1. BUSINESS AND MARKET HIGHLIGHTS
~$4.0 trillion global truck freight market is ripe for disruption

Through our Autonomous Freight Network (AFN), TuSimple is committed to bringing the most safe, fuel-efficient & low-cost freight capacity to market, combining the best L4 autonomous technology, hardware and go-to-market strategy.
COMPANY HISTORY

TUSIMPLE IS A LEADER IN AUTONOMOUS TRUCKING
Leading Technology | World-class Partners | $1.8Bn+ Funding to Date

Founded
2015

Computer Vision World Champions
Broke 10 world records, ranking #1 at KITTI and CityScapes, the most influential public leaderboard in autonomous driving

On-road Demo
Demonstrates 1,000mm perception breakthrough in real-world demonstration

CBS 60 Minutes Feature
First to demonstrate a completely autonomous ride in a semi-truck, featured on-air

AV Reservation Program
6,775 reservations to-date

Series D
$165mm raised through various strategic, financial investors

2018 and Earlier

2019

Begin Freight Operations
With UPS and USPS, hauling freight between distribution centers

Nvidia invests in 2016

UPS invests in 2019

2020

Navistar Partnership
Announced plans to develop purpose-built L4 autonomous semi-trucks by 2024

Launch of AFN
Partnering with UPS, Penske, U.S. Xpress and McLane

Series E
$400mm+ raised through various strategic, financial investors

2021

TRATON Partnership
Already developing the first L4 autonomous hub-to-hub truck freight route in Sweden using Scania trucks

Series E
$400mm+ raised through various strategic, financial investors

IPO
~$1.35Bn public offering backed by blue chip anchor investors

<table>
<thead>
<tr>
<th>Strategic Investors:</th>
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<tbody>
<tr>
<td>Hardware</td>
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<tr>
<td>Downstream</td>
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</tbody>
</table>

Hardware

Downstream

Strategic Investors:

Navistar

Traton

UPS

Werner Enterprises

CN

Schneider

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THE TRUCK FREIGHT MARKET IN CONTEXT

GLOBAL TRUCK FREIGHT MARKET IS LARGE RELATIVE TO OTHER MARKETS THAT HAVE CREATED TECH GIANTS

$4 trillion
Global truck freight market

Global e-commerce: $3.5tn

Global automotive: $2.8tn

$800 billion
U.S. truck freight market

• ~80% of total U.S. freight market
• 3% CAGR from 1990-2018
• ~2.3mm Class 8 semi-trucks
• ~470bn total miles driven, annually

TRUCK FREIGHT INDUSTRY DYNAMICS

MIDDLE MILE COMPELLING USE CASE FOR LEVEL 4 AV DEPLOYMENT...

- Concentrated, makes up a majority of shipping routes
- Fixed, predictable & well-traveled corridors
- Ideally suited for Level 4 (L4) autonomy

10% of the nation’s trade corridors account for moving nearly 80% of all transported goods.

...WITH LABOR REPRESENTING LARGEST COMPONENT OF PER MILE COST STRUCTURE

<table>
<thead>
<tr>
<th>Components</th>
<th>Per mile cost</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor Costs</td>
<td>$0.78</td>
<td>~39%</td>
</tr>
<tr>
<td>Other Operating Costs</td>
<td>$1.05</td>
<td>~53%</td>
</tr>
<tr>
<td>Operating Profit Incl. Labor</td>
<td>$0.16</td>
<td>~8%</td>
</tr>
</tbody>
</table>

Labor costs represent the largest component of per mile cost structure. Single digit margin limits individual level of investment.

Source: 1. U.S. DOT, Bureau of Transportation Statistics, Freight Analysis Framework. Freight Analysis Framework integrates data from various sources and is produced through a partnership between the Bureau of Transportation Statistics and the Federal Highway Administration. 2. Brookings; A. Tomer and J. Kane, Mapping Freight: The Highly Concentrated Nature of Goods Trade in the United States, Metropolitan Policy Program at Brookings, November 2014. 3. Revenue assumes 2018 average dry van contracted rate per mile per DAT, figures rounded to the nearest $0.01.
FREIGHT CAPACITY SUPPLY-DEMAND IMBALANCE

INCREASED DEMAND FROM E-COMMERCE TRENDS FACED WITH A GROWING SHORTAGE OF DRIVERS & SAFETY ISSUES

Increasing Demand

- Rising e-commerce penetration into retail
- Trends such as same or next-day shipping

Diminishing Supply

- Driver turnover exceeding 100%+\(^{(1)}\)
- Driver shortage expected to worsen 2.6 times by 2028\(^{(2)}\)
- Insurance premiums are rising at a 5% CAGR\(^{(3)}\)
- 40% increase in fatalities involving semi-trucks from 2009–2019\(^{(4)}\)

