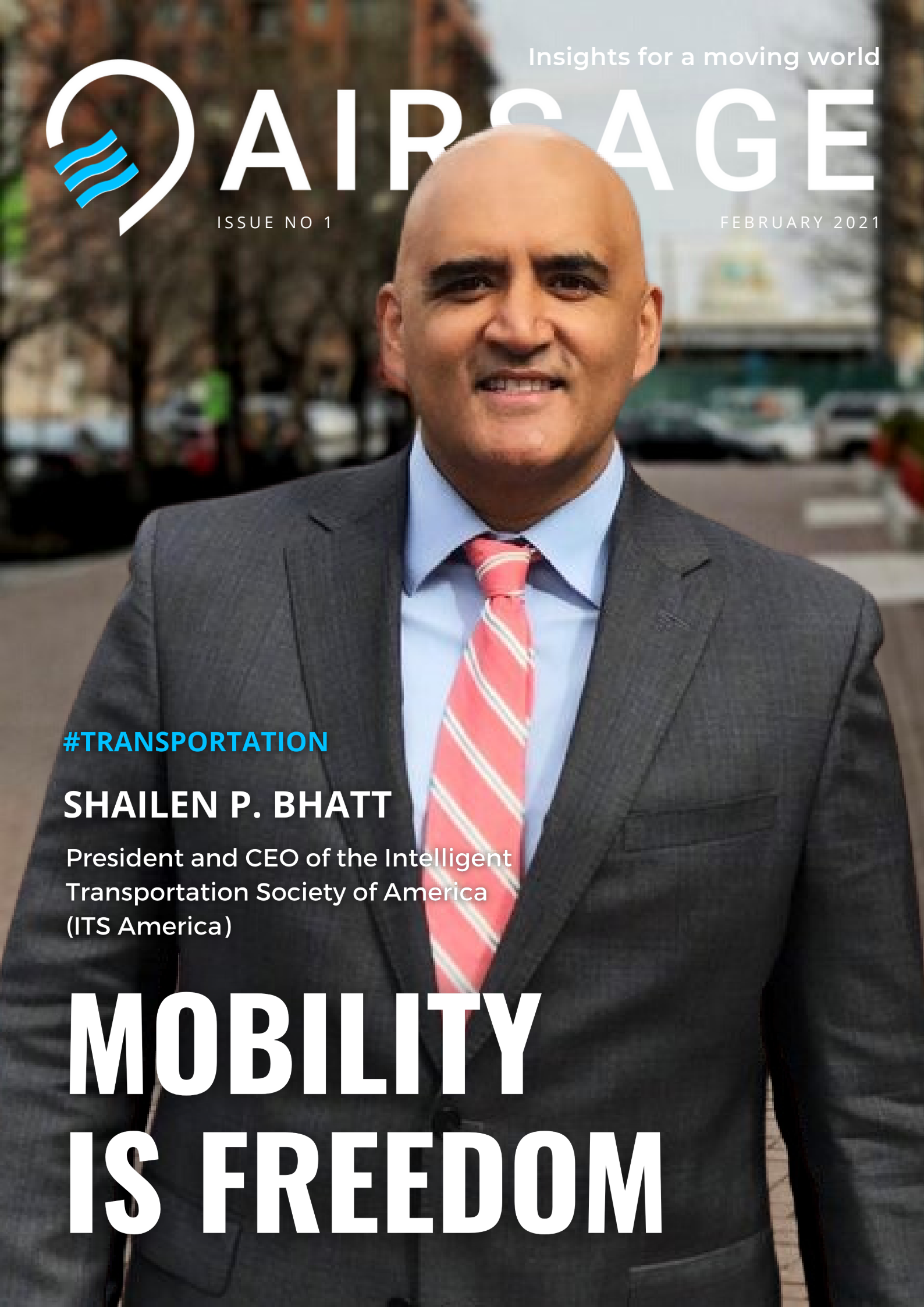


Insights for a moving world

AIRSAGE

ISSUE NO 1

FEBRUARY 2021

#TRANSPORTATION

SHAILEN P. BHATT

President and CEO of the Intelligent Transportation Society of America (ITS America)

MOBILITY IS FREEDOM

EDITOR'S NOTE

Dear Reader

Welcome to our first issue of AirSage Magazine.

With our interview of Shailen P. Bhatt we have a true visionary share his exciting perspective on the industry. He is widely considered one of the most renowned and forward-thinking transportation experts and we are delighted to have him featured in this first issue of AirSage Magazine.

Shailen has made a name for himself by working closely with the private sector to bring together technology and transportation needs during his tenure at the Colorado Department of Transportation.

In his quest at ITS America to provide intelligent transportation solutions for the 21st century Shailen takes the lead, and provides our readers with an exciting glimpse of the future.

