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U.S. Department of Transportation
NHTSA Administrator
West Building, Ground Floor
Room W12-140
1200 New Jersey Avenue S.E.
Washington, D.C. 20590

Re: Request for Comments on Framework for Automated Driving System Safety Docket No. NHTSA-2020-0106-0001

To NHTSA Administrator:

Pony.ai appreciates the opportunity to comment on the proposed *Framework for Automated Driving System Safety* (the "Framework"), issued by the Department of Transportation ("DOT") and its National Highway Traffic Safety Administration ("NHTSA"). We thank the DOT and NHTSA for its pragmatic, flexible, and forward-looking approach that will help foster innovation and improve safety for millions of Americans across the country.

Founded in 2016 in Fremont, California, Pony.ai's mission is to deliver autonomous mobility everywhere by building safe and reliable self-driving technology. A rigorous safety culture is at the foundation of Pony.ai. Pony.ai believes that careful development applying detail-focused engineering combined with demanding testing and evaluation are essential to the safe deployment of autonomous vehicles.

One of the biggest hurdles to deployment of autonomous vehicles are "corner cases" – relatively rare occurrences (often the result of a combination of multiple factors at once) that present potential safety risks that challenge the autonomous vehicle's decision making. Corner cases also present similar challenges to the decision-making capacity of human drivers. However, humans are often able to intuitively work their way through sudden unanticipated corner cases, even those they have not previously experienced. Safe autonomous vehicles require similar problem-solving skills. Accordingly, development and testing in the most challenging environments where corner cases most likely occur is essential to safe autonomous vehicle technology.

Pony.ai is proud to be first company to launch a public-beta autonomous taxi service globally in both the United States and China. Pony.ai's multi-location, global approach to developing its technology enhances safe operations over a greater range of driving environments and conditions. Pony.ai leverages lessons learned in one testing environment to benefit its system's performance everywhere. When we encounter a challenging scenario in one testing location, we design a solution that not only solves the challenge for that specific scenario but also works in similar scenarios in other testing locations. If a solution developed

for one location is ineffective in another location, we continue to refine our solution until it is universally applicable. This methodology enables Pony.ai to create an autonomous vehicle system that can handle the most difficult corner case scenarios across a diverse range of road and traffic conditions. While more difficult, at Pony.ai, we have chosen to develop our autonomous vehicles in the most diverse and challenging environments because it bolsters the safety and reliability of our systems in the long run. To that end, Pony.ai is proud to have logged over 2,500,000 actual autonomous miles on public roads globally.

Pony.ai is committed to working with the DOT, NHTSA, and all other stakeholders, including our industry and technology partners to ensure that the future of autonomous vehicle technology is effective, innovative, and most importantly – safe.

The following comments highlight specific elements of the Framework that are particularly important to Pony.ai.

1. Benefits of Autonomous Vehicle Technology

Pony.ai agrees with the potential benefits of the autonomous vehicle technology recognized in the Framework. Importantly, Pony.ai agrees that "[i]f developed and deployed safely" autonomous vehicle technology can "save lives, prevent injuries, and reduce economic costs due to road traffic crashes" as well as "enhance accessibility (e.g., through allowing personal transportation to people with disabilities or people incapable of driving), and improve productivity (e.g., by allowing people to work while being transported and allowing platooning or entirely automated operation of commercial trucks)."[1]

Pony.ai appreciates that NHTSA is "placing a priority on the safe development and testing of ADS that factors safety into every step toward eventual deployment."[2] As discussed above, Pony.ai shares the same priority of safety first in its mission to develop autonomous vehicle technology.

2. Voluntary Safety Self-Assessments

Pony.ai agrees with the Framework that "VSSAs are an important tool for companies to showcase their approach to safety without needing to reveal proprietary intellectual property."[3] Pony.ai submitted its Voluntary Safety Self-Assessment (VSSA) in December 2020 and looks forward to updating its VSSA as it continues to advance its safety technology and processes.

3. Technology-Neutral/Performance-Based Approach

Pony.ai agrees with NHTSA's technology-neutral approach that "does not pick winners and losers among available and anticipated technologies."[4] Technology-neutral policies that are performance and outcome based fosters innovation and facilitates the deployment of ever-safer and higher performing technology. Finally, Pony.ai strongly agrees that it is important that any proposed standard or regulation provides "reasonable notice of what performance is required" and "ensures due process".[5]

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[1] Framework at 15.
[2] Framework at 15.
[3] Framework at 35.
[4] Framework at 57.
[5] Framework at 38, 44.

Pony.ai supports the DOT and NHTSA's leadership regarding autonomous vehicles and looks forward to participating in an ongoing dialogue with the goal of efficiently promoting the safe deployment of autonomous vehicles.

Sincerely,

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