



Environmental, Social, and Governance Report



2021

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01 A Path Forward to a Sustainable Future

TuSimple's 2021 ESG Report highlights our company initiatives which contribute to the environmental, social and governance (ESG) growth and impact of our business within our community. This report is intended to provide a high-level overview of TuSimple's approach to and progress with key ESG issues.

All information and data, unless otherwise stated, is as of **December 31, 2021**.

02 Letter from Our CEO

It has been over two years since the pandemic began, and lingering challenges remain for the global community. There has never been a clearer sign that innovative solutions are required to build a brighter future together and we as a community can rise to discover them. I couldn't be prouder of how TuSimple has not just weathered the storm but succeeded throughout the many difficulties the pandemic brought. As a company, we became the first autonomous driving company to go public—raising around one billion in capital, completed the world's first fully driverless semi-truck run on open public roads, and scaled our Autonomous Freight Network (AFN) significantly to both meet rising demand and accelerate our growth.

Since I founded this company with Mo Chen in 2015, the TuSimple team has shared a united vision to improve the world through our technology. This starts with solutions that make the trucking industry safer and more efficient, but we recognize that our responsibilities to the communities we serve reach well beyond our technology and its operational design domain. We're conscious of the role TuSimple plays as a leader within our industry and a member of the global community. As part of an industry that is responsible for 24% of the United States' transportation-sector greenhouse gas emissions, we believe we have a responsibility to help turn the tide on carbon emissions and make strides towards developing a sustainable world. Our team at TuSimple is focused on pursuing ways to create a sustainable future for both our company as well as our community. Through consideration of these impacts on the environment and society, TuSimple strives to better serve the long-term interests of our customers and the communities where we operate.

As we work to bring about transformational change to the logistics industry, we do so with a commitment to support our communities through responsible corporate governance. In building a new autonomous freight ecosystem, we're making significant gains in the areas of safety, fuel efficiency, and environmental impact while expanding operations and creating new jobs along the way. I'm excited about what the future holds and confident that the strong foundation we're building will see our business, our communities and our industry prosper for the next decade and beyond. Moving forward we will continue to make decisions for the greater good and embrace opportunities to invest in the future and make impactful change where we can. I invite you to follow our progress as we break new ground and do our part to make a positive impact on the world in which we live.

The TuSimple mission is to make long-haul trucking safer and more efficient, creating significant benefits for all the communities our freight ecosystem serves. We are thrilled to publish our second annual Environmental, Social, and Governance (ESG) Report that details our vision and progress towards this goal.



Dr. Xiaodi Hou
Co-Founder and CEO, TuSimple

03 TuSimple at a Glance

03.01 Our Mission

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.



03.02 TuSimple Partnerships

Premier Global OEM Partnerships

Design, Test, and Production of the Automotive Grade L4 Semi-Truck

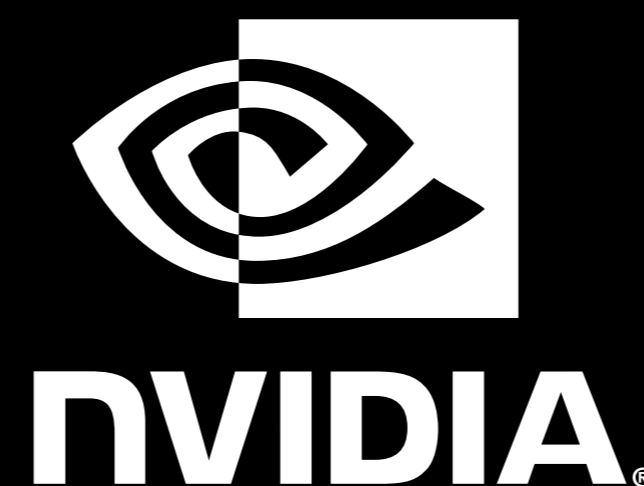
TRATON
GROUP



NAVISTAR

Autonomous Domain Controller (ADC)

AV Edge Computing Platform in Development with NVIDIA



Supply Base Partners

GOODYEAR



Mando

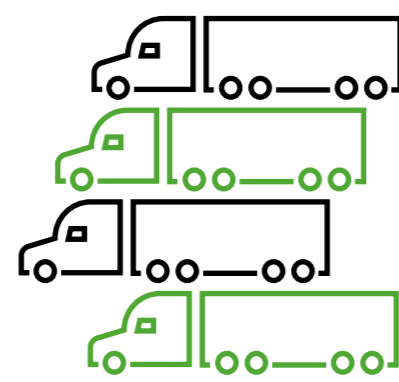


KNORR-BREMSE

Top Tier Downstream Partners



03.03 TuSimple Statistics*



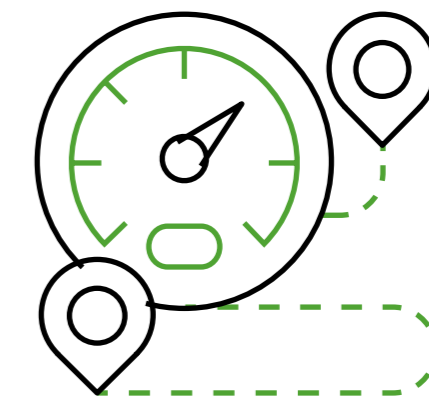
~100

**fleet trucks
globally**



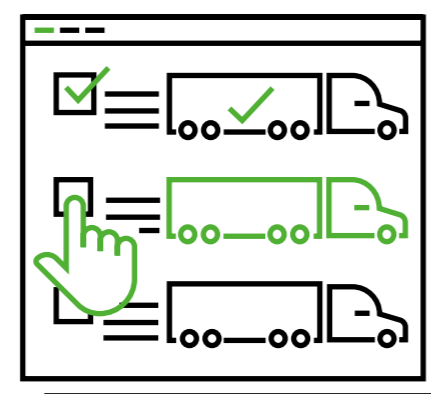
~75

**fleet trucks
operating in the USA**



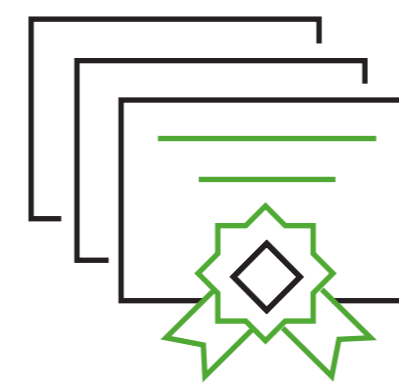
6.3 million

**road-tested
miles**



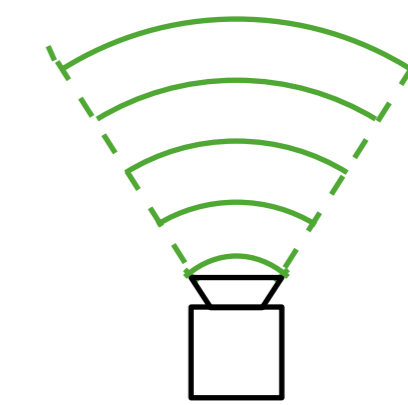
6,975

**production semi
trucks reserved**



387

global patents



1,000 m

camera perception

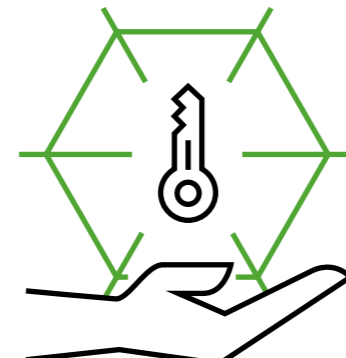
*All information and data, unless otherwise stated, is as of **December 31, 2021**.

