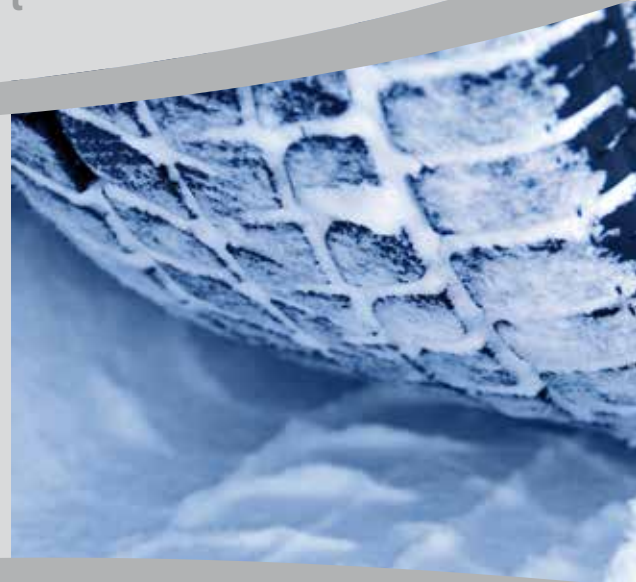


**United Nations Global Compact  
Communication on Progress Report  
Knorr-Bremse Group 2012**



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# 1/ Statement of continued support

Ladies and gentlemen,

As a family owned company, we have always looked to the future and in our particular field of business have endeavored to contribute towards sustainable development of the economy, the environment and society. In our own corporate context we understand sustainability to involve taking economic, social and ecological factors into consideration in all aspects of our business activities. This not only enables us to realize our corporate social responsibilities but also strengthens our long-term strategic focus and helps secure the future of the company.

For the last four years we have also included a focus on sustainability and corporate responsibility as important elements of our corporate strategy and value system and have been developing the necessary structures to achieve this. Implementation of sustainable and responsible corporate management is closely linked to our basic values and principles. As well as Knorr-Bremse's corporate values and the Sustainable Development Charter of the International Association of Public Transport (UITP), the ten principles of the UN Global Compact underpin all the company's activities and involvement in this area.

This second Global Compact Progress Report provides a transparent and detailed account of how we implement the ten principles of the UN Global Compact and what areas we have made progress in since the last report. We do not shrink from identifying areas where there is still much to be done. Our comprehensive internal analysis of implementation of the principles of the Global Compact has shown us how far we have come and in what areas we still need to make further progress. We aim to close these gaps by systematically developing and implementing measures that enable us to achieve our aspirations. Knorr-Bremse is committed to supporting and driving forward the process of applying the ten UN Global Compact principles.

Best regards



Dr. Lorenz Zwingmann  
Spokesman for the Knorr-Bremse AG Executive Board

## 2/ Overview of the Knorr-Bremse Group

The Knorr-Bremse Group is the world's leading manufacturer of braking systems for rail and commercial vehicles. For more than 100 years now, the company has pioneered the development, production, marketing and servicing of state-of-the-art braking systems. In the rail vehicle systems sector, the product portfolio also includes intelligent door systems, control components, air conditioning systems and wind-screen wiper systems, as well as platform screen doors. Knorr-Bremse also offers driving simulators and e-learning systems for optimum train crew training. In the commercial vehicle systems sector, the product range includes complete braking systems with driver assistance systems, as well as torsional vibration dampers, powertrain-related solutions and transmission control systems for enhanced energy efficiency and fuel economy.

The Knorr-Bremse Group has both a divisional and a regional structure. Knorr-Bremse AG encompasses the global Rail Vehicle Systems and Commercial Vehicle Systems divisions as well as regional companies in Europe, North America, South America and Asia-Pacific. This structure allows Knorr-Bremse to respond to the specific requirements of the various regional markets while at the same time generating synergies across different locations and divisions.

Knorr-Bremse's Corporate Responsibility (CR) strategy approved in 2010 enables the company to adopt an integrated approach towards realizing its responsibility for the environment, its workforce and society as a whole. As an essential element in the Knorr-Bremse Group corporate strategy, the CR strategy is based not only on the Group's corporate values but also on the internationally recognized principles of the UN Global Compact. The company has defined six areas for action and put these at the heart of its CR strategy, developing and coordinating appropriate measures. The six areas are: CR management, products, employees, environmental and climate protection, social commitment and CR communication.

You can find further information about our CR strategy and CR management system in the 2011 Annual Report or on our webpage.

## 3/ Human rights

Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights and

Principle 2: make sure they are not complicit in human rights abuses.

Knorr-Bremse respects the protection of human rights and makes sure that it is not complicit in human rights abuses. We are committed to respecting the principles of the internationally recognized standards contained in the UN Global Compact, the International Labor Organization (ILO) Conventions and the UN Universal Declaration of Human Rights. These voluntary commitments underpin our activities in conjunction with the relevant national legislation.

### Code of conduct

As a global technology leader, it goes without saying that the Knorr-Bremse Group always conducts itself in a correct, responsible and exemplary manner. In this context we have developed a Group-wide Code of Conduct based on existing local guidelines. The Code of Conduct summarizes our principles and rules and is binding for every employee within the Knorr-Bremse Group. It means that we now have an internationally standardized concept of what constitutes responsible corporate behavior. The Code of Conduct is based on the principles of the UN Global Compact and explicitly reiterates our commitment to respect for human rights, fair working conditions, environmental protection and respect for the law. During the year under review we finalized this Code of Conduct and the next step will be to introduce it throughout the Group. We will then concentrate on developing structures and instruments to support compliance with the Group-wide Code. In addition to communication, the development of appropriate training measures will play an important role in this context.

