



wejo

# State and Federal Government

Connected vehicle data 101

## Key takeaways

- 1** Connected vehicle data is one of the richest and most accurate data sources, trusted for reliable driver and journey insights from genuine vehicle data.
- 2** Connected vehicle data creates unique intelligence based on a variety of sensors and offers mobility insights to support point of interest and event analysis as well as many other use cases.
- 3** The Wejo vehicle fleet delivers more intelligence about roads and movement than any agency, after-market, GPS or mobile devices.
- 4** Wejo provides access to the world's largest connected vehicle data set and is growing extensively with new auto manufacturers being added every year.
- 5** Wejo helps local, state, and federal government agencies and departments integrate their robust and new sources of rich and powerful data directly from connected vehicles to support decision making and policy development - helping to solve traffic and congestion related issues in towns and cities.

CONNECTED CAR DATA FOR STATE AND FEDERAL GOVERNMENT

# The connected vehicle data (CVD) marketplace opportunity

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## The connected vehicle data (CVD) marketplace opportunity

The global market for connected vehicle data is growing at a rapid rate; predicted to be worth **\$334 billion** by 2030<sup>(1)</sup>. Connected vehicles are manufactured with in-built sensors that can tell us anything from the vehicle's speed to when and where hard braking occurs. With in-vehicle connectivity increasing both in prevalence and sophistication, CVD is already revolutionizing how we think about and use big data.

(1) Ptolemus Vehicle Data Hub Market Analysis (2020)

## What do data consumers demand from CVD?

There are two primary demands that are driving consumers to seek innovative data sources, such as CVD.

Let's explore these two key demands in more detail.

### BETTER MOBILITY OPTIONS

Data consumers in both the private and public sectors strive to optimize the driver experience, from making the roads safer to reducing journey times to improving convenience by making it easier to find a parking spot.

With many organizations relying on traditional data sources –

from roadside data counts to snapshot views collated through rumble strips to mobile data (more on that later) – solving those problems is costly, time consuming and not simple. With vast coverage across road networks as well as high data granularity, CVD provides a reliable and accurate big data solution.

### BETTER ECONOMIC VALUE

Big data is the key to driving efficiencies. But that data has to be accurate, easy to access and reliable to have a significant impact. From more effective new infrastructure to urban and commercial land development, harnessing CVD can unlock actionable insights to power innovation and efficiencies.

### State and federal government concerns

**1.3M**

Deaths caused by crashes globally (1)

**107**

Hours per year New Yorkers spend looking for parking (2)

**\$88B**

Wasted annually in the USA due to traffic congestion (3)

