



Maricopa Association of Governments

Customer Story

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Maricopa Association of Government Revolutionizes Transportation System Analysis with Wejo Connected Vehicle Data

Background

Maricopa Association of Governments (MAG) is a Regional Council of Governments and a Metropolitan Planning Organization. It serves as the planning agency for the Phoenix metropolitan area. MAG evaluates how people are moving throughout the region and looks for opportunities to reduce congestion, increase safety, improve mobility and make travel overall more efficient and enjoyable for the community. MAG is an open-minded organization with the philosophy that embracing innovation and challenging the status quo can lead to positive outcomes. Deeply focused on how to best serve the public by optimizing the mobility ecosystem, MAG runs strategic pilot programs to test promising new technologies. One of those technologies is Wejo Connected Vehicle Data.

MAG uses Wejo Connected Vehicle Data (CVD) for regional transportation planning, traffic operations and safety analysis in a pilot program that is poised to transform the way people move throughout the region.

The Challenge

The Phoenix metropolitan area is a large region with a road network of more than 4,000 intersections and 7,000 centerline miles of freeways and arterial streets. Historically, MAG has monitored congestion and travel patterns using traditional technologies and methods including installing automatic traffic sensors and conducting manual surveys, which can be expensive and labor intensive.

Because of the cost of those methods, and the sheer size of the network, monitoring everything at the same time is next to impossible, and public dollars are often focused on the specific intersections or roads that are seemingly problematic. While still impactful, that process can be limiting, with traditional data sources only giving insight to travel in specific windows of time.

MAG was looking for innovative ways to gain a more wholistic understanding of how vehicles were traveling throughout the network – origin to destination and time of day patterns, location of congestion bottlenecks, problematic road segments with numerous rapid speed changes or harsh braking.

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Solution

MAG partnered with Wejo for a technology pilot program that uses CVD from more than 100,000 active cars on the road network to understand driving behaviors, congestion, and safety throughout the network. The program takes advantage of the increasing number of cars equipped with communication devices that can enable them to report vehicle position and speed on regional roads to external applications, 24-7. Accessed via a secure exchange platform, the program data is anonymous, and privacy of drivers is protected.

CVD goes beyond traditional sources by providing more insight into how vehicles are traveling throughout the network.

This specific detail, available in real-time across the entire region, includes how fast vehicles are traveling on various road segments, where hard braking events are occurring and how a turbulence on one road is leading to congestion elsewhere. By providing MAG a view of the entire network, and enabling continuous monitoring, CVD is a credible and accurate data source that is used to identify problematic areas in a cost-effective way for the public.



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The connected vehicle data is a **game changer**
for traffic analysis and transportation planning.

DR. VLADIMIR LIVSHITS

TRANSPORTATION TECHNOLOGIES AND SERVICES DIRECTOR, MAG



The Wejo logo is located in the top right corner. It features the word "wejo" in a lowercase, bold, sans-serif font. A thick yellow curved line starts from the top right, goes down to the left, and then curves back up towards the top right, partially enclosing the "wejo" text.

Result

The prompt results and analytics based on Wejo CVD have greatly improved MAG's ability to conduct transportation system analysis and improve transportation forecasting models. The data brings qualitatively new analytical capabilities for traffic signal optimization and construction zone planning and management. By seeing where delays are happening and how traffic is queuing at different intersections, engineers can better evaluate signal performance at a given intersection or corridor, and conduct studies that can improve mobility and safety quickly and effectively.

Observing changes in travel patterns on an ongoing basis allows transportation planners and engineers to make timely decisions and preemptively address potential concerns of regional residents.

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MAG partnered with Wejo for this innovative technology pilot and demonstrated **numerous applications and benefits** of using connected vehicle data in regional transportation system analysis and planning, traffic operations and safety analysis.

DR. VLADIMIR LIVSHITS

TRANSPORTATION TECHNOLOGIES AND SERVICES DIRECTOR, MAG

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CVD is a **credible and critical benchmarking tool for us**. It lets us compare data sources internally and understand if trends we are assuming are actually baked in the reality of what's happening on the road network.

DR. WANG ZHANG

TRANSPORTATION DATA PROGRAM MANAGER, MAG

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