### Procurement guidelines

Knorr-Bremse is concerned to ensure that its commitment to responsible conduct is also applied throughout the supply chain. For this reason we have started to integrate sustainability aspects into the Group's procurement structures. In both divisions – Commercial Vehicle Systems and Rail Vehicle Systems – we have revised the quality management guidelines for procurement and added requirements regarding implementation of the ten principles of the UN Global Compact. These quality management guidelines for procurement contain provisions aimed at continuously improving processes, quality, environmental compatibility and productivity in close collaboration with suppliers, and form part of the contractual agreement with all suppliers of production materials. Should a supplier fail to comply with these standards, Knorr-Bremse reserves the right to review the relationship with the supplier for future transactions and enquiries and, where necessary, to terminate it. To support implementation of this guideline, we have augmented the relevant supplier evaluation questionnaire with a series of questions

relating to the ten Global Compact principles. This systematic audit process will enable us to verify the extent to which our suppliers are implementing the ten principles and, if necessary, make recommendations and propose measures to support improvement and implementation.

Sustainability criteria have also been incorporated into the indirect procurement guidelines, and when selecting suppliers we also consider their activities regarding environmental compatibility and social responsibility.

## Health & safety management

Workplace health and safety are important priorities for Knorr-Bremse, and are fully integrated into the company's business processes. The Health, Safety and Environment (HSE) department is responsible for all health & safety measures and maintains a presence at each site.

Knorr-Bremse organizes a wide range of activities aimed at raising awareness of health issues amongst its employees all over the world. We hold regular "health days", carry out occupational health checks and analyses of workplace conditions and organize a range of other activities. Many sites even offer a comprehensive sports program including fitness courses, company sports equipment and team and group sporting activities. We also encourage participation in external sporting events.

Knorr-Bremse's Health, Safety and Environment policy underpins our systematic approach to managing health & safety in the workplace. Standardized processes and regular internal audits ensure that minimum standards are in place across all our world-wide operations. The key areas addressed by our safety management system include comprehensive site, workplace and work process risk assessments, employee training and information campaigns to promote awareness of safety issues, as well as thorough analyses of any accidents, followed by introduction of the relevant preventive measures. Our health & safety indicators bear witness to the results of our efforts, for example the number of lost-time accidents per 200,000 working hours has remained at a low rate.

2009		1.1
2010		1.2
2011		1.0

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Number of workplace accidents per 200,000 employee working hours

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Knorr-Bremse attaches great importance to external certification of its management systems in accordance with international standards. In the Rail Vehicle Systems division some 71% of production sites worldwide are certified to the OHSAS 18001 (Occupational Health & safety Assessment Series) standard – and all sites in Europe have certification. Our aim is to achieve step-by-step external assessment of more non-European sites. During the year under review, IFE North America and our site in Johannesburg, South Africa, also achieved OHSAS 18001 certification.

## Sustainable aid worldwide with Knorr-Bremse Global Care e.V.

A regular income, a roof over your head, access to medical treatment and education – these are all things that cannot be taken for granted in many countries of the world. For seven years, the charitable organization Knorr-Bremse Global Care e.V. has been supporting people who, through no fault of their own, find themselves in need as a result of environmental disasters, accidents, armed conflict, poverty or illness. The central aim of the organization is to improve their lives and help them to achieve greater independence by enabling them to support themselves and determine their own lives.

Knorr-Bremse Global Care e.V. sees itself as a partner that can contribute not only financial resources but also time, expertise and experience. The experience of our partner organizations, combined with efficient project management and monitoring by Knorr-Bremse Global Care itself, is the key to success and enables our joint activities to have a lasting impact.

The organization also aims to raise awareness of social responsibility amongst employees of the Knorr-Bremse Group and encourage them to become actively involved themselves.

Further information and examples of projects can be found on the Internet at <http://www.global-care.knorr-bremse.com/en>.

## 4/ Labor standards

- Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining and furthermore uphold
- Principle 4: the elimination of all forms of forced and compulsory labor
- Principle 5: the effective abolition of child labor and
- Principle 6: the elimination of discrimination in respect of employment and occupation.

Knorr-Bremse respects and protects the rights of its employees and has made its own clear commitments in this regard: Compliance with high standards for a safe and healthy working environment, fair working conditions, the right to freedom of association and active promotion of equal opportunities and equal treatment for our employees throughout the world all form a key part of our corporate responsibilities. We are categorically opposed to all forms of forced and child labor.

### Monitoring the ten UN Global Compact principles

Mindful of our commitment and in a bid to assess implementation of the principles of the Global Compact, we have introduced an internal monitoring system. In 2011 we launched a global survey of compliance with the ten principles. A total of 33 major production sites covering all countries in which Knorr-Bremse operates were asked about the extent to which the principles had been fulfilled. In addition, internal audits on implementation of the Global Compact principles were carried out at selected sites in China, India and Russia. The aim of the survey was to establish which systems and local approaches to meeting labor, environment and social standards as well as human rights had been implemented and in what areas there was scope for improvement. We have summarized some of the survey results in the table that follows.



