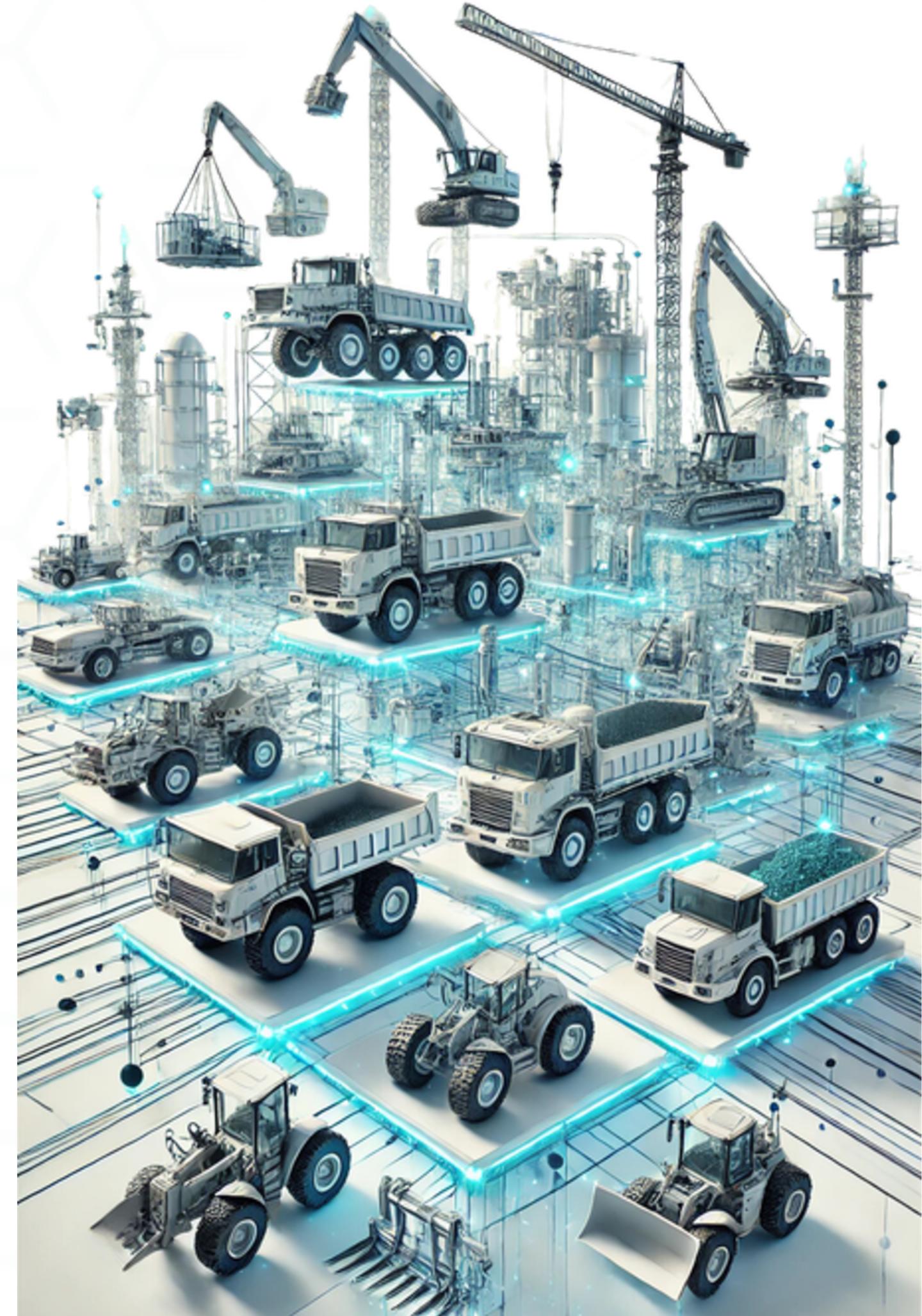


Your
bespoke
mechatronic
partner



Discover our
connectable automation
systems designed for
off-highway vehicles

Unlock digital
transformation for your
machines with ALMEC...



