How Will Autonomous and Connected Vehicles Change the Way We Travel?

Autonomous/ Connected Vehicles Forum — September 28, 2017
Transportation Technologies

Shared Mobility Services

Connected Vehicles

Zero Emission Vehicles

Autonomous Vehicles
Transportation Technologies

Connected Vehicles
Transportation Technologies

Autonomous Vehicles
The Five Levels of Autonomous Driving

- **Level 5: Fully Autonomous** - Vehicle is completely driverless
- **Level 4: High Automation** - Capable of performing all safety-critical driving functions while monitoring environments/conditions in defined use cases
- **Level 3: Conditional Automation/Limited Self-Driving** - The car becomes a co-pilot
- **Level 2: Partial Automation/Combined Autonomous Functions** - Key automated capabilities become standard but driver still in control
- **Level 1: Driver Assisted/Function-Specific** - Intelligent features add layer of safety and comfort
- **Level 0: Zero Automation** - Driving as usual
Implications for Regions

Opportunities

- Efficiency
- Costs
- Safety
- Social Equity
- Transit
- Ridesharing
- Greenhouse Gas Emissions

Risks

- Timing
- Vehicle Miles Traveled
- Sprawl
- Security
- Social Equity
- Security
- Greenhouse Gas Emissions
Future Mobility Research Program (Statewide)

- Research potential impacts of transportation technologies and how to incorporate them into Regional Plans

Advanced Technologies Urban Area Transit Strategy (San Diego Region)

- Evaluate advanced transit technologies
- Explore the interconnectivity of modes
- Integrate with autonomous vehicle technology
Designated Proving Grounds

GoMentum - CCTA
SANDAG, Caltrans, and City of Chula Vista
Wisconsin AVPG
Iowa City Development Group
American Center for Mobility
City of Pittsburgh
US Army Aberdeen Test Center
North Carolina Turnpike Authority
Texas AV Proving Ground Partnership
Central Florida Automated Vehicle Partners
Purpose: San Diego Regional Proving Grounds

- Facilitate testing and validation of connected and autonomous vehicle technologies while ensuring public safety and security

- Inform public policy and long-range planning that guides deployment in support of the region’s goals for mobility, sustainability, and economic prosperity
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