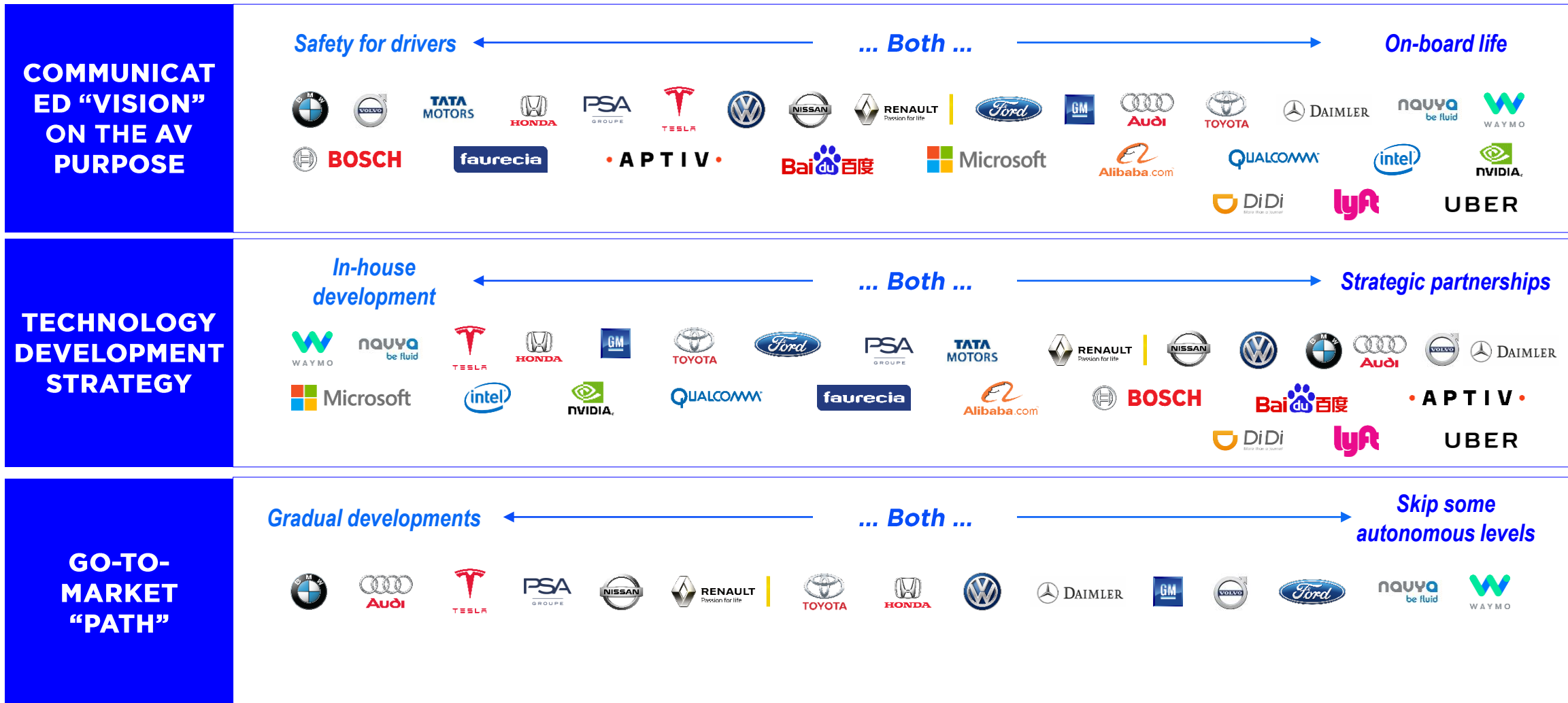
### 3 Mobility services:

- Increased partnerships with digitalized players



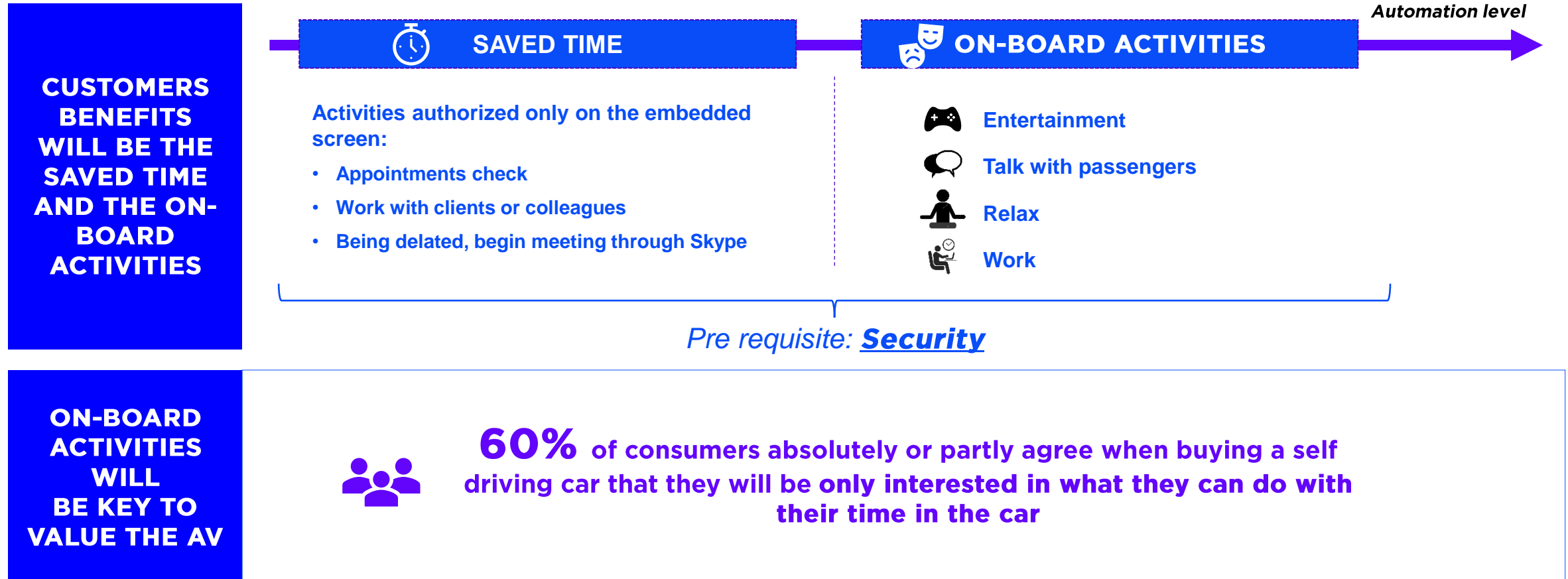
Renault will need to find new business models to monetize data & services

