

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

March 19, 2021

Patrick Dillon Chief Financial Officer TuSimple Holdings Inc. 9191 Towne Centre Drive Suite 600 San Diego, CA 92122

Re: TuSimple Holdings Inc.
Amendment No. 2 to
Draft Registration Statement on Form S-1
Submitted March 8, 2021
CIK No. 0001823593

Dear Mr. Dillon:

We have reviewed your amended draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments. References to our prior comments refer to our letter dated March 1, 2021.

Amendment No. 2 to Draft Registration Statement on Form S-1

Prospectus Summary
Our Solution, page 13

1. We note your disclosure revisions in response to our prior comment 1. Please revise throughout the filing to disclose the current timeframe in which you expect to begin filling reservations for your trucks. In this regard, you state that your goal is to have factory produced L4 autonomous semi-trucks available at scale in 2024. Please clarify whether "at scale" means you will be able to fill all of reservations within a short period of time subsequent to achieving this goal or whether it will take a longer period of

Patrick Dillon TuSimple Holdings Inc. March 19, 2021 Page 2

time subsequent to the achievement of at scale production. If the latter is true, please disclose your current expected timeframe or state that you are not able to estimate such timeframe.

- 2. Your disclosure indicates that the reservation system was established by you and Navistar. Please clarify the following information, where applicable:
 - Whether the customer places the reservation and any related deposit with you or with Navistar. If the customer places the reservation with Navistar, disclose how often you receive updates regarding the total number of outstanding reservations received by Navistar so a reader may ascertain how current this information is.
 - Disclose whether you have collected any deposits thus far and if so, include the amount. If you collect and hold the deposit, revise your liquidity section to disclose the impact that refunds may have on your liquidity and how you anticipate providing refunds of these deposits in the future, if required.

Summary Consolidated Financial Data, page 33

- 3. Please refer to our prior comment 2 and address the following as it relates to your proforma per share information:
 - Revise the weighted average shares used in computing pro forma net loss per share to include adjustments for share issuances similar to those included in the pro forma column to your capitalization table.
 - Include the Class B shares to be issued to your founders in the weighted average shares outstanding or explain your basis for excluding such items from your weighted average shares.
 - Revise the numerator for your per share calculations to include adjustments for the compensation expense associated with the RSU and SVA Settlement and the performance-based options that will vest upon effectiveness. Similarly, adjust for other items included in your pro forma accumulated deficit calculations or explain why you believe exclusion here is appropriate. Refer to Rule 11-01(a)(8).
 - Considering the number of adjustments included in your pro forma per share calculations, revise to provide a quantified reconciliation of both the numerator and denominator in footnote (1).

Risk Factors

Risks Related to Our Dependence on Third Parties

We rely on our business partners and other industry participants for our AFN..., page 40

4. Please revise to address any risks associated with the fact that any product license agreements or long-term cooperation agreements associated with your Navistar and Traton joint development projects will not be negotiated and finalized until completion of the development activities.

Patrick Dillon TuSimple Holdings Inc. March 19, 2021 Page 3

Risks Related to Our International Operations

Changes to trade policy, tariffs, and import/export regulations may have a material adverse effect on our business..., page 61

5. We note your response to our prior comment 3. Please further revise your risk factor to make clear that CFIUS has initiated a review of an investor's 2017 investment and the potential ramifications of such a review.

Risks Related to Our Class A Common Stock and This Offering, page 62

6. Disclose whether the company expects to be a "controlled company" under the rules of the Nasdaq. If so, please revise throughout the registration statement to disclose such status and the consequences. Also disclose whether the company intends to avail itself to the corporate governance exemptions afforded to a "controlled company" under the rules of Nasdaq.

Capitalization, page 75

7. Please revise to include a discussion of all pro forma adjustments and provide quantified information where appropriate. In this regard, based on the pro forma number of shares outstanding, it appears that you have included the issuance of Series E preferred shares in January 2021; the exercise of Series E-2 preferred share warrants in February 2021; and the exercise of Series E warrants assuming that you have received notices of exercise from the holders. Similarly, the pro forma accumulated deficit appears to include adjustments for compensation expense related to performance-based options that will vest upon the offering, compensation related to a separation agreement and a gain related to the expiration of unexercised warrants.

Management's Discussion and Analysis of Financial Condition and Results of Operations Components of Results of Operations, page 82

8. You state that the warrants outstanding as of December 30, 2020 were exercised prior to the consummation of this offering; however, it appears from your subsequent events disclosure that only Traton exercised their warrant. Please revise to clarify. Also, explain further your change to the Black-Scholes option pricing model as of December 31, 2020. In this regard, tell us how the variability surrounding which series of redeemable convertible preferred stock the warrants are exercised into has been resolved and revise your disclosures as necessary.

Commitments and Contractual Obligations, page 90

9. Please revise to include a discussion of the payments that may be required to Navistar under your joint development agreement.

Patrick Dillon TuSimple Holdings Inc. March 19, 2021 Page 4

Consolidated Financial Statements

Note 9. Redeemable Convertible Preferred Shares and Preferred Share Warrants, and Shareholders Deficit, page F-24

- 10. Please disclose the number of shares that would be issued under the Navistar warrants if exercised at the balance sheet date. Disclose the fair value of the underlying shares at the balance sheet date for all warrants outstanding, if different than the exercise price. Refer to ASC 480-10-50-2.
- 11. Please provide us with an analysis of the specific guidance applied or analogized to in accounting for your joint development agreements with Navistar and Traton. Clarify how you considered Traton and Navistar's intentions to enter into future arrangements upon completion of development in your analysis.

General

12. Please revise the graphics at the forefront of the registration statement to accurately depict the company's truck reservations. Specifically, we note that you include a metric for 5,700+ purpose-built fully autonomous trucks reserved in first four months. Please revise this graphic in light of your disclosure in the registration statement that your reservations are only to secure a priority position to order and purchase a truck and that reservations may never result in actual purchase agreements. Refer to Securities Act Forms C&DI 101.02.

You may contact Rebekah Lindsey, Staff Accountant, at (202) 551-3303 or Kathleen Collins, Accounting Branch Chief, at (202) 551-3499 if you have questions regarding comments on the financial statements and related matters. Please contact Alexandra Barone, Staff Attorney, at (202) 551-8816 or Larry Spirgel, Office Chief, at (202) 551-3815 with any other questions.

Sincerely,

Division of Corporation Finance Office of Technology