03.04 Our Core Values

As a leader in the autonomous driving space, we hold true that there are core behaviors and beliefs that make our mission successful, our teams stronger and our culture vibrant. We have memorialized these behaviors and beliefs in a set of five core values for which we strive to hold ourselves and each other accountable.



Safeguard



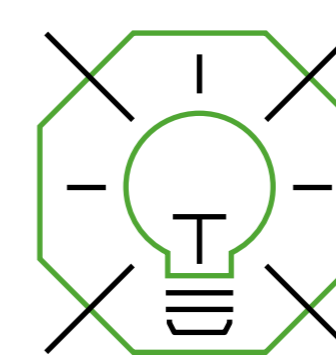
Own



Communicate



Collaborate



Innovate

- **Safeguard** can be embodied in every decision made, when actively seeking to holistically assess a situation and mitigating the risks associated. If any concerns exist, they are raised -- because it's the right thing to do.
- **Own** represents taking or acknowledging full responsibility for one's work and impact -- and to always act with the bigger picture in mind.
- **Communicate** means to take the initiative to share and exchange information, news or ideas, and to ensure that one adapts to and seeks to understand their audience.
- **Collaborate** means truly listening to and considering teammates' perspectives, and building respectful and trusting relationships.
- **Innovate** means to break every rule while remaining loyal to first principles.

04 United Nations Sustainable Development Goals (UN SDGs) 9

The UN SDGs are a set of 17 global goals adopted at the UN in September 2015 and are aimed at transforming our world by 2030. They are an urgent call to action for public, private and social sectors to come together in global partnership. The UN SDGs serve as a strategic tool that engages stakeholders, supports sustainable decision-making processes, and attracts investment. They also include tackling ESG issues, such as gender equality and human rights. We believe that we can contribute to our communities by making long-haul trucking safer, more efficient, and more sustainable. In line with TuSimple's current business and operations, there are 9 UN SDGs that are threaded among many of our initiatives. A mapping of our initiatives to these 9 UN SDGs can be found in [Section 8](#) of this document.



05 Environmental Topics



At TuSimple, we are dedicated to making autonomous trucking more environmentally friendly. Sustainability is core to our commercialization strategy and product development process. Beyond our internal initiatives described in further detail below, we have also engaged with our various partners to conduct studies that have uncovered industry-wide benefits ranging from increased fuel efficiency, reduced greenhouse gas emissions, and fewer hours spent by truckers on driving empty miles and idling in the cabs. We have published our research and findings in a white paper titled "[The Potential Environmental and Social Impacts of Autonomous Trucking.](#)"

05.01 Fuel Efficiency

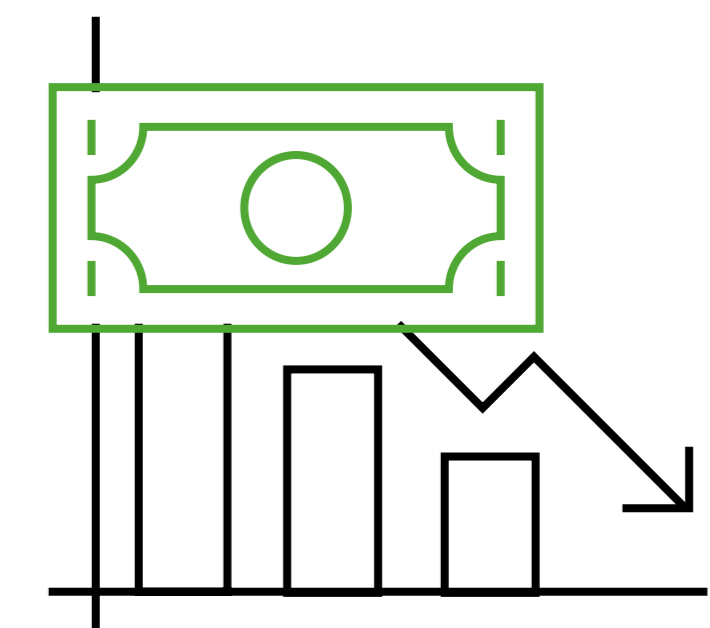
In a [study](#) conducted by the University of California San Diego (UCSD), our virtual driver has proven to be 10% more fuel efficient than trucks operated manually.

By [testing our system over 160,000 miles in real-world conditions](#) for the UPS North American Air Freight Services, we have been able to exceed the already substantial fuel savings data observed in the study conducted by the University of California San Diego. Our TuSimple autonomous driver delivered over 13% fuel savings compared to human drivers when operated in the optimal long-haul operating band of 55 to 68 miles per hour.

These savings illustrate the significant positive environmental impact autonomous trucking can have on the transportation industry. Since reducing carbon emissions is integral to the TuSimple mission and to our customers, we will continue to prioritize learning even more about how our trucks can [positively impact the environment](#) and provide additional [autonomous technology benefits](#).



10% increased fuel efficiency with
Autonomous Technology
(study conducted by UCSD)