## Results of Global Compact survey 2011/2012:

Global Compact Principle	Local implementation measures	Potential for improvement identified by sites	Current status and next steps
<b>Principle 1:</b> Support for human rights	<ul style="list-style-type: none"> <li>• Compliance with national legislation</li> <li>• Application of local codes of conduct</li> </ul>	<ul style="list-style-type: none"> <li>• Code of conduct applicable throughout the Group</li> <li>• Expansion of internal training</li> </ul>	<ul style="list-style-type: none"> <li>• Group-wide code of conduct developed during the year under review</li> <li>• This is now being rolled out and communicated throughout the Group.</li> </ul>
<b>Principle 2:</b> Prevention of human rights infringements	<ul style="list-style-type: none"> <li>• Integration of sustainability aspects into supplier audits, contracts and programs at individual sites</li> <li>• Application of Group-wide procurement guidelines</li> </ul>	<ul style="list-style-type: none"> <li>• Global approach to sustainable procurement management</li> <li>• Ongoing implementation of supplier audits with regard to application of the ten principles</li> </ul>	<ul style="list-style-type: none"> <li>• Integration of the Global Compact principles into the quality management guidelines for procurement in both divisions and the assessment management system for new suppliers: <ul style="list-style-type: none"> <li>- Rail Vehicle Systems division: voluntary information from suppliers</li> <li>- Commercial Vehicle Systems division: supplier risk assessment</li> </ul> </li> <li>• Audit results now have to be analyzed more closely and appropriate measures drawn up.</li> </ul>
<b>Principle 3:</b> Preserving freedom of assembly	<ul style="list-style-type: none"> <li>• Active trade unions and employee organizations at various sites</li> <li>• Collective bargaining</li> <li>• Constructive dialogue with works councils</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of current involvement</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of current involvement</li> </ul>
<b>Principle 4:</b> Elimination of all forms of forced labor	<ul style="list-style-type: none"> <li>• All employees have written employment contracts and job descriptions. This is also formally regulated in internal HR processes and documented by our HR systems.</li> </ul>	<ul style="list-style-type: none"> <li>• Incorporation of the principles of the UN Global Compact into supply chain management</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of current involvement (see above)</li> </ul>

Global Compact Principle	Local implementation measures	Potential for improvement identified by sites	Current status and next steps
<b>Principle 5:</b> Abolition of child labor	<ul style="list-style-type: none"> <li>• Child labor is neither tolerated nor practised at Knorr-Bremse or at any of its suppliers world-wide.</li> <li>• Confirmation also through external audits</li> <li>• Support for educational programmes for children and young people</li> </ul>	<ul style="list-style-type: none"> <li>• Incorporation of the principles of the UN Global Compact into supply chain management</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of current involvement (see above)</li> <li>• Further actions to be identified during the coming year</li> </ul>
<b>Principle 6:</b> Elimination of discrimination	<ul style="list-style-type: none"> <li>• Compliance with national legislation and internal guidelines</li> <li>• Recruitment of local staff</li> <li>• Remuneration according to performance</li> <li>• Appointments irrespective of gender or national origin</li> <li>• Complaints procedure established</li> <li>• Analysis of gender-relevant indicators</li> </ul>	<ul style="list-style-type: none"> <li>• Analysis of equality of opportunity at all levels</li> </ul>	<ul style="list-style-type: none"> <li>• Equality of opportunity to be given greater emphasis in our Corporate Responsibility strategy and appropriate options for action identified</li> <li>• Further measures to increase our attraction as an employer will be systematically explored and implemented.</li> </ul>
<b>Principle 7:</b> Precautionary approach to environmental challenges	<ul style="list-style-type: none"> <li>• Environmental management system based on ISO 14001</li> <li>• Environmental risk analysis as part of environmental management and general risk management</li> <li>• Health &amp; safety and environmental protection policy communicated to all employees</li> <li>• Monthly key environmental data</li> <li>• Identification of energy saving potential by external consultants</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of current involvement</li> <li>• Expansion of environment-oriented product risk analysis</li> </ul>	<ul style="list-style-type: none"> <li>• The Ecodesign project is also to be launched in the Commercial Vehicle Systems division</li> <li>• Analysis of value chains for selected products in terms of potential risks and opportunities</li> </ul>

Global Compact Principle	Local implementation measures	Potential for improvement identified by sites	Current status and next steps
<b>Principle 8:</b> Initiatives for greater environmental responsibility	<ul style="list-style-type: none"> <li>• Implementation of the ECCO<sub>2</sub> initiative (see page 16)</li> <li>• Encouraging environmental awareness</li> <li>• Regular communication and training</li> <li>• Environmental goals at site and Group level</li> </ul>	<ul style="list-style-type: none"> <li>• Systematic analysis of environmentally friendly technologies in production and assembly</li> <li>• Promotion of best practice exchange between sites</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of ECCO<sub>2</sub> initiative</li> <li>• Supporting best practice exchange through “round table” discussions and transparent communication of activities and names of contact persons</li> <li>• Implementation of a Group-wide energy management system based on ISO 50001.</li> </ul>
<b>Principle 9:</b> Diffusion of environmentally friendly technologies	<ul style="list-style-type: none"> <li>• Environmentally friendly product portfolio</li> <li>• Guideline on promoting recyclability and reprocessing</li> <li>• Measures towards more environmentally friendly production (technologies, machines, equipment, processes)</li> </ul>	<ul style="list-style-type: none"> <li>• Continued expansion of environmentally friendly technologies in production and manufacturing</li> <li>• Further expansion of environmentally friendly product portfolio</li> <li>• Analysis of value chains</li> </ul>	<ul style="list-style-type: none"> <li>• Construction standards for factory and administrative buildings to be implemented on a Group-wide basis</li> <li>• Integration of energy and resource consumption into value stream analyses</li> <li>• Implementation of the Ecodesign project</li> <li>• Expansion of product communication</li> </ul>
<b>Principle 10:</b> Anti-corruption	<ul style="list-style-type: none"> <li>• Application of local codes of conduct</li> <li>• Group-wide guideline on acceptance of gifts from business partners</li> <li>• Internal audits and management training</li> <li>• Application of the four-eye principle</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of a Group-wide anti-corruption guideline</li> </ul>	<ul style="list-style-type: none"> <li>• Code of conduct applicable throughout the Group to be rolled out during the coming year</li> </ul>

