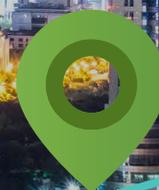


# GROUND TRANSPORTATION INNOVATIONS 2021



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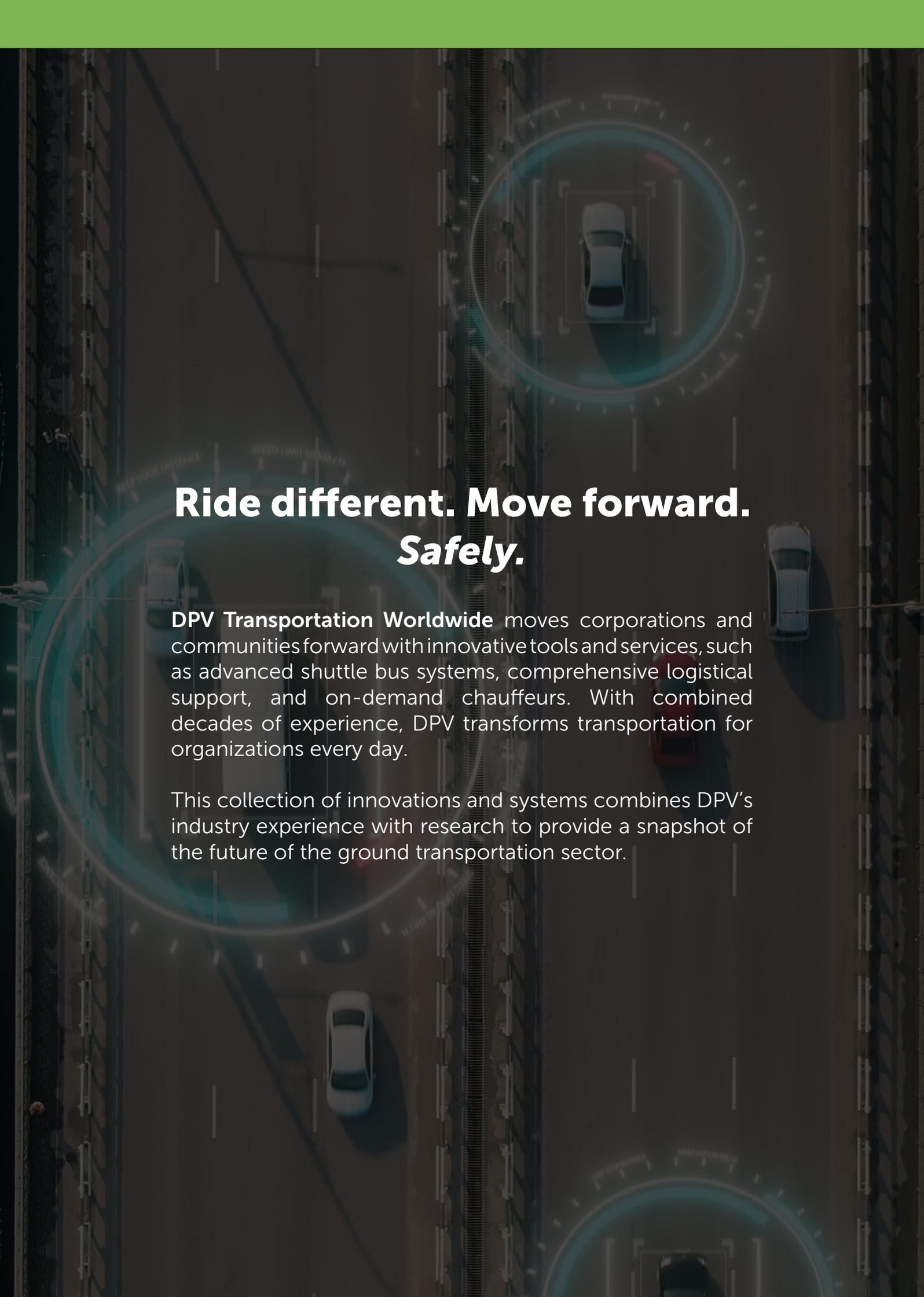
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**Ride different. Move forward.  
*Safely.***

**DPV Transportation Worldwide** moves corporations and communities forward with innovative tools and services, such as advanced shuttle bus systems, comprehensive logistical support, and on-demand chauffeurs. With combined decades of experience, DPV transforms transportation for organizations every day.

This collection of innovations and systems combines DPV's industry experience with research to provide a snapshot of the future of the ground transportation sector.

# The world is moving forward. Are you?

***Tomorrow is almost here, yesterday is long gone, and all we have is today***—to plan in a world that's far more advanced than most people realize.

Autonomous vehicles and smart roads have already arrived. With the right tools, transportation management is as manageable as ever. Sustainability is finally a possibility. And even in these tumultuous times, technology makes safety a reality.

The innovations are rapidly catching up with our imagination. As leaders in the sector, it's our responsibility to know what's out there, understand how to take advantage of it, and prepare for the new challenges that are emerging. This paper explores recent ground transportation technological innovations, where the industry is heading, and how leaders can move their ground transportation programs forward.

