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# Automotive Mega Trends & The Future of UX

## *Delivering Hospitality Instead of Features*

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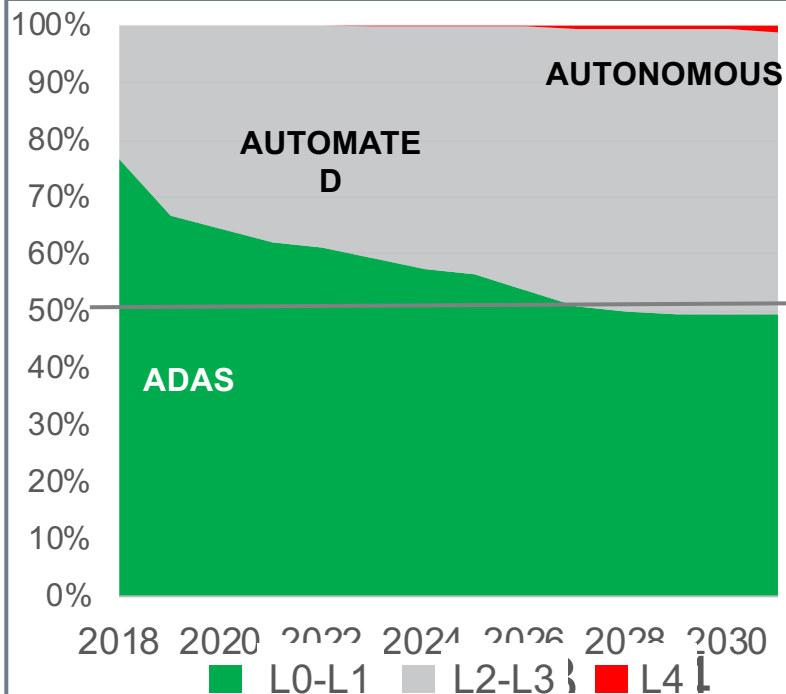
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15 October 2019

# Automotive Mega Trends

US Light Vehicle Sales by Level of Automation

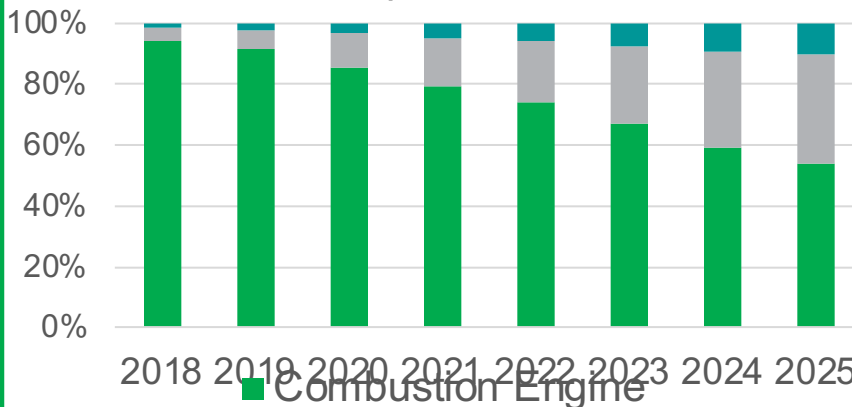


Source: IHS Markit Autonomy Forecasts, August 2019

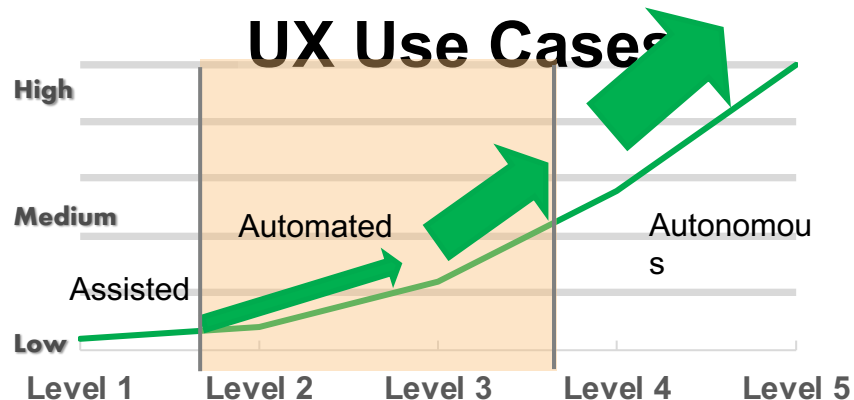
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## Global Production