Entrust the automation of your machines to us...

ALMEC

A trusted Digital transformation Partner

We offer cutting-edge mechatronics solutions that integrate your machines into a digital system, enabling smooth communication and optimized control of production processes.



ALMEC
MECHATRONICS



Reliability, safety, and usability: ALMEC products and software-defined system design.

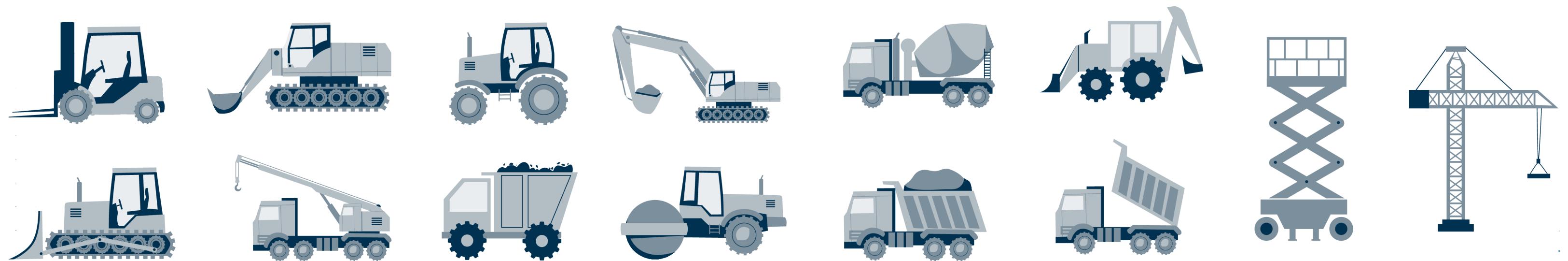
Our solutions control, monitor, and communicate with mobile machines operating in harsh environments.

We integrate **electronics, mechanics, software**, and **IoT connectivity**.



We bring technological innovation to multiple sectors...

For over twenty years, we have been providing reliable, **custom solutions for manufacturers and OEMs** of special mobile machines **across multiple sectors**: lifting and construction, naval, military, mining, road transport, agricultural machinery, environmental vehicles, and vehicles with special outfitting...



... and worldwide



How we define the new generation of mobile machines



We leverage electronics, technology, and our expertise to deliver cutting-edge solutions, helping manufacturers and OEMs stay competitive in a rapidly evolving digital landscape.



STANDARD AUTOMOTIVE PRODUCTS

- PLC Modules
- CC Motor Controllers
- IoT Modules
- HMIs
- Wired CAN Controllers
- CAN I/O Expansions
- Electropneumatic Modules
- Radio transmitters/receivers
- Sensori angolari
- Accessori (Sensori TPMS)



CUSTOM SOLUTIONS

We provide swiftly advancing hardware and software solutions that develop dependable electronic control systems, tailored to the unique requirements of our clients.



ONGOING ASSISTANCE

For our solutions, we provide implementation support, maintenance services, and timely updates, ensuring that customers receive continuous assistance while maximizing the value and performance of their machines.

Our methodologies



DESIGN

Hardware

Development from the board to the product, including the system and wiring.

Software

Custom firmware and application development.

IoT Solutions

Tailored solutions, integration, and envisioning of specialized applications.



PRODUCTION

Assembly

Comprehensive product manufacturing and testing.

Resin application

Developing resilient product enclosures.

Wiring

Manufacturing of specialized wiring harnesses for industrial systems and applications.



TECHNICAL CONSULTING

Technical and post-sales support

Swift interventions and efficient solutions.

Assistance hour bundles

Versatile technical support alternatives.

Warranty extension initiatives

Supplementary covers to enhance protection.



CAN I/O Expansions

ALMEC I/O expansion modules are cost-effective, modular solutions based on CANOpen®, designed for ease of use and enabling straightforward increases in a system's input and output capacity. The variants offered in our product portfolio are versatile and suitable for a diverse range of applications.



