



Pedaling Safety: Global Auto, Cycling and e-Scooter Leaders Introduce Bicycle-to-Vehicle Technology, Call for More Collaboration

Nine leading bicycle, e-scooter and automakers – including Ford, Specialized, and Trek Bicycle, as initial partners –join SAE Industry Technologies (SAE ITC®) to lead development of a bicycle-to-vehicle (B2V) communication standard that bike makers, automakers and city planners can all use to create a safer future for cyclists and drivers alike.

DETROIT, January 13, 2021— Could your bike one day “talk” to a vehicle before a potential collision? A growing group of global technology leaders are betting so, and that the day could come even sooner with even bigger mash-up of cycling, e-scooter and auto industries.

As the leading developer of bicycle-to-vehicle (B2V) communication technology, [Tome Software](#) has initiated an unprecedented collaboration with captains of the automotive and cycling industries, establishing a new global effort with the intention of creating safer roads for road users. The push to make streets safer for all users comes at a time when bicycle usage is at an all-time high. The new consortium will research and consider a wide range of cutting-edge technology options.

The team finalizing the consortium plan includes executive leadership representation from Bosch, Ford Motor Company, Hammerhead, Shimano, Specialized, SRAM, Tome Software, and Trek Bicycle. The new consortium is in its final pre-planning phase and will be seeking new members and offering a range of information and education resources to share its vision. Ford and Tome have been leading a prototype working group the past year to research the feasibility and develop potential tech solutions for communicating between road users and vehicles. Ford, Specialized, Tome, Trek Bicycle, and Haas Alert are publicly announcing B2V prototypes at CES 2021.

“Cyclists and e-scooter riders are a growing part of mobility solutions sharing American roads, which is why Ford is investing heavily in ways to improve awareness between road users and allow more confident mobility – whether you’re on two or four wheels,” says Chuck Gray, vice president, Vehicle Components and Systems Engineering of Ford Motor Company, which recently acquired the Spin e-scooter business. “As we advance the technology, we also need other industry leaders to join in developing standardized wireless communications technologies that can help accelerate these types of innovations for more people, sooner.”

B2V technology is designed to allow vehicles to directly communicate with bikes, scooters, and roadside infrastructure, such as traffic signs and construction zones. It also provides opportunities for direct bicycle electronics integration, as well as mobile phone app integration for cyclists. Trek Bicycle, for example, is integrating B2V sensors into its Flare R tail light, which

increases conspicuity for cyclists with its interruptive flash pattern that is visible from over 900m during the day or night. Trek's [research suggests](#) that using a flashing tail light can make you up to 2.4x more noticeable than a rider using no lights at all, and there may be a 33 percent decrease in accidents for bicycles outfitted with daytime running lights.

"The pandemic has put more people on two wheels than we have ever seen before around the globe. As more citizens discover the mental and physical benefits of riding and look to bicycles as an alternate means of transportation, bike and auto manufacturers alike can collaborate to uncover innovative ways to make our roads safer," says Eric Bjorling, Brand Director at Trek Bicycle.

Specialized is working on prototyping B2V technology integrated with the Specialized Ride App. This will help riders and motorists be more aware of their surroundings.

"We believe that bikes have the power to pedal the planet forward - improving mental and physical health and serving as a powerful tool in combating the climate crisis. It's simple, the world needs more people on bikes. To make that happen, we need to make sure that riding a bike is safer than it is today for all riders. We're excited to cooperate with other cycling and automotive partners to develop technology for added rider safety," says Bob Margevicius, Executive Vice President at Specialized.

The B2V prototyping working group has released an updated technical whitepaper, and continues the research and development process in 2021 with field tests and on-road pilots. All working group members are developing prototypes on a shared codebase.

"We have completed a critical milestone in cross-industry collaboration while we continue the research and development process through 2021 testing and on-road data collection pilots," said Jake Sigal, Founder and CEO of Tome Software. "We now have solidified a clear path to standards, continuing our mission for safer roads for all road users."

For more information on the new consortium, prototypes, or the working group, please visit Tome Software's B2V showcase at CES 2021, or visit TomeSoftware.com/B2V

ABOUT B2V

First discussed at the 2018 Consumer Electronics Show, B2V (Bicycle-to-Vehicle) communication is an active collaboration and working group bridging the automotive, cycling, and tech industries with the intention of creating safer roads for road users, including cyclists and pedestrians. By creating a way for bicycles and pedestrians to communicate their presence to cars within their vicinity, B2V has the potential to improve road conditions drastically for all users. In 2018, representatives from the leading automotive, cycling, and software companies agreed to take the next step, which has progressed to plans to formalize a consortium that brings B2V to market in a way that can be shared across multiple platforms.