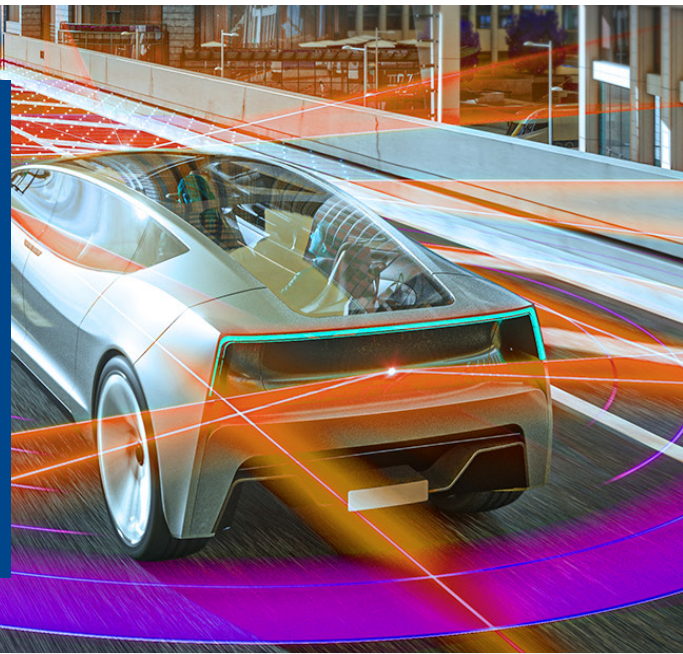# Improving road safety through scalable AI innovation

By leveraging the Dell AI Factory with NVIDIA, AUMOVIO scales AI infrastructure to speed up ADAS innovation, empower global teams and bring advanced safety features to life.

Business needs

To advance its zero-accident vision, AUMOVIO needs scalable, high-performance infrastructure to support AI-driven ADAS development, accelerate time to market and enable seamless global collaboration. Success means finding technology partners that match its pace and ambition.

Business results

Accelerates ADAS development by enabling faster AI training, simulation and model deployment.

Reduces driver errors by 20% with AI-based sensor feedback, improving road safety through accurate decision models.
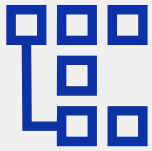
Increases scalability and resource efficiency with flexible, consumption-based infrastructure.

Enhances collaboration by giving global teams secure, real-time access to shared infrastructure.

Solutions at a glance

- Dell AI Factory with NVIDIA

  - Dell PowerEdge XE-Series Servers with NVIDIA GPUs

  - NVIDIA Quantum InfiniBand Switches

NVIDIA.

Reduces driver errors by 20% with AI-based sensor feedback.

Meeting data and speed demands in the race to advance ADAS

AUMOVIO develops pioneering technologies and services for sustainable and connected mobility of people and their goods, offering safe, efficient, intelligent and affordable solutions for vehicles, machines, traffic and transportation. They serve a global market, including most of the world's leading automotive manufacturers. Since its founding, AUMOVIO has been shaping the future of mobility, which is increasingly defined by data and technology.

As vehicles transform into sophisticated, software-defined computers on wheels, advanced driver-assistance systems (ADAS) have become crucial for road safety. They rely on high-performance, highly accurate AI systems that help prevent collisions, support drivers and move the industry closer to AUMOVIO's Vision Zero goal, which is a bold ambition to eliminate road accidents through intelligent, connected technologies. "According to statistics, 94% of accidents are caused by driver errors," explains Peter Ridzi, Head of Data Driven Development & DevOps, Hungary AUMOVIO Autonomous Mobility. "Innovative functions like AI-based sensor feedback could reduce risky driving by 20%."

But building production-grade ADAS functions requires more than sensors and algorithms. It demands a pipeline capable of processing petabytes of real and synthetic driving data, running millions of simulations and rapidly training AI models for perception, planning and decision-

making. "An AI system is only as good as the data it was trained on," says Ridzi. "High performance computing is becoming essential."

