Autonomous Vehicle (AV)

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Description

**Road vehicles such as cars, vans, buses, shuttles and trucks that can sense the surroundings and drive without the need for human intervention*

Autonomous road vehicles would increase overall safety and enable mobility access to a wider consumer base.

1. Expected impact

- High accessibility: gives access to people who cannot drive
- Automated parking will require smaller spaces and vehicles will drive closer to each other – low impact on urban form/design
- Impact on travel time and congestion uncertain – attractiveness of mode will increase demand

2. Technology requirements

Most technologies (such as LiDAR sensors, Radars, Cameras, Ultrasonic sensors) are already in use but will benefit from further development. Vehicle-to-Everything (V2X) technology in particularly needs enhancement.

3. Regulatory requirements:

- Operating procedures for autonomous vehicles and traffic
- Regulations for the liability management

4. Investment requirements:

- Initial cost of autonomous car is expected to be 250-400k USD – should decrease gradually
- Infrastructure investment will be relatively low as autonomous vehicles use existing roads (but mapping, sensors and other IT costs will be high)

Tags

Autonomous Vehicle **Vehicle** **autonomous**

STEEP

- Technological

Links

INFORMATION

5G and smart cities: everything you need to know | TechRadar

Putting Autonomous Driving Back on the Road - Bloomberg

TRENDS

Cognitive Active Safety Features

Connected Vehicle

Self-Driving Transport

Projects

RTA Future Scanning - Information & Trends

Rating criterion	04.06.2020
Importance	