



David Twohig  
BYTON Chief Vehicle Engineer

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Developing the next generation smart device

## Over a century ago in Detroit

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- The Detroit Auto Show started in 1899, and by 1910 it had become a major event, although many members of the public remained skeptical of the long-term viability of the automobile.
  - This uncertainty was in opposition to the strong inventive spirit that kindled this new industry. In fact, by 1910, there were well over a hundred US manufacturers with several key options for vehicle powertrains.
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# Three kinds of vehicle powertrains



Gasoline

1910 Ford Model T



Steam

1910 White steam car



Electric

Columbia Mark 68 electric car

# Automotive Push/Pull factors: US in 1910

Metallurgy

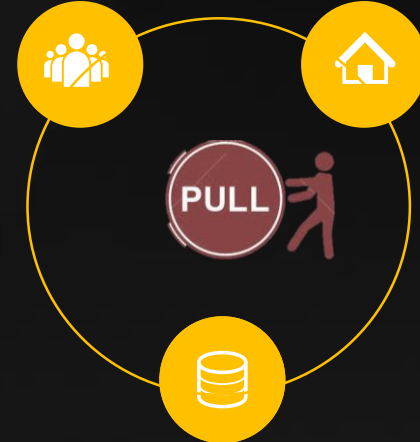
Internal combustion engine

US farmers

Migration to cities



Production line



Disposable income

# Automotive Push/Pull factors: China in 2018

Sensor technology

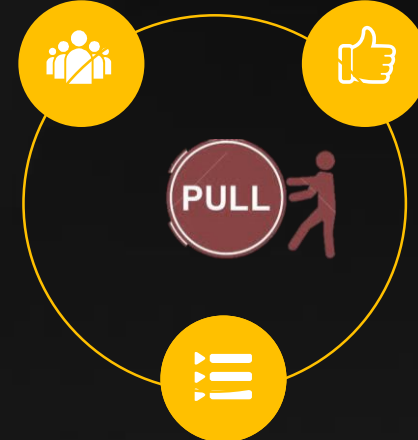
Increased connectivity



Increase in compute power

New middle class

Innovation milieu



Government support

# EVs revolutionize the auto industry

## Facts



A large number of NEV players have sprung up, including brand new EV startups and traditional OEMs actively entering the NEV field



The NEV market share is still low (2.1% in 2017), leaving broad space for development



The intelligent and connected car has become a global trend



## Targets

By 2020, NEV production and sales are expected to ramp up to 2 million, with a market share of 10%



By 2020, China aims to have several NEV companies crack the world top 10



By 2025, intelligent and connected vehicles are expected to have dominating market share