## General working conditions

In keeping with our stance on fair working conditions, certain minimum standards are stipulated in our employees' contracts. The basis of each contract is voluntary agreement with the employees, who may exercise their right to terminate the contract unilaterally after the relevant period of time has elapsed. When we recruit a new employees we always verify their age to ensure that they are above the statutory minimum employment age.

Various sites operate systems of employee representation. Company co-determination is established on a statutory basis. The Works Council is an important organ that enables company management to maintain an ongoing, constructive and trusting dialogue.

## Attractive employer

Knorr-Bremse is keen to position itself worldwide as an attractive employer capable of recruiting and retaining top quality staff. Amongst other things this involves recognizing good performance and helping employees achieve a balance between their personal and professional goals.

Knorr-Bremse offers target- and performance-related remuneration and various additional forms of payment – for example subsidies for childcare, preventive health care or use of public transport. We also support our employees in achieving a better work/life balance by offering the possibility of flexi-time, teleworking, part-time working and temporary leave, or by supporting them when it comes to caring for children or relatives. A wide range of personal and specialized training provisions enables employees to improve their qualifications – even beyond what is required for their particular profession.

Well motivated employees who feel loyalty towards the company are an important element in our global success, and we express our gratitude to them at many sites with special events such as "family days".

In order to assess levels of satisfaction amongst the workforce and identify possible areas for improvement, we regularly carry out employee surveys. In 2011, 77% of the workforce used the opportunity to provide management with feedback and thereby to influence their working environment in the future. Global levels of satisfaction and commitment are high. An extremely positive rating was given to standards of workplace equipment, social commitment, health & safety and environmental protection. Room for improvement was identified in the areas of management development, corporate culture and workload, and we are currently working on a raft of measures in these areas. As part of an internationally oriented project we have closely examined our own corporate and management culture with a view to developing them to meet future challenges. During the year under review we focused on drawing up new corporate values designed to provide employees throughout the Group worldwide with a framework for their day-to-day activities and decision-making processes. Another area of focus was the question of management culture. Managers have a direct influence on the motivation and performance of employees and therefore make a crucial contribution to the success of the company. We intend to continuously develop the skills of our managers through a variety of different measures such as leadership feedback, agreed personal or specialist targets, mandatory management training and coaching as well as mentoring programs.

## Work/life balance

As a family-run company we are especially concerned to focus more on the needs of families and the balance between work and private life. With this in mind, Knorr-Bremse has introduced various world-wide initiatives and measures and will continue to expand these in the future. We are, however, aware that what is on offer depends very much on the individual position of the employee concerned, the area in which he or she works and the degree of responsibility involved. For this reason, the approach taken can vary from one site to another. Provisions include:

- Flexible working hours and working time accounts for employees on regular salary scales – enabling overtime and short-time working to be balanced out over time.
- Part-time working
- Sabbaticals – enabling employees to take time out for several months and then return to their job.
- Teleworking – offering employees the possibility of spending some of the agreed working time away from the workplace.
- Care provisions for the family – for example childcare or care for relatives
- Family support programs, for example contributions towards preventive health care and sickness insurance, special financial subsidies or loans, vacation care, family days, days off in the case of illness of a child or relative requiring care, maternity leave and parental leave even in countries without such statutory provisions.
- Other provisions such as health programs and facilities

## Supply chain

During the year covered by this report, we began incorporating the UN Global Compact principles into our Rail and Commercial Vehicle Systems divisions' Quality Management Program for Procurement as an integral part of our contracts with suppliers (see page 5). This helps us to ensure that our suppliers conduct themselves in compliance with our principles and commitments. Going forward, we shall be performing regular supplier audits to assess whether and to what extent our suppliers are observing the standards contained in this guideline and implementing the Global Compact principles.

## Diversity and equal opportunities

Knorr-Bremse supports equal opportunities and equal treatment for all its employees, irrespective of the color of their skin, their national or social origins, any disability they may have, their sexual orientation, political or religious beliefs, gender or age.

As an employer in 27 different countries, cultural diversity is one of Knorr-Bremse's success factors. For this reason it is important for us to encourage an understanding of and respect for other cultures and life

situations and drive forward the integration of employees from other countries. Specific examples include the use of local managers at international sites, intercultural training courses and the promotion of foreign postings. Knorr-Bremse currently has some 100 employees from all levels of the hierarchy posted abroad.

Knorr-Bremse believes in equality of opportunity for men and women, and it goes without saying that the company treats its employees equally, irrespective of their gender. New members of staff and managers are recruited exclusively on the basis of their qualifications. And we do not differentiate between the salaries of male and female employees.

