

# News Release

## Hyundai CRADLE Partners with Netradyne to Access 350+ Million Miles of Road Data for AV Development

Essential AI Information Used for Autonomous Driving High Definition Mapping and Algorithm Training

**MENLO PARK, Calif., October 4, 2019** - Hyundai CRADLE, Hyundai Motor Company's corporate venturing and open innovation business, today announced it is investing in Netradyne, a U.S. based intelligent technology company specializing in fleet safety management software. The partnership supports further development of Level 3+ Advanced Driver Assistance Systems (L3+ ADAS) and Autonomous Driving (AD) features that may launch over the next few years.



Netradyne uses artificial intelligence (AI) vision-based dashcam devices to monitor safety performance of fleet vehicles. Netradyne's system may also crowdsource road and driving behavior metadata.



With this agreement, Hyundai and Netradyne will collaborate to utilize the road and driving behavior data collected by Netradyne to support HD mapping and map updates for Hyundai's development of future L3+ ADAS and AD features.

The costs associated with outfitting traditional mobile mapping system (MMS) vehicles, which are currently employed for HD mapping, make it challenging for many OEMs to place enough MMS vehicles on the road to provide the necessary frequency of HD mapping updates. However, Netradyne's devices are more cost-efficient and are currently equipped to numerous vehicle fleets throughout the country, potentially enabling more frequent, high quality HD map updates.

Netradyne has already captured and analyzed over 1 million unique miles of the 2.7 million total miles of paved roads in the United States. This data includes numerous passes over the same roads to provide deeper insights into how driving and road different conditions may change throughout the year.

In total, Netradyne has analyzed more than 350 million miles of road data. Each of these 350+ million miles has been analyzed with AI and collected by professional drivers.

"Netradyne has advanced vision-based and AI driven technology for managing the safety of drivers and fleets," said John Suh, Vice President of Hyundai CRADLE. "These systems can be leveraged as a reliable, high-quality crowdsourcing platform to support updating HD maps at a frequency high enough to support L3 autonomous vehicles."

"We're very pleased to announce this partnership with Hyundai CRADLE," said Avneesh Agrawal, Founder & CEO of Netradyne. "At Netradyne, our goal has always been to make the world a safer place to drive with our advanced AI platform. We're glad that Hyundai shares this vision and are excited to support its development in advanced ADAS and Autonomous Driving innovation."

This announcement follows the September 23, 2019 announcement that Hyundai Motor Group and



Aptiv, an industry-leading mobility solutions technology company, formed an autonomous driving joint venture to advance the design, development and commercialization of SAE Level 4 and 5 autonomous technologies. The joint venture will begin testing fully driverless systems in 2020 and have a production-ready autonomous driving platform available for robotaxi providers, fleet operators and automotive manufacturers in 2022.

### **About Hyundai CRADLE**

Hyundai CRADLE is the Center for Robotic-augmented Design in Living Experiences. CRADLE strengthens Hyundai Motor Group's core automotive business and expands it into new and adjacent markets with the goal of enhancing transportation on and off the road. The company also plans to expand the Hyundai CRADLE innovation concept globally.

### **About Netradyne**

Founded in 2015, Netradyne leverages global technology centers in San Diego and Bangalore to push the boundaries of intelligent connectivity. Our world-class team of scientists are developing key Intellectual Property in the areas of computer vision, deep learning, edge computing, and predictive analytics to accelerate the evolution of the Industrial Internet of Things (IIoT), driving meaningful advances in the transportation ecosystem. For more information about Driveri® or to inquire about commercial vehicle safety tools, please visit [www.netradyne.com](http://www.netradyne.com).

### **About Hyundai Motor**

Established in 1967, Hyundai Motor Company is committed to becoming a lifetime partner in automobiles and beyond. The company leads the Hyundai Motor Group, an innovative business structure capable of circulating resources from molten iron to finished cars. Hyundai Motor has eight manufacturing bases and seven design and technical centers worldwide and in 2017 sold about 4.5 million vehicles globally. With more than 110,000 employees worldwide, Hyundai Motor continues to enhance its product line-up with localized models and strives to strengthen its leadership in clean technology, starting with the world's first mass-produced fuel cell electric vehicle and IONIQ, the world's first model with three electrified powertrains in a single body type.



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