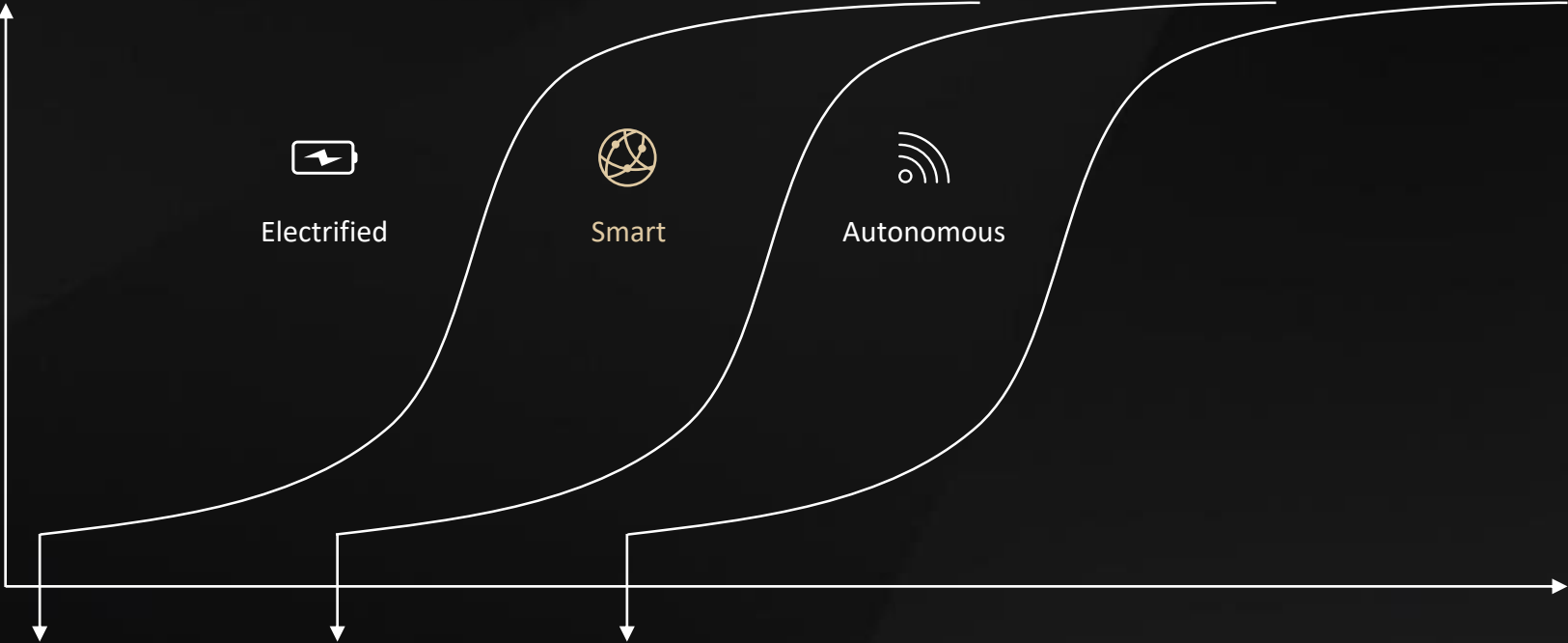


What has driven today's electric vehicle landscape?



# Three phases of future mobility

ADOPTION



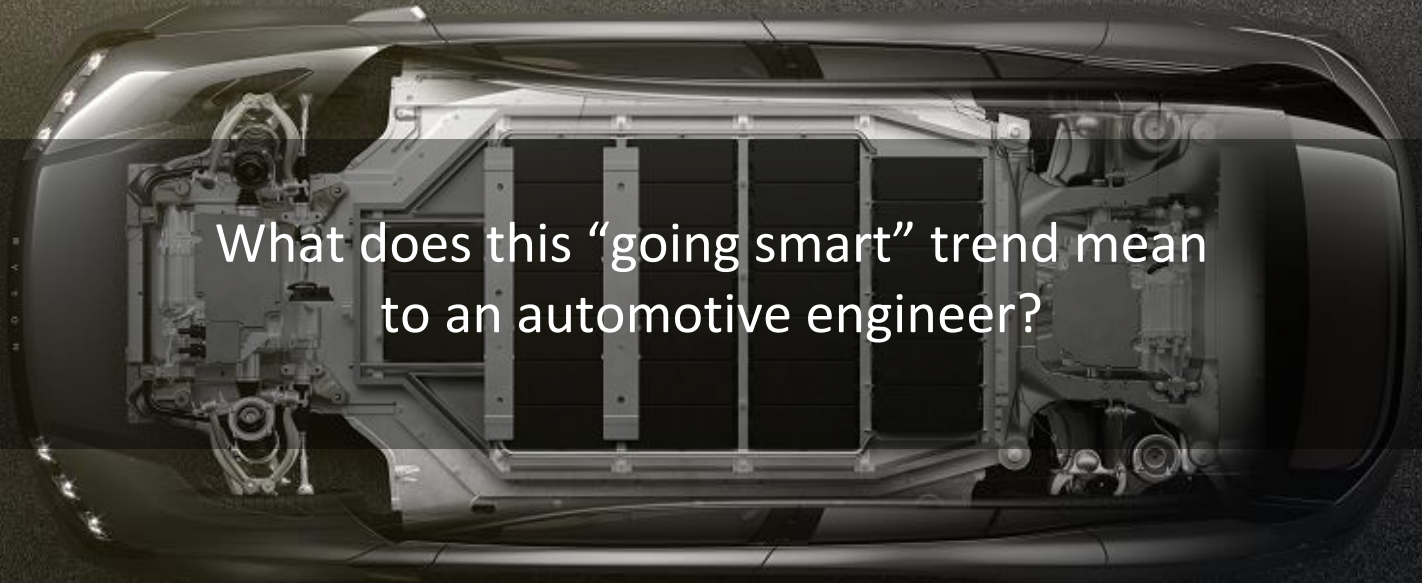
PAST

TODAY

FUTURE







What does this “going smart” trend mean to an automotive engineer?

