

Press Release

Munich, March 30, 2016

Knorr-Bremse posts sales of almost EUR 6 billion and pre-tax earnings of almost EUR 1 billion in 2015

- **Sales up 12% against the previous year at EUR 5.83 billion**
- **Pre-tax earnings and net income rise 20% and 15% year-on-year respectively**
- **All operational indicators at record levels**
- **Total investment of over EUR 2.8 billion since 2010 in expansion of development and production facilities (EUR 1.3 billion) and development of new systems and products (EUR 1.5 billion)**
- **Trailblazing Test and Development Center completed in Munich to extend technology leadership**

In its 110th year, Knorr-Bremse again posted record sales and earnings. In fiscal 2015 the world's leading manufacturer of braking systems for rail and commercial vehicles saw sales increase 12% to EUR 5.83 billion (2014: EUR 5.21 billion). Pre-tax earnings totaled EUR 977 million (2014: EUR 847 million). Net income for the year rose 15% to reach EUR 645 million (2014: EUR 560 million), generating a net return on sales of 11.1% (2014: 10.8%). Incoming orders were valued at EUR 5.67 billion, 3% up on the previous year (EUR 5.51 billion).

According to Klaus Deller, Chairman of the Executive Board of Knorr-Bremse AG: "Thanks to our innovative capabilities and a clear focus on creating genuine added value for vehicle manufacturers and operators, we have again extended our lead in the worldwide rail and commercial vehicle industries, attaining new record levels in all the relevant indicators, including quality, on-time delivery, and customer satisfaction. As a result, last year we posted double-digit growth in both sales and earnings."

2015 marked not only the Company's 110th anniversary but also the 30th anniversary of the takeover by Heinz Hermann Thiele. As Deller put it: "Thiele's acquisition of Knorr-Bremse in 1985 must have been the most successful management buy-out in the recent history of German business. He focused the Company on its core business and over the past 30 years multiplied sales by more than thirty times. He transformed a failing company into what is now a global market leader by a wide margin in its fields of activity, ideally placed to achieve further above-average growth."

Investing in the future

To safeguard its future, since 2010 the Group has invested more than EUR 1.3 billion in the construction and expansion of production and development facilities. In the past financial year, capital expenditure totaled EUR 210 million (2014: EUR 161 million). The new Test and Development Center at the Munich site, which represents the largest single investment in the Company's history, was completed at the end of 2015. In all, Knorr-Bremse invested EUR 90 million in the building and its equipment, including more than 100 test rigs. The aim is to develop the next generation of braking systems for rail and commercial vehicles; systems that take account of future requirements. In this context, the new Test and Development Center offers the Company's development engineers globally unparalleled infrastructure. More than 300 engineers and technicians from both corporate divisions will leverage synergies as they work here at interdisciplinary level on connected products and systems.

By making above-average investments in research and development, over recent years Knorr-Bremse has been able to greatly expand its global technology leadership, extending its lead over the competition. In the past financial year the Company further increased its total expenditure on research and development to EUR 347 million (2014: EUR 296 million), which equates to 6.0% (2014: 5.7%) of consolidated sales. This means that since 2010 Knorr-Bremse has invested more than EUR 1.5 billion in the development of new products and systems. In fiscal 2015, 3,348 employees worked in research and development, which equates to 13.8% of the workforce (2014: 13.0%).

At year-end 2015, the Knorr-Bremse Group employed 24,275 persons (21,783 excluding HR leasing). This equates to a year-on-year increase of 1.5% (4.3% excluding HR leasing). Across the Group, at year-end 2015 the region Europe (Western and Eastern Europe)/Africa/Middle East accounted for 53.0% of the workforce, North and South America for 19.7%, and Asia/Australia for 27.3%. The six German plants in Aldersbach, Berlin, Dresden, Holzkirchen, Munich, and Schwieberdingen employed a total of 4,742 persons at year-end (2014: 4,846), which represents 19.5% of the total workforce.

Responsibility for sustainable success

For Knorr-Bremse as a family firm, far-sighted and responsible behavior has always formed a fundamental part of the Company's business model. In 2015, Knorr-Bremse was able to achieve further progress in respect of environmental and climate protection and reduced not only its energy and water consumption but also emissions.

The Knorr-Bremse Global Care association, which supports people who, through no fault of their own, are victims of environmental catastrophes, accidents, armed conflict, poverty or illness, last year celebrated its tenth anniversary. "The work of Global Care helps document the social responsibility of Knorr-Bremse," said Klaus Deller. Since Global Care was founded, in 190 projects it has provided some EUR 14 million to help over 625,000 people in need. "In addition, together with our employees, who volunteer their help, as part of our Local Care initiative we also support social and charitable institutions in the vicinity of our plants around the world," Deller added.