Propulsion Shifts



## UX Use Cases



# The Network

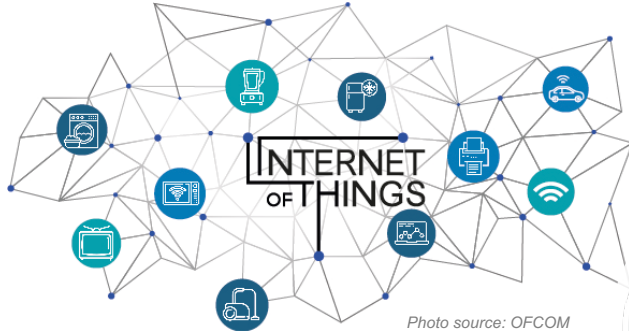


Photo source: OFCOM

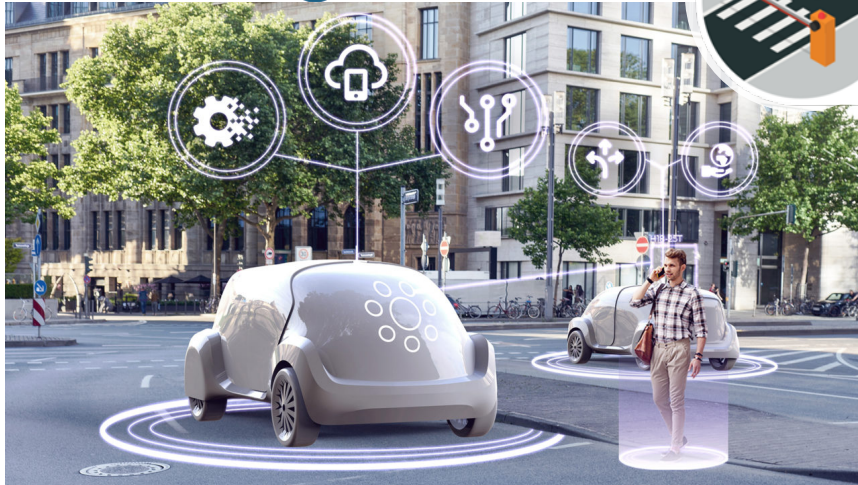


Photo source: Shutterstock



Photo source: Arrive



# The Device



Photo source: Baidu



Photo source: Mercedes-Benz



Photo source: Baidu



# What are the Firm's Saying About UX?

## Industry Interviews

*"How do you deliver delight without sensory overload?"*

**"The customer wants to have one user interface to control their whole life"**



Photo source: Shutterstock



Photo source:  
Shutterstock

*"You work both ways – you see what features need which tech, but you also need to start with the tech and see what features they enable."*

**"One camera for one feature is not sustainable"**

**"Over Spec hardware to extend useful life"**

# UX Themes

Word Cloud



Ultra User  
Personalization

Connectivity

Context

In-Cabin  
Monitoring

# The Vision of Future Mobility

*A consistent, contextual mobile hospitality experience*

## Pre-ride

- > Reporting vehicles condition
- > Automatically moving to the driver's location
- > Opening doors
- > Adjusting in-cabin architecture and room based on driver's needs

## In-ride

- > Interacting with the driver and passengers during the ride/drive
- > Continuously monitoring them to identify their moods, needs and requests
- > Converting monitoring inputs into actionable outputs

## End-ride

- > Drop off, self-parking or next trip
- > Vehicle is fueled, maintained, and cleaned as necessary.
- > Secure portion of the vehicle can be unlocked to provide parcel delivery for short periods

## Underlying Challenges

User  
Connectivity

Autonomy  
Level

Vehicle  
Architecture

Over the Air  
(OTA) Updates



# Technology Roadmap Summary, by Category

## Pre-ride information/actuation

### Basic

- NFC Keys
- User presets & mirrors via smartphone

### Complex

- “Summon”
- IoT profile registration

### Advanced

- Facial recognition and door actuation
- Contextual detail (i.e. you have a bike, or you’re with friends)

## In-ride information/actuation

### Basic

- Basic virtual personal assistant (Alexa)
- Basic driver monitor

### Complex

- User health monitoring
- Contextual recommendations
- Voice and face IDs for applications

### Advanced

- Guided content (i.e. meditation)
- Privacy zones (in shared vehicle)
- Auto Privacy glass in L4/5
- Fully contextual assistant

## End-ride information/actuation

### Basic

- Parking suggestions in real-time
- Occupant reminders/alerts
- Basic smart home activation (i.e. auto garage door open)

