Day 2
Session: International Cooperation

International Cooperation Creating Synergy in Research on Connected and Automated Driving

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Benefits of International Cooperation

- Division of labor in tackling large technical challenges
- Reducing duplications of effort
- Learning from diverse other approaches (alternate solutions to problems)
- Economies of scale in developing solutions for a global rather than a regional market
- Facilitating progress toward global standards
Priority Targets for Research Cooperation

- Fundamental scientific research to enable future technological advances
  - Software safety design methodology
  - Efficient verification and validation methods
- Field testing methods (design of experiments and data collection and analysis)
- Impact assessment methods
- Safety assurance methods, especially for non-deterministic systems
- Human ability to interact with automated driving systems (inside and outside vehicles)
- Protection from cyber-threats
Topics Less Suited for Cooperation

- Design and development of in-vehicle technologies and driver interfaces (competitive)
- Infrastructure cooperation with CAVs (too much variability across countries)
- Impact assessment case studies
- Public education and outreach
- Government regulatory constraints
International Standards

• Significant contrasts in national approaches:
  – Prescriptive vs. descriptive
  – Voluntary vs. mandatory

• Timing is sensitive:
  – Early enough to avoid impediments from multiple entrenched approaches
  – Late enough to benefit from real-world practical experience

• Must be justified based on real benefits:
  – Safety
  – Economic efficiency (economies of scale)
  – User comprehension