Business development in 2015 by division

In a stable global market environment for rail vehicles, the **Rail Vehicle Systems** division achieved 12% growth in the past financial year as sales reached EUR 3.34 billion (2014: EUR 2.98 billion). The primary drivers of this dynamic development were exponential growth in the U.S. rail freight sector, as well as the very positive development of the division's worldwide aftermarket activities. In the past financial year, Knorr-Bremse RailServices was again able to conclude numerous maintenance and modernization agreements, some of them with a term of over 15 years. One recent example is a major order from RUMO/ALL in Brazil: Knorr-Bremse is not only to upgrade the brake equipment on some 8,500 freight cars belonging to South America's largest railroad logistics operator but will also have exclusive responsibility for maintaining the brakes over the next 15 years. With the acquisition of train control specialist Selectron Systems AG in early 2015, Knorr-Bremse expanded its portfolio to include components and solutions for the automation of rail vehicles.

Despite shrinking worldwide truck output, the **Commercial Vehicle Systems** division was able to increase its sales by 12% to a total of EUR 2.49 billion (2014: EUR 2.23 billion). In the past financial year, Knorr-Bremse benefited in particular from the positive development of the commercial vehicle markets in Europe and North America. In Europe, the Company was able to increase its market share in key segments and overcome the competition to win business from major OEMs. For example, Knorr-Bremse acquired new orders for electronic

brake control systems, the electronic parking brake, and compressors with smart control systems. In addition, the Company concluded long-term agreements with leading manufacturers to supply the new ST7 trailer disc brake, thereby winning substantial market shares in this segment.

In the past financial year Knorr-Bremse's U.S. subsidiary Bendix sold its 1 millionth air disc brake and posted robust sales growth with its ESP electronic stability program, which has now surpassed the 400,000 delivery threshold. With the presentation of its new driver assistance system, Wingman Fusion, in 2015, Bendix responded to the growing demand for innovative safety equipment for commercial vehicles in North America. Wingman Fusion is the most advanced collision mitigation system on the market. In the USA, Bendix is the market leader for Advanced Driver Assistance Systems (ADAS).

2015 also saw the start of production of brake components and control systems at Knorr-Bremse's joint venture with the largest Chinese truck manufacturer, Dongfeng. In the future, the product spectrum will also embrace air supply, transmission control, and exhaust brake components for medium and heavy-duty trucks.

Business development in 2015 by region

The global economy showed moderate growth in the year under review. The economic recovery in the industrialized nations contrasted with falling growth rates in the developing and emerging economies. The worldwide market environment for rail vehicles remained stable compared to the previous year. The global commercial vehicle market showed a further downturn in 2015. Increasing truck output in Western Europe, North America, and Japan contrasted with declining production in China and Brazil.

Knorr-Bremse's business showed positive development in the **Europe/Africa/Middle East** region. Sales were up 6.7% at EUR 2.62 billion (2014: EUR 2.45 billion). The rail vehicle market remained at its prior-year level. While the market volume was largely unchanged year-on-year in Germany, France, Spain, and Italy, in Russia project-related call-offs under existing framework agreements were postponed to future years. Knorr-Bremse was able to maintain its leading market position by securing important orders. By way of example, the Company is supplying the braking and entrance systems for regional trains from the AT200 series being built by Hitachi Rail, as well as for Twindexx double-deck cars from Bombardier Transportation, which, from the end of this year, will be on regional service between Munich and Nuremberg. In addition, mining company VALE, which operates a stretch of railroad between Mozambique and Malawi in southern Africa, is having new braking systems from Knorr-Bremse installed in almost 300 of its freight cars.

Truck output in Europe rose 5.5% in 2015 after falling 9.5% in 2014. The recovery was led by positive developments in Germany, Spain, Italy, and the UK. The Commercial Vehicle Systems division was able to grow its market share not least by concluding a multi-year agreement with a major European commercial vehicle builder governing the supply of electronic braking systems and screw-type compressors. As in past years, the disc brake and electronic braking system (EBS, ABS, and ESP) product segments were the key sales drivers.

In **North and South America**, the Company posted sales of EUR 1.43 billion, representing a year-on-year increase of 23.1% (2014: EUR 1.16 billion). Demand for rail vehicles in North America remained stable at a high level in 2015. Thanks to the launch of new products such as the VV-1000T oil-free compressor, Knorr-Bremse was again able to build on its market position.