We hope you enjoy these insights for a moving world,

Mark E. Forster,
AirSage

MOBILITY IS FREEDOM

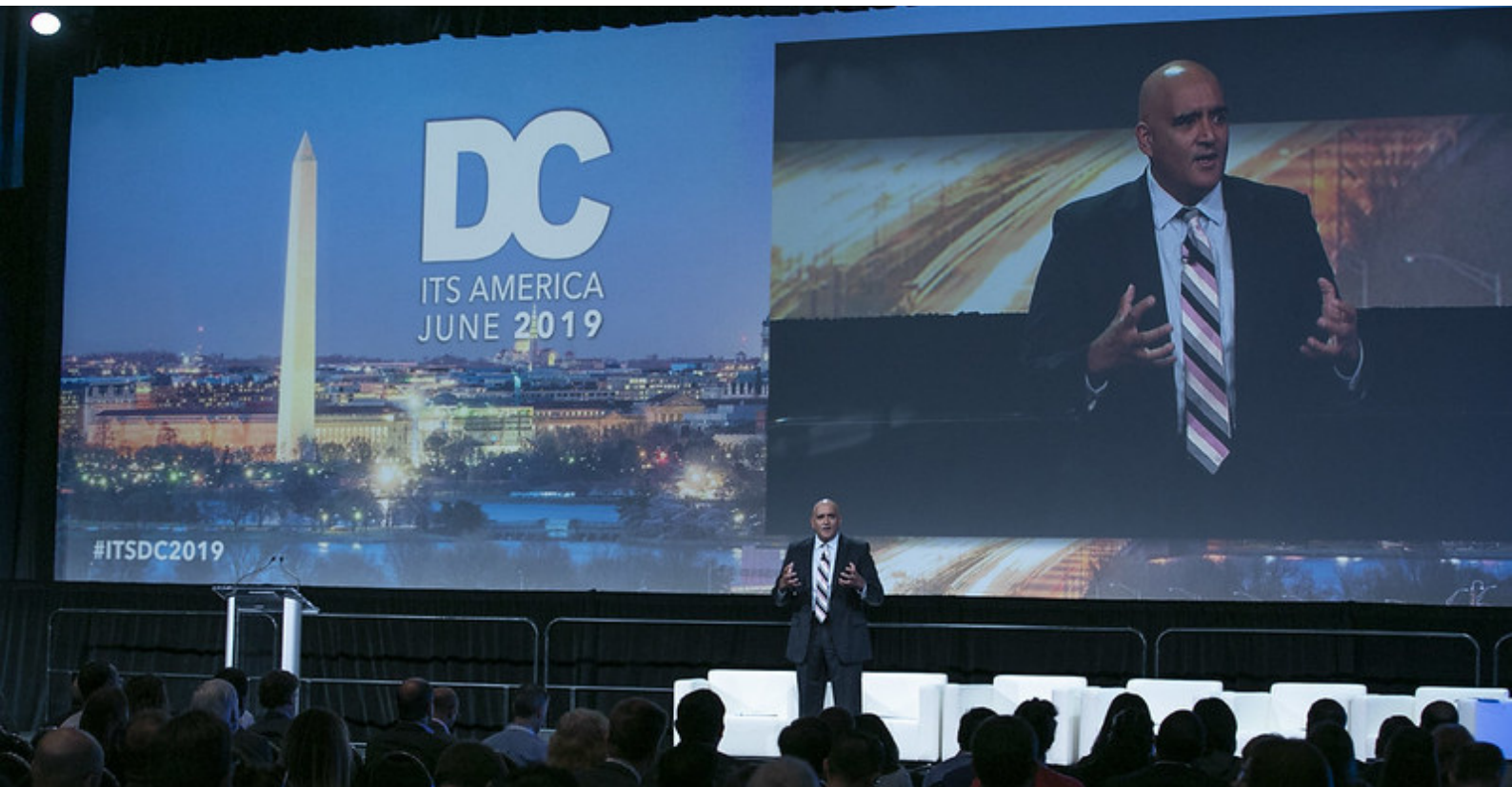
INTERVIEW WITH SHAILEN P. BHATT

Shailen P. Bhatt is a senior executive appointed by three Governors and President Obama to be a leader in transportation. He is a pioneer in transportation technology, innovative finance (P3), and reducing the carbon footprint of the transportation sector. Currently Shailen is a President and CEO of the Intelligent Transportation Society of America (ITS America).

In your time working within transportation/ITS, what technology do you feel has had the single biggest impact?

The speed and scale of technology deployment over the last 20 years is mind-blowing. We are on the cusp of a revolution of widespread deployment. I think the biggest game-changer out there is the concept of vehicles being connected to everything - Vehicle-to-everything (V2X).

When I think about the biggest challenges we have in transportation, the high rate of roadway crashes is what first comes to mind. 36,000 people a year die on American roadways, 28% of our greenhouse gas emissions come from the US transportation sector, and before the pandemic, Americans were sitting for about 100 hours a year on average in traffic. So V2X, whether it is vehicles connected to other vehicles or vulnerable road users, can bring big safety benefits to our transportation ecosystem. Electrification is the next big frontier.



Connecting vehicles is critically important to operate the system more effectively. We have gone from traffic management to what you, at AirSage, are doing - mobility data, which helps get Origin and Destination (O/D) data. For every trip generated in metropolitan areas, we can use predictive analytics and AI to operate transportation systems much more effectively.