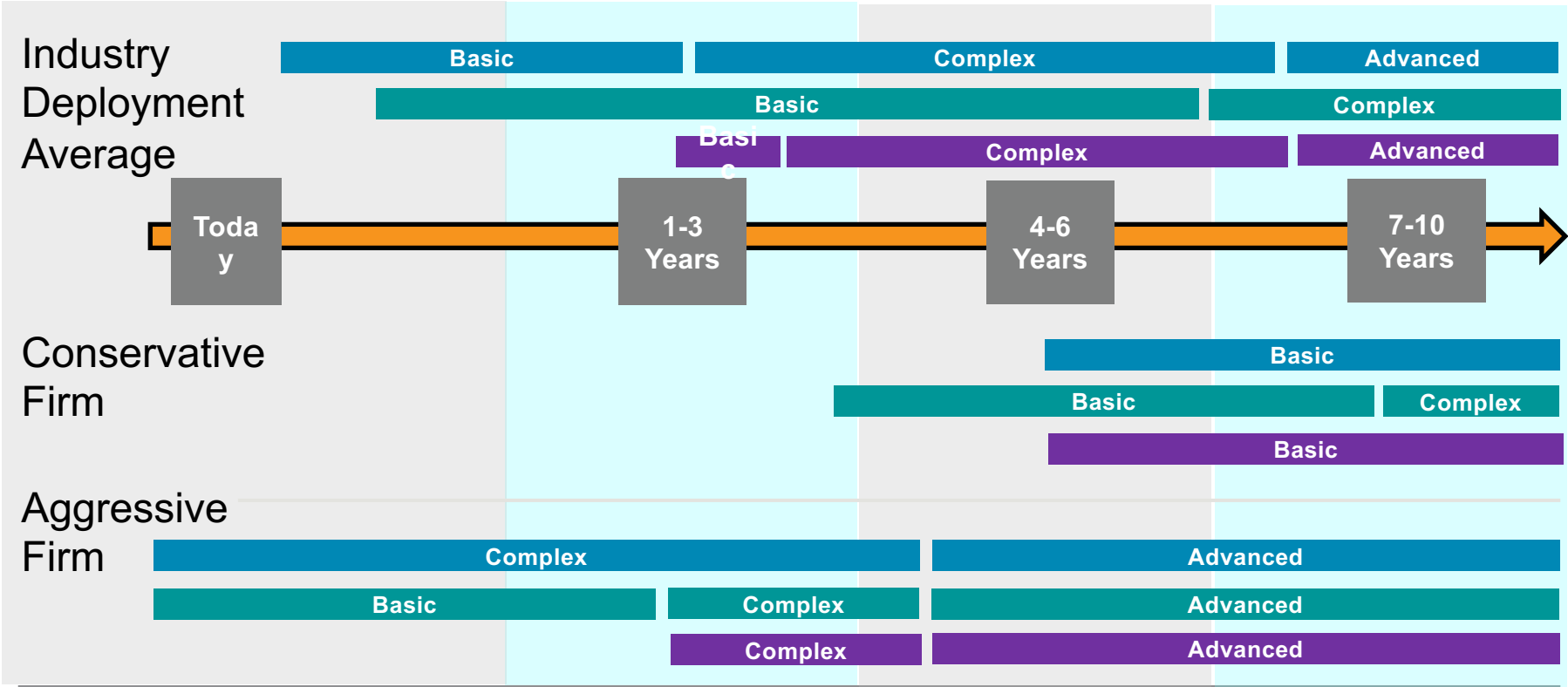
### Complex

- “Reverse summon”
- Seat orientation toward exit (left or right)
- Personal data cache clear, upon exit

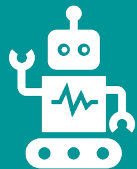
### Advanced

- Specific drop-off points
- Self-parking, charging, & cleaning
- Fully-integrated content INTO the smart home or office

# Technology Roadmap Forecast Summary – Sample

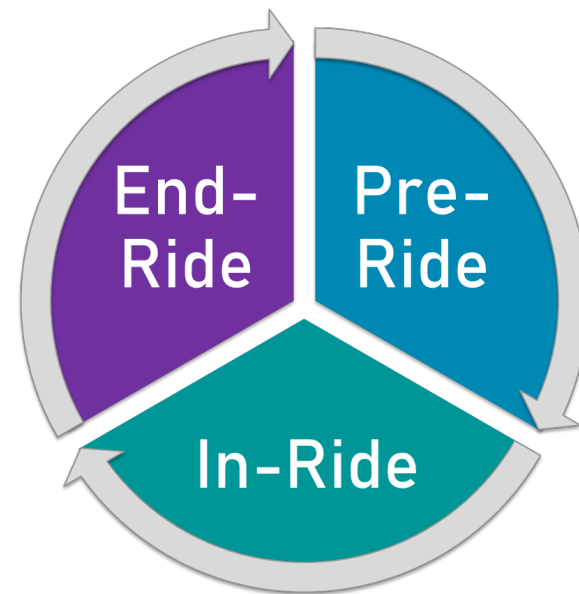


# Conclusion



## Challenges to Delivering UX

Connectivity  
Architecture  
OTA  
Autonomy



**Ideally, this becomes a cycle  
Optimized, Adaptable, & Sustainable**



# Thank You

# Questions?

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