ACTIA BOOSTS YOUR TRANSITION TO DIGITAL BUSINESS WITH **SMART** & **HIGH-PERFORMANCE** SOLUTIONS

PRESS KIT

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EDITORIAL

BAUMA 2025, the world reference for industrial equipment and construction machinery, this year focuses on sustainability, connectivity, and electrification. In a context where environmental impact, machine digitalization, and operational efficiency are at the heart of the sector's challenges, manufacturers must rethink their technological and economic models. For nearly 40 years, ACTIA, an expert in embedded architectures, systems, and connected solutions, has been fully supporting this transformation. Through its expertise in vehicle architecture, data management, and intelligent systems, ACTIA is the partner of choice for manufacturers adopting new digital approaches, while ensuring security, scalability, and performance.

"The Off-Highway equipment market is undergoing a major transformation, pushing manufacturers to rethink their business models. Faced with increasingly complex requirements, the industry seeks to maximize production while reducing energy and human resources. This transformation requires rapid feedback loops, optimized time-to-market, and a customer-centric approach. The key challenge lies in the real-time use of data. Remote machine analysis, combining technical data from the equipment and data related to its field activity, becomes essential for improving operational efficiency and predictive maintenance. ACTIA supports manufacturers in this transformation by offering a complete and unique technological ecosystem on the market. It allows for structuring services in modular layers across the entire vehicle lifecycle. This approach offers advanced data customization, enabling OEMs to develop tailor-made services adapted to the specific needs of their end customers and users. By integrating these innovations, special equipment manufacturers are fully entering the Digital Business era, where data becomes a strategic lever to optimize performance and explore new business models."

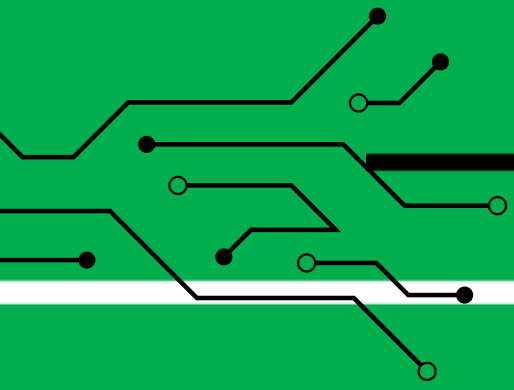
— explains Davide LOY, VP for the Off-Highway market .

During **BAUMA 2025**, **ACTIA** will showcase breakthrough innovations designed to address these challenges, particularly presenting its solutions for co-designing connected and scalable embedded architectures for better data management and machine performance.

The company will also unveil its HPC (High-Performance Computer) technology, a key component to support equipment automation and advanced telematics solutions. Finally, **ACTIA** will highlight its connected services ecosystem to help manufacturers transition to Digital Business.

With a comprehensive offer that combines industrial excellence, technological innovation, and full control of the value chain, **ACTIA** positions itself as a key player in accelerating its clients' transition to digital business.

ACTIA at the heart of the digital transformation of the special vehicle industry



ACTIA at the heart of the digital transformation of the special vehicle industry

The special vehicle industry is undergoing a profound transformation driven by the need for connectivity, data and information management, and increasing demands for performance and sustainability. These developments are leading to a deep evolution of machinery, making them increasingly connected, intelligent, and data-driven.

To address these challenges, **ACTIA** supports manufacturers with smart and scalable solutions, covering the entire vehicle lifecycle; from engineering to operation. As a pioneer in embedded electronic architectures and diagnostics, **ACTIA** leverages its expertise in data management, cybersecurity, and connectivity to help OEMs optimize their machines and develop new business models.

A MARKET IN FULL TRANSFORMATION: CHALLENGES AND OPPORTUNITIES FOR MANUFACTURERS

The industrial vehicle market is undergoing an unprecedented shift, driven by economic, technological, and environmental dynamics that are reshaping manufacturers' priorities. In a globalized world with diverse requirements, manufacturers must also adapt their solutions to the specificities of each region.

Europe & North America: A market driven by regulations and the energy transition

In Europe and North America, the industrial vehicle market is strongly impacted by emission and cybersecurity regulations, pushing manufacturers to accelerate the integration of cleaner and more secure technologies.
The implementation of **Stage V (Europe)** and **Tier 4 Final (USA)** standards mandates a drastic reduction in pollutant emissions, boosting the sales of electric and hybrid machinery by **+40%** in **2023** *(source: Off-Highway Research)*.
Additionally, the **European RED II** *(Renewable Energy Directive II)* encourages the electrification of industrial equipment and the development of low-carbon solutions, prompting manufacturers to invest in alternative powertrains and adapted charging infrastructures.
At the same time, increasing cybersecurity requirements through the **NIS 2 Directive** and the **Cyber Resilience Act** compel manufacturers to integrate advanced data protection protocols and secure remote maintenance solutions.
This dual transition toward electrification and connectivity is redefining the sector's priorities, placing innovation and digitalization at the heart of development strategies.

A MARKET IN FULL TRANSFORMATION: CHALLENGES AND OPPORTUNITIES FOR MANUFACTURERS

Asia: A rapidly expanding market driven by urbanization and digitalization

Asia is experiencing sustained growth in infrastructure investments, with an annual increase of **+7%** in budgets allocated to construction projects *(source: McKinsey, 2024)*. This trend is significantly boosting the demand for connected and automated industrial machinery, particularly in China and India, where **80%** of new machines will be equipped with telemetry and AI technologies by 2027 *(source: MarketsandMarkets).*

Africa & South America: Markets demanding robustness and reliability

In Africa and South America, where the mining, agriculture, and infrastructure sectors dominate, industrial machinery must operate under extreme conditions (heat, humidity, and difficult terrain). Robustness and reliability are essential to ensure equipment longevity and minimize maintenance costs, especially since access to spare parts and after-sales services is sometimes limited.