Wired Remote Controls

They possess all the necessary features to operate cranes, aerial platforms, compactors, hook lifts, and more. They are capable of functioning even in demanding mechanical environments and can endure the most severe weather and environmental conditions. The wired controls are equipped with a versatile 9-36 VDC power supply and can be seamlessly integrated into CAN or serial networks.

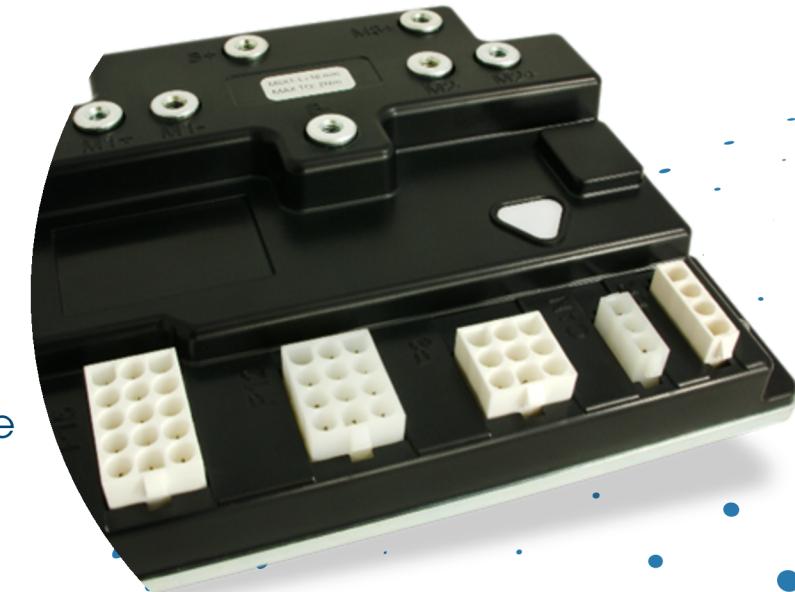


Radio controls

The ALMEC range of radio controls comprises a series of transmitting units, including button panels and pouch consoles, along with a receiving unit. These systems offer the option to customize working radio frequencies and are suitable for use in both European and non-European countries.

DC Motor Controllers

ECUs designed for dual DC motor drive and vehicle management systems. These devices incorporate two proportional power channels for traction and steering control. The on-board electronics include a redundant microcontroller to guarantee fail-safe operation, along with a built-in, configurable tilt sensor to restrict or prevent specific functions when the vehicle is tilted.





Angle and Tilt sensors

The ALMEC range of angle sensors encompasses both PLd and SIL2 safety class devices (dual channel, redundant) as well as PLc SIL1 safety class devices (single channel), distinguished by their measurement accuracy and stability. The ALTILTconfig configuration tool allows for the customization of measurement functions directly from your PC. All models can be integrated into a CAN-Bus network, and certain models feature analog or digital outputs.



PLC

Engineered for integration with a CAN-Bus network or other serial protocols, these PLCs serve as DIN-rail controllers and are suitable for applications where the flexibility and reliability of the automation system are essential. The PLC's power supply operates within a broad range of 9-36 VDC and adheres to PLd and SIL2 standards.



Control panels

ALMEC HMI devices exhibit remarkable versatility, allowing for installation within the cabin, externally on the machine, or internally on control panels. The variants in our product portfolio encompass a broad spectrum of applications, ranging from basic visualization systems to comprehensive control centers. Graphics, functionality, and button configurations are entirely customizable, guaranteeing optimal alignment with customer and machine requirements.