Employees with severe disabilities and health impairments are given particular protection and encouragement by Knorr-Bremse. When it comes to finding the right job, special representatives for the severely disabled play an important role. In 2011, 268 severely disabled people were working for Knorr-Bremse in Germany (2010: 249) – 8% of the workforce (2010: 7.9%). The value of orders going to workshops for people with disabilities was some EUR 378,000 in 2011 (2010: EUR 350,000). In 2011 our subsidiary in Hungary successfully set up a partnership with a local workshop for the disabled. By outsourcing the production of original spare parts kits to Fepa Nonprofit GmbH we were able to meet our high standards in terms of short production times, optimum costs, high quality and fluctuating demand and at the same time ensure a source of income for the workshop.

## Working with society through Knorr-Bremse Global Care

In order to contribute to the prevention of child labor, Knorr-Bremse, through the Knorr-Bremse Global Care organization, actively supports educational initiatives and projects in countries where child labor is still widespread. Knorr-Bremse Global Care seeks to bring about a lasting improvement in children's lives by promoting opportunities for them to receive schooling and vocational training. One example is a project in Malaysia (Sabah, Borneo). In conjunction with our partner organization the Borneo Child Aid Society, Knorr-Bremse Global Care is supporting the construction of two learning centers and a floating classroom that will enable education to be made available to children who live in such remote areas that the daily school trip would otherwise be impossible. The project will not only ensure that 450 children receive a primary school education – it will also protect them against being exploited as labor and from becoming involved in illegal activities like dynamite fishing.

For further information and examples of some of our other projects, visit our web site at <http://www.global-care.knorr-bremse.com/en/>.

## 5/ Environment

Principle 7: Businesses should support a precautionary approach to environmental challenges,

Principle 8: undertake initiatives to promote greater environmental responsibility and

Principle 9: encourage the development and diffusion of environmentally friendly technologies.

Knorr-Bremse supports environmental protection through adopting a precautionary approach and consistently encourages the development and spread of environmentally friendly technologies. Our aim is to minimize the impact on the environment through responsible, sustainable use of natural resources, to continuously improve environmental protection and to develop a greater sense of responsibility amongst employees and suppliers.

### Group-wide guidelines

Our actions are guided by our Group-wide Health, Safety and Environment policy. This voluntary commitment reflects our responsibilities as a company and goes beyond mere compliance with national legislation. Amongst other things it includes aspects such as efficient resource use, awareness raising, environmental management and product responsibility. To ensure that this commitment is put into practice, Knorr-Bremse has created a mandatory environmental management system that incorporates both internal and external regulations and standards on environmental protection. Responsibility for the communication and implementation of the relevant measures rests with our divisional managers and employees across all areas of our business.

### Environmental management in accordance with international standards

Knorr-Bremse complies with all the environmental regulations and standards that apply to its various sites and has introduced corresponding environmental management systems across the board. Environmental hazards and risks are routinely assessed in internal health & safety and environmental audits, and appropriate measures are introduced to reduce these risks.

Since 2001 we have been driving a process of Group-wide certification of all our sites in the rail and commercial vehicle divisions under the international environmental management standard ISO 14001. Certification has already been achieved for our production and service sites in Europe, North and South America and the majority of our sites in the Asia-Pacific region, and over the next few years further sites will be included, step-by-step, in the environmental certification process. During the year under review our subsidiary IFE North America achieved ISO 14001 certification.

## Promoting environmental awareness

We use internal training and communication to increase our employees' awareness of environmental issues. Individual sites carry out regular assessments of training needs and put together the relevant in-service training programs. We also run a variety of awareness-raising campaigns and initiatives. Campaigns involving information brochures, calendars, lecture series, competitions, events for employees' children and exhibitions offer tips and tricks for environmentally responsible behavior at work and at home. For the second time in succession we presented internal Knorr-Bremse CR Awards for outstanding projects in the fields of "Environment" and "Social Commitment". During the year in question there were two winners in the "Environment" category – an initiative in operational environmental protection and a product with a positive impact on the environment. The LEADER driver information system received the award for its significant contribution towards reducing rail vehicle fuel consumption and CO<sub>2</sub> emissions; and the second winner was Knorr-Bremse subsidiary IFE VICTALL for improvement projects carried out as part of the ECCO<sub>2</sub> initiative (see section on Climate protection targets) and for its comprehensive program for raising environmental awareness amongst employees and their families.

## Climate protection targets

Knorr-Bremse has launched a Group-wide energy-efficiency campaign that sets ambitious targets for the company. The aim of ECCO<sub>2</sub> (Efficient Cut in CO<sub>2</sub>) is to achieve a 20% increase in energy efficiency – compared with 2009 – by the year 2020 and thus also a 20% reduction in CO<sub>2</sub> emissions. To do this, potential energy savings across all areas of our business are systematically identified and exploited. Appropriate measures are standardized and incorporated into company processes. For this purpose we also bring in external consultants – more than 40 of our sites worldwide have already received independent advice. Successful projects are then transferred to other sites. An exchange of best practice solutions takes place using internal means of communication and Group-wide guidelines such as the Lighting Guideline.

During the year under review, the main focus of ECCO<sub>2</sub> was on optimizing waste heat recovery systems, making increased use of energy-saving lighting systems, adapting and improving assembly lines and raising employees' awareness of climate change issues. Measures taken in 2011 resulted in an 11% reduction in CO<sub>2</sub> emissions and an increase in energy efficiency amounting to 8% of specific energy consumption.

## Environmental protection in production

Ongoing improvement of our environmental performance is a central element of the Knorr-Bremse Group corporate culture. This includes efficient use of energy and resources as well as minimization of emissions and waste and an increase in the use of environmentally friendly products and materials.