Most would likely agree that

## Transportation Innovations Transform . . .

 Safety

 Reliability

 Sustainability

 Efficiency

**and more.**

# Always on time, but late to innovate?

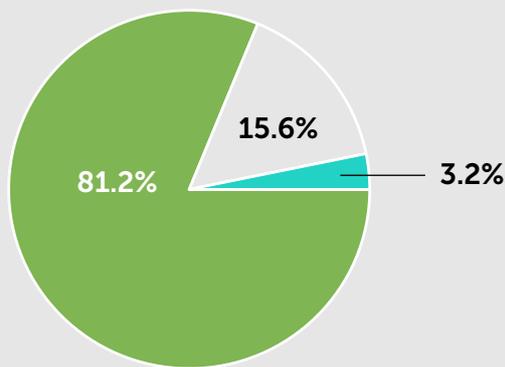
Leaders know what's valuable, but don't know what's possible

There is a large disparity between the progress that the transportation industry has made in terms of innovation and the awareness as well as the perception of the industry when it comes to technological advancement.

The majority of leaders surveyed\* believe that the transportation industry—a sector that values being ahead of time—is either slightly lagging or far behind other sectors in terms of technological innovations. However, a closer look at the industry reveals that couldn't be further from the truth.

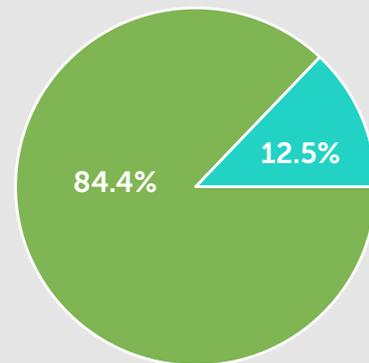


Over 80% of Leaders Surveyed View Transportation Innovations as Behind



- Say "Slightly" or "Far Behind"
- Say "On Par"
- Say "Far Ahead"

Over 80% of Leaders Surveyed View Innovations as Valuable to Transportation Management



- Recognize the value or high value
- Don't recognize as much value

\*DPV Transportation Worldwide surveyed a wide range of leaders who utilize and arrange for transportation services. These anonymous respondents included decision makers in a myriad of relevant roles, such as facility managers, procurement officers, town planners, CEOs, and presidents, from varying industries on the topic of technological innovation in the transportation sector.

## The road to today

### Big change in little time

We're surrounded by innovations that we don't always recognize or appreciate. Automobiles and railways have swiftly turned hours into minutes. Countless new systems have been created across the globe to transport people in ways no one would have ever imagined possible.

Parts of the world that were never before reachable are now easily accessible. With GPS navigation technology embedded in every vehicle and in the palm of every hand, paper

maps have gone the way of horses. Most recently, mobile applications have changed the way we move.

But far more than what is widely known has already been developed. From autonomous vehicles to sustainable ones, the future is quickly becoming the present. In recent years, the ground transportation industry has rapidly and completely evolved to transform itself, and in the next few years, it will do the same at an increasingly more rapid pace.

**6.5 Billion**

Global navigation satellite systems downloaded in 2019

**9.5 Billion**

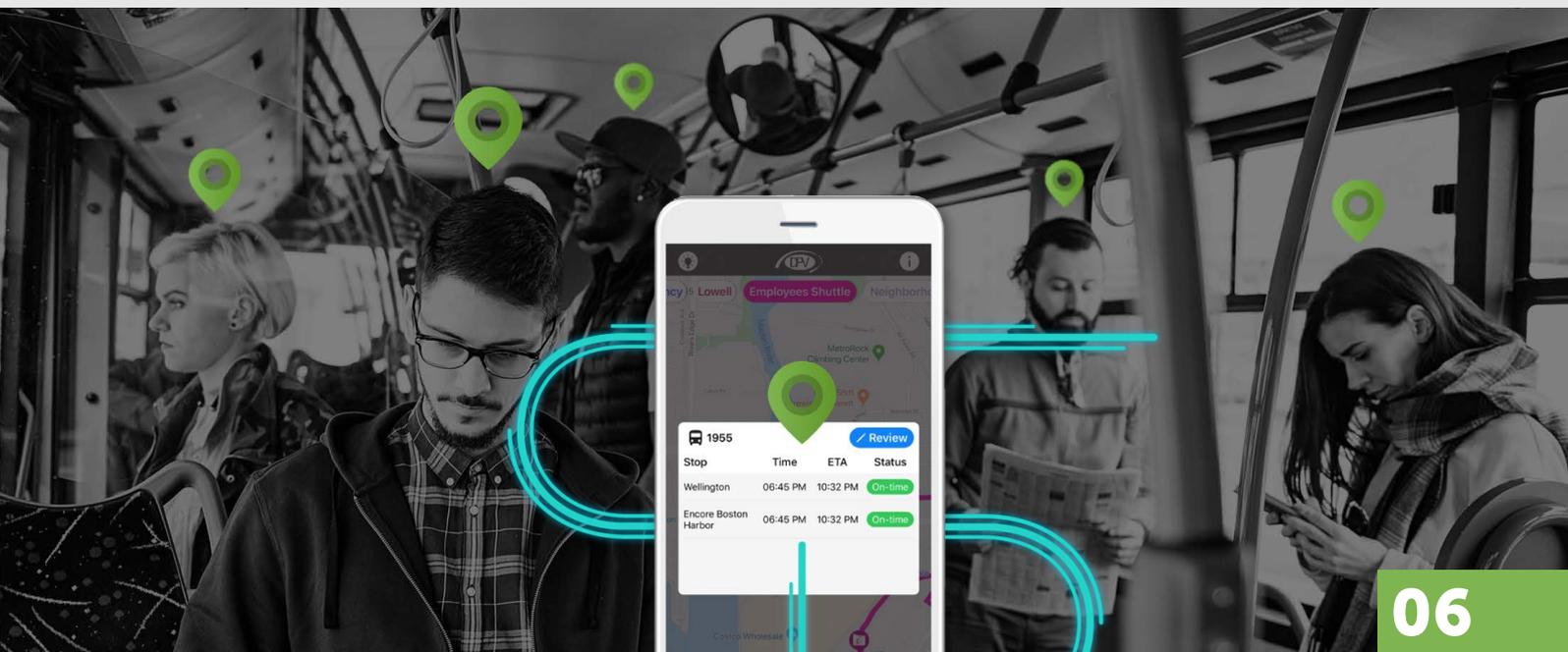
Global navigation satellite systems expected to be downloaded in 2029