A Growing demand

The African Development Bank forecasts an annual **+6%** growth in infrastructure investments by 2030, while the South American mining sector accounts for **5%** of the regional GDP, reinforcing the need for durable and high-performance machinery.

A MARKET IN FULL TRANSFORMATION: CHALLENGES AND OPPORTUNITIES FOR MANUFACTURERS

Connectivity and optimized maintenance

To address local challenges, manufacturers are focusing on **embedded diagnostics** and remote maintenance solutions, enabling predictive maintenance and maximizing machine availability through **OTA** *(FOTA)* updates.
Autonomous, easy-to-maintain, and **modular equipment** is preferred, with standardized components to simplify repairs and optimize **fleet management**. These rapidly growing markets offer key opportunities for **industrial equipment** manufacturers, requiring an approach that combines innovation and sustainability to meet local realities.

Key fact:

According to verified market reports*, the Off-Highway vehicle (OHV) telematics market was valued at $488.4 million in 2023 and is expected to reach $1,439.5 million by 2030, with a compound annual growth rate of 16.8% between 2024 and 2030.

Sources : https://www.verifiedmarketreports.com/fr/product/off-highway-vehicle-ohv-telematics-market/

"ALL-DIGITAL": A NEW ERA FOR THE SPECIAL MACHINERY INDUSTRY

With regional developments and the rise of digitalization, industrial requirements are evolving drastically. Manufacturers must now maximize productivity through data and connectivity while reducing their energy and environmental footprint.
The industrialization of the "all-digital" approach is leading to new business models, where connected services play a crucial role: predictive maintenance, pay-per-use models, fleet management platforms, and remote software updates are becoming industry standards.

An electronic architecture under pressure

The increasing integration of electrification, artificial intelligence, cybersecurity, and autonomous systems is forcing industrial players to rethink their electronic architectures. In a sector where equipment must operate for decades, embedded systems must be scalable and adaptable to evolving standards and market expectations. This growing technical complexity requires the development of flexible, modular, and interoperable solutions; the only way to ensure manufacturers' longevity and competitiveness.

"ALL-DIGITAL": A NEW ERA FOR THE SPECIAL MACHINERY INDUSTRY

Digitalization: A driver of competitiveness for industrial players

Digital transformation is emerging as a major strategic lever to tackle **efficiency**, **safety**, **sustainability**, and economic performance challenges. In a sector traditionally focused on mechanics, the convergence of **embedded electronics**, **connectivity**, and data intelligence is becoming a key differentiator. Industrial players must now navigate multiple simultaneous challenges:

- **Increasing complexity:** Adoption of new practices such as predictive maintenance,
- usage-based connectivity, **OTA** software updates, and advanced embedded services.
- **Heightened regulatory pressure:** Strengthened cybersecurity, emissions reduction, real-time machine tracking, and compliance with evolving standards.
- **Technological acceleration:** The rapid development of AI, electrification, autonomous systems, and centralized electronic architectures.

In this context, digitalization is becoming the central pillar of manufacturers' business models, redefining their competitiveness in a rapidly evolving market.

ACTIA: THE STRENGTH OF A PIONEER GROUP DRIVING THE DIGITALIZATION OF OFF-HIGHWAY VEHICLES

With 40 years of experience in **vehicle architecture**, **embedded electronics**, and **diagnostics**, **ACTIA** is a pioneer in vehicle **data management** and **exploitation**. Its expertise spans a wide range of land mobility sectors, including passenger cars, heavy trucks, buses and coaches, and rail transport.

A unique integration of technological and industrial excellence

With in-house **R&D** teams and electronic production facilities, **ACTIA** ensures full control over the **development** and **manufacturing** cycle. Unlike other market players who outsource some of their components, **ACTIA** designs, produces, and integrates all the key technological building blocks necessary for the **digitalization** of **industrial machinery**.

A legacy of expertise driving the digitalization of vehicles

Since its founding in **1986**, **ACTIA** has supported **equipment manufacturers** through tenders, architecture specifications, and close collaborations with **OEM** engineering teams. This deep immersion in industrial vehicle engineering provides **ACTIA** with extensive knowledge of vehicle electronics, allowing it to offer tailored solutions that meet the unique constraints of various market segments.

ACTIA's strength lies in its synergy

ACTIA leverages a cross-disciplinary approach to capitalize on innovation and expertise across its subsidiaries. By pooling technological advancements from different mobility markets, the group rapidly adapts its solutions to the specific requirements of the off-highway sector, offering an agile response to manufacturers' new challenges.
With its international presence and close relationships with industrial players, **ACTIA** supports its customers across all land mobility vehicle sectors, providing them with differentiated expertise and a global vision that integrates **connectivity, electrification, and performance optimization.**

"At ACTIA Group, we are architects of embedded electronics. We maintain long-standing partnerships with vehicle manufacturers, giving us in-depth knowledge of vehicle electronics. For decades, we have supported our customers through tenders, electronic architecture definition, and close collaboration with their engineering teams. This deep immersion in industrial vehicle engineering enables us to anticipate their needs and tailor our solutions to the specific constraints of each segment.