## In particular, actors can have substantially different visions, technology acquisitions and go-to-market paths



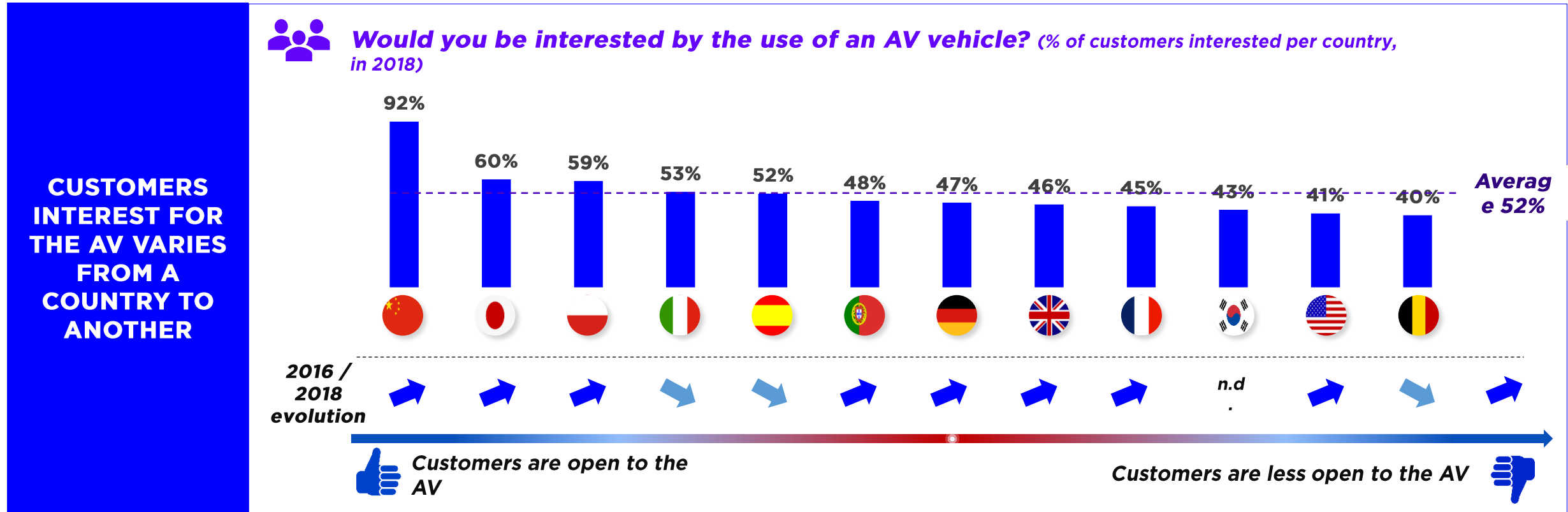
## AV customers' benefits and obstacles for commercialization

The UX will be a key differentiator on the AV market as customers express the need for on-board activities...



## AV customers' benefits and obstacles for commercialization

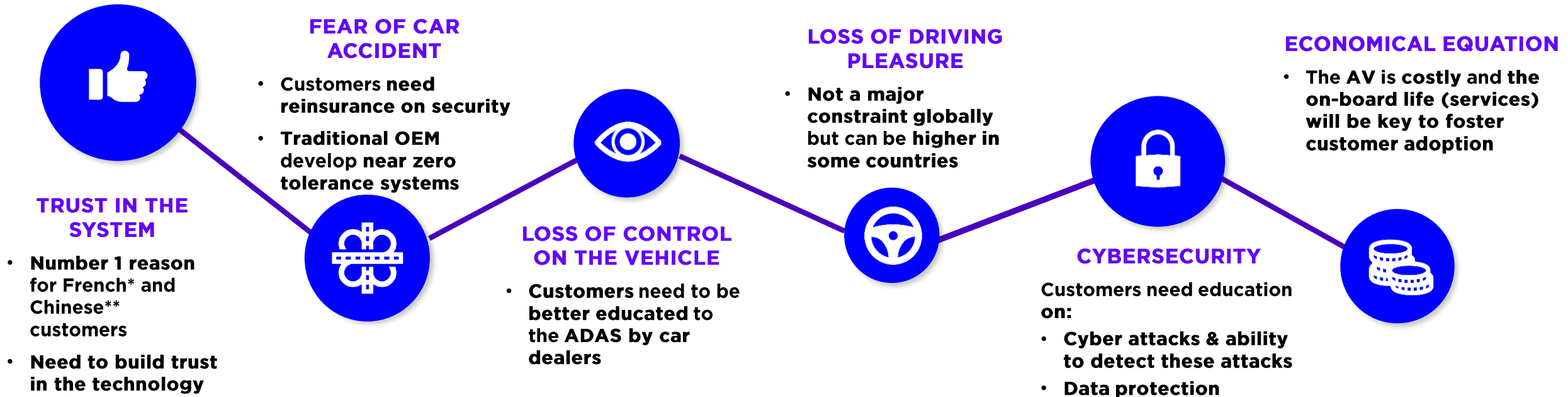
However the customer openness to the AV is globally mitigated, China PRESENTING THE HIGHEST AV interest level, BUT IS INCREASING...



The reasons why customers from these countries are less open to the AV are different from a country to another

# AV customers' benefits and obstacles for commercialization

## ... it is therefore key for OEM to resolve the 6 major customers obstacles



**The end**