**218 Billion**

Mobile applications downloaded in 2020

**About 2,350**

U.S. transit agencies now offer a range of travel options, previously unavailable



# Transportation imagination unlocked

## Transformative technologies emerge

Science fiction has become a scientific reality, but not all innovations are created equal. Some come to define the future, while others are forgotten. Some are still widely unknown, while others are utilized each day. Some have explicit value, while others are not easily understood. But without question, unreal possibilities are now real, and the real leaders who dream about them will soon experience them—if they haven't already.

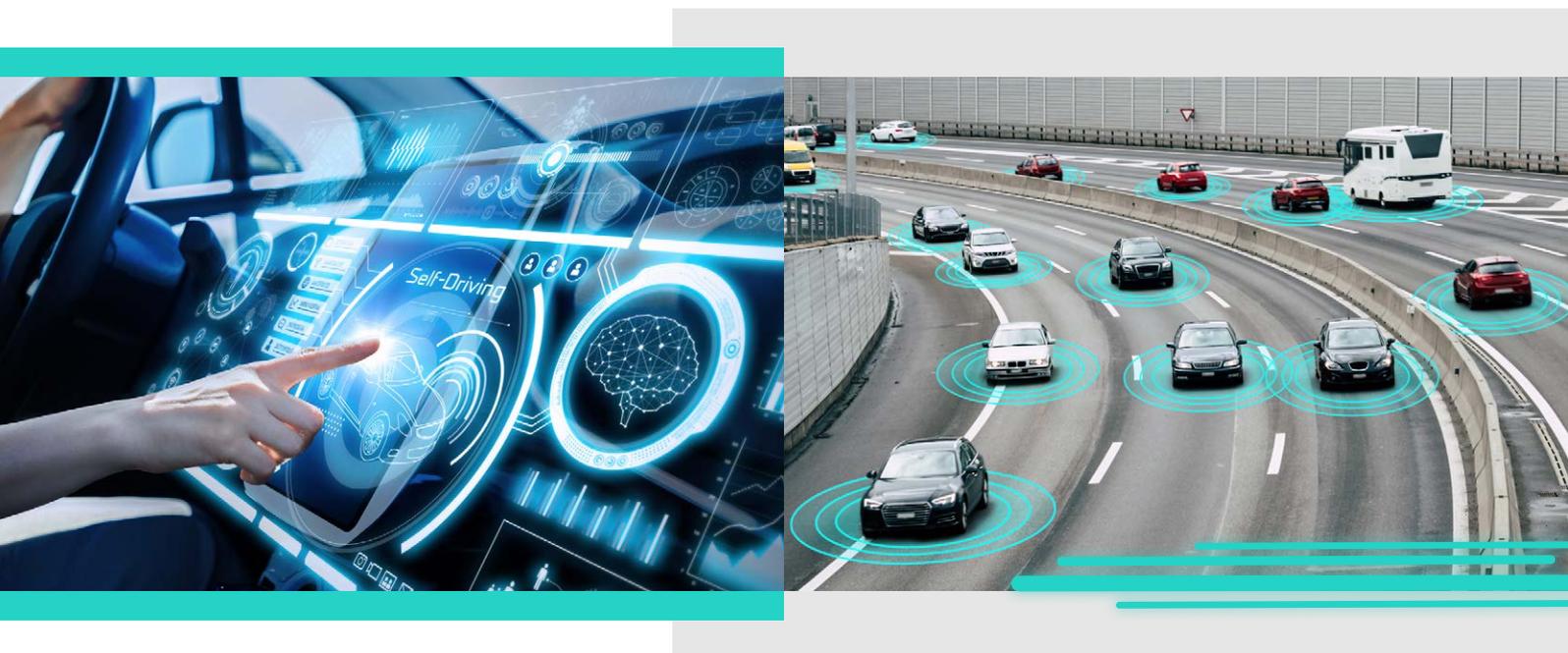
Although many of those DPV surveyed seemed to be unaware of the latest advancements, a statistically significant percentage of the leaders have indicated an interest in innovations such as self-driving or autonomous vehicles among other innovations.