New design semantics visualizes  
the digital power

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BYTON Smart Surfaces

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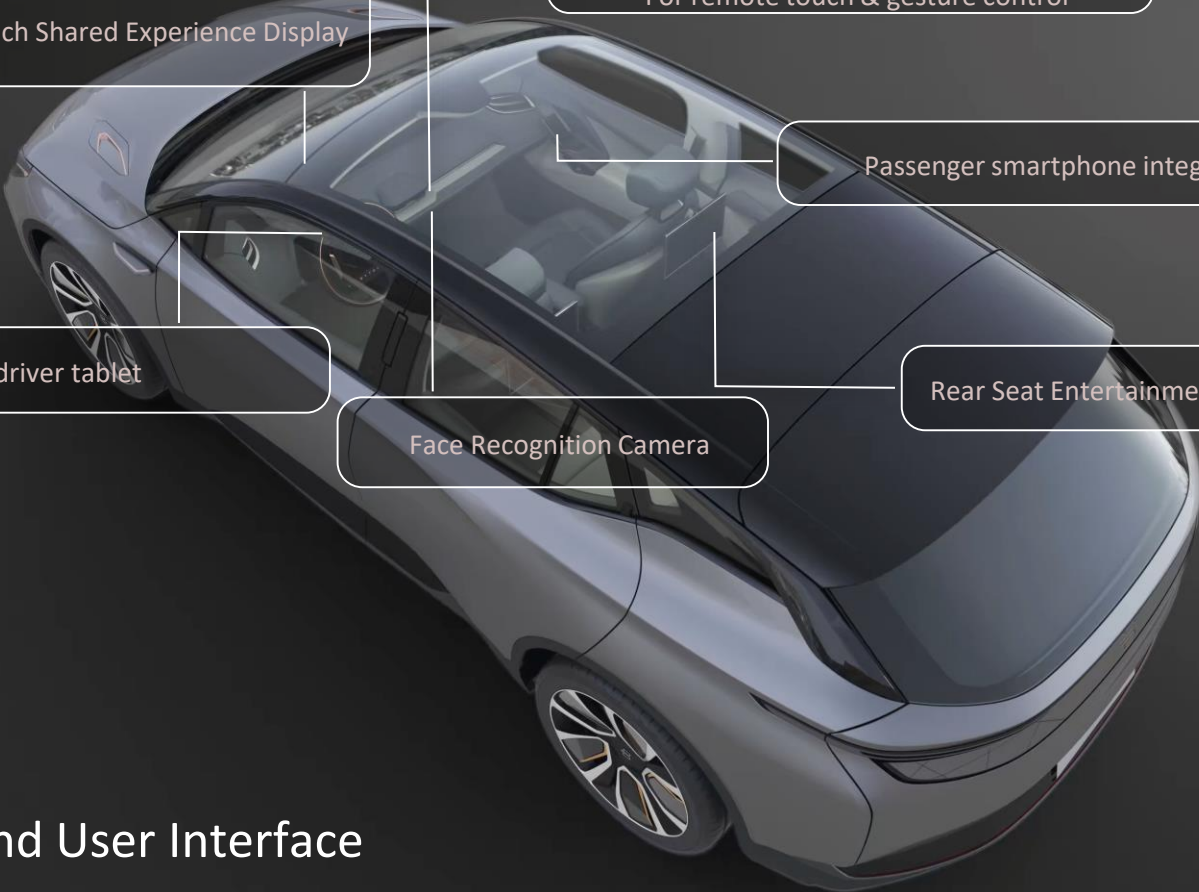
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BYTON LiBow

BYTON LiGuards

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Advanced hand-tracking cameras  
For remote touch & gesture control