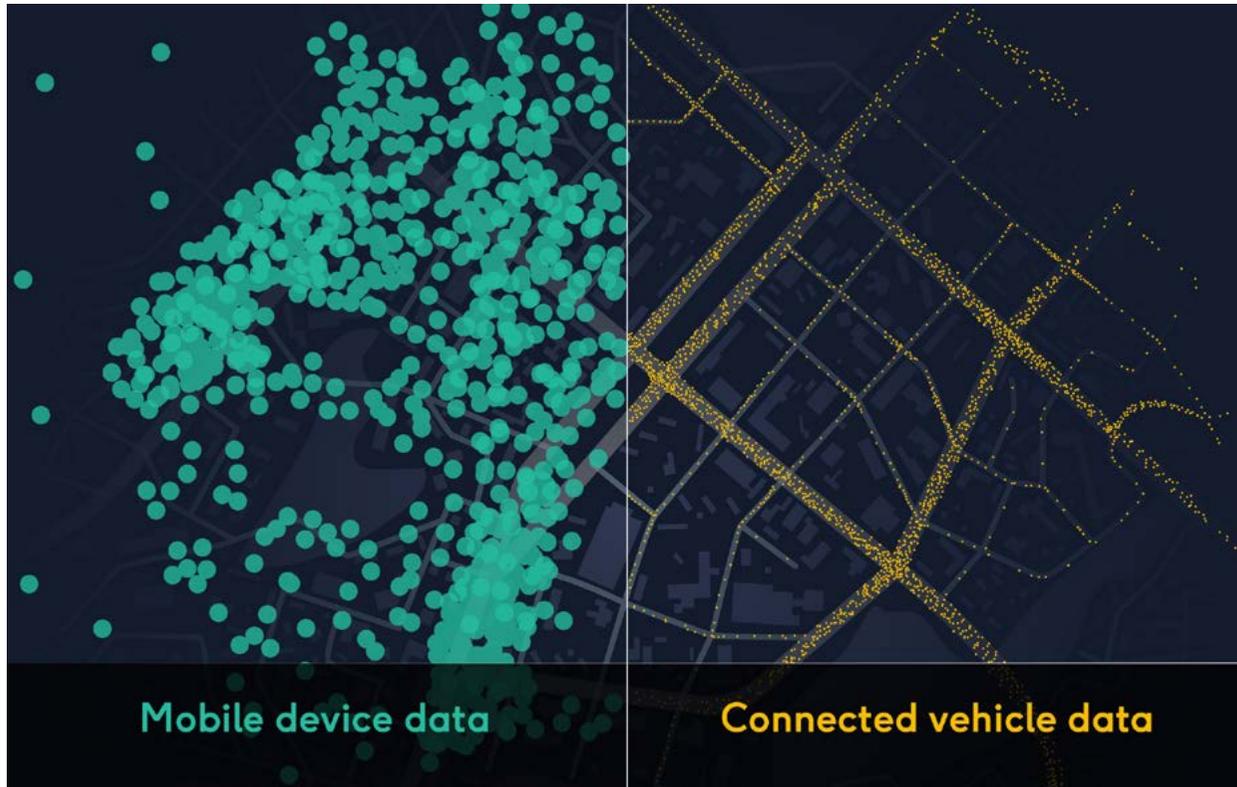
**\$112.5B**

Spent on road building (4)

(1) World Health Organization (2) Inrix, 2017 parking study  
(3) Inrix, 2019 global traffic scorecard (4) Statista, Highway construction in the USA 2019

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# Five areas of difference: CVD vs other data sources



(Above)

The precision provided by Wejo's connected vehicle data products are second to none in every way.

## 1 Precision

Everybody has a mobile phone. We all carry around GPS devices that can provide location data to consumers, everywhere we go, all the time. Most manufacturers and data buyers rely on this mobile GPS data for big decision-making.

This all sounds well and good, but once you compare mobile GPS to connected vehicle data, it becomes clear that mobile GPS devices provide weak insights in comparison to CVD.

CVD uses a GPS system within the car itself to harness big data with mind-blowing precision. With over 95% of America's roads available to Wejo, these insights are far-reaching. This data is much more valuable than mobile GPS data, simply because the capabilities of a handheld device, up against an entire vehicle, just can't compare. With insights of up to six decimal places of latitude and longitude around the vehicle, the precision provided by Wejo's CVD products are second to none in every way – right down exact points on the lanes of a highway.



## 2 Accuracy

Not only is connected vehicle data precise, but it is also far more accurate than other data sources. CVD has an accuracy of between 0-3 meters, because each connected vehicle is built with sensors that can detect a multitude of factors at once (more on this later!).

So how do other data assets compare to Wejo's 0-3m accuracy? Roadside sensors can only provide an accuracy of up to 100 meters, and mobile GPS can only achieve around 20 meters of accuracy. Not only this, but these assets do not provide nearly as valuable a data set as CVD can.