## Innovations of interest

As new and exciting technologies continue to emerge, these four areas of innovation will shape the future of ground travel, and commuting in particular. While the general public may not be

fully aware of the tremendous developments that have been made in these areas, these systems will soon be more widely used, and the excitement that they generate is well-deserved.

1. Artificial Intelligence & Autonomous Vehicles
2. Smart Roads: Intelligent Infrastructure
3. Sustainable Vehicles
4. Intelligent Transportation Management Solutions



**When will the first autonomous vehicle be invented?**

*It already has been...*

# Hands off, drive on:

## Autonomous Vehicles & Artificial Intelligence (AI)



***They're not just on their way, they've arrived.*** Autonomous vehicles are real. Driverless buses exist. Self-driving shuttles are here. Transportation will never be the same, and you won't have to drive anywhere much longer.

However, these innovations do more than increase ease and productivity for riders who no longer need to operate vehicles. The technology minimizes accidents, congestion, and harmful gas emissions, but maximizes safety and efficiency for individuals, organizations, and society as a whole. With AI systems, human error is eliminated, rerouting occurs automatically, and the capabilities expand beyond transporting people to transporting products, as **Amazon** has already begun to do with **autonomous drones**. According to the **2020 Autonomous Vehicles Readiness Index**, professional drivers are already being transitioned into roles as safety operators in parts of the world, such as Singapore.

The technology is not yet widely available and **studies** show that trust needs to be earned to secure a higher level of comfortability among riders. However, the progression and its implications are monumental.

Tesla's autopilot feature is the most well-known, but there's much more in existence. According to **Techcrunch**, there are over 1,400 self-driving cars and 80 companies developing them in the United States alone. The **Telegraph** reports that **Mercedes Benz, BMW, and Google** are all among companies with self-driving vehicle systems ready to deploy.

Self-driving shuttle buses such as **Olli, Navya,** and **Optimus Ride** are all transporting human passengers in select locations across the globe from the United States to Italy. In Coffs Harbour, New South Wales, retirement village residents use an on-demand automated minibus service called **BusBot**, summoned

by a mobile application. Special lanes for autonomous driving are popping up for hands-free driving in countries like Austria. Now, automated assistance and automatic parking

are next in line to become the new normal. These are just a few of many instances in which yesterday's possibilities have become today's reality.

## Self-driving statistics

The numbers reveal the skepticism, the demand, the need, & the possibility.

**75%** of people said they would rather drive a vehicle than ride in an autonomous one. [Advocates for Highway and Auto Safety](#)

**64%** of people would rather own an autonomous vehicle than take a taxi. [Advocates for Highway and Auto Safety](#)

**55%** of businesses plan to adopt fully autonomous fleets within the next 20 years. [Nissan Motor Corporation](#)

**95%** of vehicle accidents occur due to human error, and could be avoided with autonomous vehicles. [2021 Autonomous Vehicles ReadinessIndex](#)

**97%** of land in the United States is rural and could be the ideal setting for testing and improving AV technologies, according to officials at USDOT and Ohio DOT. [Deloitte Insights](#)



## Countries Most Prepared for Autonomous Vehicles

1. Singapore
2. The Netherlands
3. Norway
4. United States
5. Finland

### **2021 Autonomous Vehicles Readiness Index**

## The intelligent systems behind the smart roads ahead

**Roads are the road to the future.** The ground makes ground transportation possible, and the advancement of the industry lies within the advancement of the road. Imagine if a street could repair itself, melt away snow, charge electric cars, call for help in the event of an emergency, or alert a driver to upcoming hazards and issues with their vehicles.

The term **Smart Roads** is used to refer to a number of advanced technologies that bring roads to life by increasing connectivity, promoting safety, and creating efficiency—surpassing the tools seen in science fiction. [Smart Roads: An Overview of What Future Mobility Looks Like](#) defines the term as “road infrastructures capable of communicating with vehicles and self-monitoring fundamental perspectives concerning driverless vehicles

and the roadway platform life cycle.” However, more broadly, the terminology of smart roads has been used to encompass a wide range of innovations that extend beyond communications.

Innovative new road technologies allow vehicles to do all that and more. Smart roads can adapt to situations as they arise, and communicate with individuals who walk on them as well as vehicles that drive on them, using sensors to detect happenings and internet connection to automatically display messages on phones or vehicle dashboards. These systems have been proposed, discussed, and even tested in different parts of the world such as China, India, and the United States. **Hundreds** of “smart city” projects are underway.

## Top Smart Road Technologies

1. “Smart Pavement”
2. V2X
3. Pervious Asphalt
4. Snowmelt Systems
5. Electrified Roads
6. Photoluminescent Paint & Motion-sensor lights



## Smart Pavement: Roads that know their surroundings

Companies like [Integrated Roadways](#) have already begun testing the Smart Pavement technology in places like Denver, Colorado. Their invention “transforms the road into a sensor, data and connectivity network for next-generation vehicles,” Tim Sylvester, founder, chief executive, and president of the company

stated. The [Smart Pavement](#) technology detects the weight and velocity of vehicles, captures vital data on vehicles as well as road conditions, and provides “superior navigation and telemetry” to vehicles with and without drivers.