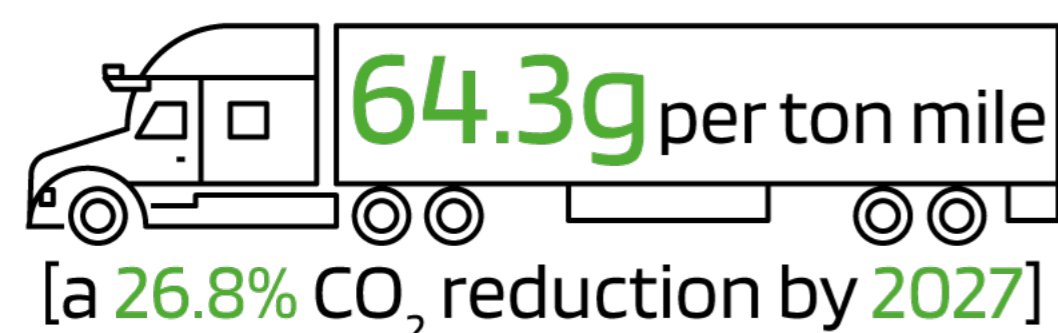
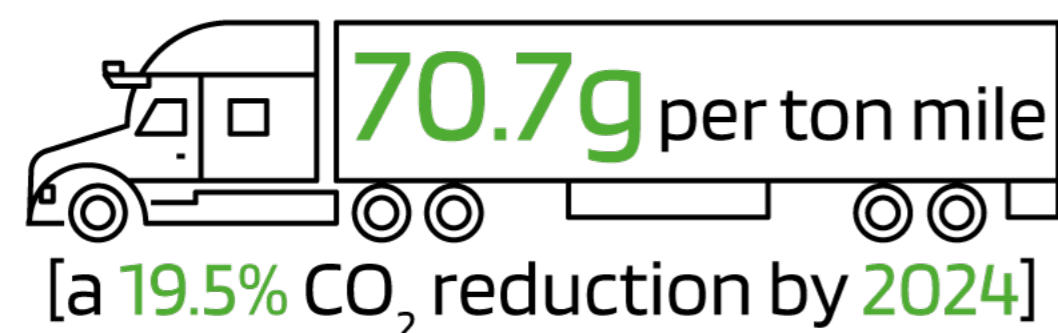
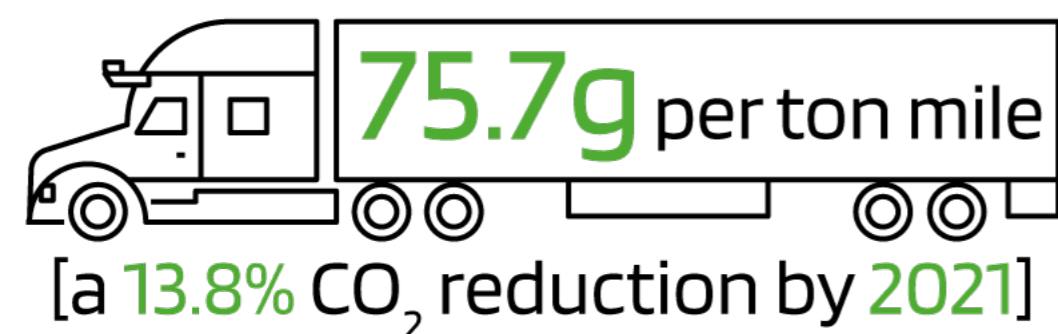
05.02 SmartWay Certification

SmartWay is a voluntary public-private partnership run by the Environmental Protection Agency (EPA), which seeks to help the freight transportation sector improve supply chain efficiency and reduce transportation-related emissions.



TuSimple is one of the first autonomous trucking companies to be recognized as a SmartWay Certified Carrier in 2018

EPA Phase 2 CO₂ Reductions



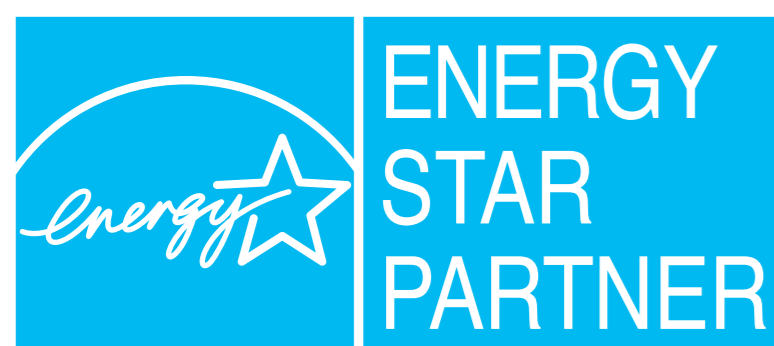
TuSimple has demonstrated our commitment to reducing harmful emissions as a global leader in freight sustainability by becoming one of the first autonomous trucking companies to be recognized as a SmartWay Certified Carrier in 2018.

TuSimple has remained a SmartWay Certified Carrier since 2018 and in 2021, TuSimple was recognized on the [SmartWay High Performer List](#), placing in the best-performing range for CO₂ emissions across all SmartWay partners. Based on our 2020 emissions data, we are already in compliance with the EPA's Phase 2 benchmark for 2021, as illustrated by Figure 1.

Figure 1: EPA Phase 2 CO₂ reductions ([Eaton](#))

05.03 Enabling our Employees to Reduce their Carbon Footprint

At TuSimple, we work to ensure that sustainability is an integral and essential part of the day-to-day work experience for our employees. Since 2020, we have reduced the environmental impact of our operations by:



- Certified as Leadership in Energy and Environmental Design (LEED) Silver by the U.S. Green Building Council for our San Diego headquarters. To achieve [LEED certification](#), a company earns points by adhering to prerequisites and credits that address carbon, energy, water, waste, transportation, materials, health and indoor environmental quality. Following a verification and review process, companies are awarded points that correspond to a level of LEED certification.
- Incorporating sustainable practices into the design of our operations center in Tucson. We designed our building systems to exceed typical values required by code. Additionally, the high-efficiency lighting and optimally rated SEER HVAC packages will lower the overall energy consumption of our Tucson building compared to others of a similar type.
- Being recognized as an [ENERGY STAR partner](#) by the U.S. Environmental Protection Agency (EPA). ENERGY STAR recognizes sustainability efforts for both tenants and buildings with the understanding that energy efficient office spaces can lead to lower utility bills and fewer greenhouse gas emissions in our atmosphere.
- Providing electric vehicle charging stations at our San Diego Office to reduce employee commute emissions. Plans have also been made to have electric vehicle charging stations installed at our Tucson Facility in 2022.
- Making plans to add covered solar parking installations for electric vehicles at our Tucson Facility. This is expected to be completed by the end of 2022.

05.03 Enabling our Employees to Reduce their Carbon Footprint (cont'd)

- Developing and implementing a Public Transportation Reimbursement Program to encourage employees to use alternate means of transportation when commuting to and from work. This program promotes air quality, reduces traffic congestion, and conserves energy by reducing the number of single-occupancy vehicles on the road for employees commuting to our San Diego office. Employees working in areas served by mass transit—including rail, tram, bus, or other commercial transportation licensed for public conveyance—are eligible for \$40 per month reimbursement for their monthly public transit passes.
- Promoting recycling by making bins and signs available throughout our offices and facilities.
- Encouraging the use of reusable materials such as glass and compostable or recyclable plastics. This is done by providing reusable water bottles in our new hire kits as well as reusable coffee mugs and drinking glasses in our offices and working facilities.



06 Social Topics

We're investing in the long-term well-being and development of our employees as well as the communities we work with in order to increase economic growth and create opportunity for all. Beyond our internal initiatives, we have also engaged with our various partners to conduct studies that have uncovered industry-wide benefits ranging from increased safety, positive public health impacts, reductions in food waste and food insecurity and contributions to addressing human rights issues such as human trafficking. We have published our research and findings in a white paper titled "[The Potential Environmental and Social Impacts of Autonomous Trucking](#)."

- Culture
- Diversity and Inclusion
- Gender Diversity
- Pay Equity
- Learning and Development
- Recruitment
- Health and Wellness
- In Our Communities
- Human Rights
- Workforce Development
- Product Safety
- Our Partners



06.01 Culture

Our people are the reason why we are able to push boundaries and break down barriers as a company. Creating a culture that encourages our employees to fulfill their long-term goals and to grow and develop is critical to win and retain talent.