At the recent 100th Annual TRB Meeting in January 2021, we heard a quote, "To make transportation truly sustainable, we cannot just run the same old system with a cleaner engine". What do you view as the key performance metrics for a sustainable transportation system? Related to that, what data will be vital for sustainability studies and efforts?

I think there are several elements.

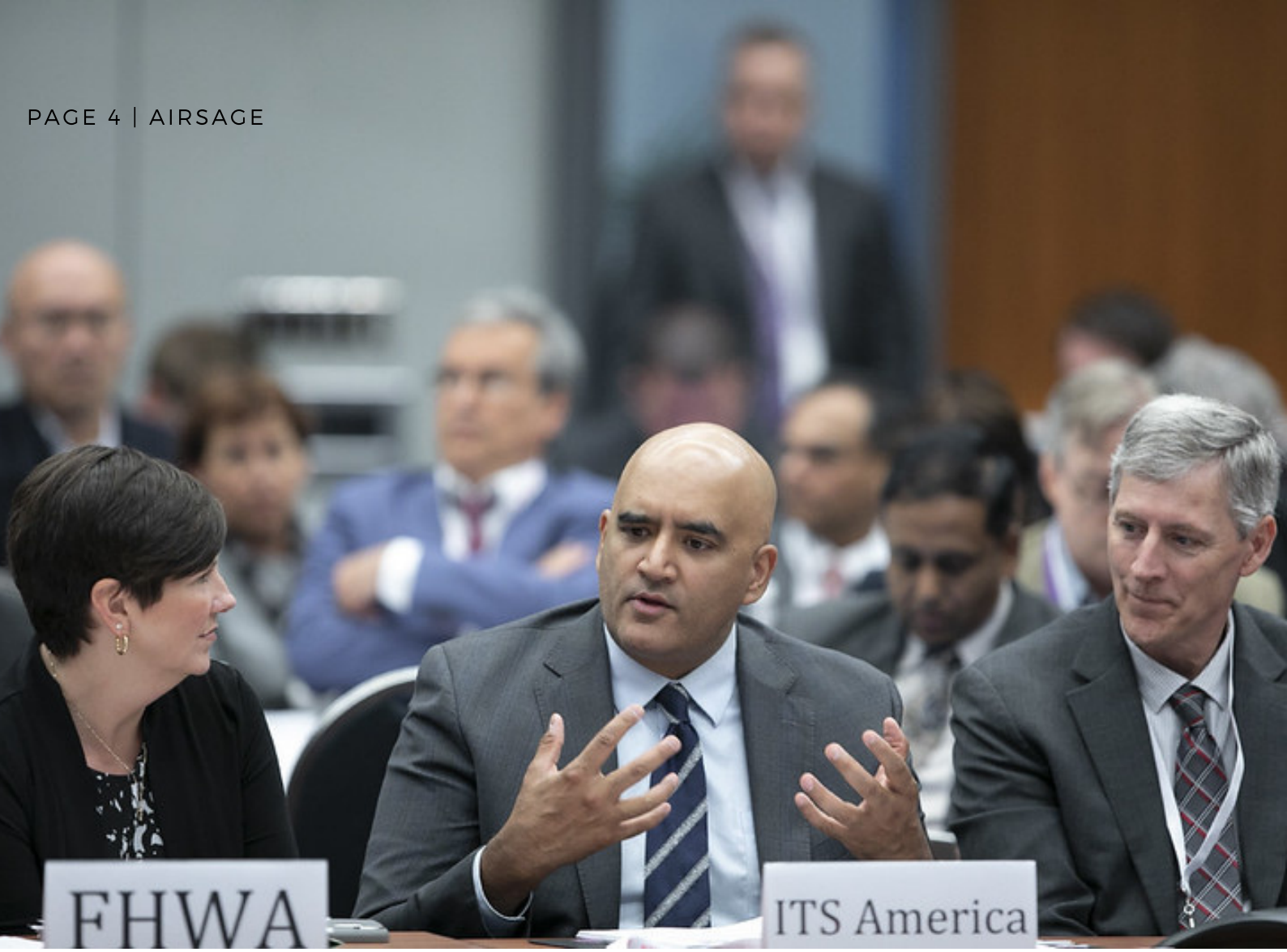
First, the internal combustion engine will be with us for a little longer, so we need to ensure it is as clean as possible. There is a lot of exciting research being done on alternative fuels. We hear multiple announcements, such as GM saying it will phase out the internal combustion engine by 2035. It is no doubt a big goal that is still 15 years away, so we need cleaner engines and cleaner fuels in the short term.

Next, when many of us think about sustainability, it is through an environmental lens. When it comes to sustainability metrics, we need to take a holistic approach and look beyond what we do in transportation planning. Right now, we look at PM 10 and PM 2.5 exposure or nitrous oxides in terms of ground-level ozone. I think there is another layer. We should look at health outcomes in cities where the populations are being exposed, because it is not just about measuring the output, it is about measuring the outcome. It is imperative that we look at the right data.