### CVD can provide:

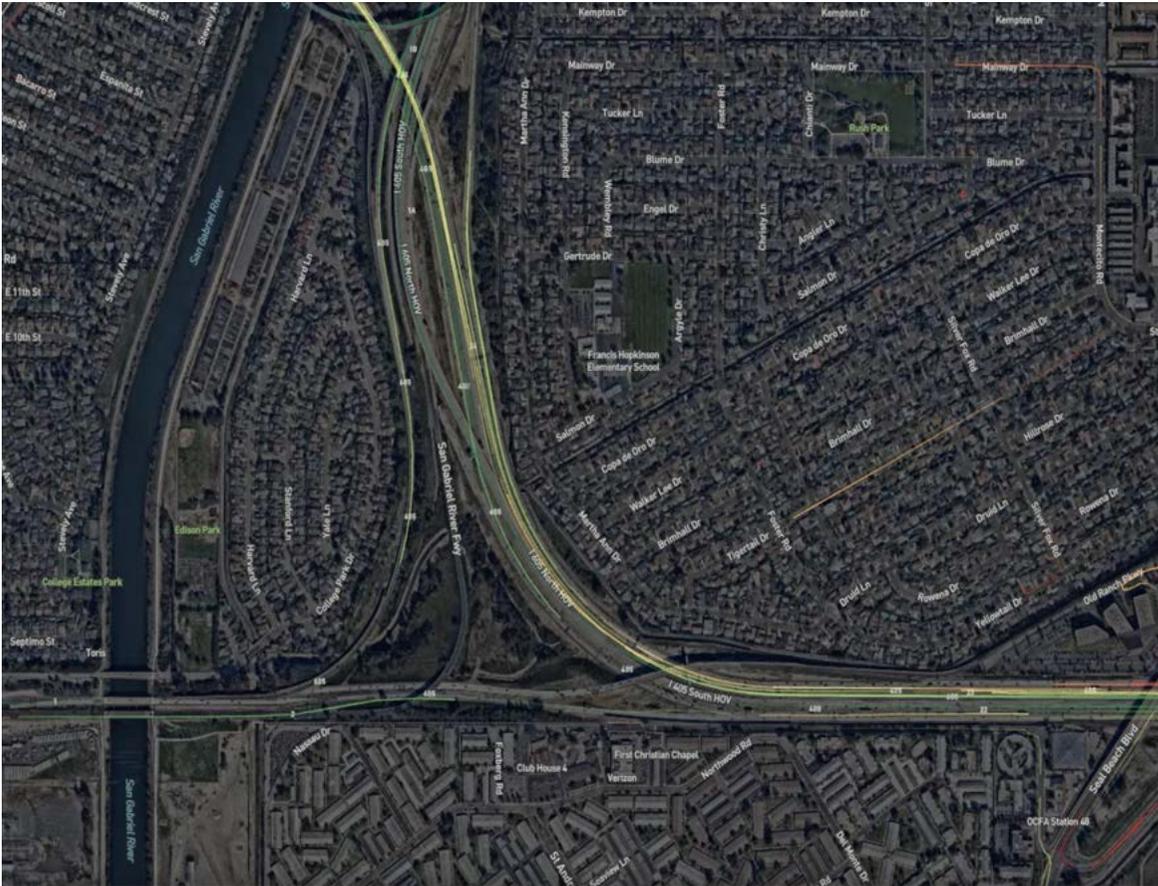
- Destination analysis;
- Weather condition insights;
- Traffic patterns;
- Braking and acceleration information;
- Slip-road and rural area coverage;

...and much more.

These perceptions can aid both private and public sector institutions in big decision making. The accuracy of connected vehicle data also eliminates the need to accommodate different phone models, updates and connection problems.

You might be thinking, "What's wrong with roadside detectors? These trusty sensors have been providing useful data for years, haven't they?"

Of course they have, but times are moving on. Roadside detectors are highly expensive for local governing bodies or private companies to put in place; furthermore, they are static, and provide just a fraction of the insights that CVD can. More money spent, fewer insights. Why would any company choose that?



[WATCH: Wejo created a simulation of a 69-car pile-up in Virginia](#)

### 3 Frequency & latency

Wejo customers have access to 18 billion data points per day, all of which are instantaneously processed and made available within 60 seconds. Additionally, a phenomenal 95% of our data is available to customers within 40 seconds. This means that local, state and federal government departments and agencies are able to make near real-time decisions based on what's actually happening on the roads.

In Virginia there was a recent (non-fatal) 69-car pile-up that came as a result of extremely foggy weather conditions. In [this video](#) created using Wejo traffic intelligence data, you can clearly see the buildup, the event and the aftermath of the crash. This astonishing simulation was created using speed and braking time data harnessed by our connected vehicles.