Beyond this expertise, we have built a unique technological and industrial ecosystem, integrating design, manufacturing, and the implementation of key digitalization components for industrial machinery. Unlike other players, we have made a strategic choice to control the entire value chain, from R&D and industrialization to production and deployment in the field. This approach ensures total technological consistency, optimized performance, and seamless system interoperability while guaranteeing quality, scalability, and long-term viability for our customers.

Finally, ACTIA Group's synergy is a major asset: with our specialized engineers and global presence, we remain closely aligned with manufacturers and their challenges. This worldwide network allows us to provide solutions tailored to diverse operational realities, combining customer proximity with continuous innovation."

— Davide LOY, VP for the Off-Highway market

FROM DESIGN TO ON-FIELD PERFORMANCE: ACTIA AT THE HEART OF INDUSTRIAL VEHICLE DIGITALIZATION

ACTIA masters all technological layers of vehicles, offering manufacturers a comprehensive approach to accelerate the **digitalization** of **industrial vehicles**. Real-time **data utilization** has become a key factor in optimizing operational efficiency and predictive maintenance. By remotely analyzing machines; cross-referencing equipment technical data with real-world usage information.
ACTIA helps manufacturers maximize vehicle performance and availability. By integrating embedded controllers, advanced **telematics units**, flexible architectures, and data exploitation solutions, **ACTIA** offers a unique and modular **technological ecosystem**. This ecosystem is structured in layered services throughout the entire vehicle lifecycle.
This approach allows **OEMs** to customize data and develop tailor-made services that perfectly meet the specific needs of their end customers and users.

Custom controllers and telematics units for extreme environments

ACTIA's hardware layer is one of the key pillars of its offering. Off-road, agricultural, and construction vehicles require **electronic systems** capable of operating for decades in extreme conditions *(shocks, dust, extreme temperatures)*. The group stands out for its ability to **design and manufacture** in-house ruggedized controllers and telematics units tailored to the strict requirements of the off-highway sector and other industrial applications.

FROM DESIGN TO ON-FIELD PERFORMANCE: ACTIA AT THE HEART OF INDUSTRIAL VEHICLE DIGITALIZATION

High-performance embedded controllers for scalable architectures

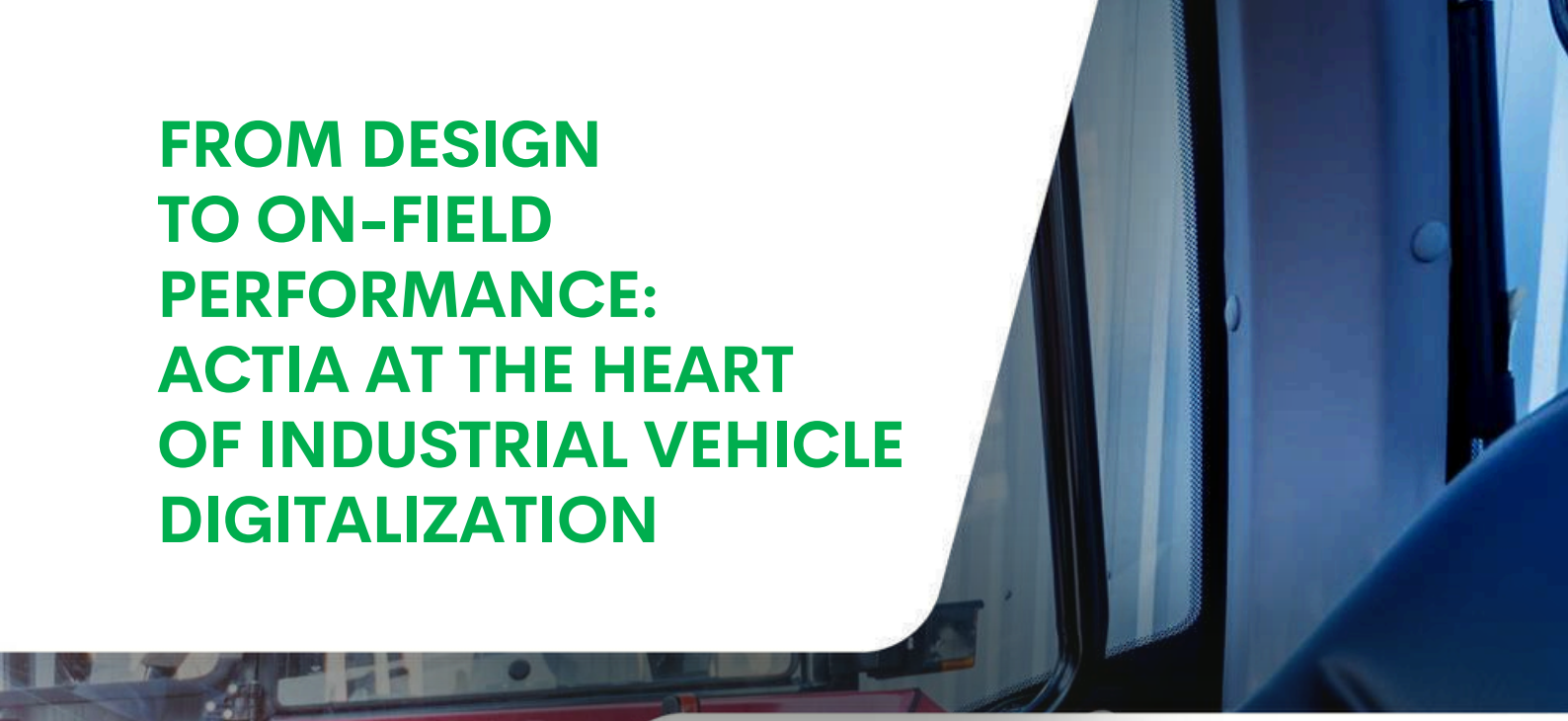
Building on this expertise, **ACTIA** is now developing a **High-Performance Computer (HPC)** platform; an essential technological building block for new vehicle architectures. Rooted in **ACTIA**'s historical expertise in embedded controllers, the **HPC** is the natural evolution of this competency, addressing the growing demand for computing power and centralized management of next-generation electronic architectures.

