

ROAD VEHICLE AUTOMATION: A GLOBAL RACE

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AGENDA

- Terminology
- What is going on?
 - Passenger cars
 - Trucks
- Functional roadmap
- Cost
- Challenges & opportunities

WORLDWIDE



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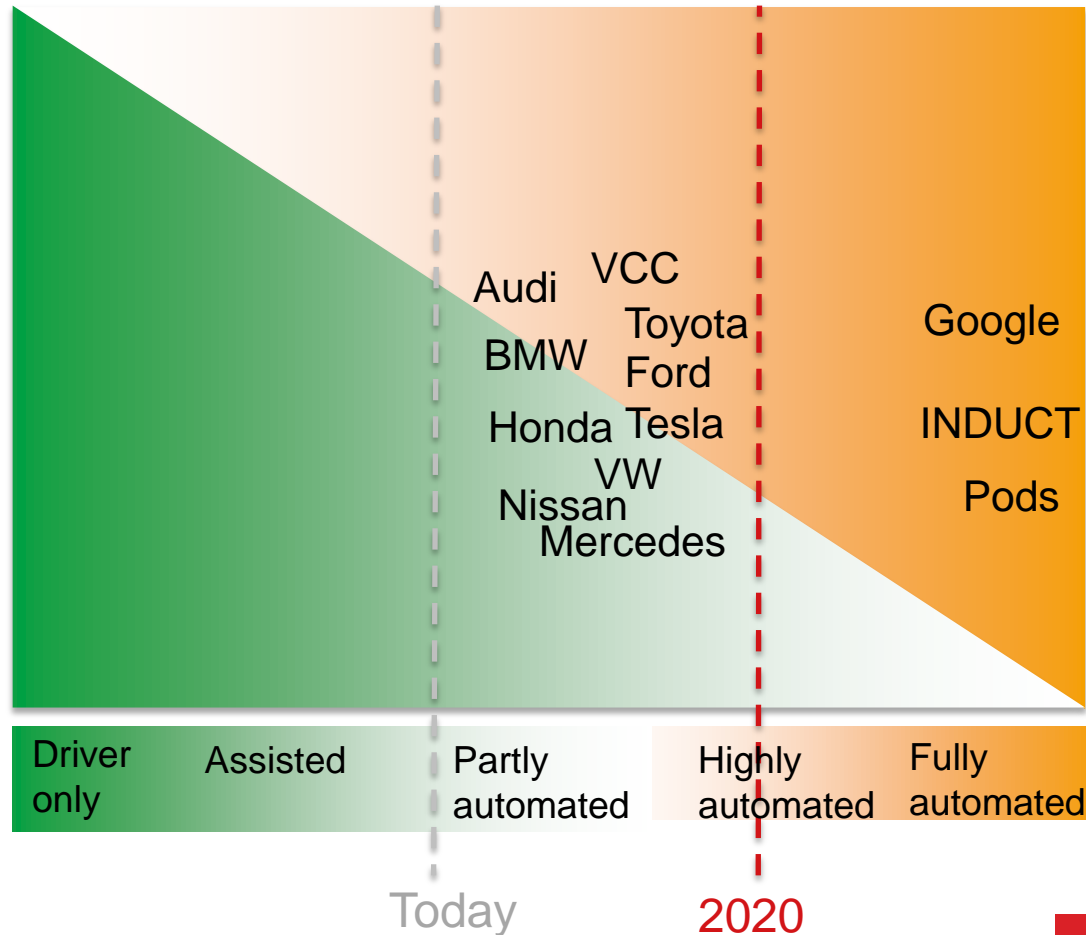
TERMINOLOGY

Automated Limited self-driving automation
Autonomous Assisted
Robotic
Combined function automation
Driverless Conditional automation
Partly-automated Highly automated
Semi-autonomous Self-driving
Self-piloted Semi-automated
Unmanned Full self-driving automation
Highly autonomous Fully automated