Smart Pavement

**lasts 4x longer  
costs 95% less to install**

[Integrated Roadways](#)



## V2X: Roads that speak to vehicles

V2X technology empowers vehicles to communicate with virtually every other part of the traffic system on the road around them, from traffic lights to guard rails. Using this advanced system, vehicles can either detect or receive wireless communications from the other vehicles and instruments along the road, causing audio or visual messages to appear on vehicle dashboards. Examples of which

include reminders to remain in lanes, maintain the following of traffic laws, and prevent collisions. [Colorado](#) has begun developing the construction of the first commercial scale V2X system, which is expected to be completed this year. The United States [Federal Department of Transportation](#) is also exploring the use of this technology and its role in leading the transportation transformation.

Over the next 20 years in Colorado alone, V2X is projected to lead to:

**85,000** fewer car accidents

**22,294** fewer car injuries

**303** fewer fatalities

[AECOM](#)

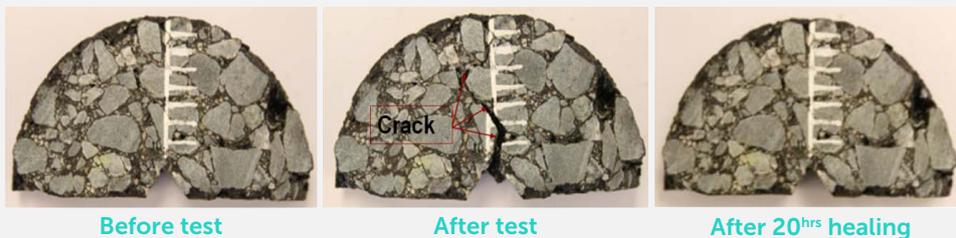


## Self-Healing: Roads that fix themselves

Imagine a world without potholes. According to studies, such as the [SLD4 Self-Healing Asphalt for Road Pavement](#) conference paper, through the innovative use of materials like previous asphalt, roads will be able to heal deterioration and cracks without the need for transportation disruption. The asphalt contains a mixture of materials such as stone, bitumen, and steel. After a sufficient rest period, a magnetic field can be created by driving an induction machine over the asphalt. This process gives the asphalt the ability to restore its own strength, as the

electricity generated by the field melts materials to repair cracks and prevent potholes. The results will also include elevated road safety, reduced government expenses, and increased road lifespans. In the past, road repairs have been a costly interruption to commutes, but in the future, roads will literally repair themselves before requiring any human intervention. The Netherlands has already begun implementing this new technology and various parts of the world are soon to follow.

Running an induction machine over steel-filled asphalt could extend the lifespan of roads up to **80 years.**



[SLD4 Self-Healing Asphalt for Road Pavement](#)

## Snowmelt Systems: Roads that clear themselves

Is there a place for snow plows in our future? Snowmelt systems such as heated underground pipes and [new electric powered asphalt](#) eliminate labor needs and elevate road safety by melting the snow or ice on roads and driveways. While these systems have not yet been implemented into roads on a mass scale, different snowmelt tools have actually existed for years. Parts of Europe and the U.S.A., such as [Holland, Michigan](#) have used pipes to clear

snow quickly and keep cities running after storms. However, due to various limitations, vehicles such as snow plows remain the primary tool for snow removal. Now, with the new invention of snow melting concrete, that all may change, especially since governments spend millions on corrosion-related repair costs, directly tied to chemicals currently used for snow removal.

New York City reportedly spent roughly **\$12 million** per inch of snow plowed in the winter of 2019

[New York Post](#)



## Smart Lights: Roads that light up the way

Even the road lights of the future are innovations. Photo-luminescent powder and paint charge during the day and light up roads every night on smart highways in areas like the Netherlands, where it has already been put into use, as the [Digital Journal](#) reports. The light provided by the powder is reportedly strong enough to make additional lights unnecessary, saving power, and reducing costs. Within the last five years, [motion sensor lights](#) have joined the list of transportation innovations

lighting up our roads. This technology only activates sections of the road that are being used, providing visibility. When the roads are clear, they dim to maintain efficiency. Their dimming feature could also reduce costs and light pollution significantly, while conserving energy, as it already has in several cities across the globe such as [Barcelona](#), [Copenhagen](#), and [Tel Aviv](#). Additionally, the motion sensor lamp posts in Barcelona provide free wifi and collect data on the air.

Barcelona's smart light innovations led to [30% energy savings](#).