Smart telematics units for connectivity and diagnostics

Similarly, **ACTIA**'s telematics units, designed for optimal **connectivity** and **remote diagnostics**, are integrated directly into the manufacturing process, ensuring strict quality control and perfect alignment with manufacturers' needs. This vertical integration enables **ACTIA** to deliver robust, secure, and innovative products tailored to the demands of modern industrial vehicles and the most challenging work environments.

By mastering the **design and manufacturing** of controllers and telematics units, **ACTIA** provides a solid foundation for industrial vehicle digitalization, positioning itself as a strategic partner for manufacturers in the digital transformation of their equipment.

FROM DESIGN TO ON-FIELD PERFORMANCE: ACTIA AT THE HEART OF INDUSTRIAL VEHICLE DIGITALIZATION



Flexible architecture and interoperability: ACTIA, the architect of industrial vehicle digitalization

ACTIA positions itself as a key architect of industrial vehicle digitalization by developing cutting-edge electronic and electrical **(EE)** architectures designed to meet manufacturers' needs.
Its approach is based on an advanced **software layer**, ensuring flexibility, modularity, and scalability of **embedded systems**.
This design allows for the integration of new functionalities without compromising vehicle integrity or overall performance.
ACTIA's architecture is designed to promote interoperability between different components and systems, ensuring seamless integration with the manufacturer’s entire **ecosystem** while enabling remote software updates **(OTA)**.
This guarantees continuous adaptability to technological advancements and regulatory requirements.
Through this approach, **ACTIA** supports manufacturers in the digitalization of their vehicles while ensuring long-term performance and maximum lifespan.
With its expertise in flexible and interoperable architectures, **ACTIA** is a key partner in industrial **vehicle digitalization**, ensuring seamless integration and continuous evolution.

FROM DESIGN TO ON-FIELD PERFORMANCE: ACTIA AT THE HEART OF INDUSTRIAL VEHICLE DIGITALIZATION

Advanced telematics: Optimizing performance and safety through data management

ACTIA has been a pioneer in onboard diagnostics and **vehicle data management** since the first generations of controllers. Through its advanced telematics solutions, **ACTIA** enables fleets to remotely monitor **machine performance**, optimize maintenance, and develop new **data-driven services**. By integrating onboard diagnostics and predictive maintenance technologies, **ACTIA** helps fleets improve vehicle efficiency, reduce downtime, and increase profitability.

Furthermore, **ACTIA** ensures the longevity of its solutions through remote software updates *(OTA)*, enhanced cybersecurity measures, and ongoing compliance with regulatory developments *(EU 2022/2555, REDII, etc.)*, guaranteeing a long-term **lifecycle** and constant adaptability to technological and regulatory challenges.

In a sector where connectivity and automation play a crucial role, cybersecurity has become a major concern to ensure the safety and reliability of equipment. **ACTIA**'s solutions incorporate advanced protection mechanisms that secure communications and protect vehicle access. Through its advanced telematics solutions, **ACTIA** plays a key role in the digitalization of industrial vehicles by enabling intelligent data management, performance optimization, and equipment security while offering scalable services tailored to technological and regulatory challenges.

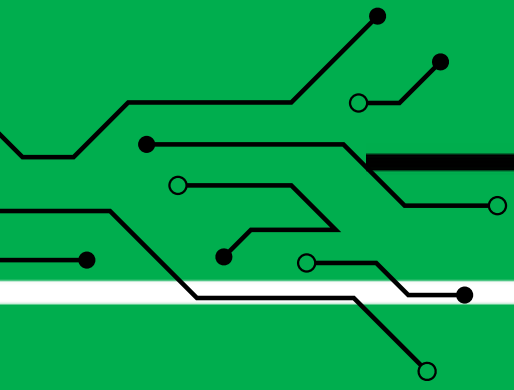
"ACTIA offers a complete technological and industrial ecosystem, supporting both manufacturers and operators throughout the entire vehicle lifecycle—from designing new architectures to on-field operations.
ACTIA delivers connected, secure, and high-performance solutions that meet the growing demands for connectivity, cybersecurity, and data optimization. Our approach combines innovation, flexibility, and reliability, providing manufacturers with vehicles capable of anticipating today's and tomorrow's technological challenges.
More than just an advanced technology provider, ACTIA is a long-term strategic partner. By helping manufacturers leverage data and adopt more agile and resilient business models, we enable them to optimize equipment performance and build a sustainable digital ecosystem.
With its expertise across all mobility sectors, ACTIA positions itself as a key player in digital business for industrial vehicles, providing manufacturers with the necessary tools to maximize machine efficiency and successfully drive the digital transformation of their equipment."

