Breakout Session #23

Topic: Optimal integration into the transportation system ...

Summary of Key Findings and Lessons Learned

• Connectivity beneficial for both vehicles and infrastructure owner-operator (IOO)
  • E.g., can smooth transition between ODDs, allow additional services
• Automation must be accommodated along with all other current system users
• IOOs and OEMs need to know what to expect from one-another
  • Early agreement on key information flows beneficial
• Broadly accepted stakeholder consensus can obviate need to regulate
  • Still achieve desirable nationwide/cross regional interoperability
• Life-cycle management requires careful planning
  • Vehicle, infrastructure and communication technology lifecycles very different
How the ITS System Fits Together ...
Breakout Session #23

Research Needs

• Key information flows desired for vehicles
  • Package of regulatory information at jurisdictional boundary
    • Cooperate with EU effort?
  • Real time condition information
    • Roadway striping condition, work zones, snow cover, traffic congestion …
  • Regional and local differences in expected driver behavior to assist AV integration

• Key information flows desired for infrastructure
  • Vehicle position/speed/wipers/headlights etc.
    • Allows better understanding of network state, queue length, congestion
    • Eventually reduce infrastructure costs (e.g., video, loop detection)?
  • Automation capability of vehicles
    • Support e.g., managed lanes, appropriate warnings, MRC advice

• Stakeholder consensus on an interface architecture, specific standards
  • Many stakeholders beyond obvious groups ... need to engage all
  • Common information standards, but allow for multiple communication media?