The concept of equity is incredibly important from a sustainability standpoint. Many people are excited about electric vehicles, but many Americans cannot afford them. For a lot of Americans, it is not "Should I go buy a new Tesla or a Bolt?" It is "How do I make my next home payment?" "How am I going to put food on the table?"

I do think we need to overlay this idea of sustainability with the concept of equity, and maybe that means increased access to transit or greater deployment of autonomous vehicles to eliminate transit "deserts" where people do not have access to rides. These are important metrics because mobility is freedom. Many people decide to use public transportation, not for the sake of being green, but because it is their only way of getting around.

A sustainable transportation system is the one that provides the most freedom of choice to access jobs and health care to the most people.



A truly sustainable transportation system most likely involves several agencies whose priorities, funding sources, and funding cycles do not always align. How important is it to work across various silos to make sustainability happen?

I will tell you a story. When I served as an Obama appointee at USDOT, there was a partnership for livable communities among HUD, EPA, and USDOT. Affordable housing close to transit was a common goal.

Nevertheless, there was little coordination between the affordable housing planners and those making transit investment decisionmakers. Before the partnership, everyone was working from their own playbook.

It was a critical step to bring those agencies together. Under the Biden administration, we will see DOT, EPA, and DOE put more investments towards electrification and clean vehicle coordination.

I think the metrics of reducing fatalities, emissions, and congestion, and increasing access, should cut across all jurisdictions. With the current leadership at the federal level, we should be able to align these common goals.

What are your thoughts on road pricing as it pertains to sustainability? Especially here in the US, the average driver is most likely not aware that they are paying for the roads already via gas taxes. Once the technology is in place to do proper road pricing (time of day, congestions level, available alternative routes, etc.), how bad will this "new tax" be perceived by the public? And perhaps the biggest question, will agencies/politicians be willing to implement it?

I am a big supporter of road pricing. I think that congestion is a function of high demand for a scarce resource, which is space on the road during peak time. While some are against this "new tax" I would argue that we already pay for it with our time. We obviously all have different values for our time, but, nevertheless, time is our most precious resource.

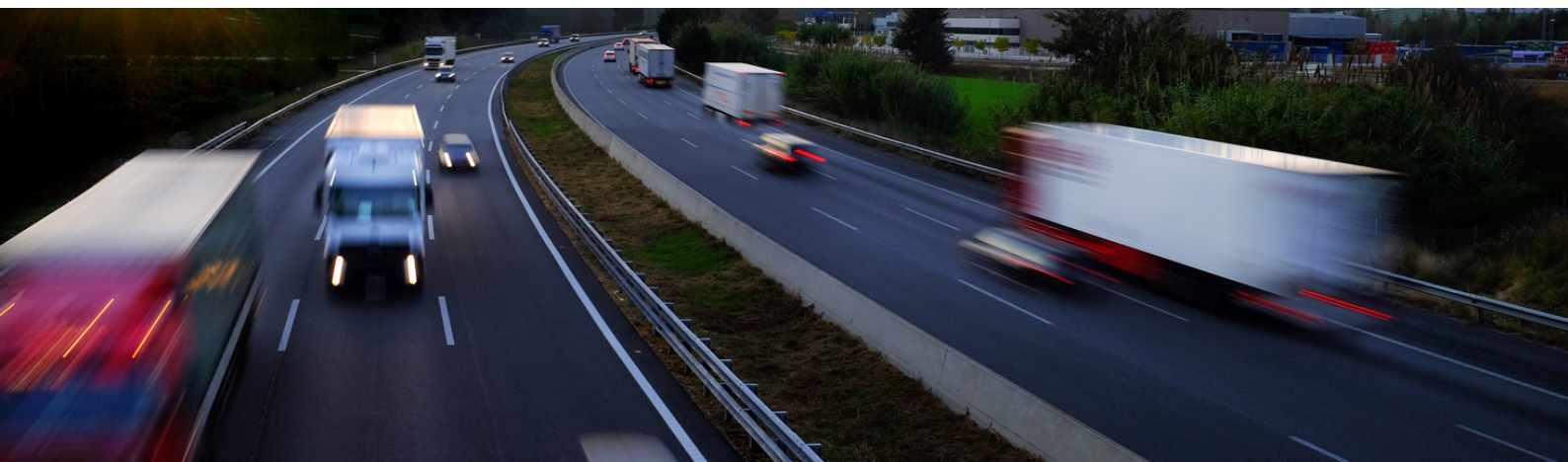
The road is not free. When you are sitting in congestion, you are paying with your time.

