

Teraki completes \$3M in financing to deliver AI and edge processing to meet exploding data analytics demands of automotive industry

Breakthrough AI technology increases automotive chip, communications and learning performance more than 10X making highly accurate AI applications possible in embedded environments

Paladin Capital Group and GPS Ventures funding will support customer implementations and accelerate roadmap development

BERLIN, September 27, 2018 – [Teraki](#), a technology leader in AI and edge processing, today announced it has raised \$3 million in cumulative seed financing and government grants, with new investors [Paladin Capital Group](#) and [GPS Ventures GmbH](#) joining previous investors including Deutsche Telekom [hub:raum](#). Teraki will use this investment to support the growth of its automotive customer implementations and accelerate the development of its product roadmap.

Teraki's technology delivers AI and edge processing to meet the exploding data analytics demands of new applications in the automotive industry. The company brings a more than tenfold increase in efficiency to the components and systems used in the Global Automotive Electronics Market, estimated to reach \$395 billion by 2024¹, with 70 percent of cars sold in 2025 expected to be connected cars.² The data processing challenge of self-driving cars is illustrated by the fact it will generate 60,000X more data than the average smartphone today.

"Teraki's offering is truly disruptive in that its dual objectives are to enable AI and edge processing in the increasingly data-driven automotive industry," said Gibb Witham, senior vice president at Paladin Capital. "What is unique is that Teraki is taking technology honed at the very highest end of data analytics accuracy requirements and scaling it efficiently for the highly-constrained automotive infrastructure and, over time, other data-intensive IoT markets."

Today, the automotive industry and its OEMs and insurance providers face an incredible opportunity to deliver innovative, cost-effective ways to use the vast amount of data generated by in-vehicle sensors, electronic control units (ECUs) and AI to improve vehicle safety and lower operational costs.

¹ "[Automotive Electronics Market Size By Application](#)," Global Market Insights, September 2017.

² "[Autonomous Automotive Cybersecurity](#)," Navigant Research, September 2016.

The problem, however, is that the high cost of expensive AI chips and the high computing demands of neural networks are preventing the widespread scaling of automotive AI applications. In addition, the limited processing power of ECUs, the bandwidth constraints of the in-vehicle CAN Bus, the data communication costs of car-to-cloud networks, and the time required to train AI and machine learning components have been significant barriers to developing and scaling new—and often real-time—applications.

Teraki vaults these barriers with its breakthrough, edge processing technology. Teraki enables continuously adapting edge analytics models to fit and operate in or with resource- and cost-constrained automotive ECUs and networks. The result is more than a **4-10X** factor increase in edge processing requirements for automotive chip and data communications and more than a **10X** faster in AI or machine learning time performance.

The opportunity to make components **more than 10 times faster** in data analytics and communications efficiency is a very compelling business case for automotive clients. It will enable them to process more data and to better detect events using energy-efficient, embedded software in existing chips. The problems Teraki is addressing are real and the technology is a breakthrough, and customers that work with them say that the validation results are impressive.

Teraki has already generated significant momentum, completing several pre-production validations by premium automotive manufacturers and their chip suppliers, as well as having ongoing proofs of concept with additional OEMs. “Our automotive customers are tasked with delivering innovative, data-intensive use cases in tightly constrained computing and network bandwidth environments,” said Daniel Richart, cofounder and CEO of Teraki. “Based on our many integration roadmaps and in-progress PoC validations, we are extremely excited about our current success and look forward to working with our customers to enable and scale new AI-based automotive applications.”

The mathematics behind the technology comes from co-founders Daniel Richart and Markus Kopf, and a talented team consisting of more than 10 researchers. Richart comes from the Max Planck Institute of Quantum Optics in Munich working under Nobel Prize-winning atomic physicist Theodor W. Hänsch. Richart led research projects in quantum computing, a new field challenged by analyzing enormous volumes of data representing the multiple possible simultaneous combinations of quantum states of a particle.

About Teraki

Teraki provides breakthrough edge data processing software to meet the exploding data demands of the \$395 billion automotive electronics industry. The company's AI-based Intelligent Signal Processing software delivers a more than 10X increase in automotive chip, communications and learning performance. This makes highly accurate AI applications possible at scale in embedded environments.

These leaps in performance enable the automotive industry to develop new, innovative and cost-effective ways to use the vast amount of data generated by in-vehicle sensors and control units (ECUs, MCUs, TCUs) to improve vehicle safety and autonomy at lower operational costs. Teraki has completed several pre-production validations by premium automotive manufacturers, as well as successful integrations on a variety of microcontrollers.

Headquartered in Berlin, Teraki is privately held and funded with seed investments from [Paladin Capital Group](#), [GPS Ventures GmbH](#) and Deutsche Telekom [hub:raum](#). www.teraki.com.

About Paladin Capital Group

Paladin Capital Group is a leading global technology venture capital investor that supports and grows the world's most innovative companies. Paladin is headquartered in Washington, DC, has offices in New York City, Silicon Valley, London, and Luxembourg, and seeks out diverse investment opportunities across the US and worldwide. Paladin has total capital commitments of over \$1 billion across multiple funds. www.paladincapgroup.com

About GPS Ventures GmbH

GPS Ventures GmbH is a Berlin-based venture capital firm. They invest with a long-term vision in tech startups in Germany and Europe, from seed stage and with a follow-on commitment towards growth. The investors and the investment team have a strong entrepreneurial and industrial background, and a hands-on culture with a non-bureaucratic decision-making process to support their portfolio companies. Their approach is to provide sufficient funding in the first rounds while generating strong network effects and value through synergies across their ventures and industry partners. Their current portfolio includes 24 companies in a diverse number of investment areas such as: big data, IoT, fintech, insurtech, e-commerce, enterprise cloud services, social software, biotech, mobility and specialized investment funds, among others.