We regularly record quantitative data on our environmental performance so that we can set operational targets at site level. Sites also regularly exchange best practice examples in areas such as efficient energy use, raising awareness of environmental issues, waste water treatment and waste management.



### Energy management

Potential areas for saving energy are systematically identified in all parts of the company and appropriate action taken (see page 16). We continue to work towards further reducing specific energy consumption by improving our manufacturing equipment and choice of processes and by upgrading plant technology.

2009		87.3
2010*		71.9
2011		67.2

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Energy consumption (kWh/1,000 EUR turnover)

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\*The figures for previous years have been adjusted to take into account improved data.

### Water utilization

As part of our environmental management system we have developed site-specific measures aimed at reducing water consumption as far as possible. Water is used in particular for surface treatment and cleaning of our products, for test applications and also as drinking water and for sanitary facilities. Our aim is to use it as efficiently as possible and – where feasible – to recycle it. Our water supply comes from local authority utilities and we dispose of it in compliance with statutory requirements via the public waste water system. In order to reduce drinking water consumption, some of our sites use rainwater for cleaning, for sanitary facilities and for irrigation purposes. At company headquarters in Munich, for example, we have a closed circuit system that uses groundwater to cool the administration building and IT center. State-of-the-art technologies for wastewater treatment also help reduce water consumption.

Since 2009 Knorr-Bremse has reduced its specific fresh water consumption continuously.

2009		124
2010*		101
2011		97

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Water consumption (l/1,000 EUR turnover)

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\*The figures for previous years have been adjusted to take into account improved data.

### Material efficiency

One of the main ways Knorr-Bremse saves resources is by making sparing and efficient use of materials in its production processes. In particular this applies to steel and iron materials, light metals, polymers, fuels and lubricants and packaging materials. We also set great store by ensuring that our production processes are as efficient as possible and generate as little waste as possible. We try to use non-hazardous materials and also more environmentally friendly alternatives wherever possible.

## Waste

Knorr-Bremse operates on the principle of sustainable material cycles: reducing waste comes before recycling, which comes before disposal. The primary goal is to reduce the total volume of waste as far as possible, and in particular hazardous waste. In cases where waste is unavoidable we are in favor of environmentally friendly recycling. Most of the waste we generate consists of electro-plating sludge from surface treatment processes and metallic waste caused by processing intermediate products. There is also packaging waste consisting of cardboard, plastic and wooden pallets. In recent years the measures we have taken to improve material cycles and reduce, separate and recycle waste have resulted in significant cuts in the volume of waste generated. Knorr-Bremse currently has a recycling quota of approximately 70%.

## Green IT

With its Green IT project Knorr-Bremse has considerably improved the energy efficiency of its IT infrastructure. The main elements in the project are optimization of the Corporate Data Center and users' periphery at corporate headquarters in Munich. The data center has been equipped with modern energy technology, air conditioning and an interruption-free power supply. Existing IT hardware and software have been analyzed, more energy-efficient printers, monitors and PCs acquired, operating systems adjusted to save energy and users instructed accordingly.

## Transport

As part of our Supply Chain Excellence initiative (SCE) we continuously monitor inter-site supply flows and logistics. By optimizing our transport network and route planning we have been able to increase the efficiency of our logistics chain and have already reduced transport-related CO<sub>2</sub> emissions by 16%.

## Incorporating environmental and social considerations into plans for new sites

In order to minimize the environmental impact and energy consumption of new sites from the very outset, Knorr-Bremse has developed a guideline setting out construction standards for factory and office buildings. We aim to use intelligent planning to reduce the environmental impact and resource consumption of new buildings while at the same time creating a pleasant and healthy working environment for our employees. For example our new site in Brazil is being planned and constructed in line with the internationally recognized LEED (Leadership in Energy & Environmental Design) standard for environmentally friendly, resource-efficient and sustainable building.

## Sustainable product portfolio

In both the commercial vehicle and rail vehicle sectors, climate change and energy efficiency have be-

come increasingly important in recent years. In response Knorr-Bremse has made the development of fuel-efficient technologies a priority, and is now able to offer solutions that are tailored to market needs.

It was, for example, the first company to launch a compressor in the market that operates without the need for any oil lubrication. And the LEADER driver information system makes energy savings of up to 15% possible in rail vehicles.

For the commercial vehicle sector we offer the Pneumatic Booster System (PBS), which eliminates turbo-lag during start-off and directly saves 2% to 3% fuel by enhancing engine performance (even more if this enables the engine to be downsized) as well as considerably reducing weight and saving resources. And by contrast with traditional air supply systems, the latest version of the Electronic Air Control System (EAC2) switches the compressor on and off according to the driving situation, enabling CO<sub>2</sub> emissions per vehicle to be reduced by up to 2.5 tons per year.

## Sustainable product design: Ecodesign Project

Environmental compatibility and resource efficiency play an important role for Knorr-Bremse when it is developing innovative technologies. The Rail Vehicle Systems division recently launched the Ecodesign Project with a view to boosting the company's commitment to product sustainability.

The aim of the project is to analyze the environmental impact of selected products across the entire life cycle and further improve their environmental compatibility. Our product groups have been examined on the basis of criteria such as energy consumption during manufacture and operation, use of critical materials, weight and disposal – and areas for action have been identified. Analyses of the value chain have yielded valuable insights into material and resource requirements and environmental compatibility during use. For example we have looked at the contribution that weight-saving materials can make towards minimizing a vehicle's overall energy consumption.