VERTICALLY INTEGRATED & CLEAR PATH TO 2024 MASS PRODUCTION OF PURPOSE BUILT L4 AUTONOMOUS SEMI-TRUCK

**OEMs**

- NAVISTAR
  - ~20% market share in North America for Class 6-8 Trucks

- TRATON
  - Market Leader in Europe & South America in Trucking Core Markets

**Tier-1 Suppliers**

- #1 supplier of new Class 8 engines
- Creates GPUs specifically for AV
- World’s leading manufacturer of braking & control systems for CVs
- #4 largest auto supplier worldwide as of 2019
- Largest tire company in North America

WHAT IT TAKES TO WIN

LEADING PROPRIETARY SOFTWARE

focused on addressing **L4 SEMI-TRUCK LONG HAUL** terminal-to-terminal operations

WORLD-CLASS HARDWARE PARTNERSHIPS

strengthened competitive position via CAPITAL LIGHT APPROACH, VERTICAL INTEGRATION & INCREASED CONTROL resulting in reliable & scalable hardware

SCALABLE GO-TO-MARKET STRATEGY

aligned with some of the LARGEST DISTRIBUTION NETWORKS ACROSS DIVERSE END MARKETS in North America & abroad

**TuSimple Has the Key Ingredients to Bring Autonomous Freight Capacity to Market at Scale**
2. CORE TECHNOLOGY
THE DNA OF TU/SIMPLE: THREE PILLARS

1. Algorithm
   The AI "magic" that everyone talks about

2. Infrastructure
   The "big data" platform that fuels the AI development

3. Product
   Define the sweet-spot on the spectrum of commercial viability and technical capability
L4 TECHNOLOGY TAILORED FOR COMMERCIAL TRUCKING

THE PERFECT BALANCE BETWEEN BUSINESS NEEDS AND TECHNICAL FEASIBILITY

Conditional Automation
On-ramp / Off-ramp
Driver is a necessity, but is not required to monitor the environment. The driver must be ready to take control of the vehicle at all times with notice.

- Easy solution, includes a driver
- Limited business use case in a TCO (total cost of ownership) driven industry
- Cannot navigate surface streets without a driver

High Automation
TuSimple’s Solution
The vehicle is capable of performing all driving functions under certain conditions. The driver may have the option to control the vehicle.

- Operates in a defined domain reduces edge cases
- Enables L4 autonomous driving terminal-to-terminal, including surface street operation

Right Balance Among
TCO | Speed to Market | Feasibility

Full Automation
“Go-anywhere” Trucks
The vehicle is capable of performing all driving functions under all conditions. The driver may have the option to control the vehicle.

- Requires significantly more complex technology to achieve
- No additional business incentives for fleet operation
WE BELIEVE TRUCKING AUTONOMY ADOPTION IS FASTER THAN CAR AUTONOMY ADOPTION

TECHNOLOGICAL ADVANTAGES OF AUTONOMOUS TRUCK

Fewer corner cases
- Highway focused operation
- Clearly defined traffic rules

No human in the vehicle
- Cargo safety is a much easier topic than passenger safety
- No requirement on the “comfort level”

Freedom to customize the network
- Actively avoid school zones and other tricky traffic conditions
- Lane operation is not contingent on full feature completion

Greater per-mile data density
- High data density (i.e., amount of data accumulated on the same route) eliminates corner cases
- Very low latency of map update
UNIQUE CHALLENGES OF L4 TRUCKING

THE OBVIOUS FACTS ABOUT TRUCKS
- Wide, long, heavy, high speed

THE NOT SO OBVIOUS FACTS
- Braking distance: 200 meters
- Lane change: 10 seconds

FUNDAMENTAL CHALLENGES FOR ALGORITHMS
- Requires farther perception range by a magnitude
  - Out of the range of LiDAR sensors
- Requires longer planning horizon by a magnitude
  - Typical sedan planner is by design not suitable for long planning horizon
- Requires more precise control accuracy by a magnitude
  - Notoriously hard problems, even in academia
ADVANCED, PROPRIETARY SOFTWARE FOR SEMI-TRUCKS

FOCUSED ON THE SOLUTION FOR AUTONOMOUS FREIGHT

Exclusive Focus on Semi-Trucks

- Camera-centric multi-sensor architecture
- 1,000m ultra-long range perception
- 35 second planning horizon
- High precision control

Enables:

- Highway and surface street driving
- Speeds up to 75 mph
- Ability to operate day and night
- Maneuver through inclement weather
- L4 terminal-to-terminal operations