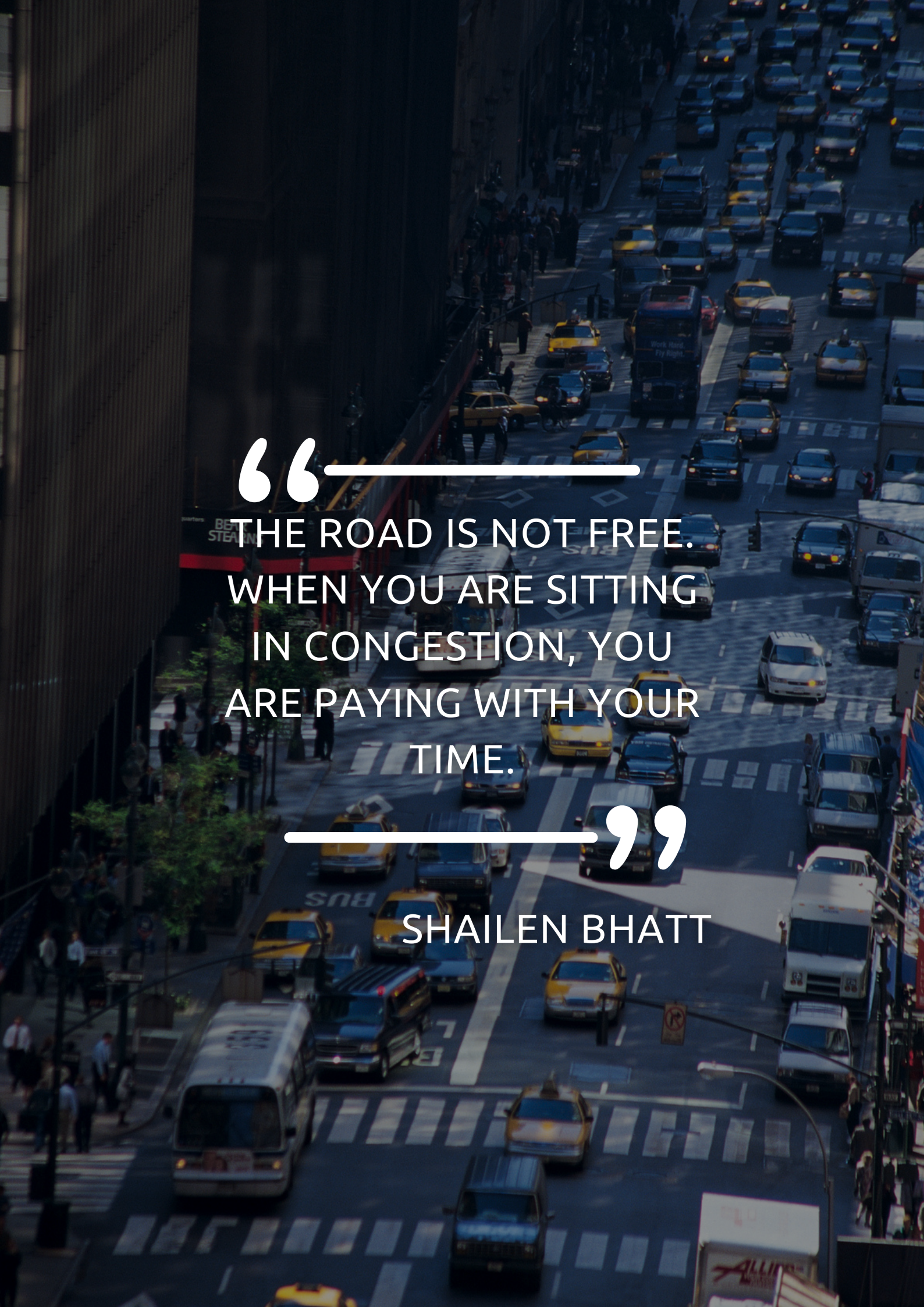
The concept of road pricing is not popular. But as more passenger and freight vehicles become electrified, funding for our transportation system is declining, so we need to replace the gas tax.