## Social contribution of Knorr-Bremse Global Care e.V.

The charitable organization Knorr-Bremse Global Care e.V. funds projects that have a far-reaching impact in the fields of education and social infrastructure. The organization takes a holistic and – where possible – sustainable approach to its aid projects and thus also contributes towards solving environmental problems.

For example, since 2012 we have been supporting the Integrated Tribal Watershed and Development Programme (ITWDP) in Haiti. This is an initiative that was originally launched by the Jesuits in drought zones of western India, but is now being applied to Haiti as well. The aim is to redevelop an area of around 1,000 hectares in the province of North Artibonite in Haiti. This is a rural region with a severely impoverished population of around 7,300. The only way they can make a living is by producing and selling charcoal. But large-scale felling of trees is turning the landscape into a desert. Agricultural production is virtually impossible, drinking water is scarce and the burning of charcoal is having a negative impact on people's health. In conjunction with the Jesuits, Knorr-Bremse Global Care e.V. is implementing a raft

of measures aimed at improving the income situation and the lives of the inhabitants. This includes reforestation, drainage, construction of a bio-gas plant for fertilizer and energy generation and the introduction of vegetable growing, arable farming and cattle rearing – all accompanied by clear rules on land use. The idea is that the local inhabitants will be able to generate new sources of income and determine their own lives. At the same time these measures have a positive impact on the natural environment and help reduce erosion, improve air quality, protect the climate and raise the groundwater level.

Knorr-Bremse Global Care has set itself the goal of putting greater focus on the relationship between environmental issues and poverty. With this in mind, the organization has decided to support an environmental awareness pilot project. Since June 2011 Knorr-Bremse Global Care has been helping to fund the Green Schools Campaign in Mumbai, India, which aims to raise levels of environmental awareness amongst schoolchildren. The Green Schools Campaign is part of the Green Line project launched by the Don Bosco Development Society Mumbai under the motto “greener people, greener world”. Green Line aims to encourage a greener lifestyle amongst the inhabitants of Mumbai and shows them specific examples of what this can involve. As part of the Green School Campaign, schoolchildren are nominated as “Green Campaigners” and tasked with spreading the idea of careful use of resources in their particular district of the city. The kids grapple with practical aspects of issues like waste management, energy saving and water protection and are given the possibility of running practical environmental projects in their school. They act as multipliers, involving their families and networks of friends as well, and raising awareness of more environmentally conscious lifestyles. During the year under review, one important milestone was the “Meet the Mithi” event. The Mithi is a heavily polluted river that flows through Mumbai. More than 300 schoolchildren and teachers from 20 schools started off by finding out about the history of the river, as well as studying its present condition and the useful role it plays in people’s lives. They then cleaned up entire sections of the Mithi and used posters to draw the attention of passing motorists to the need to be more careful with water and stop polluting the river.

## 6/ Anti-corruption

Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

Integrity and responsible behavior in our dealings with business partners and our own employees are fundamental values that underpin everything we do as a company. Knorr-Bremse complies with the relevant legislation and regulations as a matter of course, and is categorically opposed to all forms of corruption, including extortion, bribery and any illegal or immoral behavior.

### Code of conduct

During the year under review we drew up a Code of Conduct for the entire Group that lays down our principles of responsible behavior (see page 5). The Code forbids all forms of corruption, including bribery and blackmail and also lays down further ethical requirements. It serves as a guideline for our employees and aims to encourage integrity and responsible conduct. Over the next year we will be rolling out this Code of Conduct throughout the Group.

If corruption is to be prevented from the outset, it is crucial for the principles laid down in the Code of Conduct to be communicated transparently and effectively to the workforce and appropriate training provided. Every employee should be clear about what we understand to be responsible behavior and the rules that we impose on ourselves. Employees will receive ongoing instruction in our Code of Conduct.

### Further guidelines

The basic principles contained in the Code of Conduct are further developed in the form of Group-wide and regional guidelines, including a quality management guideline for procurement and an internal guideline on acceptance of gifts.

### Internal review system

Internal reviews support the Executive Board in its monitoring role through independent and objective inspections geared towards enhancing business processes and uncovering corruption. No cases of corruption were discovered in the year covered by this report.

### Risk management

We routinely identify risks to our business and implement measures to reduce or prevent them and/or establish methods of managing them. The effectiveness of our risk management system is ensured by the use of common standards and processes. As part of the risk assessment process, business units are regularly investigated in order to identify any potential risk of corruption.

