

PRESS INFORMATION

Simplified engineering for digitalization in agriculture

Manuela Kessler | 25.09.2025 | Lohr am Main / Germany | PI 037/25

Bosch Rexroth expands the open and scalable BODAS ecosystem in the areas of digital engineering, telematics, and automation

- myBODAS & BODAS-studio: efficient development and collaboration
- Telematics: Over-the-Air services (OTA) for fleet updates and third-party Control Units, Base Solution for Digital Vehicle Keys
- New basic Modules for future-proof automation



Bosch Rexroth is driving the digital transformation of mobile working machines with BODAS. This includes IoT solutions, software, and electronic hardware for the off-highway market. (Image source: Bosch Rexroth AG)

Bosch Rexroth is expanding its BODAS ecosystem for the needs-based development of future-proof off-highway machines with additional tools, hardware, telematics and software modules. With the RC30-20/41 control unit, Bosch Rexroth presents a new hardware innovation. In addition to the myBODAS virtual collaboration platform, the BODAS-studio development environment shortens the time-to-market for innovative applications. The telematics and IoT portfolio BODAS Connect now enables mass updates over the air, the flashing of third-party control units and digital keys. As a holistic technology partner, Bosch Rexroth places particular emphasis on complying with legal safety and security requirements within BODAS, including new EU directives such as the Machinery Regulation 2023 and the Cyber Resilience Act.

Manufacturer of Off-Highway vehicles face the challenge of differentiating themselves with a strong machine identity and reducing development costs and time. The digital experience platform myBODAS helps to resolve development issues quickly, transparently, and expertly, thereby specifically supporting agricultural machinery manufacturers. In addition to the digital workspace, users benefit from a comprehensive knowledge database with an AI-supported search engine, exchange with BODAS experts via tickets and forums and get free access to validated solutions and development tools.

The new development environment BODAS-studio shortens code creation based on the standardized, open software architecture MASAR with many integration options. This means that the BODAS software packages released via the Try it First process can be modified for the individual solution, e.g. with MATLAB and Simulink from MathWorks or in the high-level language C. A free C-Compiler is available for development with RC/4x Control Units.

Telematics innovations include Over-The-Air services (OTA) for fleet updates, whereby the BODAS Connect Universal Flasher module can also be used to update third-party control units in mixed E/E environments via the UDS (Unified Diagnostic Services) protocol. For this purpose, Bosch Rexroth and Trackunit have formed a strategic partnership in spring 2025 to combine the

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OTA expertise of BODAS Connect with the Trackunit ecosystem. As part of this cooperation, agricultural machinery will be dynamically extended in terms of functionality, service will be simplified through Over-the-Air (OTA) updates, and user-friendliness and operational efficiency will be increased.

The RC/4x control Unit series is supplemented by the RC30-20/41 model, which provides more computing power, memory, high-precision inputs and body control outputs for controlling lights etc. The RC30-20/41 will be directly programmable via BODAS-studio and therefore via MATLAB. Furthermore, the ratio of HS (High Side) to LS (Low Side) outputs will be changed from 1:1 to 3:1. The essential functional safety requirements of OEMs are thus fulfilled.

As a holistic technology partner, Bosch Rexroth attaches great importance to compliance with legal safety and security requirements for BODAS and other solutions. This includes new EU directives such as the Machinery Regulation 2023 and the Cyber Resilience Act.

With BODAS, Bosch Rexroth offers a comprehensive solution approach: In addition to CE-compliant products, machine manufacturers can also access the company's deep expertise in order to work together with Bosch Rexroth to meet the complex requirements in the development of new agricultural machines. In addition, Bosch Rexroth offers tailored training and support for process optimization.

Basic Information Bosch Rexroth

As one of the world's leading suppliers of drive and control technologies, Bosch Rexroth ensures efficient, powerful and safe movement in machines and systems of any size. The company bundles global application experience in the market segments of Mobile and Industrial Applications as well as Factory Automation. With its intelligent components, customized system solutions, engineering and services, Bosch Rexroth is creating the necessary environment for fully connected applications. Bosch Rexroth offers its customers hydraulics, electric drive and control technology, gear technology and linear motion and assembly technology, including software and interfaces to the Internet of Things. With locations in over 80 countries, around 32,600 associates generated sales revenue of 6.5 billion euros in 2024.

Basic Information Bosch

The Bosch Group is a leading global supplier of technology and services. It employs roughly 418,000 associates worldwide (as of December 31, 2024). The company generated sales of 90.3 billion euros in 2024. Its operations are divided into four business sectors: Mobility, Industrial Technology, Consumer Goods, and Energy and Building Technology. With its business activities, the company aims to use technology to help shape universal trends such as automation, electrification, digitalization, connectivity, and an orientation to sustainability. In this context, Bosch's broad diversification across regions and industries strengthens its innovativeness and robustness. Bosch uses its proven expertise in sensor technology, software, and services to offer customers cross-domain solutions from a single source. It also applies its expertise in connectivity and artificial intelligence in order to develop and manufacture user-friendly, sustainable products. With technology that is "Invented for life," Bosch wants to help improve quality of life and conserve natural resources. The Bosch Group comprises Robert Bosch GmbH and its roughly 490 subsidiary and regional companies in over 60 countries. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. Bosch's innovative strength is key to the company's further development. At 136 locations across the globe, Bosch employs some 87,000 associates in research and development.

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