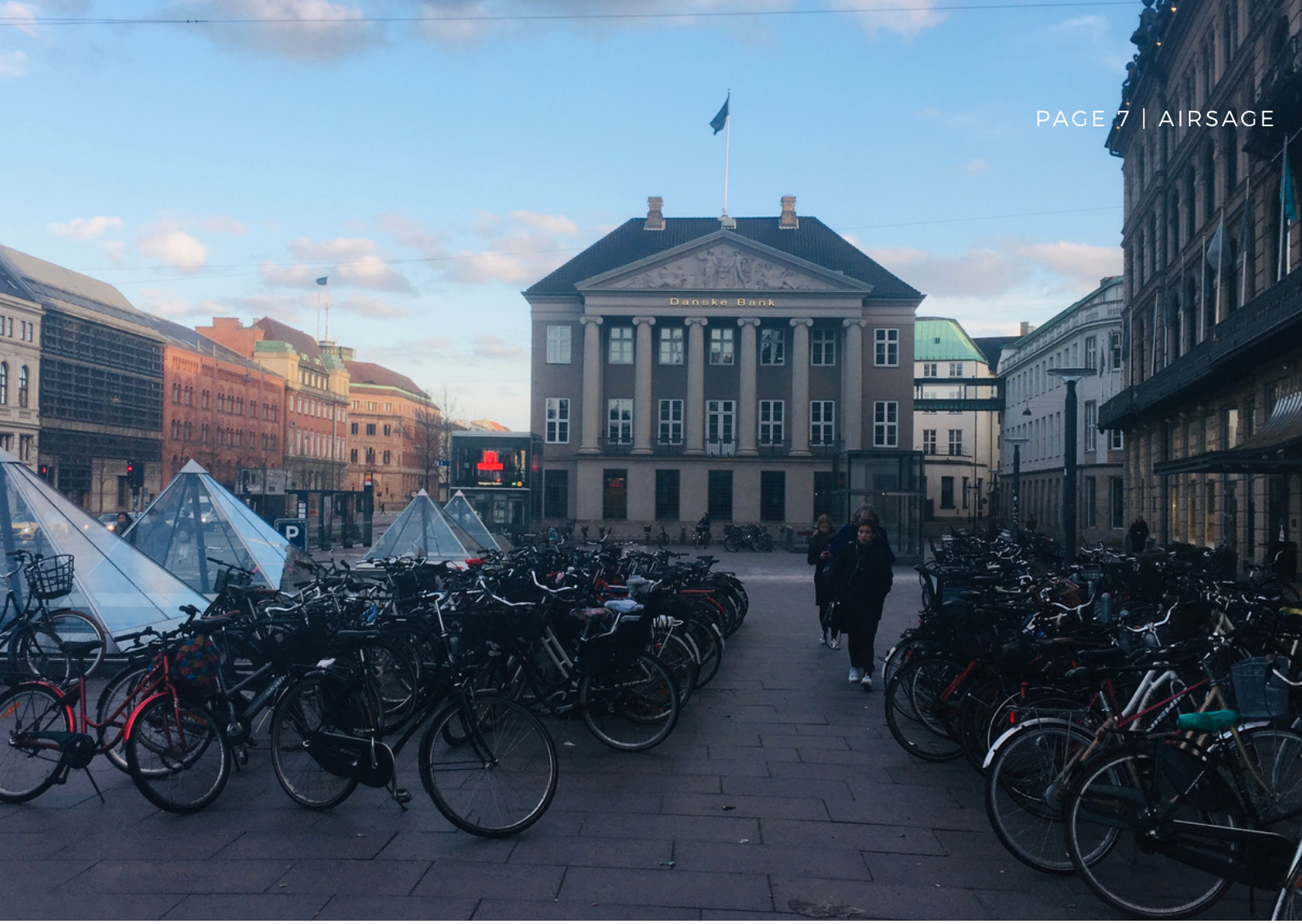
I also support this concept as it can save money. As a father, I've become my dad. If anybody leaves the fridge door or the front door open, I start yelling, because I see dollars going out the front door to heat up the outside. I feel frustrated because I know that it costs money, and we can apply this to driving. It is not so much a new tax as it is a way to price a scarce resource appropriately. We do the same with water, power, and other utilities.

Cities that consider introducing road pricing should offer their citizens transit alternatives. New York City has a good model in place, putting the collected revenue into their transit system. It is clearly a good policy that has been languishing. There are cities around the world, such as London and Singapore, that successfully implemented this concept.

In the next 10 or 15 years, we are going to see more pricing pilots in the US. We need to fund our infrastructure as we go forward.




THE ROAD IS NOT FREE. WHEN YOU ARE SITTING IN CONGESTION, YOU ARE PAYING WITH YOUR TIME.
SHAILEN BHATT



Are there any cities in particular outside of the US that you feel are really progressing when it comes to sustainability and could be a great model for efforts around the globe?

A great part of my pre-pandemic job was to understand which cities are getting it right. In Copenhagen, 70% of trips are done on bicycles. For comparison, in the 1950s, cities like Copenhagen and Amsterdam were choked with cars. They made a choice to reclaim their parks and other outdoor spaces from the automobile and turn them into plazas and squares.

I learned in 2016 that Melbourne had been voted the most livable city in the world. For traffic management, the city prioritizes trips differently. In Melbourne, the highest prioritization goes to pedestrians and cyclists, then to public transportation, and then to cars. The city doesn't ban driving but incentives other modes. This is how Melbourne built a much more livable and walkable city.

Cities, like Madrid, London, and Seattle are closing off streets and turning these canyons of asphalt back to people. Those metropolitan areas that prioritize people over moving cars and trucks will be the most successful in the 21st century.

For a long time, transportation planners tried to find ways to move tens of thousands of vehicles a day. Today we have to think about the entire system. How do we move people, data, and freight most efficiently? With the new technologies, there is finally a way to do things differently.

Do you believe that younger generations will be more open to the various sustainability elements? Not owning a private vehicle, which around 93% of Americans currently do. Instead, using various, more sustainable options, like walking, micromobility, transit, rideshare, biking, etc.

You may argue that kids these days are very different. But it is not just about the kids. Today we live in a totally different world than 50, 30, even 20 years ago.

I grew up in a world without smartphones, work from at home, or social media. When I was 16, having a car was a massive status symbol that gave a sense of freedom and connectivity. Today, kids would look at that same symbol and say it is a depreciating asset that they have to maintain - they prioritize digital connectivity.