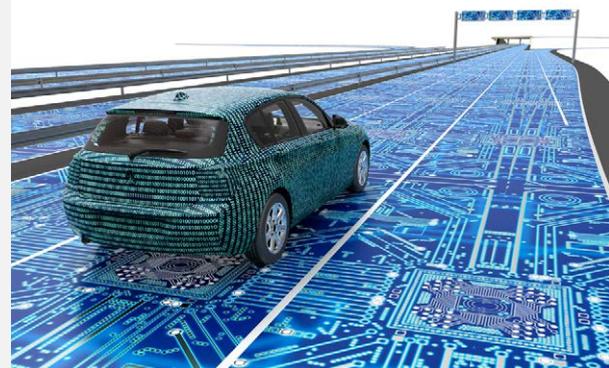


## Electrified: Roads that charge electric vehicles

With more of these roads, gas stations won't need to be replaced by stations of any kind. Electrified smart roads power electric vehicles as well as other electric-powered elements of their surrounding infrastructure. [The first electrified road](#) opened in Sweden, and in the coming years, many more are expected to follow. On Sweden's electrified road and other systems like it, Solar energy is stored to produce electricity which runs through rails

beneath the surface of the roads, and only flows when cars drive in the lane above it. However, companies such as [EroadArlanda](#), [Qualcomm](#), and [Electroad](#) among others are developing different technologies, such as wireless charging roads, to achieve the same results. This can be found in various countries, such as France, Israel, the United Kingdom, and South Korea.

Electric car sales broke a record, reaching [\\$2.1 million](#) globally in 2019, pre-COVID-19.



## Sustainable vehicles move the world: fewer emissions, brighter futures



Sustainability is more important to more leaders than you'd imagine, yet many fail to achieve it.

The global fleet of sustainable vehicles has expanded tremendously in recent years, and the movement has garnered support from numerous policies, as the future of our environment depends entirely on clean air. The aim of these eco-friendly vehicles is to effectively decrease the number of harmful emissions released into the atmosphere.

The area of interest that leaders who DPV surveyed overwhelmingly expressed the most interest in was new energy sources. They widely agreed on the value of sustainable vehicles, but largely admitted that sustainability is missing from their own transportation programs.

In alignment with the above finding, the vast majority of the vehicles driven today are still

gas-powered. Across the globe, only **1 in 250 cars** on the road is electric, and in the U.S. less than 2% of vehicles are plug-in electric. Leaders, companies, and governments have failed to normalize sustainable transportation practices due to a variety of reasons, including immediate financial costs, misinformation, and indifference. It's impossible to tell when exactly the transition to sustainable vehicles will be complete.

That said, the world is still heading in the right direction. Countries such as **Norway, China,** and **Japan** are leading the charge, and industry leader Tesla defied the odds, continuing to grow amid a pandemic in which no one was buying anything else.

# Sustainable vehicle options: There's more than one way to move forward

## Ultra-Low Sulfur Diesel Vehicles

Lowering the sulfur in fuel enables emissions-control technologies to significantly limit the amount of emissions emitted by the vehicles. Choose ultra-low sulfur diesel to fuel efficiency while improving air quality.

Contains **97% less** sulfur than low-sulfur diesel.

## Hybrid-Electric Vehicles

Internal combustion engines and electric motors power these vehicles to lower tailpipe emissions while maintaining comparable capabilities to conventional, fully gas-powered vehicles.

Some plug-in hybrid and all-electric vehicles qualify for a **\$2,500 to \$7,500 federal tax credit**.

## Compressed Natural Gas (CNG) Buses

CNG buses run on the cleanest burning fuel in the transportation industry to date. Using low carbon fuel, we significantly lower greenhouse gas emissions as well as tailpipe emissions as we move you forward.

Can reduce emissions by **97%**.

## Biodiesel & Propane Shuttles

These shuttles utilize two of the purest, renewable, alternative fuels to minimize emissions, decrease damage to the environment, and propel our world forward, while moving employees and community members ahead.

Emissions for 100% biodiesel are **74% lower** than those from petroleum diesel.

## All-Electric Vehicles

All-electric vehicles release zero emissions, making them the optimal choice for those who prioritize the environment and our planet's future above all else.

If the trend towards electric vehicles (EVs) continues, by 2030 there will be around **4 million** EVs in California alone.



## Inside ground transportation logistics

### Make the tools you know yours

While some innovations may seem farther away than they actually are, other technologies seem like they've been around for far longer than they actually have been. The rise of rideshare services has quickly made mobile transportation applications a known phenomenon across the globe. Nearly everyone carries a camera in their pocket. With the spoils of modern technology, GPS tracking no longer seems to be revolutionary.

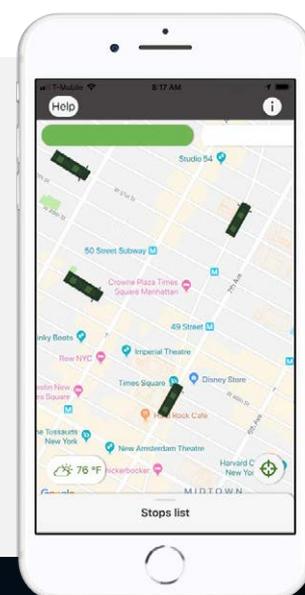
However, the tools at our disposal are not being utilized to their full capacity by public and private ground transportation programs alike. The industry is plagued with inefficiencies, resulting in inaccurate arrival times, delays, and dissatisfied riders. The need for advancement

extends from transit authorities to corporations, universities, and all essential organizations transporting employees or any passengers from one destination to another.

Poor optimization of resources ranks among one of the top issues public transit programs and shuttle bus services face today.

Those responsible for managing and arranging such programs recognize the importance of technology, but don't know how to obtain it or how to apply it. From obvious to creative, this section explores some of the tools and procedures that the finest ground transportation programs implement and all ought to emulate to move people forward.