— Davide LOY, VP for Off-Highway market

ACTIA unveils its HPC at BAUMA 2025:

A key technological platform to support manufacturers in the digitalization of their machinery

ACTIA unveils its HPC at BAUMA 2025: A key technological platform to support manufacturers in the digitalization of their machinery



ACTIA UNVEILS ITS HPC AT BAUMA 2025:

A KEY TECHNOLOGICAL PLATFORM TO SUPPORT MANUFACTURERS IN THE DIGITALIZATION OF THEIR MACHINERY

ACTIA will present its **High-Performance Computer (HPC)** at **BAUMA 2025**, a next-generation electronic platform designed to meet the challenges of digitalizing industrial and off-road machinery. By integrating artificial intelligence, cybersecurity, and advanced connectivity, this **HPC** transforms the electronic architecture of industrial and special vehicles into a more powerful, scalable, and secure solution.
With unique self-cooling properties, equipped with a powerful AI computer, and capable of centralizing autonomous functions, it becomes the electronic core of tomorrow's industrial vehicles.

A centralized computer for a smarter vehicle

Unlike traditional architectures composed of dozens of ECUs (Electronic Control Units) distributed throughout the vehicle, ACTIA's HPC centralizes all functions into a single platform.
This next-generation computer is characterized by:

- Fewer components: Simplified electronic architecture, reduced number of ECUs and wiring, saving space and weight, with improved vehicle energy efficiency.
- Better coordination of systems: Smoother interactions between the engine, chassis, and connected systems.
- Over-the-air updates (OTA): The vehicle evolves continuously without physical intervention.
- Enhanced security: By consolidating critical calculations into one computer, manufacturers can better manage cybersecurity and ensure safer interactions between the vehicle's various functions.

ACTIA's HPC collects and processes data from multiple essential systems in real-time:

- Engine: Optimizing performance and reducing emissions.
- Cockpit: Advanced control interface and intelligent connectivity.
- Chassis: Managing critical parameters for better stability and safety.

Three key ACTIA innovations that make a difference

Fanless Design for optimal integration and durability:
Unlike traditional computers, **ACTIA**'s **HPC** operates without active cooling, ensuring:

- Simplified integration on all types of industrial machinery.
- Extended lifespan, with greater resistance to extreme environments *(dust, vibrations, high temperatures).*

AI-powered performance:
Its advanced architecture enables smooth and intelligent management of various vehicle functions:

- Automatic optimization of engine and energy performance.
- Instantaneous processing of sensor data *(LIDAR, cameras, radar)* for **ADAS systems**.
- Anticipation of failures through predictive maintenance.

A platform ready for industrial vehicle autonomy:
The **HPC** natively integrates autonomous functions to address the challenges of off-road machinery automation:

- Advanced management of embedded sensors *(360° cameras, proximity sensors, telemetry)*.
- Real-time data fusion to optimize driving and intervention decisions in the field.
- Interoperability with fleet management systems for more efficient operations.

Security and cybersecurity: An HPC designed for critical environments

ACTIA's HPC integrates advanced protections against cyberattacks and ensures the reliability of critical functions:

- Secure Boot to prevent unauthorized access.
- Encryption of communications between embedded systems and the cloud.
- Real-time **Intrusion Detection System** *(IDS)* to identify and neutralize threats.

This approach guarantees maximum **reliability** and **security**, **essential** for vehicles operating in sensitive environments *(mines, construction sites, agriculture, defense).*

ACTIA UNVEILS ITS HPC AT BAUMA 2025:

A KEY TECHNOLOGICAL PLATFORM TO SUPPORT MANUFACTURERS IN THE DIGITALIZATION OF THEIR MACHINERY

A computer designed to adapt to all industrial markets

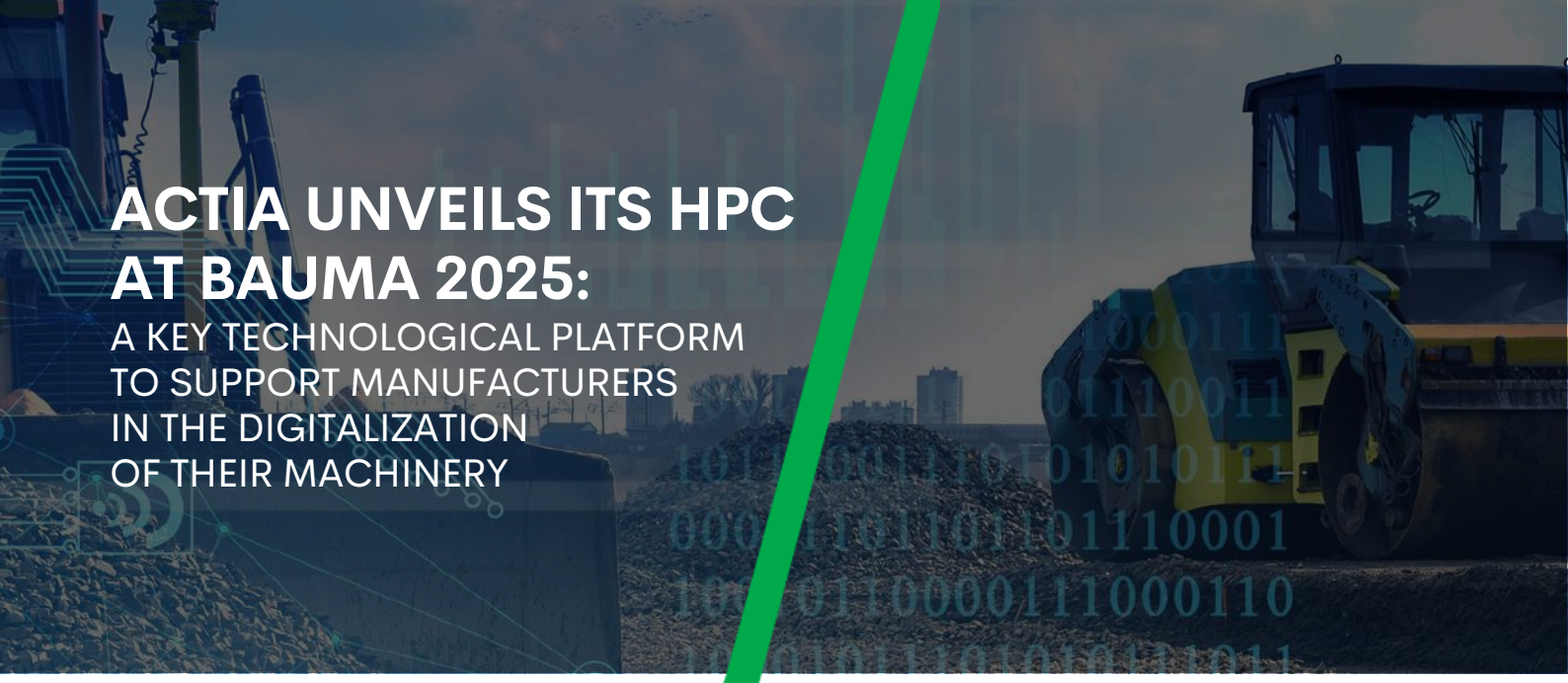
Thanks to its modular and flexible design, ACTIA's HPC meets the specific needs of various manufacturers of industrial and specialized vehicles:

- **Agricultural machinery:** Intelligent equipment management, task automation for harvesting.
- **Construction machinery:** Coordination of hydraulic functions and engine control for better efficiency.
- **Mining vehicles:** Resistance to extreme conditions and advanced data analysis from the field.
- **Urban transport and specialized vehicles:** Centralized human-machine interfaces
- and advanced connectivity.

This versatility enables manufacturers to reduce development costs while offering smarter and more efficient vehicles.

ACTIA partners with Renesas to develop an HPC platform based on an ultra-high-performance processor optimized for artificial intelligence

The integration of Renesas' high-performance **System on a Chip** *(SoC)* into **ACTIA**'s **High-Performance Computer** *(HPC)* platform marks a major technological breakthrough in the field of embedded electronics. This technology centralizes advanced computing capabilities within a single component, simplifying the hardware architecture while facilitating software updates. The choice of this high-performance **SoC** meets the growing demands of off-road markets, where advanced driver assistance systems *(ADAS)* and human-machine interfaces *(HMI)* are becoming essential for ensuring vehicle safety. These features must constantly interact with their environment, whether human, hardware, or infrastructure-related.



ACTIA UNVEILS ITS HPC AT BAUMA 2025:

A KEY TECHNOLOGICAL PLATFORM TO SUPPORT MANUFACTURERS IN THE DIGITALIZATION OF THEIR MACHINERY

A major technological advancement

This combined platform represents a technological breakthrough in two key areas:

- On one hand, it offers exceptional computing power capable of processing complex **AI algorithms**, opening new perspectives for embedded data processing.
- On the other hand, it integrates advanced **ADAS** and **HMI** functions into a single **SoC**, including graphical dashboards, navigation, and audio features. This centralization significantly reduces hardware complexity and simplifies software updates.

This approach aligns with new vehicle architectures, where functionalities are centralized and scalable through continuous software updates. This evolution allows for optimization and adaptation of vehicles without changing hardware, providing greater flexibility and scalability for embedded systems.

A strategic opportunity for RENESAS

“For RENESAS, this collaboration with ACTIA represents a strategic opportunity to extend our R-Car business beyond the traditional automotive sector. We have made specific efforts to meet ACTIA's needs, and this partnership has allowed us to test new concepts applicable to other markets, particularly industrial and robotic sectors,"
- said Aish DUBEY, Vice President & General Manager, High Performance Computing SoC Business Division at Renesas.

This technological and human synergy enables both companies to pool their expertise and innovate together to meet the specific demands of off-road vehicles, leveraging **ACTIA**'s long-standing experience in this market.

Significant progress in the field for ACTIA's HPC in the PROTECH project

ACTIA is applying its embedded **HPC** in the **PROTECH** project: a project supported by **BPI France** and funded by the State as part of France 2030. The program aims to develop embedded solutions to achieve "zero accidents" in the use of construction, mining, agricultural, and airport machinery.

A strategic collaboration for safer autonomous machines

In collaboration with partners such as Agreenculture and the **LAAS-CNRS** laboratory, **ACTIA** is currently testing its **HPC** in real-world conditions, integrating artificial intelligence algorithms to enhance safety and operational efficiency of these specialized machines.

Major advances in data collection, calibration, and augmented perception

In real conditions, **ACTIA**'s **HPC** demonstrates its effectiveness by centralizing and processing an increasing amount of data from embedded sensors, marking a significant advancement in data collection and field **data analysis**. This progress helps to enrich the databases needed to perfect the **artificial intelligence algorithms** applied to autonomous vehicles.