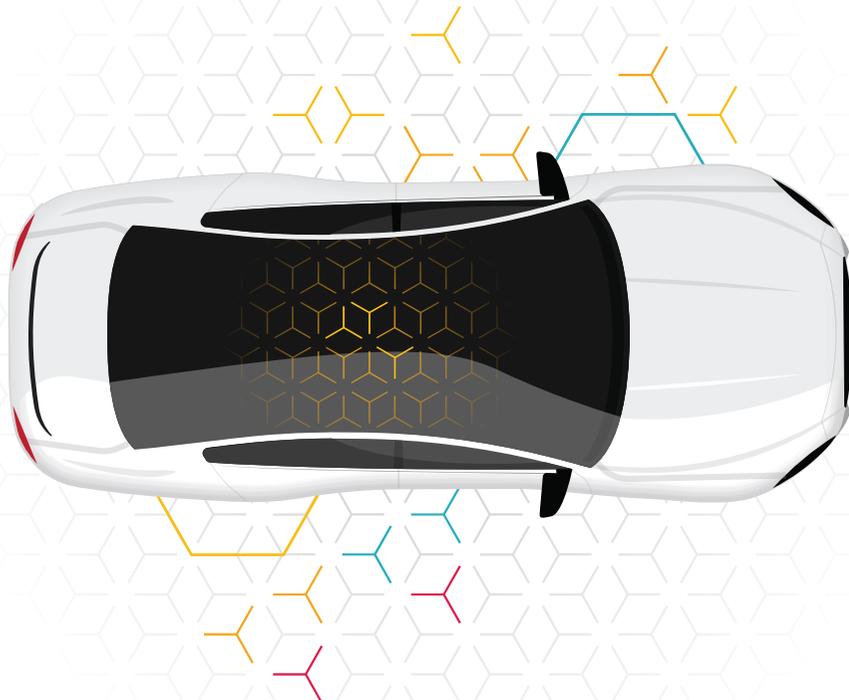
### 4 Intelligence

Having access to all this data is one thing, but the way we process and deliver it is what makes Wejo's CVD uniquely brilliant. We create fully standardized, consumable intelligence products that break down big data into simplified findings. Wejo's products can tell you what's happening on any road in the US, in annual reports, week-by-week analysis or case study form.

## 5 Sensors

You might be wondering, “So how does the car learn such accurate data so fast?” We’ll let you in on the secret. Our partners, some of the biggest vehicle manufacturers in the world, use state of the art sensors on their vehicles that give us the incredible insights you have witnessed so far. This data is entirely anonymized, so no vehicle can be traced back to a specific user.

These sensors, located on all sides of the vehicle, can detect the following events and patterns.



### **Driving behaviour**

This includes braking time, speed limit compliance, steering wheel angles, time spent in different gears, routes taken and refueling habits - to name a few. This incredible behavior analysis allows our customers to provide better infrastructure for citizens, reducing travel time and lowering emissions too.

### **Weather patterns**

Using precipitation sensors and temperature detection, the vehicle can tell us when the windscreen wipers are activated, when fog lights are activated, and the car’s surface temperature. Wejo’s CVD data can tell you what’s going on with the weather better than a weatherman!

### **Traffic patterns**

This includes how long a vehicle may remain stationary in a highway traffic jam, for example. Coinciding with our ability to trace popular routes, including in rural areas of the US, this traffic intelligence is highly valuable.

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# Why Wejo connected vehicle data?

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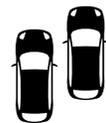
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By now you are aware of the sheer revolutionary power of connected vehicle data. So why choose Wejo to provide this intelligence for your company? Here are three unique characteristics that make Wejo world leaders in connected vehicle data.



### **Wejo gives you big data in consumable formats**

Wejo harnesses data from 18 million vehicles across the US, accessing a peak number of 650,000 data points per second. Our fleet of interconnected vehicles each have 90+ unique sensors that provide our customers with unparalleled data insights. All our customers have access to this data set almost instantly, in any time frame or format that suits their data analysis requirements.