The list below highlights some examples of initiatives we have implemented to create a strong culture:



■ Individual employee and team initiatives

- Integration of core values into performance reviews and monthly recognition of employees demonstrating specific core values to highlight strong performers and the integration of these beliefs into our culture. Individuals who receive our monthly core value recognition awards are awarded with an additional 8 hours of paid time off.
- Conducted employee engagement survey in 2021 to improve employee satisfaction and intend to continue doing so annually.
- Individualized plans for managers to identify pain points and bottlenecks to improve day to day duties at work for both managers and their teams.
- Monthly team building budgets provided to managers to spend on collaboration and team building outside of normal working hours.

06.01 Culture (cont'd)

■ Company-wide initiatives

- Committees to ensure employees are being heard and create continuous employee experience improvement (e.g., Recognition Committee, Communications Committee, Women's Committee).
- Cultural events and celebrations focusing on education, diversity, and inclusion.
- Breakfast, lunch, and dinner provided for employees with a focus on healthy eating and inclusive menu options (vegan, traditional ethnic cuisine, gluten-free, etc.).
- Internal Slack channels for recognition and comradery, such as:

■ #WellDoneTu

A collaborative channel used to recognize and celebrate employees for their hard work and dedication to TuSimple.

■ #DistanceTogether

A social channel for employees to come together, build comradery and collectively overcome challenges caused and amplified by the Covid-19 pandemic.





06.02 Diversity and Inclusion

A diverse range of backgrounds and perspectives makes us stronger and better able to strategically respond to changes in the industry. We continuously strive to build stronger relationships with our communities, be an active member of stakeholder networks, and ensure all employees feel a strong sense of belonging.

U.S. Workforce Figures as of December 31, 2021

66% Ethnic Minority

23% Female

As of December 31, 2021, our U.S. workforce was 23% female and 66% ethnically diverse with individuals from ethnic minorities. We are working towards increased representation year-over-year in most Equal Employment Opportunity Commission (EEOC) classifications. Additionally, active outreach to veteran, women, and minority groups is an integral part of our recruiting strategy for both full time and part time positions as well as internships. Our internship program is aimed at fostering a diverse group of young minds who will go on to be industry leaders and innovators.

06.02 Diversity and Inclusion (cont'd)

We celebrate the diversity of ethnicities, cultures, and religions represented among our employees by recognizing major holidays such as Hispanic Heritage Month, Holi, Lunar New Year, etc.



Hispanic Heritage Month Celebration



Lunar New Year Celebration



Holi Celebration

06.03 Gender Diversity

We prioritize equal opportunities for women and support their advancement into organizational leadership positions. In 2020, we launched the Women's Committee to promote the leadership and inclusion of women at TuSimple. The committee continued to grow in both membership and impact throughout 2021 by working to broaden the richness of opportunities for women, increasing leadership positions, and driving recognition and support of female talent to create an inclusive culture of opportunity for all.

Some of the initiatives the Women's Committee has launched include:

- **Her Journey:** A quarterly speaker series that hosts fireside chats with powerful female leaders across all industries. Recent speakers include:
 - [Barbara Bry](#), Former San Diego City Council Member
 - [Diane Hames](#), VP of Marketing at Navistar
 - [Lilian Vanvieldt-Gray](#), Executive Vice President and Chief Diversity and Inclusion Officer at Alliant Insurance Services
 - [Gay Rochester](#), President/CEO of INA Towing
 - [Grace Zuncic](#), Chief People and Culture Officer at Chobani
 - [Shelley Simpson](#), Chief Commercial Officer and Executive VP of People and HR at J.B. Hunt Transportation Services
- **Women at TuSimple:** [A blog series](#) that features some of the accomplished women of TuSimple across different roles and teams.
- **Women's History Month Celebrations**
 - **Awareness:** Published a weekly spotlight feature of notable women in the trucking and technology industries in our internal Slack channels.
 - **Diversity Discussion:** Hosted a diversity discussion around the benefits of diversity in the workplace.



We are also proud to share that in 2021, the following TuSimple women have been recognized as [Top Women to Watch](#) by Women in Trucking:

[Charlee Poineau](#)
Program Manager

[Joyce Tam](#)
Director of Product Management



06.04 Pay Equity

At TuSimple we are committed to fair pay for equal work regardless of sex, color, or sexual orientation. Along with 60 other companies, [we have taken](#) the [California Pay Equity Pledge](#) and hope other California-based companies will join us in this movement.

06.05 Learning and Development

Creating a highly engaged culture requires investment in employee learning and development. TuSimple is committed to ensuring our team has what they need to succeed in their current roles and be prepared for future ones. Currently, to ensure opportunities for continued learning and development, we offer a \$1,500 yearly stipend to all full-time employees for educational resources such as courses, books, and seminars. Additionally, we provide an advanced practicum internship experience that goes beyond traditional internship programs and provides intensive mentorship and experience on meaningful work.



06.06 Recruitment

Our employees are talented and highly skilled in areas that are increasingly in demand, including AI, machine learning, and computer vision. We have developed diverse channels and strategies for recruiting, and our engineering teams are closely aligned with our business and HR teams to forecast hiring needs as our technology grows and matures. We partner with top technical universities and PhD labs to develop our candidate pipelines, encourage employee referrals through a referral incentive program, and recruit at AI and computer vision conferences globally. Our summer internship program is a key contributor to our talent strategy, with 79 interns in the 2021 program.

06.07 Health and Wellness

TuSimple is committed to the health and safety of our employees and their families. Our objective is to ensure that our team is able to be their best-self both in and out of the workplace. It is not only limited to occupational health and safety risks. As such, we offer a 360 holistic approach to employee wellness.

Some of the health and wellness benefits we offer include:

■ Healthcare and Assistance

- 100% company-paid medical, vision and dental insurance plans
- Telehealth program via Teladoc, available 24/7
- Company-paid Employee Assistance Program (EAP) to help our employees and their families deal with any of life's challenges such as stress, anxiety, etc.

■ Wellness

- Daily breakfast, lunch, and dinner at our San Diego and Tucson offices
- Fitness center access in our San Diego office
- Monthly reimbursement towards fitness activities to encourage employees to achieve and maintain a healthy lifestyle



06.08 In Our Communities



01 Sun Corridor, Inc

With our major operations center located in Tucson, TuSimple works with other industry and community leaders through Sun Corridor, Inc. to promote economic growth in Southern Arizona, helping to bring additional jobs and investment to the community.

[Sun Corridor, Inc.](#) brings together key leaders from the private sector, governments, nonprofits, and academia to market the region as a business center and influence economic and public policy. The organization's primary goal is to facilitate primary (non-retail) job and investment growth in the region, creating a competitive environment that allows primary employers to flourish and succeed.

In May 2021, we [announced](#) plans to increase our Tucson footprint, with an expansion of roughly 35,000 square feet of office, lab and warehouse space for continued technology development.





02 Solving the Challenges of Food Waste

Giumarra

Over the past several years, we have been collaborating with stakeholders and partners across the food industry. Most recently, we worked with Giumarra (a produce marketing company supporting over

2,000 growers) and the Associated Wholesale Grocers (AWG) to validate the benefit of autonomy for middle-mile applications by reducing the time for a middle mile load by 42%. This allowed AWG to more effectively distribute fresh food to locally-owned grocery stores across the state. By potentially extending the shelf life of produce and reducing prices, we can provide greater access to healthier food in communities located in “food deserts” and improve the overall health of the community.

