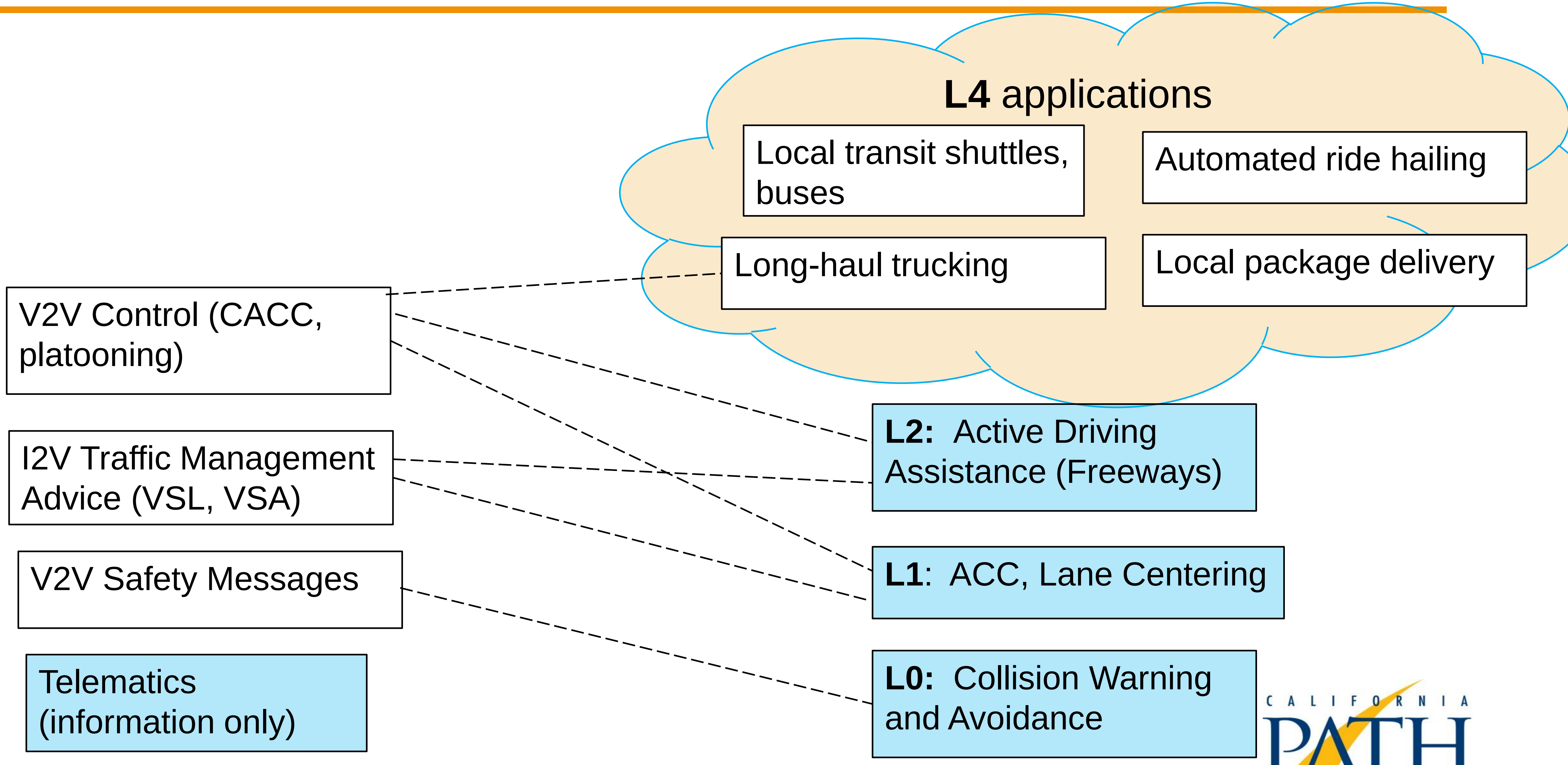
Cooperative Automated Driving in the U.S.

Steven E. Shladover, Sc.D.
University of California PATH Program

SIP-adus Workshop, Kyoto

October 11, 2022

Connectivity and Automation



U.S. Industry Status on Automation

- **Spending $ Billions per year in development**
- **Still seeking profitable business models**
- **<u>Primarily</u> technology companies, most partnered with vehicle manufacturers**
- **Consolidation of existing companies, and very little <u>new</u> investment now**
- **Emphasizing freight over passenger applications for first market opportunities**

U.S. Public Sector Status on Automation

- Much lower funding than on industry side – $ Millions rather than $ Billions
- Some federal R&D on cross-cutting topics
- General policy guidance at federal level, but no regulations yet (political disagreements on regulatory approach)
- Diverse policies on deployment and regulations at state and local levels

CALIFORNIA PATH

Deployment Challenges for Automation

- Public attitudes fragmented and distorted by misinformation (“full self-driving”)
- No consensus yet on “how safe is safe enough” nor on how to measure or evaluate safety
- Technology immaturity → ODD limitations
- Lack of convincing “safety cases” and insufficient data to demonstrate safe performance
- Uncertainty based on lack of agreement on U.S. national regulatory approach