

Press release

Munich, May 31, 2022

Knorr-Bremse concludes strategic cooperation and investment agreement with Nexxiot to boost digital business models for the rail industry

- **The companies have concluded a comprehensive cooperation agreement, enabling Knorr-Bremse to make full use of Nexxiot’s sensor technology and data ecosystem**
- **Knorr-Bremse has also acquired a strategic minority stake in Nexxiot, becoming the Internet of Things (IoT) company’s largest shareholder**
- **This will enable Knorr-Bremse to further leverage digital, data-driven business models, including subscription-based rail services and Software as a Service (SaaS) for rail customers**
- **Knorr-Bremse has invested around EUR 60 million in Nexxiot, enabling the Swiss company to continue its strong growth and build further market share in the rail industry**
- **Targeting the growth markets of digitalization and automation, the cooperation and investment agreement is a perfect fit with Knorr-Bremse’s bolt-on M&A strategy**
- **Knorr-Bremse expects its digital business to grow significantly over the next few years – by 2027, it should account for around EUR 200 million of the Rail Division’s revenue**

Munich, May 31, 2022 – Knorr-Bremse, the global market leader for braking systems and other rail and commercial vehicle systems, has concluded a strategic cooperation and investment agreement with Nexxiot. Capturing long-term business opportunities is an integral part of Knorr-Bremse’s strategy. Apart from organic growth, Knorr-Bremse pursues bolt-on mergers and acquisitions (M&A) to access external tech expertise and enable Knorr-Bremse’s clients to benefit from growth markets and emerging developments in the transportation industry.

Swiss firm Nexxiot is a leading supplier to the TradeTech sector and specializes in upgrading railcars and containers with IoT technology, turning them into connected trade assets. Once Knorr-Bremse’s rail brakes, doors, HVAC, sanitary and other systems are connected with Nexxiot’s digital ecosystem and generating data-driven insights, customers will benefit from increased vehicle availability, optimized lifecycle costs and greater operational efficiency.

“As a core element in our strategy, we’re using digitalization to leverage our already strong position in safety- and mission-critical rail vehicle systems, and to generate further growth

and strong profitability,” explains Dr. Jürgen Wilder, Member of the Executive Board of Knorr-Bremse AG and responsible for the Rail Vehicle Systems division. “Together with Nexxiot’s dedicated team, we’re now pressing ahead with our ambition to add further value for our customers. By combining our systems technology with Nexxiot’s digital ecosystem, we’re creating a win-win scenario that will boost vehicle availability and lower the total cost of fleet ownership by leveraging a new generation of data-based services.”

“The partnership with Knorr-Bremse will help us build the best products and services for the industry. Together, we aim to accelerate the digitalization of key areas like rail freight and automation services. At the same time, we’ll also be able to speed up our own expansion in the rail industry and continue our strong growth,” adds Stefan Kalmund, CEO of Nexxiot. “Specifically, our sensors and scalable cloud-based platform help turn rolling stock assets into connected, data-generating industrial objects. Leveraging rail data in real time will be a key success factor in helping make rail networks and rail services fit for the future.”

IoT – the “Internet of Trains”: creating connected subsystems to boost customer value

In the first phase of the partnership, starting immediately, Knorr-Bremse will offer to retrofit [Nexxiot’s data-gathering sensor technology](#) to braking, entrance, HVAC and other subsystems that are already in operation, and then connect them to Nexxiot’s cloud-based ecosystem. During the second phase, starting at a later stage, Knorr-Bremse will natively integrate its original equipment into the digital ecosystem.

By leveraging an increasingly connected installed base of rail subsystems, Knorr-Bremse will be able to roll out an advanced generation of profitable X-as-a-Service digital business models. These will include subscription- and usage-based services generating fresh and recurring revenue streams. For example, based on the real-time analysis of rail data in Nexxiot’s ecosystem, Knorr-Bremse will be able to precisely project systems’ state of health and maintenance needs. In effect, clients will be able to service their fleets more proactively and cost-efficiently by taking advantage of **Condition-Based** and **Predictive Maintenance**. Also related to **Operations Automation**, the two companies will deliver strong customer use cases including, among others, data-driven features for Digital Freight Trains.

Digitalizing rail: Knorr-Bremse and Nexxiot to address a global demand

With the investment and cooperation agreement, Knorr-Bremse and Nexxiot are addressing a significant and largely untapped demand for IoT services for rail vehicle systems. Every year, Knorr-Bremse delivers more than 120,000 relevant, connectable new rail assets (e.g. braking systems) and maintains more than 100,000 existing assets in operation; this represents a strong potential basis for future data-driven business. In terms of the company’s installed base of brakes alone, Knorr-Bremse has a significant global market share.

By acquiring a stake in Nexxiot, Knorr-Bremse is investing in one of the key suppliers in the TradeTech sector. Nexxiot is a leading installer of IoT technology in railcars, with 200,000 connected vehicles in Europe alone, representing more than 25% of European fleets. Working in a high-growth market, Nexxiot expects to digitalize more than 2 million rail cars and intermodal containers globally by 2024. Because containers are transported on both rail and commercial vehicles, container upgrades represent additional untapped potential and synergies for both Knorr-Bremse divisions, Rail and Commercial Vehicle Systems. In April, Nexxiot closed one of the largest IoT asset deals ever with Hapag-Lloyd, undertaking to equip

a significant share of the company's 3 million TEU ocean container fleet with Nexxiot's technology.

The closing of this transaction is subject to customary conditions, among others, the approval of the relevant antitrust authorities.

Caption 1: Knorr-Bremse and Nexxiot's cooperation and investment agreement aims to boost customer value in the railway sector by creating connected subsystems. Fitted with high-end technology, Nexxiot's Globehopper LINK will be a key enabler in transforming rail systems into connected assets. | © Nexxiot

Knorr-Bremse (ISIN: DE000KBX1006, ticker symbol: KBX) is the global market leader for braking systems and other systems for rail and commercial vehicles. Knorr-Bremse's products make a decisive contribution to greater safety and energy efficiency on rail tracks and roads around the world. About 30,500 employees at over 100 sites in more than 30 countries use their competence and motivation to satisfy customers worldwide with products and services. In 2021, Knorr-Bremse's two divisions together generated revenues of EUR 6.7 billion. For more than 115 years the company has been the industry innovator, driving developments in mobility and transportation technologies with an edge in connected system solutions. Knorr-Bremse is one of Germany's most successful industrial companies and profits from the key global megatrends: Urbanization, Sustainability, Digitalization and Mobility.

Nexxiot is a TradeTech pioneer with a mission to enable easier, safer, and cleaner transportation for all stakeholders in the global supply chain. Nexxiot's IoT hardware, software and analytics create transparency to improve efficiency and preserve value across supply networks. The technology mitigates risks to people, infrastructure and cargo and reduces emissions and waste. The company empowers carriers, cargo owners and other transportation participants to monitor the location, status and conditions of their assets and cargo in real-time, anywhere in the world. Sophisticated Big Data analytics delivers business intelligence at scale to drive efficiency, process automation and achieve sustainability targets. Headquartered in Zurich, Nexxiot operates throughout Europe and the U.S., with an international team of employees from 28 countries. For more information, visit www.nexxiot.com.

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