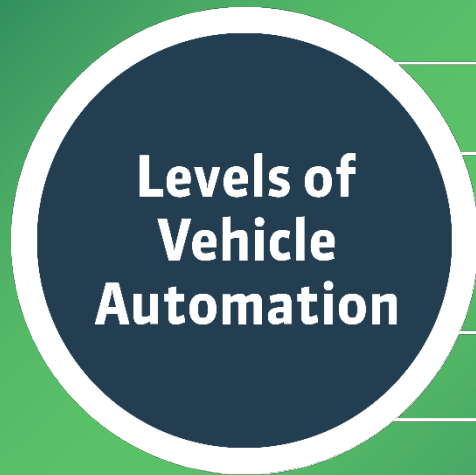


Automated Platooning

Atkins

September 2016

What is Automation?



Level 0

The driver is in complete and sole control of the primary vehicle controls – Automation at this level, involves one or more specified control functions.

Level 1

This level involves automation of at least two or primary control functions

Level 3

Vehicles at this level of automation enable the driver to take their hands off the wheel and feet off the pedals for all safety-critical driving functions and in those conditions, combination with the entire trip, such a design anticipates that the driver will provide destination

Level 4

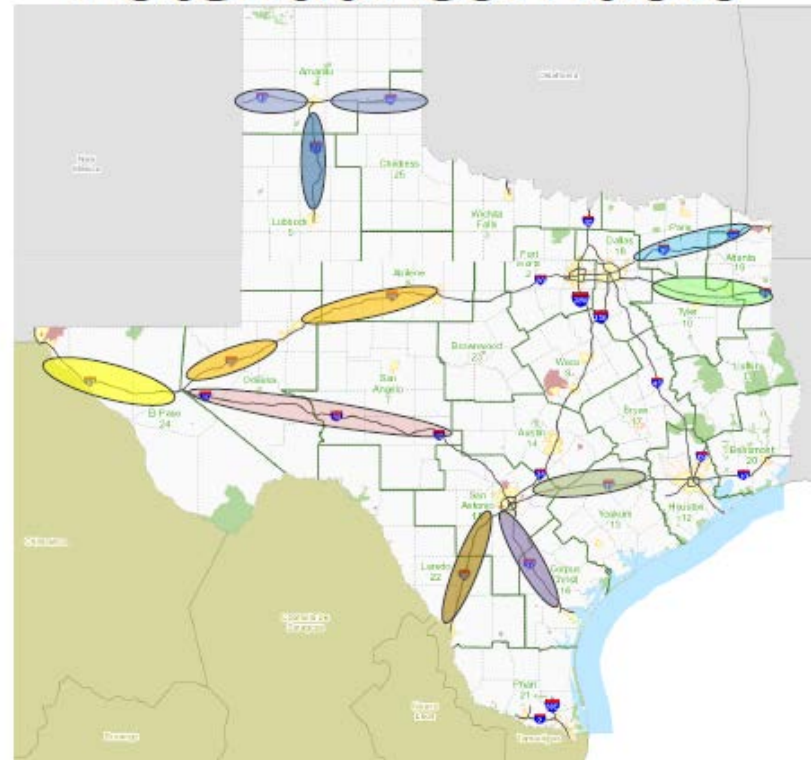
The vehicle is designed to perform all safety-critical driving functions and in those conditions, combination with the entire trip, such a design anticipates that the driver will provide destination driver navigation. The driver is expected to be available for control at any time with sufficient time for take over transition time. The Google car is an example of limited self-driving automation.

Level 5

Where is This Happening?

- US - Berkley PATH, TTI, Ohio
- Europe – car and truck
- Leading states – CA, MI, FL, Nevada, DC
- North Carolina – AV policy research

Potential Corridors



Benefits

- **Faster more efficient goods movement**
- **Reduction of fuel consumption**
- **Reduction of carbon output**
- **Improved throughput on roadways**
- **More space on roads which cannot have capacity expanded**

Barriers to Entry

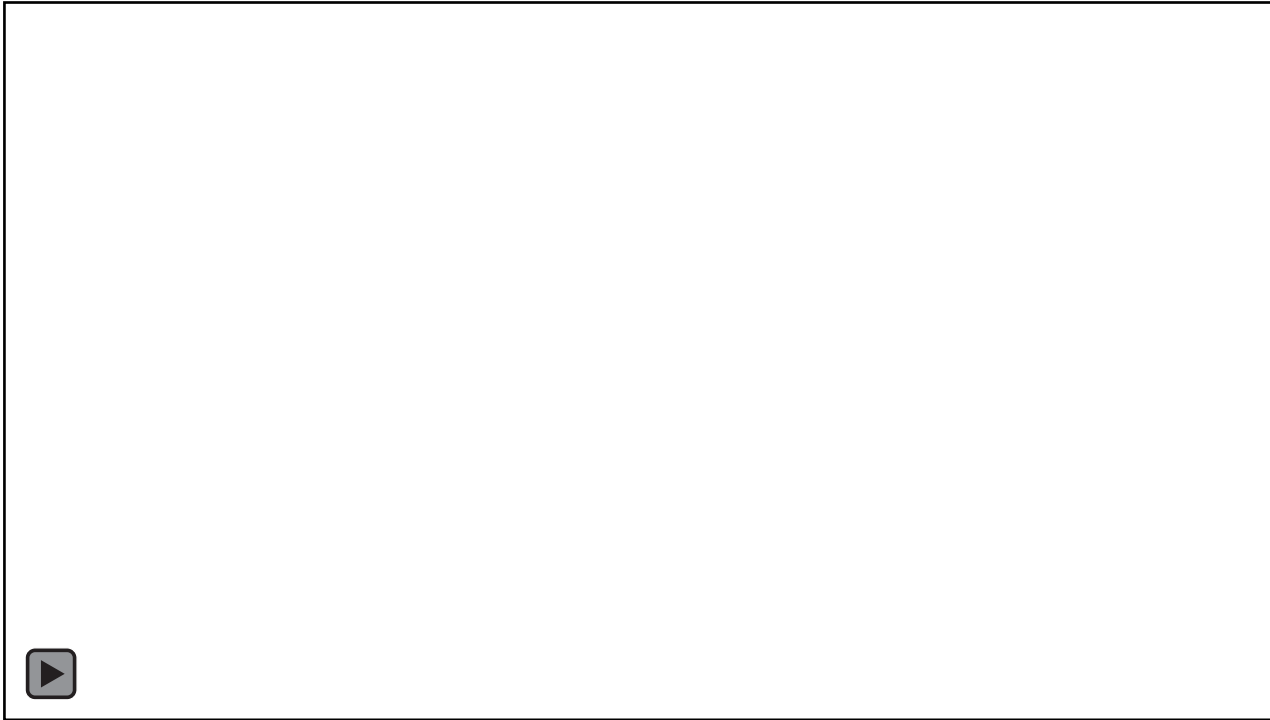
Legal

- Automation policy
- Following distance
- Recent Tesla crash

Perception

- Public perception
- Big trucks vs. smaller cars

Example: Peloton



Atkins' Activities