

Continental and NVIDIA Partner to Enable Worldwide Production of AI Self-Driving Cars

2021 Market Introduction Planned for Continental Autonomous Vehicle Systems, Built on NVIDIA DRIVE AI Car Computer and Continental Sensors

NVIDIA and Continental, one of the world's largest automotive technology companies, today announced they are partnering to create top-to-bottom AI self-driving vehicle systems built on the [NVIDIA DRIVE™ platform](#), with a planned market introduction starting in 2021.

The partnership will enable the production of AI computer systems that scale from automated Level 2 features through full Level 5 self-driving capabilities, where the vehicle has no steering wheel or pedals.

Dedicated engineering teams from each company will work together to develop self-driving solutions based on the NVIDIA DRIVE platform -- which includes [NVIDIA DRIVE Xavier™](#), the world's highest performance system-on-a-chip, as well as the NVIDIA DRIVE OS (operating system) and DRIVE AV (autonomous vehicle) software stacks.

The solutions will utilize Continental's experience in system and software engineering for ASIL-D rated safety -- the highest rating level -- and integrate a range of Continental sensor technologies, including radar, camera and high-resolution 3D lidar.

"The vehicle of the future will be a sensing, planning and acting computer on wheels. The complexity of autonomous driving requires nothing less than the full computational horsepower of an AI supercomputer," said Dr. Elmar Degenhart, CEO of Continental. "Together with the performance and flexibility of NVIDIA's AI self-driving solution, from the cloud to the car we will achieve new levels of safety, comfort and personalization for future vehicles."

"We now have all the key elements in place to take AI self-driving cars from development to mass production," said Jensen Huang, founder and CEO of NVIDIA. "Our newly arrived DRIVE Xavier processor, extensive NVIDIA DRIVE software, and cloud-to-car approach for testing, validation and functional safety, combined with Continental's expertise and global reach, will bring autonomous cars to the world."

As the brain of the Continental system, NVIDIA DRIVE Xavier can deliver 30 TOPS (trillion operations per second) for deep learning, while consuming only 30 watts of energy. This unprecedented level of performance is necessary to handle the massive amount of data processing that self-driving vehicles must perform. These include running deep neural networks to sense surroundings, understand the environment, localize the vehicle on an HD map, predict the behavior and position of other objects, compute vehicle dynamics, and plan a safe path forward.

Open NVIDIA DRIVE Platform Enables Collaboration

Continental and NVIDIA will initially develop highly automated driving features, including 360-degree perception and automatic lane changing on highways, plus the ability to merge in traffic. In addition, the system will integrate HD maps, enabling vehicles to localize themselves and provide mapping updates.

Continental's expertise in advanced driver assistance systems integrates multi-function cameras, fish-eye cameras with surround view, short- and long-range radar sensors, high-resolution 3D lidar technologies, as well as central control units for assisted and automated driving. In 2016, Continental's sales of advanced driver assistance systems exceeded €1.2 billion and the company expects it to grow to €2.5 billion by 2020.

"Partnering with NVIDIA will enable Continental to advance beyond its leadership position in advanced driver assistance systems, delivering a scalable range of automated and autonomous vehicle systems, from today's NCAP requirements up to Level 5," said Luca De Ambroggi, research and analyst director at IHS Markit.

About Continental

Continental develops pioneering technologies and services for sustainable and connected mobility of people and their goods. Founded in 1871, the technology company offers safe, efficient, intelligent and affordable solutions for vehicles, machines, traffic and transport. In 2017, Continental generated preliminary sales of approximately €44 billion and currently employs more than 233,000 people in 56 countries.

About NVIDIA

[NVIDIA's](#) (NASDAQ:NVDA) invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics and revolutionized parallel computing. More recently, GPU deep learning ignited modern AI — the next era of computing — with the GPU acting as the brain of computers, robots and self-driving cars that can perceive and understand the world. More information at <http://nvidianews.nvidia.com/>.

Certain statements in this press release including, but not limited to, statements as to: the benefits, impact and goals of the partnership between NVIDIA and Continental; and the benefits and abilities of NVIDIA DRIVE and Xavier, Continental's technology and AI, and its ability to help bring self-driving and intelligent technologies into production; and the expected sales of Continental in 2020 are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners' products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the reports NVIDIA files with the Securities and Exchange Commission, or SEC, including its Form 10-Q for the fiscal period ended October 29, 2017. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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Features, pricing, availability and specifications are subject to change without notice.

Media Contacts

Fazel Adabi

+1 408 486 8701

fadabi@nvidia.com