

How the Intelligent Vehicle Change the Infrastructure & Legislation in Future

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- 1 Evolution of Transportation Tools**
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- 3 Ecosystem Creation/Ecosystem Related Technology Aspects**

Evolution of Transportation Tools

Awareness, Decision Making, Execution

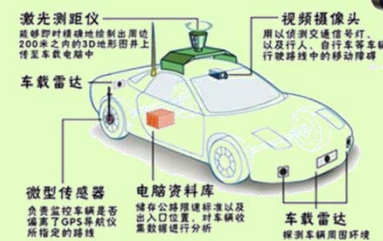


evolution

the car invented

On foot, Riding a horse, Taking a carriage

Awareness Decision Making Execution



New Requirements to Indoor & Outdoor Infrastructure

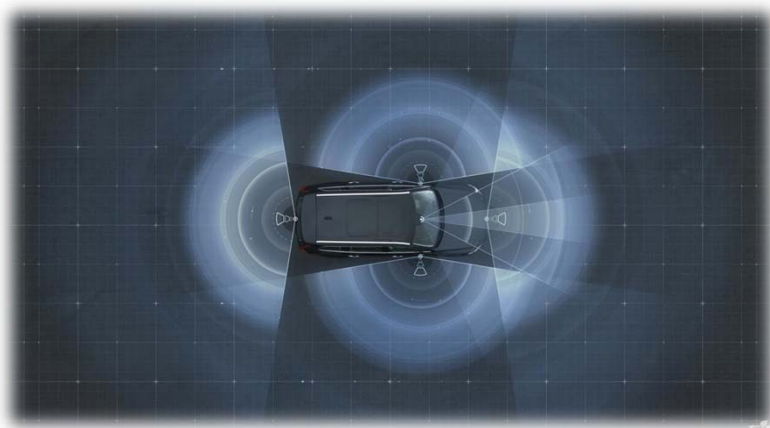
Indoor Infrastructure

Major functions:

- 1, Automatic driver/parking space finding
- 2, Automatic driving path calculation
- 3, Environment Awareness
- 4, Pilot parking



Indoor positioning system, supporting the interaction between the driver and the car



Support self positioning ability by
Vehicle image recognition technology





Totally isolated between vehicle
travelling area and pedestrian area.


New Requirements to Indoor & Outdoor Infrastructure


Outdoor Infrastructure





 High precision satellite positioning, smart road infrastructure (Street lamp, AD sign) positioning/ information interaction

 Monitoring all the road networks by high definition cameras

 V2X support via high bandwidth communication method

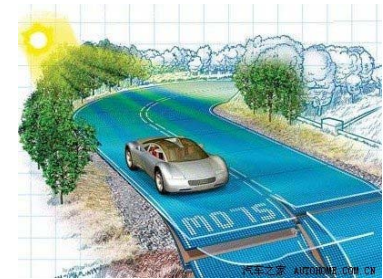
 The current traffic infrastructure will be replaced by Road signal source step by step

 Deep-dive POI supports detailed information of building such as floor information, room number.

 Pedestrians can position themselves by wearables or other devices

Ecosystem Creation/Ecosystem Related Technology Aspects

Ecosystem Creation



- Cloud computing
- Mining, analysis and management of big data
- New communication technology
- New energy (solar panels, luminescent material, new screen)
- Flyer control technology (fire balloon)
- Directional magnetic tunneling technology
- Contactless charging technology



Ecosystem Creation/Ecosystem Related Technology Aspects



| Classification | Technology |
|-----------------------------------|---|
| Communication and Information | <ul style="list-style-type: none">• V2V• V2X• High precision satellite positioning (GPS/Beidou) |
| | <ul style="list-style-type: none">• Image Recognition Technology• Radar signal processing (millimeter wave, ultrasound, laser radar) |
| Hardware and software development | <ul style="list-style-type: none">• Automotive Integrated chip• Automotive operating system• Standard development interface• Data compression technology |

THANKS!



北京汽车
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