While **70%** of the leaders DPV surveyed agreed on the essential role that technology plays in transportation management, nearly **50%** admit that their organizations do not adequately utilize the innovations at their disposal for their ground transportation programs.



# Mobile transportation applications

Everyone knows them, but no one has them



Rideshare services are not the only ones that can optimize mobile and web applications for ground transportation purposes. Organizations such as transit authorities and employee-transporting corporations can do it for their own riders. The value extends beyond ridership ease. Customizing a group's own transit app means showcasing its own brand and gaining its own data.

Combining GPS location services and real-time traffic tracking, organizations can provide their riders and management teams with mobile

applications that show the accurate location and ETA of their vehicles. Through a secured, private connection, those with access to such an app could locate any vehicle in service at any time, and view updated wait times.

The level of security, peace of mind, and ease such a tool brings to riders make this measure essential for any ground transportation program. However, many private and public transportation services simply do not yet have the application development capabilities. While organizations are behind, technology is ahead.

**56%**

of travelers were more likely to take buses after downloading a transit app.

[Department of Transportation](#)



## Feedback solicitation innovations: High ratings & happy riding

In any industry, accountability is a meaningful determiner of credibility, an essential component to success, and a powerful driver of trust. With no feedback, there could be no improvement. For these reasons, it is imperative that organizations follow the lead of rideshare services, and utilize whichever technologies are at their disposal to solicit criticism. Ratings are useful key performance indicators for any business, and ground transportation services with mobile apps

have a unique opportunity to request them.

Notice of any service interruption, issue, or inconsistency should be saved and addressed immediately. The finest transportation providers find a resolution for every issue in a timely fashion. One benefit of these processes is that management teams are able to identify recurring issues, and create a strategy to resolve those issues.

## Mobile app combats COVID-19

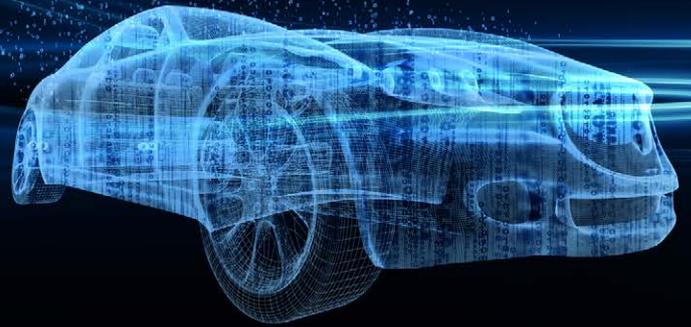
If permission is granted, individual location tracking through mobile applications could enable organizations to trace which riders were exposed to COVID-19 in the event that a rider tests positive for the novel coronavirus.

The ability to trace the contact and notify those who need to quarantine is essential to limiting the spread of COVID-19, restoring the economy, and returning to normalcy.

Unsurprisingly, the DPV survey indicated an above-average interest in disease prevention-related technological innovations, and over **90%** would agree on the valuable role technology plays in securing passenger safety.



## Monitoring sensor systems: Real-time is the only time for updates



For ages, it was impossible for transportation management teams to know all there is to know about every vehicle operating in their fleet in real-time. Now, the most efficient transportation operations equip their vehicles with **monitoring sensors** that detect, record, and report it all: driving behaviors—including hard acceleration, speeding, and accidents—run times, vehicle performance, and maintenance needs.

These sensor technologies empower strict maintenance schedules and proactively monitor the health of vehicles to address

any issues that may affect their performance. Monitors make sure every ride is safe, reliable and comfortable for every passenger, and so much more.

These operational onboard systems not only deliver valuable information directly to management teams that cut costs and prevent future challenges, but the technology is also a vital tool to alert those who need to know in the event of an emergency. In the event of an accident, such software can immediately notify dispatch.

As vehicles become  
“smarter”

the average number of sensors  
per vehicle could reach 200.

**Sensor Technologies for Intelligent  
Transportation Systems**

## 4 Cameras that transit vehicles need: See everywhere, go anywhere

Cameras have been around for ages, yet the world has only just begun optimizing vehicles with the technology and properly utilizing

these tools to monitor all vehicle activity. More than a security measure, cameras have become essential communicators.

### 1. Interior Camera

Monitors activity within vehicles

### 2. Exterior Camera

Captures all angles outside vehicles

### 3. Video Recorder

Stores footage (should keep at least 14 days worth)

### 4. Dual-Facing Dash Cam

Contains road & driver facing image



## Rider identification & payment systems: Know who rides, when they ride, & where they ride

Public transportation services require payment systems, and private transportation services require identification systems. While every transit vehicle that requires payment systems is equipped with some form of them, not every private transportation program takes advantage of available identification innovations—such as ID card scanners, fingerprint scanners, and facial recognition software—to properly regulate who utilizes the vehicles.

Although different systems are right for different organizations, all should take into consideration their particular priorities and the speed at which the system will allow for riders to be identified. Regardless of the system utilized, it's imperative that riders are meaningfully identified to limit access to transportation to those authorized.