There is a strong demand for new mobility methods, such as scooters, bike share, and car and ride-sharing. We see that desire growing, and I believe this trend will continue even when we get through this pandemic.

You have a very visionary view on how things could be in terms of sustainability and how trends could evolve. What needs to happen at this point in society to start moving in this direction?

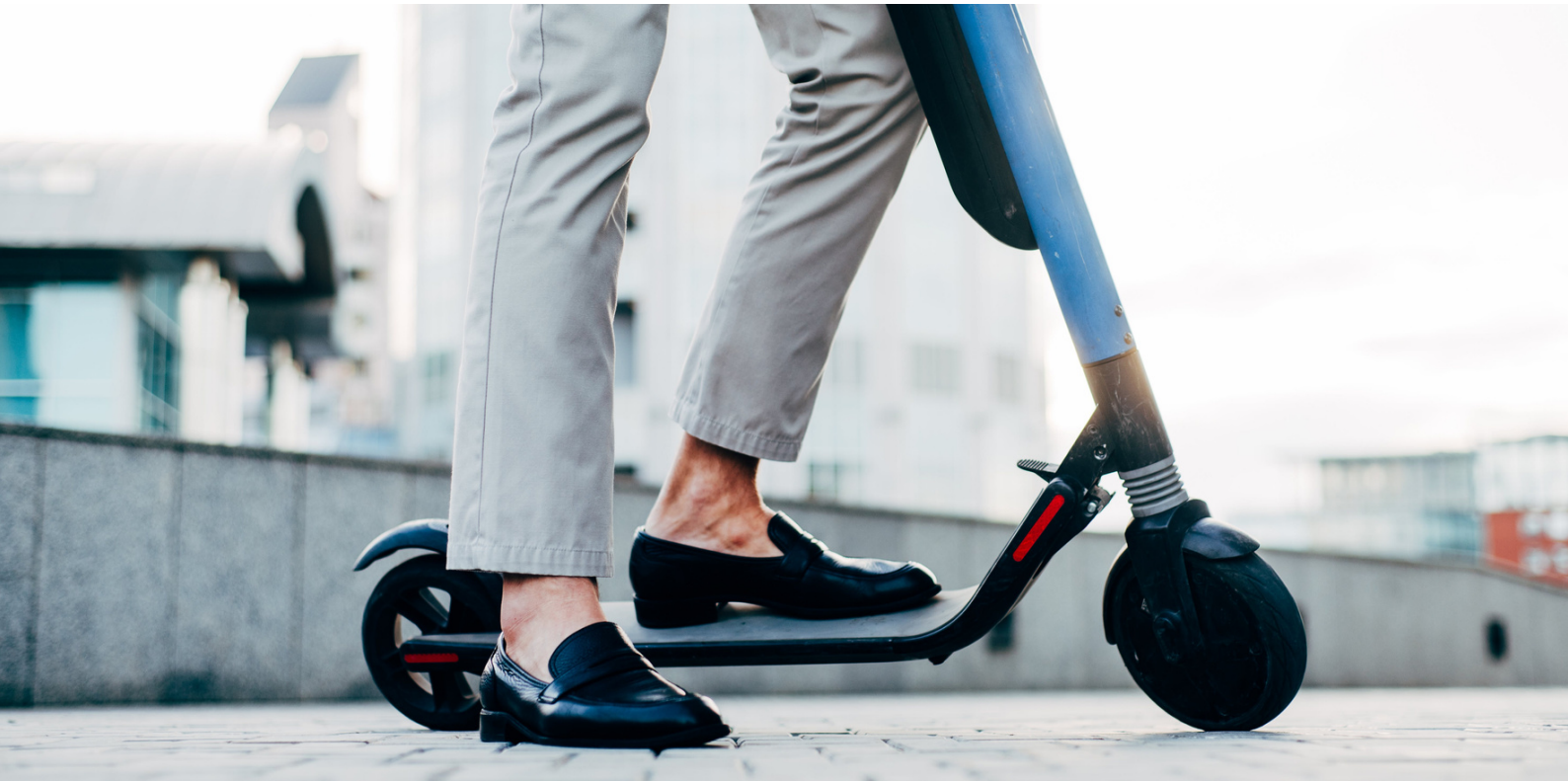
Most people in the world are convinced that climate change is happening. Intense rainfalls, abnormal weather events, coral bleaching, plastics in the oceans. There is a great desire, particularly among younger generations, to solve environmental challenges. If we start discussing these topics at a high level and making investments, solutions will present themselves. Our vision is a better world transformed by intelligent mobility – one that is safer, greener, and smarter.

I used to do traffic demand management back in the early 2000s in Toronto. At that time, there were not many good alternatives.

Today, technologies show us what is possible. People started to realize if they consume transportation more intelligently, they will make a difference in the world. They are willing to make more sustainable choices. This is how we can actually move the needle.

What advice would you give to college graduates that want to make an impact?

I would say to anybody who wants to make a difference in the world: Figure out what you're passionate about. Are you an engineer? Are you a planner? Are you more of a social scientist? There is an environmental component to all of this. Choose the sort of thing that you want to have an impact on, and then do it! If there's one thing that the pandemic has shown, we all can have a global impact even at a local level.