Multi-Sensor optimization and augmented vision for industrial vehicles

Additionally, innovations in multi-sensor calibration *(cameras, LIDAR, radars)* are underway, with promising results that optimize the perception and understanding of the environment by autonomous machines.
Finally, the implementation of the **Eye Bird View** application and panoramic views on the **HPC** platform is progressing, enhancing the augmented vision of industrial vehicles for better safety and optimized field operations management.

NOTE:

ROS2 (Robot Operating System 2) is an open-source software platform dedicated to robotic and embedded systems, enabling the development, testing, and execution of complex real-time applications. Initially designed for robotics, ROS2 has now become a reference in the field of autonomous vehicles and embedded industrial systems due to its modularity, flexibility, and advanced communication capabilities between system components.

What HPCs foretell for the future

ACTIA: A partner for manufacturers in the era of smart vehicles

The arrival of embedded **HPC**s is not just a technological evolution but a true paradigm shift in the industrial and specialized vehicle industry. Now, software is at the center, deeply transforming the design and operation of off-road machines.
ACTIA is supporting manufacturers in this transition by offering modular and scalable **HPC** solutions, tailored to the new industry requirements.
Thanks to its expertise in **embedded electronics** and **connectivity**, **ACTIA** enables vehicle manufacturers to improve efficiency, flexibility, and competitiveness in the face of new market challenges.

A Future shaped by embedded intelligence

With the rise of centralized architectures, we are witnessing:

• A progressive standardization of **HPC** platforms, allowing manufacturers to accelerate the development and integration of new features.

• A vehicle that continuously evolves, with regular updates and features deployed remotely, similar to smartphones.

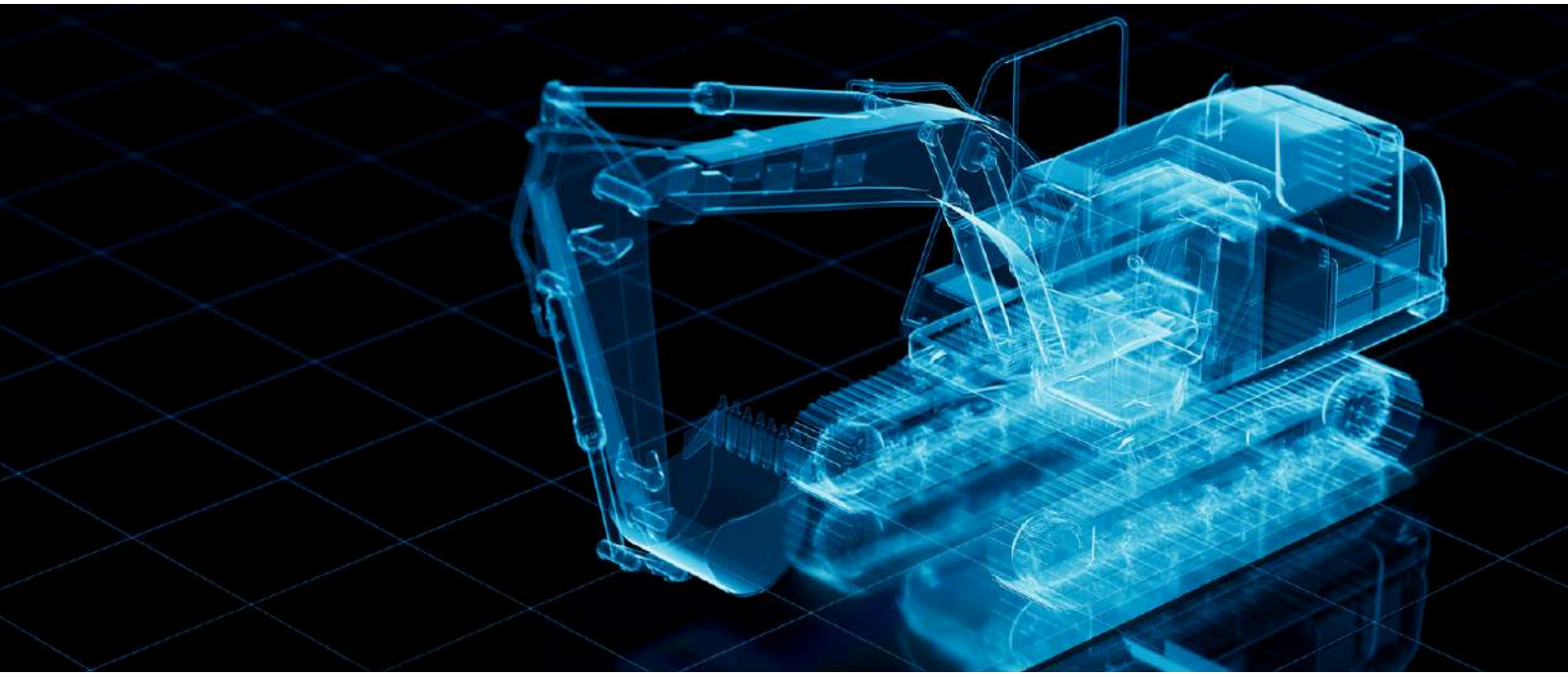
• A transition to **"Software-Defined Vehicle"** architectures, where vehicles will primarily be defined by their software capabilities, not just their mechanical characteristics.

HPCs are thus the foundational building blocks of future vehicles, whether they are autonomous, electric, or hyperconnected.

For manufacturers, the question is no longer whether they should adopt this technology, but how and with whom they will develop these new architectures.

With its high-performance **HPC**, **ACTIA** offers manufacturers the flexibility needed to design smarter, more autonomous, and more secure vehicles, whether electric, connected, or fully autonomous.