## 7/ Overview of implementation of the ten Global Compact principles

Human rights/labor standards (Principles 1-6)		
Knorr-Bremse guidelines and systems	Measures	Achievements
<ul style="list-style-type: none"> <li>• By signing up to the UN Global Compact we declare our intention to implement the ten principles</li> <li>• As signatories to the UITP Charter for sustainable development we regard achievement of a balance between economic, social and environmental goals as a strategic task</li> <li>• Our new corporate values provide guidance for our daily activities and relations with colleagues, partners and society as a whole</li> <li>• In our Group-wide Code of Conduct and supplementary local codes we undertake to respect human rights, basic labor standards and promote equality of opportunity and diversity</li> <li>• Our health, labor and environmental protection standards provide clear guidelines on how we should behave with regard to workplace health and safety</li> <li>• The quality management guidelines for procurement in our two divisions require our suppliers to adhere to the principles of the UN Global Compact</li> </ul>	<ul style="list-style-type: none"> <li>• Drawing up a Group-wide code of conduct based on the principles of the UN Global Compact. This is regarded as a framework that is supplemented by local codes of conduct</li> <li>• Carrying out self assessments at 33 production sites and internal audits in China, India and Russia with regard to the status of implementation of the ten principles of the UN Global Compact</li> <li>• Integrating the principles of the Global Compact into the quality management guideline for procurement in the Commercial Vehicle Systems and Rail Vehicle Systems divisions</li> <li>• Supplementing the supplier audits in the two divisions with an assessment of implementation of the ten principles</li> <li>• Organizing health management campaigns at company sites</li> <li>• Active communication of the principles of the Global Compact within the Group</li> <li>• Knorr-Bremse Global Care and also our corporate units support a wide range of charitable organizations worldwide through donations, non-cash support and personal involvement aimed at improving the lives of the needy</li> </ul>	<ul style="list-style-type: none"> <li>• On the basis of our internal survey on implementation of the ten principles of the UN Global Compact at 33 production sites we have developed appropriate measures for further implementation, some of which have already been introduced (see page 8)</li> <li>• All European sites in the Rail Vehicle Systems division have achieved certification to OHSAS 18001 (Occupational Health &amp; Safety Assessment Series) standard. Worldwide some 71 % of production sites in the rail division are now certified to this standard</li> <li>• The number of workplace accidents per 200,000 hours worked was 1.0 in 2011 (2010: 1.2; 2009: 1.1)</li> <li>• More than 100 colleagues from over 20 different countries have worked on developing new corporate values</li> </ul>

Environmental protection (Principles 7-9)		
Knorr-Bremse guidelines and systems	Measures	Achievements
<ul style="list-style-type: none"> <li>• Our responsibility for the environment and climate protection is laid down as part of our health &amp; safety and environmental protection policy. Amongst other things it includes resource efficiency, awareness raising, environmental management and product responsibility</li> <li>• Our environmental management system based on ISO 14001 enables us to ensure that our processes and products are shaped according to the principle of precautionary environmental protection</li> <li>• Our environmental management activities include raising employee awareness of environmental and climate protection issues</li> <li>• As a member of and active participant in environmental campaigns, we encourage and support dialogue on environmental issues</li> <li>• With our products and innovative solutions we help our customers to reduce CO<sub>2</sub> emissions and cut life cycle costs</li> <li>• The process descriptions in our management systems are checked for compatibility with the principle of sustainability and modified accordingly. Where relevant, environmental aspects are integrated into our processes</li> <li>• In order to identify and develop innovations we are constantly extending our collaboration with research institutes and universities</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in number of sites certified according to ISO 14001</li> <li>• Implementation of measures under the ECCO<sub>2</sub> energy efficiency initiative aimed at improving energy efficiency by 20% while at the same time reducing CO<sub>2</sub> emissions by a similar percentage by the year 2020</li> <li>• Various measures aimed at achieving site-specific environmental goals in the fields of energy, water, waste and hazardous materials</li> <li>• Using internal communication measures to increase employees' sense of responsibility for environmental concerns</li> <li>• Developing a Group-wide standard for planning and constructing new plants that takes environmental and social aspects into consideration</li> <li>• Carrying out internal and external environmental audits</li> <li>• Ongoing development of our environmentally friendly logistics concept</li> <li>• Collaborating with external service providers to identify potential for energy savings, and drawing up appropriate measures as part of energy audits</li> <li>• Exchange of best practice examples of environmental projects and measures between sites</li> </ul>	<ul style="list-style-type: none"> <li>• As part of the ECCO<sub>2</sub> energy initiative, CO<sub>2</sub> emissions have already been reduced by 11% and energy efficiency increased by 15% compared with the base year 2009</li> <li>• Some 68% of our production sites are now certified according to the environmental management standard ISO 14001. During the year in question, our subsidiary IFE North America achieved ISO 14001 certification</li> <li>• Efficiency improvements compared with the previous year: <ul style="list-style-type: none"> <li>- % improvement in specific energy consumption (kWh/1,000 EUR turnover) compared with 2010: 6.5%</li> <li>- % improvement in specific water consumption (l /1,000 EUR turnover) compared with 2010: 4%</li> </ul> </li> <li>• In the use phase our products help to reduce the impact on the environment, e.g. PBS saves up to 4.3% fuel, 6% NOx emissions 20% particulate</li> <li>• In our 2011 employee survey an extremely positive rating was given in particular to the company's activities in the areas of social commitment, workplace safety and environmental protection</li> </ul>

Environmental protection (Principles 7-9)		
Knorr-Bremse guidelines and systems	Measures	Achievements
	<ul style="list-style-type: none"> <li>• Systematic analysis of opportunities and risks for our products as part of the Eco-design Project</li> <li>• Calculating the carbon footprint of Knorr-Bremse</li> <li>• The projects implemented by the charitable organization Knorr-Bremse Global Care also help to minimize negative effects on the environment – for example reforestation in Haiti or support for the Green School environmental awareness campaign in India</li> </ul>	

Combating corruption (Principle 10)		
Knorr-Bremse guidelines and systems	Measures	Achievements
<ul style="list-style-type: none"> <li>• Our Group-wide code of conduct contains a ban on corruption</li> <li>• As part of our risk assessment, corporate units are examined for corruption risks</li> <li>• Internal audit system</li> </ul>	<ul style="list-style-type: none"> <li>• Examination of sites with regard to corruption as part of internal audit process</li> <li>• Analysis of corruption risks within the framework of risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>• During the year under review no cases of corruption were identified</li> </ul>



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