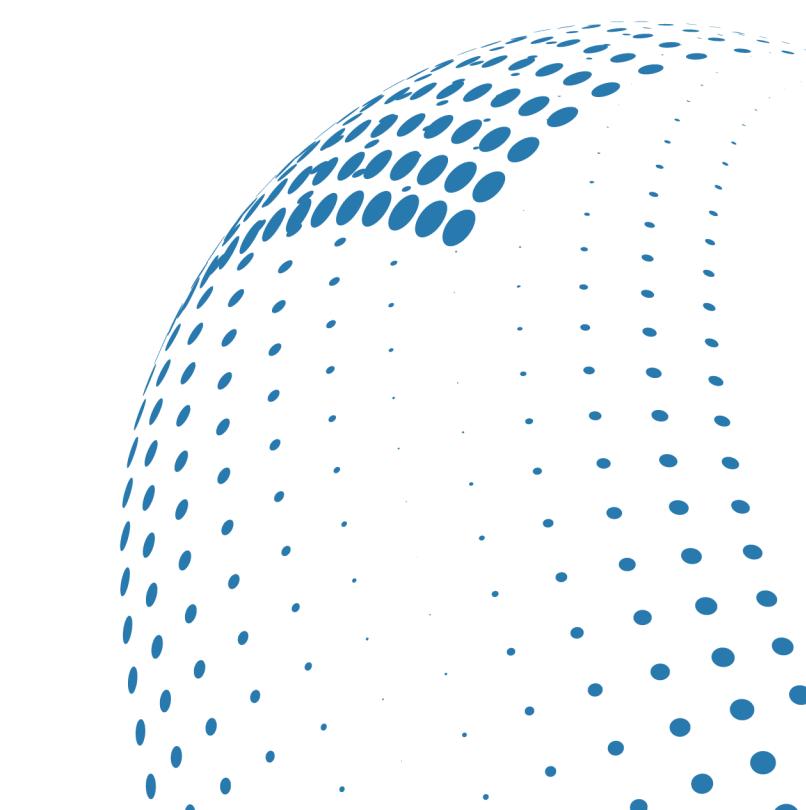
IoT Gateway

ALMECdiag Device and Nexus serve as remote diagnostic, interconnection, and satellite geolocation gateways, facilitating the connection of machines and equipment for diagnosis and control via the Diaboard web platform (formerly known as ALMECdiag Portal).

They can be implemented in either a SERIAL or CAN network.

The waterproof case renders these devices appropriate for operation on machinery functioning in demanding work environments.





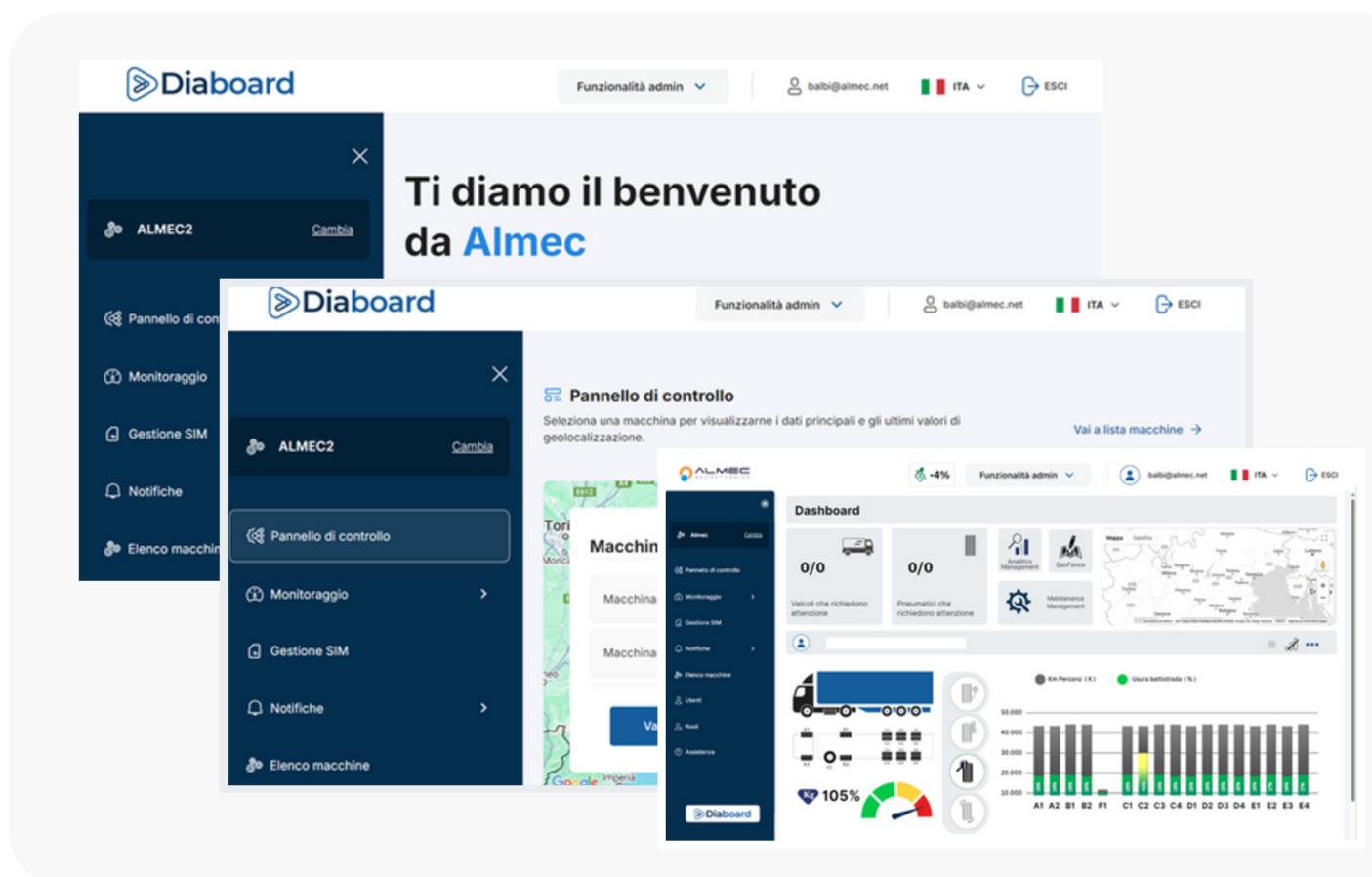
Controlling a
complex machine...
As simple as using a
smartphone