### **Wejo partners with the world's leading OEMs**

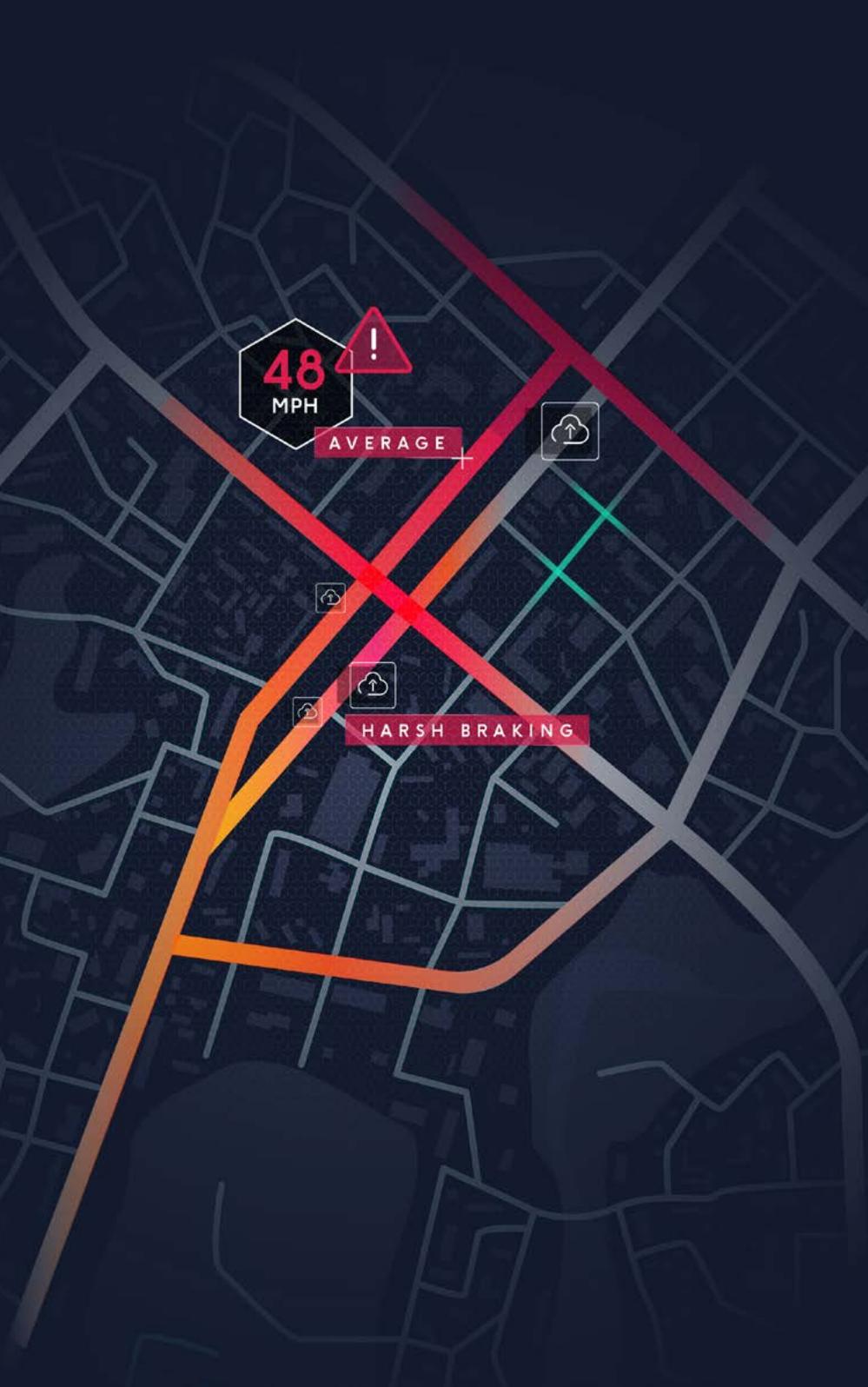
If you are a US citizen and you have bought a new car in the past few years, your vehicle will have connected data. Wejo partners with world leading OEMs who are paving the way for vehicle manufacturing, in 2021 and beyond.



### **Wejo covers 95% of US roads**

Our 18 million connected vehicles allow our customers to gain insights not just from freeways and toll roads, but from super-rural areas too. Wejo recently mapped a single-lane road in and out of a turkey farm in Montana before the 2020 holiday season, allowing us exclusive access rural driver habits, not just urban commuters!

A staggering 20% of all journeys in Detroit are now mapped by Wejo CVD. Imagine what state and federal government leaders could do with this fine-grained data on an even larger scale?



WHY WEJO

## What opportunities could Wejo products provide you with?

During the COVID-19 pandemic, we all learned how crucial it is to have a firm understanding of public habits. The importance of getting to the bottom of how people comply with state and federal government orders, while simultaneously improving infrastructure and public safety, has been crystallized before our eyes in the past twelve months.

Wejo products have helped our partners to assess how citizens have reacted to the COVID-19 pandemic by documenting journey times, frequencies and destinations during stay-at-home orders in many areas. These vital insights allow our partners to better structure their infrastructure to assist citizens in

their reactions to, and interactions with, this bizarre time in our world.

Outside of COVID-19, other major events such as hurricanes or mass protests have seen the local and state departments react by placing travel restrictions in certain areas. These moments are cogent for our partners, as our connected vehicles give them the tools to explore the ramifications of these shifts in mobility data.

Our range of products allow our partners to improve not only their data assets and analysis, but more importantly to enhance the lived experience of US citizens in myriad ways.



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**Connected Vehicle Data for  
State and Federal Government**

Wejo is invested in providing data for good; fully anonymized, fully standardized, meticulously sourced connected vehicle data that can meet mobility data demands in the US and around the world.

Contact us to learn more about partnering with Wejo

Get in touch at  
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