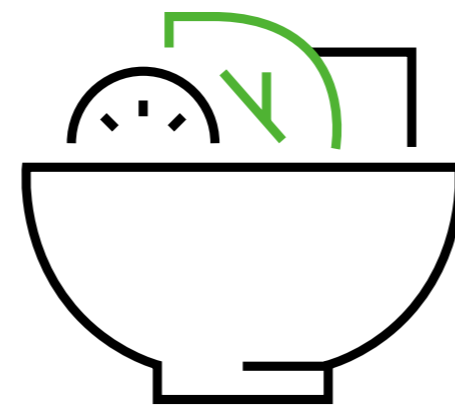
03 Food Bank Partnership

Metrics highlighting TuSimple's partnership with the Community Food Bank of Southern Arizona:



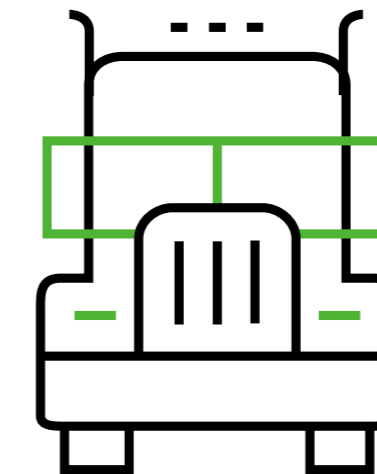
3.5 million

pounds of food transported



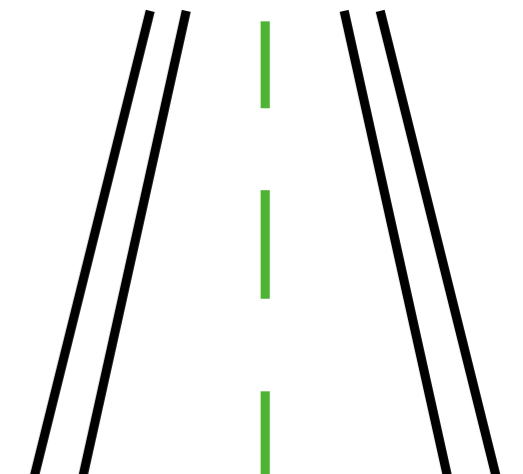
2.7 million

meals delivered



90+

truckloads of food hauled



39,000

miles traveled

TuSimple first started [working with the Community Food Bank of Southern Arizona in 2018](#). Since then, we have continued to partner with them to provide both food donations and freight transportation during times of need, notably throughout the holidays and during the height of the pandemic. During these periods, we delivered two to four shipments of food per week – from lettuce to watermelons – to both the Community Food Bank of Southern Arizona as well as other food banks. Recognized as the top food bank in the U.S., the Community Food Bank of Southern Arizona serves 180,000 people annually through programs that address both food insecurity and health. As new challenges due to the pandemic emerged throughout 2020 and 2021, our contribution helped the Community Food Bank of Southern Arizona face those challenges head on.



COMMUNITY
FOOD BANK
OF SOUTHERN ARIZONA

To date, we have successfully delivered more than 3.5 million pounds of food, or 2.7 million meals, to communities in need. This partnership represents some of the benefits of autonomous trucks as they improve the quality of life in our communities, especially for those underserved by the limitations of our supply chain.

04 Feeding San Diego Food Drive

During the 2021 winter holiday season, TuSimple participated in a local in-person food drive for [Feeding San Diego](#) sponsored by the owners of our San Diego building, [The Irvine Company](#). Through this food drive, we collected a total of 150 lbs of food which was used to feed local families across San Diego County.



In 2021, Feeding San Diego provided more than 40.3 million meals to people facing hunger, worked in partnership with 292 local community organizations and facilitated 14,700+ volunteer hours. Feeding San Diego rescues high-quality, nutritious, surplus food from all types of food donors, such as farms and grocery stores. Then, they work with community partners who distribute the food to people in need.

05 Paying It Forward: Serving Communities In Need



Over the years, TuSimple employees have leveraged the power of crowd-sourcing to give back to our communities. Since 2018, TuSimple has had the yearly holiday tradition of collecting toys onsite in partnership with the US Marines and [Toys for Tots](#) to donate to the local community. Additionally, in 2021, TuSimple employees donated over \$25,000 to [Active Minds](#), a national organization that promotes mental health for young adults.

February 2021 saw the costliest winter storm in history ravage across the country.



During this storm, Texas was especially hard-hit by power outages. Our team in Texas partnered with [Sparkletts](#) and the [Texas Division of Emergency Management](#) to donate 10 water pallets to the Catholic Charities of Fort Worth and other non-profits.



06 Supporting Local Vendors

Food brings everyone together, and as we grow within our local communities, TuSimple has found that this is one of the best ways to support small and local businesses in all of our locations. Being intentional about each local partnership is key in supporting a sustainable future, growing roots and supporting the community that supports us. At our locations, we strive to source meals from vendors in the surrounding communities, including minority-owned restaurants or food trucks such as Sonoran Mexican Cuisine, Foxy Roxy's, and Omar's Hi-Way Chef Restaurant.

07 The Trevor Project

At TuSimple, we honor diversity and inclusion year round, and support for our LGBTQ+ community reaches far beyond the month of June. In 2021, we launched an initiative to sell TuSimple Pride shirts in order to raise funds for donation to [The Trevor Project](#), a national organization providing crisis and suicide prevention services for LGBTQ+ youth under 25.





06.09 Human Rights

Human trafficking is a global problem in which people are coerced into commercial sex acts or labor against their will. It is estimated that there are [40 million victims of human trafficking globally](#), including thousands of children and adults in the United States, in what is currently a [\\$150bn industry](#).



During their time on the roads, truck drivers move in and out of rest stops, restaurants, and hotels. This puts them in a unique position where they are able to spot and report incidents of trafficking that take place at these locations. [Truckers Against Trafficking \(TAT\)](#) reported that over the past decade, truck drivers have made more than [2,000 calls to their hotline](#), [helping to raise awareness of more than 600 likely cases and identify more than 1,000 potential victims](#).

While TuSimple is an autonomous trucking company, we will continue to have safety drivers and AV system operators on the roads on a regular basis who may encounter human trafficking incidents that should be reported. In addition to our safety drivers and AV system operators, we believe that our employees who are not out on the roads should also be aware of suspicious activity in their everyday lives and know how to take action.

06.09 Human Rights (cont'd)

To proactively support this cause, a series of initiatives have been launched within TuSimple:

- TuSimple is the first autonomous trucking company to sign on as a sponsor of Truckers Against Trafficking.
- We recently hosted Laura Cyrus, the Director of Corporate Engagement at Truckers against Trafficking in a fireside chat where she also trained our employees to spot signs of human trafficking and take action to file reports.
- We recently expanded our required TAT training program to include our system operators, ensuring that every TuSimple employee driving in our trucks on public roads is trained on what red flags to look for as indicators that human trafficking may be taking place. As of December 2021, we have trained and certified over 60 safety drivers and AV system operators for TAT.