Truck production in North America benefited from the positive development of the U.S. economy and posted substantial 7.7% growth (2014: +18.8%). Knorr-Bremse subsidiary Bendix was not only able to further reinforce its position in the OEM business but in 2015 also successfully expanded its portfolio of remanufactured components for the after-sales sector. In the South American rail vehicle sector, demand stagnated at the prior-year level. Against the backdrop of the marked political and economic crisis in Brazil, which also impacted on neighboring countries, no positive impetus was forthcoming. As in the previous year, 2015 brought a further recession-led downturn in truck production in South America. In all, the market showed a 46.6% fall-off from 2015 to 2014, after a 28.4% decline in 2013.

In the **Asia/Australia** region, sales rose 12.1% in 2015 to EUR 1.78 billion (2014: EUR 1.59 billion). The rail vehicle markets in Asia/Australia were dominated by demand from the high-speed sector in China. Knorr-Bremse supplied braking equipment for 521 high-speed trains in 2015, as well as a proportion of the entrance and HVAC systems, to a total value of more than EUR 500 million. Knorr-Bremse also benefited from the expansion of local mass transit infrastructures, where the Company was able to secure new orders to supply equipment for metro cars and light rail vehicles. To further reinforce its strong market position in China and participate in expansion in the intercity segment, last year Knorr-Bremse expanded its plant in Suzhou and concluded a joint venture agreement with partner company GuoTong.

The commercial vehicle markets in Asia/Australia were in poor shape in 2015. Truck production was a significant 11.8% down on the prior year (2014: -2.7%). In India truck production increased (+44.5%), but in Japan (-5.2%) and China (-24.1%) output fell.

Outlook for 2016

For fiscal 2016, Knorr-Bremse is anticipating a highly volatile market environment, with the regional markets being impacted by great uncertainties. These include geopolitical risks, economic crises in emerging countries, and the development of the Chinese economy. "Irrespective of these challenging background conditions, we consider ourselves outstandingly well positioned to again maintain our leading position on the world's markets in 2016," said Klaus Deller. "The systematic expansion of our product and service portfolio and the smart connectivity of our systems make Knorr-Bremse the first-choice partner for vehicle manufacturers and operators alike."

In the **Rail Vehicle Systems** sector, at the premier international InnoTrans trade fair in Berlin in September, Knorr-Bremse will be showcasing innovative system solutions that make the operation of passenger and freight trains safer, more comfortable, and more efficient. With the takeover of the rail transport activities of brake pad specialist TMD Friction early in 2016, Knorr-Bremse will in the future be able to offer low-noise organic brake pads in the original equipment sector too. Just recently, the German Federal Government and Deutsche Bahn announced plans to have only low-noise freight cars on the tracks by 2020. Through its joint venture ICER Rail, Knorr-Bremse already manufactures low-noise organic LL pads designed for retrofitting to existing freight car fleets. In this segment Knorr-Bremse recently doubled its production capacity to cope with growing demand.

In the **Commercial Vehicle Systems** sector, among other things Knorr-Bremse is working on the development of a modular, scalable brake control system and a new generation of disc brakes that will enable a reduction in the total cost of ownership (TCO) for vehicle operators. At the IAA International Commercial Vehicle Show in Hanover in September, Knorr-Bremse will be displaying new system solutions that support automated driving. Moreover, at the forthcoming Automechanika B2B fair in Frankfurt, Knorr-Bremse will be presenting the new after-sales brand "TruckServices", offering economical solutions for the trade, workshops, fleets, and drivers over the full vehicle life cycle.

Caption 1: The Executive Board of Knorr-Bremse AG: Dr. Peter Laier, Dr. Lorenz Zwingmann, Klaus Deller, Dr. Dieter Wilhelm (from left).

Caption 2: Klaus Deller, Chairman of the Executive Board of Knorr-Bremse AG.

Caption 3: The new Test and Development Center in Munich, where the next generation of braking systems for rail and commercial vehicles will take shape.

Caption 4: Metro lines form the backbone of mass transit in China. Over the past 25 years, Knorr-Bremse has equipped well over 10,000 Chinese metro cars with braking systems.

Caption 5: Speeding across the ice in Sweden: During winter testing the drivers try out all Knorr-Bremse commercial vehicle systems under extreme conditions.

Knorr-Bremse is the world's leading manufacturer of braking systems for rail and commercial vehicles, with sales totaling almost €6 billion in 2015. In 30 countries, some 25,000 employees develop, manufacture, and service braking, entrance, control, and energy supply systems, HVAC and driver assistance systems, as well as powertrain and transmission control solutions. As a technology leader, for more than 110 years now, through its products the company has been making a decisive contribution to greater safety by road and rail. Every day, more than one billion people around the world put their trust in systems made by Knorr-Bremse.

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