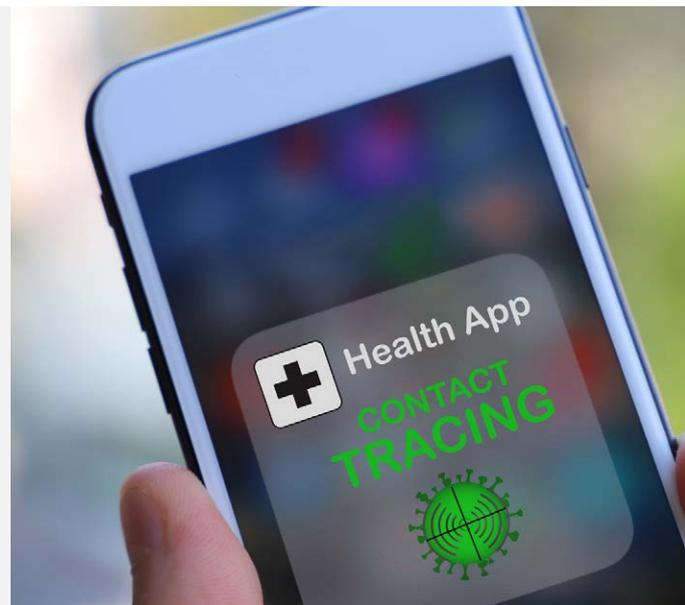
## Rider ID & payment system COVID-19 considerations:

### Contact-Free

Additionally, organizations ought to consider contact-free options or contact-free alternatives to current systems to prevent the spread of COVID-19.

### COVID-19 contact tracing

Records of who was on which vehicle at which time could play an essential role in tracing who was exposed to COVID-19 in the event that a passenger tests positive for the novel coronavirus.



## Automatic rider-counting technology: Analyze your information, optimize your operation

Automatic ridership counting systems provide management teams with the ability to determine an accurate rider count in real-time. The tool eliminates labor and human error, as the technology instantly detects when an individual enters the vehicle—quickly recording valuable rider data, such as peak dropoff and pickup times. The vehicle load size not only indicates operational productivity, but also empowers management teams to determine the best times, routes, types of vehicles, and number of vehicles that they need to maximize their return on investment.



## Real-time data reports could include:

- Number of passengers traveling
- Counting: hourly, daily, weekly, monthly & yearly
- Ability to group and get information based on bus routes
- Search based on bus stop location with multiple bus routes
- Real-time load of passengers on the bus



## From stagnation to innovation: Move with the world



The technology is ahead, but individuals and organizations are admittedly behind. People still fear autonomous vehicles—but studies show that they have the capacity to increase road safety and they are the future of transportation. Numerous revolutions have been launched in recent years in the form of various smart roads. While most people still use gas-powered cars, there are already plenty of sustainable vehicles to choose from and the possibilities are growing. Finally, transportation management technologies are known, but not always implemented. That needs to change for transit authorities and corporations to catch up with our rapidly advancing world.

If you're a leader in government or any organization that transports anyone, keep an

open mind. Know what you don't know. Seek out expertise, and explore all the innovations that the world has to offer. Evaluate the benefits and risks. Assess the existing research, and act with fact-based logic rather than fear-based instinct. Optimize your transportation for COVID-19 prevention if you haven't yet. Determine if sustainability is possible for your transportation needs in the near future. Utilize smart roads and AV technology when the opportunities present themselves. Collect any essential ground transportation innovations you lack or partner with an organization that has already acquired them. Leverage the technology around you, and move your people forward.

# What organizations need in transportation partners

Corporations, hospitals, universities, transit authorities, and any organization in the business of moving people should think carefully before partnering with providers for any service whether it be general logistical guidance,

technological support, fleet use, or even just on-demand drivers. When assessing potential partners in innovation or ground transportation, below are some of the most essential qualities to evaluate them for:

## 1. Expertise

Extensive industry experience and superior training are essential to provide meaningful support and high-level performance.



## 2. Technology

In the world of ground transportation, the equipment makes all the difference. The latest innovations can cut costs, benefit the environment, and improve ride experiences at the same time.



## 3. Safety

When it comes to transportation, there is no higher priority. From accident prevention to COVID-19 prevention, choose the provider with the strongest safety technologies and procedures in place.



## 4. Responsibility

The most valuable partners are the ones that share the strongest values. They view transportation as something more. They care for the environment as well as the communities around them, and above all, they give back.



# ***Tomorrow's Transportation: A look into the future***

The predictions are in. The vaccines have arrived, and with them, a light at the end of the tunnel. The COVID-19 crisis will one day come to an end. While some offices will never return to in-person work, others have already realized nothing can replace it. As the world reopens and people become more comfortable, the need for ground transportation will grow. Whether it be essential work or recreational activities, there will be an itch to move like never before. And that movement will expand beyond people to the technology itself.

Although it's impossible to determine exactly when these innovations will fully replace the systems we know today, roads will, eventually, become smart roads. Vehicles will become autonomous vehicles. Gas will slowly be replaced by sustainable alternatives. As technology spreads, the gap between mentality and reality will close—its value forcing people to adapt. As individuals and as a society, we will continue to evolve. The perception of the transportation industry will shift. The world will recognize the undeniable movement. Today will continue to become tomorrow, and tomorrow will continue to become today.



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