WHAT IS GOING ON? PASSANGER VEHICLES



Driver in control

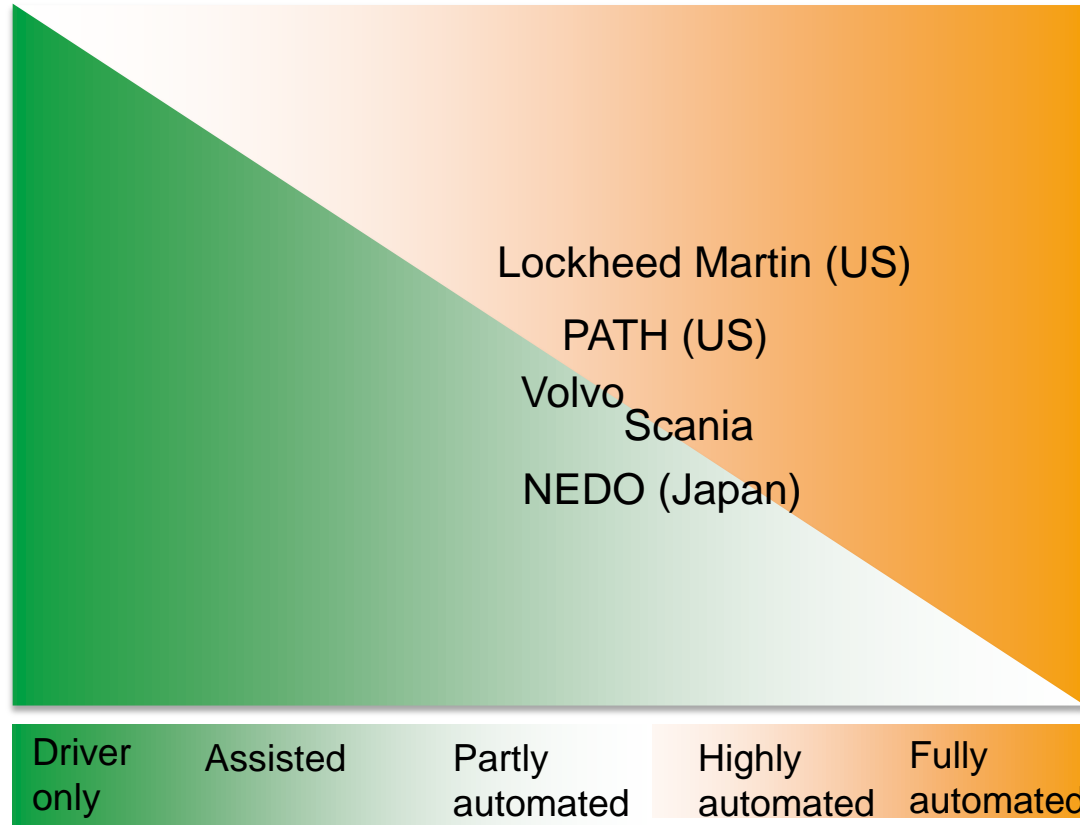


Computer in control

WHAT IS GOING ON? TRUCKS

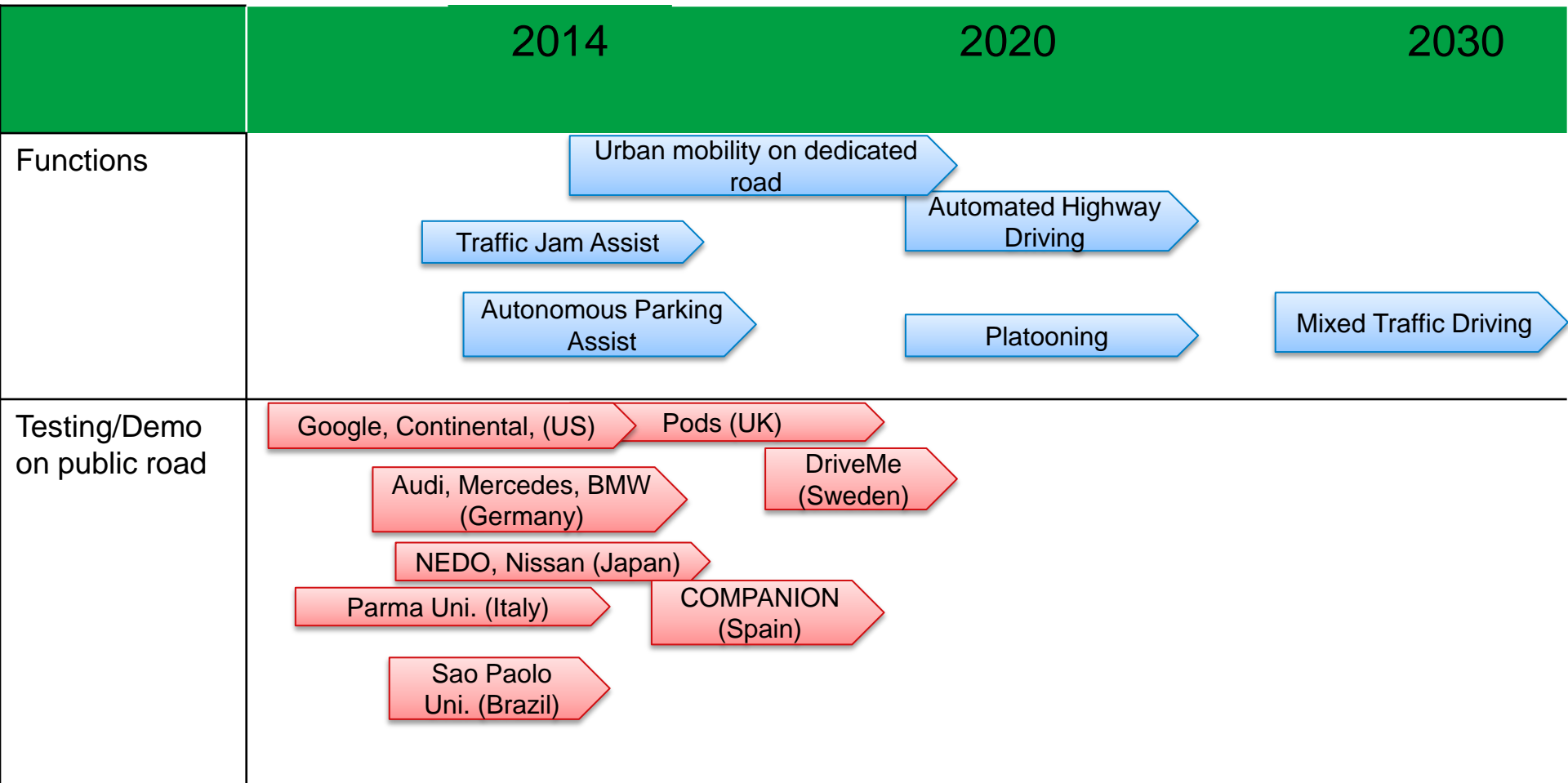


Driver in control



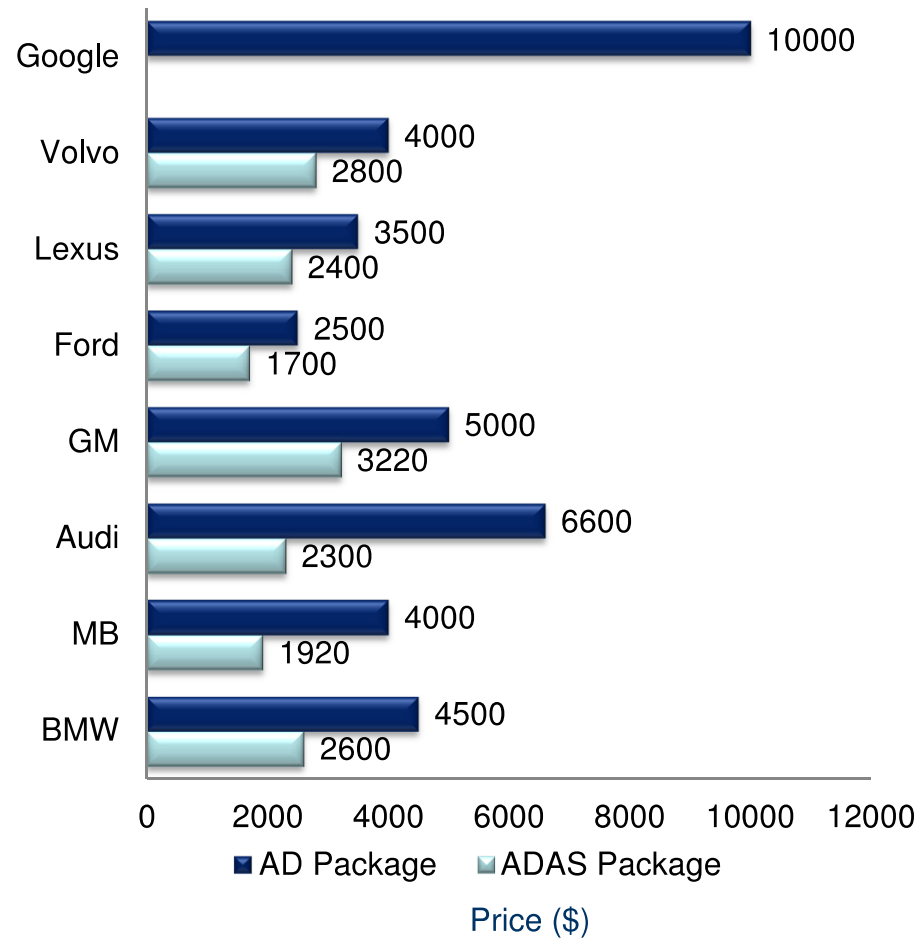
Computer in control

ROADMAP



COST

**Comparative Estimates of ADAS Option
Cost with Automated Driving Option, US,
2014**



Source:
Frost &
Sullivan

CHALLENGES

- Making vehicles more human-like
 - Interpret and predict actions of drivers
 - Interpret and predict actions of other road users
- Technology more production-like
- Behavioral consequences
- Legal consequences
- New business models

SUMMARY

- Two approaches:
 - Gradual automation
 - Full automation
- Milestones:
 - 2017 (low speed highway driving)
 - 2020 (high speed highway driving)
 - 2030 (urban areas)
- Large scale testing from 2017
- Many challenges & OPPORTUNITIES

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