To bring its vision to life, AUMOVIO needed infrastructure that can process its data, support global collaboration and scale without delay — all achieved by deploying the Dell AI Factory with NVIDIA. "To make our ADAS perception robust, we need a high-performance GPU cluster with a fast-caching storage infrastructure and compute nodes," Ridzi shares.

Building the digital foundation for scalable ADAS innovation

At the center of this infrastructure is the Dell AI Factory with NVIDIA. "What we looked for in a partner is access to state-of-the-art products and technologies," Ridzi explains. "The partner had to understand our needs and help us find solutions together."

This platform includes PowerEdge XE series servers with NVIDIA accelerated computing that deliver the parallel processing required for training models incorporating camera, radar and sensor data. NVIDIA Quantum InfiniBand networking ensures low latency and high performance across nodes, which is essential for AI-driven projects. "For our needs, the Dell AI Factory with NVIDIA was the perfect fit," Ridzi confirms.

By taking advantage of a consumption-based model from Dell Technologies, teams can scale compute and storage on demand while simplifying lifecycle management, supporting dynamic workloads and streamlining operations. Advanced computer vision workloads are central to ADAS development and enable AUMOVIO to train AI models that interpret sensor data, recognize road elements and plan driving decisions. Predefined, production-ready training models save the automotive manufacturers time by eliminating the burden of building their own from scratch. "By leveraging our flexible service, we can develop larger AI models that serve more complex sensing functions," explains Ridzi.

> *The Dell AI Factory with NVIDIA, PowerEdge compute and storage nodes, and InfiniBand networking enable us to achieve our goals.*
>
> **Peter Ridzi,**
> Head of Data Driven Development & DevOps,
> Hungary AUMOVIO Autonomous Mobility

> *According to statistics, 94% of accidents are caused by driver errors. Innovative functions like AI-based sensor feedback could reduce risky driving by 20%.*

Peter Ridzi,

Head of Data Driven Development & DevOps, Hungary AUMOVIO Autonomous Mobility

Enabling global team collaboration to shorten time to market

In a fast-moving industry like mobility, speed to market is a competitive advantage. AUMOVIO's ability to innovate depends on how well its teams connect. Now, engineers across continents can tap into shared infrastructure in real time, cutting delays and complexity. This connectivity empowers faster decision-making, smoother development and a more agile path to delivering intelligent mobility that strengthens the company's industry positioning.

Protecting more people by releasing advanced safety features faster

The infrastructure provides the low latency and high throughput needed to handle massive datasets and complex simulations with ease. Engineers can train models more efficiently and cut down on testing time. As a result, AUMOVIO has faster innovation cycles and can bring advanced ADAS features to market sooner, enhancing safety for everyone on the road. "The Dell AI Factory with NVIDIA, PowerEdge compute and storage nodes, and InfiniBand networking enable us to achieve our goals," says Ridzi.

Shaping the future of safe, connected transportation

AUMOVIO's partnership with Dell Technologies and NVIDIA is helping it lay the groundwork for a future where mobility is not only smarter but fundamentally safer. "The ability to scale is closely tied to getting the maximum compute capacity," says Ridzi. "This can only be achieved with partnerships like the one we have with Dell Technologies."

As roads become more connected, and vehicles become increasingly automated, AUMOVIO's ability to anticipate challenges, scale operations and collaborate across borders positions it as a leader in shaping tomorrow's transportation landscape. By uniting cutting-edge technology with a bold safety vision, the company is not just reducing risk, it's redefining what responsible innovation looks like in the automotive industry.

> *An AI system is only as good as the data it was trained on. High performance computing is becoming essential.*

Peter Ridzi,

Head of Data Driven Development & DevOps, Hungary AUMOVIO Autonomous Mobility

---

Learn More About Dell Technologies AI Solutions.

Connect on Social.

D&LL Technologies

NVIDIA.