Through two platforms: ALMEC lab and Diaboard





Modular platform for the development of machine control software; clients can independently program ALMEC devices.



It enables the monitoring of machine parameters, the creation of customized graphical interfaces, the definition of control logic, and the facilitation of remote diagnostics with efficiency and ease.

AI and IoT technologies combined with Automation: a **win-to-win** combination

Through the integration of ALMEC products with the **Diaboard** platform, we offer a complete solution for the management and monitoring of your machines. The collected data enables the activation of various custom-made services and applications that allow smart management of the machine system.

01

AI MONITORING



Maintain real-time control over the operations and status of the entire machine system in real time, promptly organizing any necessary interventions and eliminating downtime.

02

SYSTEM WARRANTY



Through predictive maintenance, the warranty on our products is based on the actual operational time of the machine.

03

EFFICIENCY IMPROVEMENT



Optimize the performance of your machinery and reduce operating costs through more efficient consumption management.



Quality Management

ALMEC implements a certified quality management system (**ISO 9001**) that emphasizes error prevention, continuous improvement, and customer satisfaction.



Inspections

Verification of supplier components (dimensional, functional, and documentation assessments)



Production oversight

Standardized protocols, assessment forms, interim evaluations.



Testing and final verification

Each unit (electronic control, panel, or component) undergoes testing to ensure performance and compliance.



Nonconformity management and corrective actions

Monitoring issues, examining root causes, executing enhancements.



Client evaluations and assessments

Customer engagement in quality assessment and process evaluation.

A certified standard of quality

We are dedicated to consistently providing high-quality, reliable, and efficient solutions, and the certifications and recognitions we have garnered serve as tangible evidence of our commitment to excellence.



Mesap Member

(Piedmont Mechatronics Center)



bioPmed Member

(Biomedical Engineering Center)



AEF Member

(Foundation for the Electronics in the Agricultural Industry)



CiA Member

(CAN in Automation Association)



JOIN THE INNOVACTION

Polo ICT Associate

(Information Technology Center)



The Team

We are committed to fostering long-term partnerships with clients to deliver tailored solutions and measurable outcomes. Our team, guided by a certified innovation manager, is devoted to offering exceptional service throughout the client's digital journey.

Our departments:

Hardware Design

Software Design

Firmware Design

Mechanical Design / Integration

System / Wiring Design

Technical-Commercial Support

**After-Sales Support
Production**



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