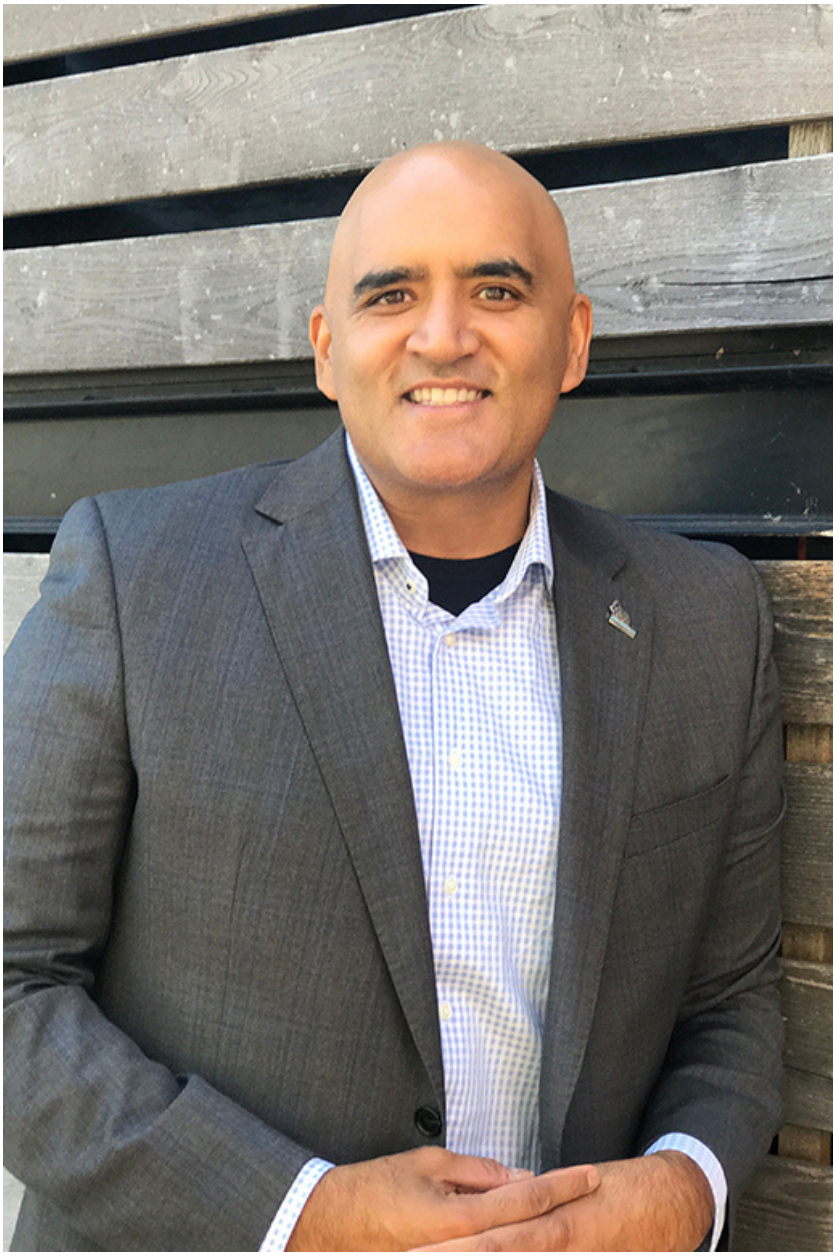
ABOUT

Shailen P. Bhatt
President and CEO of the Intelligent Transportation Society of America (ITS America)

As its chief executive, Bhatt promotes policies that advance the development and deployment of intelligent transportation technologies throughout the United States. He has testified before Congress about the positive safety impact of intelligent transportation technologies, including connected and automated vehicles.

Bhatt is a leading voice in transportation on technology's ability to save lives and reduce crashes on U.S. roadways. He is also passionate about reducing transportation's carbon footprint and the need to provide seamless mobility and transportation choices to people no matter where they live.

Bhatt was appointed as a transportation leader by three governors. While serving as Executive Director for the Colorado Department of Transportation (CDOT), the agency launched the Road X program, which is focused on deploying innovative technology solutions such as connected vehicles and teaming with the private sector to shape the future of transportation. Prior to CDOT, Bhatt was Cabinet Secretary for the Delaware Department of Transportation. He was also a presidential appointee at the U.S. Department of Transportation.



Bhatt has served as Chair of the Board of Directors for the National Operations Center of Excellence (NOCoE) and the Executive Committee of the I-95 Corridor Coalition; he was a member of the World Economic Forum's (WEF) Global Agenda Council on the Future of Automotive and Personal Transport.

Bhatt graduated summa cum laude with a Bachelor of Arts in Economics from Western Kentucky University. He lives with his wife and two young daughters in Washington, DC.

sales@airsage.com
(404) 809-2499
2146 Roswell Rd, Suite 108, PMB 862,
Marietta, GA30062
https://www.airsage.com/