49-inch Shared Experience Display

Passenger smartphone integration

8" driver tablet

Rear Seat Entertainment system

Face Recognition Camera

One-of-a-kind User Interface



## Driver Tablet

High-res display  
Hard buttons on side  
Integrated airbag

## Shared Experience Display

1.25m coast-to-coast high-res display  
Shared between multiple users  
Sharing mobile device contents

## Gesture & Voice Control

BYTON Air Touch Sensor  
AI backend digital assistant  
Natural speech recognition and emulation

## Smartphone

Passenger smartphone integration



## Shared Experience Display

- 49" qUHD curved & ultra wide-screen information display
- Driver information, and augmented rear view mirror

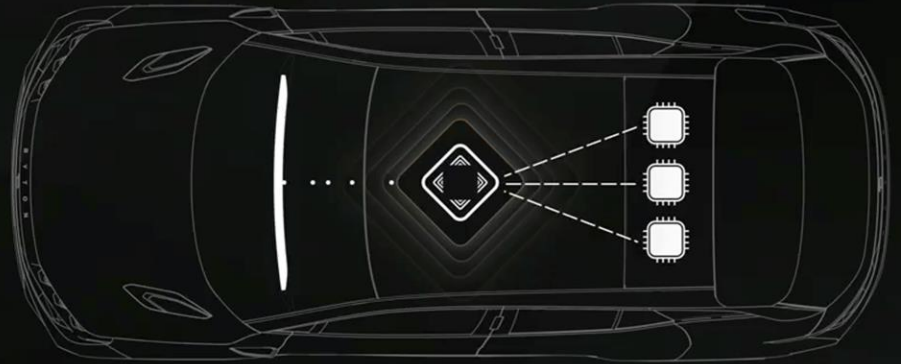
- Expansive 3D map & navigation
- Group experience of music, games and movies\* for all users on all seats

BYTON – Digital lounge to let life continue in the car



## Advanced Connectivity

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- Best high-speed connectivity
  - 5G ready
  - Multiple antenna system
  - Simultaneous connectivity
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Advanced and solid engineering work make this happen

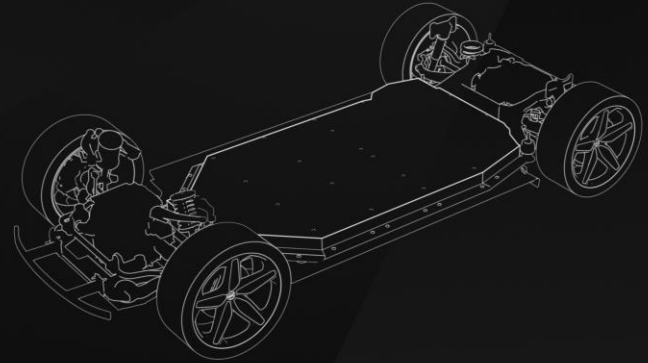


## Powertrain and Battery

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	BASE MODEL	HIGH VARIANT
Range	400 km	520 km
Battery capacity	71 kWh	95 kWh
Performance	200 kW / 272 hp	350 kW / 476 hp

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## BYTON Smart EV Platform

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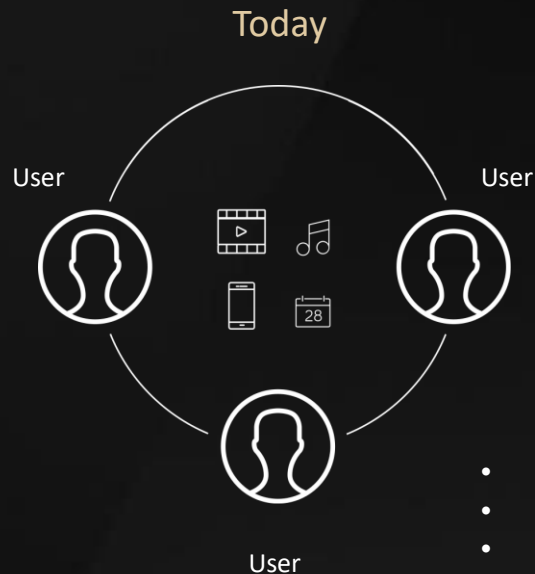
- Scalable architecture
  - Adjustable wheelbases
  - Multiple body types
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# From Driver-focused to User-focused