Beyond making affirmative commitments to combat human trafficking, we are looking into ways our trucks can help to tangibly address trafficking activity while on the road. We see the potential that our technology has in terms of increasing transparency and supporting law enforcement efforts to tackle this issue. By exploring ways to combine our technology with internal initiatives that empower our people to play a part, as well as partnerships with law enforcement and public service entities, we commit to using our technology as a force for good.





06.10 Workplace Development

To help prepare today's workforce for new jobs in the autonomous trucking industry, we have partnered with colleges in the communities that we operate in. In 2020, we launched our ongoing partnership with Pima Community College to create the nation's first accredited program for existing Commercial Driver's License (CDL) holders to learn how to become autonomous truck operators.



The [Autonomous Vehicle Driver and Operations Specialist](#) certificate program teaches students how to interact with autonomous vehicles, the basics of computer hardware components, electrical systems, safety, health and environmental regulations, and domestic freight transportation. We believe this is an important step in getting America's truck drivers equipped to work with tomorrow's technology.

06.10 Workplace Development (cont'd)



In continuation of these efforts, we announced a partnership with [Louisiana's Community and Technical Colleges System \(LCTCS\)](#) (LCTCS) to launch a training course in artificial intelligence in June 2021. Students at LCTCS – who are pursuing careers in IT, business, and commercial vehicle operations – will be able to specialize in areas that complement the unique needs of the transportation industry in Louisiana.

Autonomous trucks are expected to support American economic growth, enhance and transform freight transportation, and create new opportunities not previously contemplated. As one of the leaders in the autonomous trucking space, we are working closely with communities to develop the expertise needed for autonomous trucking operations.

To learn more about our workforce development initiatives, please see our [blog](#).

“ I would like to thank TuSimple for partnering with LCTCS to bring the training necessary to repair autonomous vehicles to Louisiana. This will ensure that our students are prepared when these cutting edge job opportunities arise. ”

Troy A. Carter, Sr.,
 Congressman, Louisiana District 2
 House Transportation and Infrastructure Committee



06.11 Product Safety

Safety is at the core of everything we do at TuSimple. In 2021, we created and published our first [Safety Report](#) to provide an overview of how we ensure that our testing and development of our trucks is safe. This report was also submitted to the National Highway Traffic Safety Administration (NHTSA) as part of its [Automated Driving Systems Voluntary Safety Self-Assessment \(VSSA\)](#).

In addition to publishing our Safety Report in 2021, we also published a [Safety Framework for The First Semi-Truck Driver Out Program](#) which speaks to our safety culture and governance, safety processes and best practices, and our Safety Case Framework for our Driver Out Program.

Our safety culture and governance, use of best practices such as the V model and agile design model for product development, and the safety case framework for the Driver Out Program, lay the framework for our safety philosophy and implementation. Unlike the traditional automotive industry, which has long-established standards to prove safety and roadworthiness of human-driven vehicles, the autonomous vehicle (AV) industry is at its beginning stages of development. This gives us the opportunity to be an integral and active part of creating wholly-sufficient standards. We believe it is our responsibility to develop and employ standards-based methodologies to guide AV-specific standardization and to communicate our overall safety solution.



06.11 Product Safety (cont'd)

Given the above context and the unprecedented complexity of autonomous driving technology, we choose to build on the current automotive industry regulations for safety by incorporating multiple substantive safety methodologies when designing our safety framework.

During the development period, our autonomous trucks are operated by a 2-person team consisting of a trained safety driver and an AV system operator. Our safety drivers are all CDL Class A licensed drivers who are responsible for maintaining control of the vehicle at all times, disengaging the autonomous system when necessary, and manually operating the vehicle in the case of an autonomous system disengagement.

Improving safety is one of the most important potential benefits of autonomous technology. During Q3 2021, we released the [initial results](#) of a safety-performance study by Geotab, a global leader in IoT and connected transportation. The telematics data measured industry standard critical driving events, such as harsh acceleration, braking and cornering, which can be considered leading indicators for unsafe driving that can increase the risk and frequency of accidents. The data was collected in a variety of conditions, including day, night, rain, and extreme heat as well as on highways and surface streets. The initial results of the study based on 80,000 autonomous miles driven by our autonomous trucks indicate that the TuSimple autonomous technology helps significantly reduce harsh driving events per 10,000 miles that lead to accidents. These results, shown in Figure 2 below, uncovered substantial improvements in harsh braking, harsh acceleration, and harsh cornering by autonomous trucks, as compared to manually-driven trucks.



Trucking Performance on Harsh Events

Number of Events per 10,000 Miles

Event Type	TuSimple Autonomous Technology	Industry Human-Operated Driving
Harsh Braking ^[1]	0 - 2	8 - 10
Harsh Acceleration ^[2]	11 - 16	99 - 106
Harsh Cornering ^[3]	4 - 10	118 - 189

[1] Harsh Braking occurs when a driver uses more force than necessary to control the vehicle. The presence of harsh braking often indicates aggressive or distracted driving that can lead to costly accidents, as well as increased maintenance issues.

[2] Harsh Acceleration is defined as acceleration greater than 3.35m/s² in the forward direction. In the vehicle, the driver would feel like they were pushed back in the seat and the load of the vehicle would shift to the rear.

[3] Harsh Cornering is an event that exceeds certain values of Geotab's GO device's accelerometer, specifically side-to-side values (G-Force). This action increases the amount of force on the vehicle, putting top-heavy vehicles at risk of overturning.

Figure 2: Comparison of how TuSimple trucks perform on harsh events against manually driven trucks' performance, Geotab and TuSimple (2021)

06.11 Product Safety (cont'd)

This study adds to our growing data set supporting the broad-based benefits of our L4 technology, including fuel savings, and now, a third-party study indicating significant reductions in harsh cornering, braking, and acceleration events. The results support our strong belief that autonomous vehicles will improve overall road safety and reduce the number of road accidents.



Currently, we are working together with [Liberty Mutual](#), a multinational company offering insurance products and services, to study the comparative safety benefits of autonomous trucks along with the potential impact on commercial vehicle insurance.

In 2021, we became one of the first companies dedicated exclusively to autonomous trucks to join the Self-Driving Coalition which has recently been renamed to the [Autonomous Vehicle Industry Association \(AVIA\)](#). This coalition was created to advocate for the vast range of use cases of autonomous vehicles and to educate lawmakers, regulators and the public on their safety and social benefits.



We continue to bolster the AV industry's efforts to bring this transformational technology to market safely and reliably through collaborations with government officials and non-profit organizations.



06.12 Our Partners

Our memberships and partnerships are key to ensuring that we continue to build autonomous trucks that lift the communities that we operate in. Being intentional about each local partnership is key in supporting a sustainable future as well as growing roots and supporting the community that supports us.