Note: 1. As of March 2021
UNDERSTANDING THE LONG-TAIL

WE BELIEVE THE LONG-TAIL OF CORNER CASES IS A SURMOUNTABLE PROBLEM

- Long-tail of corner cases is a famous yet often misunderstood topic in autonomous driving.
- As miles driven in our operational design domain increases, the number of unique cases grows at a pace that is expected to be achievable in near future.
PROPRIETARY SOFTWARE
KEY TAKEAWAYS

- Semi-trucks and Passenger Cars are **Fundamentally Different Problem Sets**
- **We Believe Our Truck-Specific AI Framework** is more Powerful than Competitors’ Robo-taxi Framework
- **We Understand the Long-Tail** and Believe That it is Within the Reach of Today’s Technology
3. REGULATORY FRAMEWORK AND INDUSTRY DYNAMICS
U.S. REGULATION IS AHEAD OF TECHNOLOGY, WITH VISIBILITY TO 50-STATE UNIFIED AUTONOMOUS SEMI-TRUCK FRAMEWORK

TUSIMPLE SOLUTION ADDRESSES KEY USER PAIN POINTS

1. **Capacity Shortage & Costs**
   - Rising e-commerce penetration into retail
   - Persistent driver shortage limits capacity and increases costs

2. **Safety**
   - 94% of serious crashes estimated to be due to human error (1)
   - Insurance premiums are increasing at 5% CAGR (2)

3. **ESG**
   - Medium and heavy duty trucks contribute 23% of U.S. transportation GHG emissions (3)

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**TuSimple Solution**

- Increases capacity, speed & flexibility of system
- Reduces driving accidents and insurance costs
- More efficient fuel usage translates to increased operating savings

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Source: 1. NHTSA. 2. ATRI. 3. EPA.
4. FINANCIAL MODEL FRAMEWORK
INNOVATION IS THE SOLUTION: TUSIMPLE AFN ENABLES NEW CAPACITY

Autonomous Freight Capacity as a Service:
Comprehensive, turnkey solution that supplies users with access to purpose-built L4 autonomous semi-trucks operating on HD digital mapped routes nationwide

TuSimple Capacity
• Use purpose-built L4 autonomous semi-trucks operated by TuSimple to access AFN

Freight Users

Carrier-Owned Capacity
• Purchase purpose-built L4 autonomous semi-trucks through OEM
• Subscribe to TuSimple Path to access AFN

$ / mile Subscription Fee
Upfront Investment
Controls Own Capacity
Uses Own Terminals

$ / mile Freight Rate
Capital Light Method
Uses Shared Capacity
Leverages Shared AFN Terminals

Reliable Freight Capacity On Demand
Provides reliable, continuous autonomous freight capacity as a service

Safer
Mitigates human error (which cause 94% of all serious accidents)[1]

Greater Cost Efficiencies
Lower Total Cost of Ownership

Lower Environmental Impact
Achieves 10% better fuel efficiency[2]

Source: 1. NHTSA. 2. UCSD Study.

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As of May 2021, TuSimple has 6,775 reservations from blue chip customers. This represents our first stage of sale outreach to a limited number of sophisticated carriers and private fleets. It represents significant potential revenue annually and over the lifetime of the truck.

Note: 1. Until customers enter into a purchase agreement, which is within the discretion of the customer, the reservation can be canceled and the customer is entitled to a full refund of its deposit. We have not entered into purchase agreements with any of our customers that have reserved our purpose-built L4 autonomous semi-trucks.
SUBSTANTIAL GLOBAL TAM: RELATIVELY LOW PENETRATION COULD DRIVE SUBSTANTIAL REVENUE BASE

<table>
<thead>
<tr>
<th>Hardware Partner</th>
<th>TAM(1)</th>
<th>Go-To-Market</th>
<th>Expected Launch Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navistar</td>
<td>$800bn</td>
<td>TuSimple Capacity &amp; Carrier-Owned Capacity</td>
<td>2020 AFN Launch 2024 Commercial Production</td>
</tr>
<tr>
<td>China &amp; Greater Asia</td>
<td>$1.7tn</td>
<td>TuSimple Capacity &amp; Carrier-Owned Capacity</td>
<td>2025 Commercial Production</td>
</tr>
<tr>
<td>Europe</td>
<td>$400bn</td>
<td>Technology License</td>
<td>2025 Launch</td>
</tr>
</tbody>
</table>


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TuSimple is poised to disrupt the estimated $4tn Global Freight Industry with L4 Autonomous Semi-Truck Technology capable of Terminal to Terminal Operations.

TuSimple is a Leader in Autonomous Freight with leading proprietary software, hardware, and go-to-market capabilities.

Winning Team and Partner Ecosystem to develop a reliable and efficient freight capacity solution profitably at scale.

Building the AFN Operations Today with Blue Chip Partners to ensure adoption and solidify long term competitive moat.
DRIVING TOWARDS A SAFER AND MORE EFFICIENT FREIGHT PARADIGM