ACTIA positions itself as a key partner, providing expertise, proven solutions, and a comprehensive approach to the industrial **vehicle lifecycle**.



Discover ACTIA's HPC exclusively at BAUMA 2025!

Visit the ACTIA booth A2#313 at BAUMA 2025 for a live demonstration by our experts:

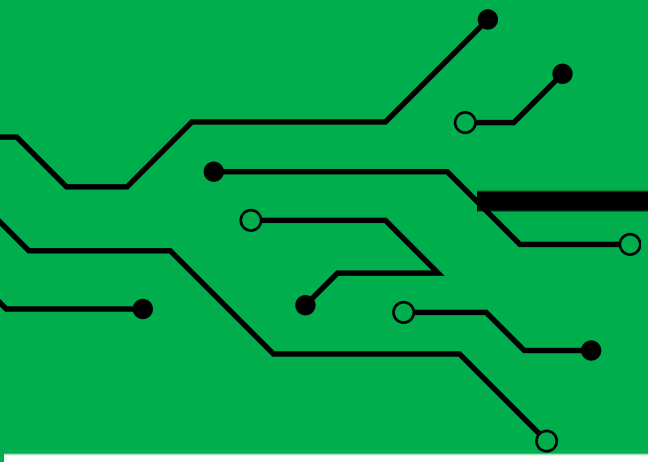
• Dive into the heart of embedded intelligence with a live simulation of the **HPC**'s **AI capabilities**.

• Discover how electronic centralization is shaping off-road machinery management.

• Attend exclusive demonstrations.

• Meet with our experts to discuss the impact of centralized architectures on the new generation of industrial vehicles.

ACTIA digital ecosystem: A complete transformation of the machinery lifecycle



ACTIA DIGITAL ECOSYSTEM: A COMPLETE TRANSFORMATION OF THE MACHINERY LIFECYCLE

ACTIA's **ecosystem** is designed to offer optimized lifecycle management of industrial machines, integrating the highest cybersecurity standards.
Thanks to **connected solutions** and **embedded technologies**, it enables the exploitation of **real-time data** to optimize performance, **durability**, and **vehicle availability**.

Data collection and utilization at each stage of the lifecycle

ACTIA's **ecosystem** supports manufacturers from production to field operations, through maintenance and **performance analysis**:

- **Manufacturing:** validation and inspection solutions at the end of the production line, ensuring precise quality control from the manufacturing stage.
- **Engineering & Field Testing:** data collection and analysis in real conditions, performance adjustment, integration of **FOTA** updates.
- **Data Integration & Management:** centralized platform for **OEM**s with access to real-time data, analytical diagnostics, Digital Twin, and performance analysis.
- **Operations & Connected Services:** advanced telematics features and interoperability with third-party platforms to optimize the management of equipment in the field.
- **Updates & Performance Optimization:** remote flashing of **ECU**s, integration of the latest software updates and advanced features to ensure the continuous evolution of equipment.
- **Maintenance & Diagnostics:** diagnostic and tele-diagnostic solutions dedicated to manufacturers *(OEMs)*, ensuring accurate monitoring of machine conditions and facilitating preventive maintenance.

Thus, **ACTIA** offers complete digital services, providing manufacturers with an integrated and secure approach to maximize the efficiency, productivity, and profitability of their industrial machines.

ACTIA DIGITAL ECOSYSTEM: A COMPLETE TRANSFORMATION OF THE MACHINERY LIFECYCLE

Optimizing equipment performance: Towards a renewed relationship between manufacturers and clients

In the construction and agriculture sectors, the availability of **off-road vehicles** is a major strategic issue.
These machines, representing significant investments, play a key role in the profitability of businesses.
Their immobilization can lead to substantial losses, prompting manufacturers to rethink their business model.
Rather than focusing solely on selling equipment, manufacturers are now turning to integrated solutions focused on maintenance and optimizing service rates.
This evolution is particularly based on technological innovation, with increasingly connected machines.
The goal is to ensure continuous communication between equipment, their environment, and the manufacturers, thus ensuring better safety and increased responsiveness in maintenance.
Thanks to these advances, manufacturers are no longer just equipment suppliers but become true strategic partners, offering global solutions to maximize machine performance and customer satisfaction.

The importance of use cases:

In recent years, manufacturers have approached diagnostics based on case studies or **"Use Cases",** which is analytical diagnostics. That is to say, development adjustments are made based on real failure cases reported from the field by the system itself. These failure cases, once modeled, enable the automation of repair processes.

ACTIA DIGITAL ECOSYSTEM: A COMPLETE TRANSFORMATION OF THE MACHINERY LIFECYCLE

This new business model also affects the after-sales network

After-sales diagnostic and **tele-diagnostic solutions** must also contribute to preserving the vehicle service rate. In case of a breakdown, vehicles must remain out of service as little as possible. The task becomes more complicated when the machine cannot be moved to the workshop.

This means that after-sales diagnostic/tele-diagnostic solutions must be highly efficient, easy to use, mobile, and as comprehensive as possible. For example, **tele-diagnostic solutions** must integrate **FOTA** technology or **"Firmware Over-The-Air",** which allows the downloading of software updates for **embedded electronic control units** *(ECUs)* in the background.
It does not require any specific user action, except for an installation authorization request or a restart of the device in question.

Diagnostic processes and tools should be as automated as possible. They require no specific skills from the technician. They also include continuous monitoring of machine data.
The goal is to anticipate breakdowns or failures as much as possible.

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