 [Active Minds](#)



[Associated Wholesale Grocers \(AWG\)](#)



[Autonomous Vehicle Industry Association \(AVIA\)](#)



[Community Food Bank of Southern Arizona](#)



[Feeding San Diego](#)



[Liberty Mutual Insurance](#)



[Louisiana's Community and Technical Colleges System \(LCTCS\)](#)



[Pima Community College \(PCC\)](#)

 [Sparkletts](#)



[Sun Corridor Inc](#)



[Texas Division of Emergency Management](#)

 [Giumarra](#)



[The Trevor Project](#)



[Toys for Tots](#)



[Truckers Against Trafficking \(TAT\)](#)



07 Governance

Running our organization in a way that meets and exceeds all regulatory requirements is extremely important to us. It's also important that we go beyond a "checklist" approach for compliance by fostering a culture of accountability, security, and the utmost level of ethical behavior.

07.01 Board of Directors

At TuSimple, good governance is key to driving our success and building long-term sustainable value for our stakeholders. The Board of Directors (the Board) is directly and regularly engaged with senior leadership. Additionally, our board members have experience as top-level executives at public companies.

Board Committees

- **Audit Committee:** Assists the Board with its oversight of the following: the integrity of our financial statements; our compliance with legal and regulatory requirements; the qualifications, independence, and performance of the independent registered public accounting firm; the design and implementation of our internal audit function and risk assessment and risk management.
- **Compensation Committee:** Assists the Board in discharging certain of our responsibilities with respect to compensating our executive officers, and the administration and review of our incentive plans for employees and other service providers, including our equity incentive plans, and certain other matters related to our compensation programs.
- **Nominating and Governance Committee:** Assists the Board with its oversight of and identification of individuals qualified to become members of our board of directors, consistent with criteria approved by our board of directors, and selects, or recommends that our board of directors selects director nominees, develops and recommends to our board of directors a set of corporate governance guidelines, and oversees the evaluation of our board of directors.
- **Government Security Committee:** Assists the Board by providing oversight of our implementation and adherence to the terms of the National Security Agreement entered into with the U.S. government, including protection of certain of our intellectual property.

Board Diversity

Our Board is one of the company's most important assets and we strive to create an inclusive and diverse environment. Currently, our board is 40 % female and 20% ethnic minority*.

20% of board seats are held by underrepresented minorities

40% of board seats are held by women

*As of June 30, 2022.

07.02 Corporate Governance

Our corporate governance approach includes:

- **Code of Conduct:** Our Board and employees are required to abide by our [Code of Conduct](#), which is guided by our company mission and values. The conduct provides a framework for all of our employees to strive to do the right thing and act in a way that is consistent with our values. Additionally, most of our fleet-related suppliers are also screened using a Supplier Selection Assessment Evaluation to ensure that they are in compliance with our Code of Conduct.
- **External Compliance and Audit Partnerships:** Partnerships with key external experts in a wide range of compliance and audit areas such as the Automotive Information Sharing and Analyst Center, which aims to ensure that companies are staying ahead in cybersecurity.
- **Company Whistleblower and Safety Hotlines:** Developed process for internal investigations and procedures for ethical complaints, ultimately rolling up to the Audit Committee. Complaints and grievances can be submitted through multiple channels including human resources, legal staff, and our confidential ethics and safety reporting hotlines. See our Code of Conduct for details.
- **Employee Trainings:** Recurring required training for key topics such as data security and anti-harassment. Additionally, all employees are trained on our core values and ethical policies at orientation.







07.03 Safety Governance

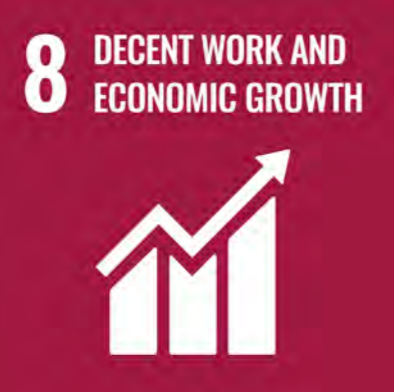






Given the impact of governance on our safety outcomes, we have actively prioritized optimization of our organizational structure, policies and product development processes in an effort to ensure success of our safety mission. Our safety governance approach includes:

- **Safety Policy Steering Committee:** Our Safety Committee holds primary responsibility for establishing, validating and confirming the Driver Out Safety Framework, managing necessary adjustments and assuring adherence to the Safety Framework before launching Driver Out missions on public roads. The Safety Committee is composed of a cross-functional group of our senior-most technology, legal and regulatory executives, including our Co-Founder and Chief Executive Officer, Chief Administrative and Legal Officer and Vice President of Systems and Safety Engineering.
- **Culture of Safety:** Since our inception, we have prioritized a culture of safety and have instituted a structured methodology behind our safety practices and procedures. The goal of this cornerstone of our culture is to enable the entirety of our team at TuSimple to always act with safety as a central guiding principle. Internally, our prioritization of safety is evident throughout our hiring, training and day-to-day employee experience. Along with building the right teams, we equip and train our employees on industry-leading safety methodologies, practices and procedures. Furthermore, we empower employees to raise concerns and validate through leadership action that these concerns are heard, taken seriously, and acted upon.
- **Safety Hotline:** We have worked to ensure that all employees feel empowered to participate in an open dialogue around our safety practices. Along with promoting a culture that challenges the status quo and prioritizes safety, we have instituted a safety hotline where employees can report behaviors or decisions that they believe to be unsafe. This provides all employees across our organization the ability to confidentially and anonymously report any existing issues regarding safety matters and contribute to company-wide adherence to our safety policies and procedures. The safety hotline serves as an essential component to our safety initiatives, ultimately allowing us to take action and ensure the highest levels of safety for our team and the motoring public.

08 UNSDG Mapping

UNSDG	TuSimple Initiatives
 <p>2 ZERO HUNGER Zero Hunger</p>	<ul style="list-style-type: none">■ Collaboration with food-industry stakeholders and partners like Giumarra■ Food Bank Partnership with the Community Food Bank of Southern Arizona■ Feeding San Diego Food Drive
 <p>3 GOOD HEALTH AND WELL-BEING Good Health and Well-Being</p>	<ul style="list-style-type: none">■ Active Minds Donation■ First Safety Report Published■ Safety Framework for the First Semi-Truck Driver Out Program Published■ Partnership with Geotab for Safety-Performance Study■ Partnership with Liberty Mutual to Assess Comparative Safety of Autonomous Trucks■ TuSimple Joins the Self-Driving Coalition (AVIA)■ Safety Committee and Safety Governance
 <p>4 QUALITY EDUCATION Quality Education</p>	<ul style="list-style-type: none">■ Employee Learning and Development Opportunities■ Toys for Tots Donations■ Partnership and Accredited Program Created with Pima Community College■ Partnership with Louisiana's Community and Technical Colleges System
 <p>5 GENDER EQUALITY Gender Equality</p>	<ul style="list-style-type: none">■ Workforce Diversity and Inclusion: 66% Ethnic Minority & 23% Female■ 2020 Launch of TuSimple Women's Committee■ California Pay Equity Pledge Signator■ Diversity and Inclusion: Board of Directors

