



## **Comments from PRUV Mobility Ecosystem regarding the NHTSA ANPRM Pilot Program for Collaboration Research on Motor Vehicles with High or Full Driving Automation**

**Docket ID: NHTSA-2018-0092**

November 21, 2018

PRUV Mobility Ecosystem is a Smart Network of Testing and Data Services for Connected and Automated Vehicles

Question 1. What potential factors should be considered in designing the structure of a pilot program that would enable the Agency to facilitate, monitor and learn from on-road research through safe testing and eventual deployment of vehicles with high and full driving automation and associated equipment?

Comment 1. While we appreciate the emphasis on light duty vehicles but if over the road heavy duty trucks become the first to implement high to full driving automation, where does this leave us? Further, with the volume of commercial vehicle deliveries skyrocketing for the foreseeable future, suggesting even greater highway congestion and potential for accidents with light duty vehicles, shouldn't this pilot program include both light duty (personal use) and heavy duty (commercial) vehicles? The Pilot Program should include light duty (personal use) and heavy duty (commercial) vehicles.

Comment 2. We believe that the Pilot Program should integrate the ability to test in an independent closed-track facility that represents a safe, secure and controlled environment. There is always a need to validate the baseline of pilot vehicle performance before it is put on the road, i.e. a comparative baseline is required. While on-road experience will prove invaluable, robust vehicle software and hardware designs must be proven in repeatable environments. Automotive engineering requires, at all levels of validation, a safe, secure, reliable and repeatable test setting. The Pilot Program should consider this important reality.

Comment 3. The ability to incorporate "rapid cycles of learning" is a critical factor in building reliable, durable and safe products. This includes the integration of "simulated" and "physical" test environments for rapid identification and verification of design improvements.

Comment 4. Recognizing that customer acceptance will be critical to the success of highly or fully automated vehicles, the integration of such “customer experience” environments should be considered for the Pilot Program, networked across the country via test sites mentioned above. Additionally, student engagement in the Pilot Program will be critical to the development of talent of the future, accomplished via this network of test sites.

Comment 5. The Pilot Program should be designed to respect and preserve industry competitiveness. Therefore, protection of proprietary data will be paramount. The incorporation of independent data domain expertise is recommended.

Question 2a. If NHTSA were to create a pilot program, how long would there be a need for such a program?

Comment: As long as it takes for safety, reliability and durability objectives to be achieved.

Question 2b. What number of vehicles should be involved?

Comment: A statistically significant sample size of vehicles should be considered for each vehicle manufacturer.

Question 2c. Should NHTSA encourage the conducting of research projects in multiple locations with different weather conditions, topographical features, traffic densities, etc.?

Comment: Absolutely. In fact, NHTSA should help determine what locations would be deemed to qualify for the Pilot Program. Further, the formal establishment of a network of safe and secure test sites should be determined up front and additional test beds can be included or added as they come on line. NHTSA should leverage the years of knowledge and experience of industry veterans in product development and validation in the formation of an advisory board.

Question 4. How can existing statutory provisions and regulations be more effectively used in implementing such a pilot program?

Comment: Any regulation handed down by the federal government must be easy to adopt, without modification, at the state level – without this, we would have an untenable number of state statutes regulating the deployment of rules and acceptance of automated vehicles.

**Further information supporting these comments is included in the attached document, excerpts from a 2017 Deloitte study.**