- "I Drive"
- Global average occupancy 1.6
- Driver-focused behavior
- Response prioritized



- "Digital Chauffeur"
- Occupant-focused behavior
- Comfort prioritized



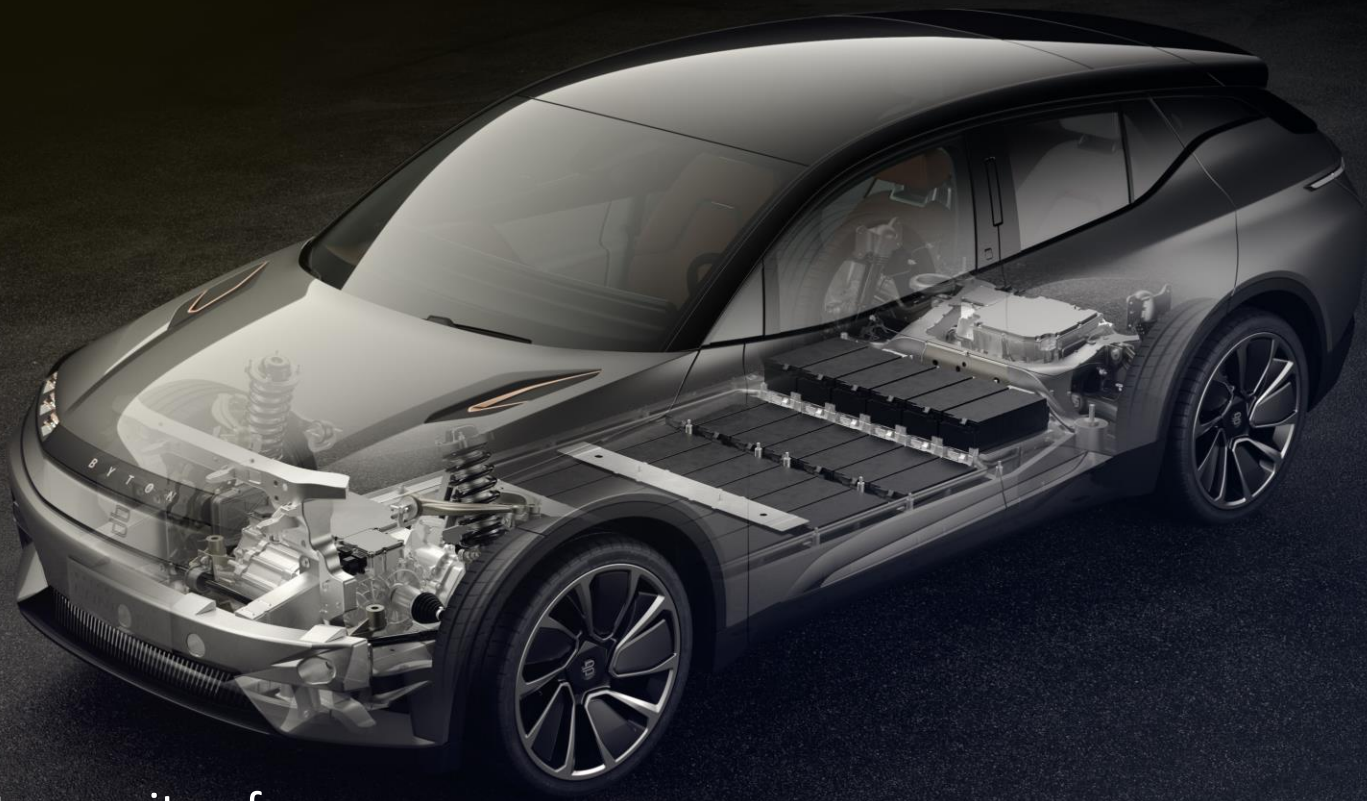


Datapower replaces horsepower



Connectivity replaces performance





A complete rewrite of  
ride & handling considerations



Better driving becomes better living



Placeholder for additional ride & handling slide



**Thank You!**