UNSDG	TuSimple Initiatives
 <p>8 DECENT WORK AND ECONOMIC GROWTH Decent Work and Economic Growth</p>	<ul style="list-style-type: none"> ■ <u>Individual employee, team and company-wide initiatives implemented to create a strong culture and working environment</u> ■ <u>California Pay Equity Pledge Signator</u> ■ <u>Employee Learning and Development Opportunities</u> ■ <u>TuSimple Health and Wellness Benefits</u> ■ <u>Sun Corridor Inc. Partnership</u> ■ <u>Initiative to Support Local Vendors</u> ■ <u>Partnership and Accredited Program Created with Pima Community College</u> ■ <u>Partnership with Louisiana's Community and Technical Colleges System</u> ■ <u>Partnership and Initiatives with Truckers Against Trafficking</u>
 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE Industry, Innovation and Infrastructure</p>	<ul style="list-style-type: none"> ■ <u>TuSimple at a Glance - Our Business</u> ■ <u>Published White Paper: "The Potential Environmental and Social Impacts of Autonomous Trucking"</u> ■ <u>UCSD Fuel Efficiency Study (2019)</u> ■ <u>13% Fuel Savings with UPS North America Air Freight</u> ■ <u>TuSimple Joins the Self-Driving Coalition (AVIA)</u>
 <p>11 SUSTAINABLE CITIES AND COMMUNITIES Sustainable cities and communities</p>	<ul style="list-style-type: none"> ■ <u>Published White Paper: "The Potential Environmental and Social Impacts of Autonomous Trucking"</u> ■ <u>UCSD Fuel Efficiency Study (2019)</u> ■ <u>13% Fuel Savings with UPS North America Air Freight</u> ■ <u>Recognized as a 2021 SmartWay High Performer and SmartWay Certified Carrier</u> ■ <u>Leadership in Energy and Environmental Design (LEED) Silver Certification by the U.S. Green Building Council - San Diego Office</u> ■ <u>Sustainable Design of Operations Center in Tucson</u> ■ <u>US EPA ENERGY STAR Partner</u> ■ <u>Enabling our Employees to Reduce their Carbon Footprint</u> ■ <u>Partnership with Sparkletts and the Texas Division of Emergency Management</u>

UNSDG	TuSimple Initiatives
 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p> <p>Responsible Consumption and Production</p>	<ul style="list-style-type: none"> ■ <u>UCSD Fuel Efficiency Study (2019)</u> ■ <u>13% Fuel Savings with UPS North America Air Freight</u> ■ <u>Recognized as a 2021 SmartWay High Performer and SmartWay Certified Carrier</u> ■ <u>Leadership in Energy and Environmental Design (LEED) Silver Certification by the U.S. Green Building Council - San Diego Office</u> ■ <u>Sustainable Design of Operations Center in Tucson</u> ■ <u>US EPA ENERGY STAR Partner</u> ■ <u>Enabling our Employees to Reduce their Carbon Footprint</u>
 <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p> <p>Peace, Justice and Strong Institutions</p>	<ul style="list-style-type: none"> ■ <u>Diversity and Inclusion: 66% Ethnic Minority & 23% Female</u> ■ <u>Employee Celebrations and Education on Diversity of Ethnicities, Cultures and Religions at TuSimple</u> ■ <u>Initiatives to Support The Trevor Project</u> ■ <u>Partnership and Initiatives with Truckers Against Trafficking</u> ■ <u>TuSimple Governance Committee</u> ■ <u>Partnership with the Automotive Information Sharing and Analysis Center</u> ■ <u>TuSimple Board Of Directors</u> ■ <u>TuSimple Code of Conduct</u> ■ <u>Diversity and Inclusion: Board of Directors</u> ■ <u>Safety Committee and Safety Governance</u>

09 Conclusion

We recognize and understand the impact that an autonomous trucking company can and must make. We are working hard to make a positive contribution to the communities around us by reducing the emissions associated with our trucks, responsibly managing our operations and giving back to the communities we operate in. As we work to bring transformational change to the trucking industry, we will continue to make decisions for the greater good and make impactful change where we can.

This report illustrates how we bring the TuSimple mission to life through our business; it covers our environmental, social and governance (ESG) approach for the calendar year 2021, focusing on the issues we have determined to be of greatest importance. All reporting is limited to information for the owned and operated facilities of TuSimple Inc. unless stated otherwise. Additional information about TuSimple can be found on our website, www.tusimple.com.

This letter and any accompanying oral presentation contain forward-looking statements. All statements other than statements of historical fact contained in this letter, including statements as to future results of operations and financial position, planned products and services, business strategy and plans, launch dates of products or services, the trajectory of our Driver Out Pilot Program, our timeline to commercialization, expected safety benefits of our autonomous semi-trucks, objectives of management for future operations of TuSimple Holdings Inc. and its subsidiaries (the "Company", "we", "our" and "us"), market size and growth opportunities, competitive position and technological and market trends, are forward-looking statements. Forward looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. In some cases, you can identify forward-looking statements by terms such as "will", "expect," "plan," "anticipate," "intend," "target," "project," "predict," "potential," "explore" or "continue" or the negative of these terms or other similar words. The Company has based these forward-looking statements largely on its current expectations and assumptions and on information available as of the date of this letter. The Company assumes no obligation to update any forward-looking statements after the date of this letter, except as required by law. The forward-looking statements contained in this letter and the accompanying oral presentation are subject to known and unknown risks, uncertainties, assumptions and other factors that may cause actual results or outcomes to be materially different from any future results or outcomes expressed or implied by the forward-looking statements. These risks, uncertainties, assumptions and other factors include, but are not limited to, those related to autonomous driving being an emerging technology, the development of our technology and products, the Company's limited operating history in a new market, the regulations governing autonomous vehicles, the Company's dependence on its senior management team, reliance on third-party suppliers, potential product liability or warranty claims and the protection of the Company's intellectual property. Moreover, the Company operates in a competitive and rapidly changing environment, and new risks may emerge from time to time. You should not put undue reliance on any forward-looking statements. Forward-looking statements should not be read as a guarantee of future performance or results and will not necessarily be accurate indications of the times at, or by, which such performance or results will be achieved, if at all. It is not possible for the Company to predict all risks, nor can the Company assess the impact of all factors on its business or the markets in which it operates or the extent to which any factor, or combination of factors, may cause actual results or outcomes to differ materially from those contained in any forward-looking statements the Company may make. You should carefully consider the foregoing factors and the other risks and uncertainties described under the caption "Risk Factors" in our most recent quarterly report on Form 10-Q. These SEC filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. This letter also contains estimates, forecasts and other statistical data relating to market size and growth and other industry data. These data involve several assumptions and limitations, and you are cautioned not to give undue weight to such estimates. The Company has not independently verified the statistical and other industry data generated by independent parties and contained in this letter and, accordingly, it cannot guarantee their accuracy or completeness. In addition, assumptions and estimates of the Company's future performance and the future performance of the markets in which the Company competes are necessarily subject to a high degree of uncertainty and risk due to a variety of factors. These and other factors could cause results or outcomes to differ materially from those expressed in the estimates.