

# Global Purchasing Excellence



**KNORR-BREMSE**





# Content

---

1 Strategic role of purchasing .....	4
2 Focus on global sourcing markets .....	12
3 Supplier management .....	16
4 Value analysis, advanced sourcing and demand management .....	20
5 Tools and processes .....	24
6 Purchasing controlling .....	26
7 Sourcing logistics .....	28
8 Employees .....	32
9 Code of Conduct .....	34

# Global Purchasing Excellence



In the Knorr-Bremse Group, our goal is to establish a world-class purchasing organization that is a leader in its field. We aim to be a reliable partner to everyone along our value chain, making a substantial and, in particular, ongoing contribution to the success of the Knorr-Bremse Group.



## Foreword

Knorr-Bremse is the world's leading manufacturer of braking, door and air conditioning systems for rail vehicles. As a technology pioneer in this field, for over 100 years Knorr-Bremse has been driving progress in development, production, marketing and service. Our close, trust-based relationship with our suppliers is a significant factor contributing to our successful market position.

Purchasing has long since expanded its focus beyond cutting costs and ensuring that global production locations are supplied with materials. By partnering with innovative suppliers, a modern purchasing organization contributes significant value to the growth of the company and plays a key role in the quality of the end product.

This last factor is especially important at Knorr-Bremse. As a manufacturer of systems that are critical to vehicle safety, quality is our top priority. For all these reasons, Knorr-Bremse's purchasing organization forms an integral part of the Knorr Excellence model. The goal of the organization is to fulfill its function in the company's value chain by applying its purchasing expertise as well as modern methods and processes. Driven by this objective, our Global Purchasing Excellence (GPE) program ensures that Purchasing continues to develop and build on its successes around the world.

This brochure serves as a guide to Global Purchasing Excellence at Knorr-Bremse Rail Vehicle Systems. In keeping with Knorr Excellence, it documents our goal of continuously improving our purchasing organization and processes.

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

Dr. Robert Wassmer  
Chairman of the Executive Board  
Knorr-Bremse Rail Vehicle Systems

Dr. Tobias Buck  
Management Central Purchasing  
Knorr-Bremse Rail Vehicle Systems

Hartmut Sievers  
Management Central Purchasing  
Knorr-Bremse Rail Vehicle Systems



Urbanization, environment, safety and globalization are the megatrends of the future. For more than 100 years Knorr-Bremse has pioneered the development and marketing of state-of-the-art braking systems and numerous other products and services in the rail vehicle segment.

Based on a global market presence, our business policy was developed with a view to long-term success. Our company's stated objective is to provide technical solutions that precisely meet these various needs. In addition to our technology leadership in selected fields of rail vehicle engineering, our top quality products and global focus have enabled us to become world market leader.

However, our global competitors never rest. They are constantly on the move. The pressure of competition keeps growing. Cost squeezes, shorter lead times, greater flexibility – these are the watchwords. The need to innovate to meet increasingly specialized customer requirements is stronger than ever.

Against this backdrop, Purchasing clearly has a key role to play in the performance of the company as an important link in the value chain. This means that a well-defined purchasing strategy is one of the pillars of our corporate success.

This strategy addresses the intensifying competitive forces that impact Purchasing to an exceptionally high degree:

- > Sales markets are becoming more globalized and competitive. Customers are professionalizing their purchasing functions and awarding contracts based on very closely defined tenders. These factors are communicated to Purchasing through the internal value chain and the function must adapt accordingly.
- > Customer expectations are rising as lead times grow shorter. The quality aspects of rail transportation are increasingly becoming a subject of public debate and there is no room whatsoever for compromises.
- > Sourcing markets are becoming more volatile. Periods of rapid economic growth make competition for scarce resources more intense. Commodity markets are volatile and at the same time prices continue to climb.

In light of these competitive forces, Purchasing must make a substantial and, crucially, ongoing contribution to corporate success. In the case of Knorr-Bremse we are talking about an organization with an annual purchasing volume of more than two billion euros that needs to be kept running smoothly.

**Principles & mission statement**

Responsible for substantial purchasing volumes and anchored in the corporate framework, Purchasing plays a key role in Knorr-Bremse's success – and has developed its strategic position accordingly. Our practices are guided by principles which make an important contribution to corporate performance by defining objectives and applying state-of-the-art instruments and processes.

*Acting on these principles, Purchasing must rise to a challenge that goes above and beyond ensuring the availability of materials and negotiating cost-effective supply contracts. We see Purchasing in a much more broadly defined role going forward. Consequently we are continuing to work on its strategic positioning within our company as well as vis-à-vis the procurement market.*

**PURCHASING AS A DRIVER OF PRODUCTIVITY**

Competition is necessary to ensure progress. And progress is essential to producing the best possible product in the most cost-efficient manner possible while meeting all the requirements. This is why we do not see our suppliers as a low-cost source of materials at one end of the assembly line. Rather, our suppliers stand on a level playing field with our in-house development and production teams. Through target-oriented make or buy decisions we encourage competition between internal and external R&D and production, making a lasting contribution to productivity and ensuring the most efficient use of internal resources.

**PURCHASING AS A DRIVER OF TECHNOLOGY AND INNOVATION**

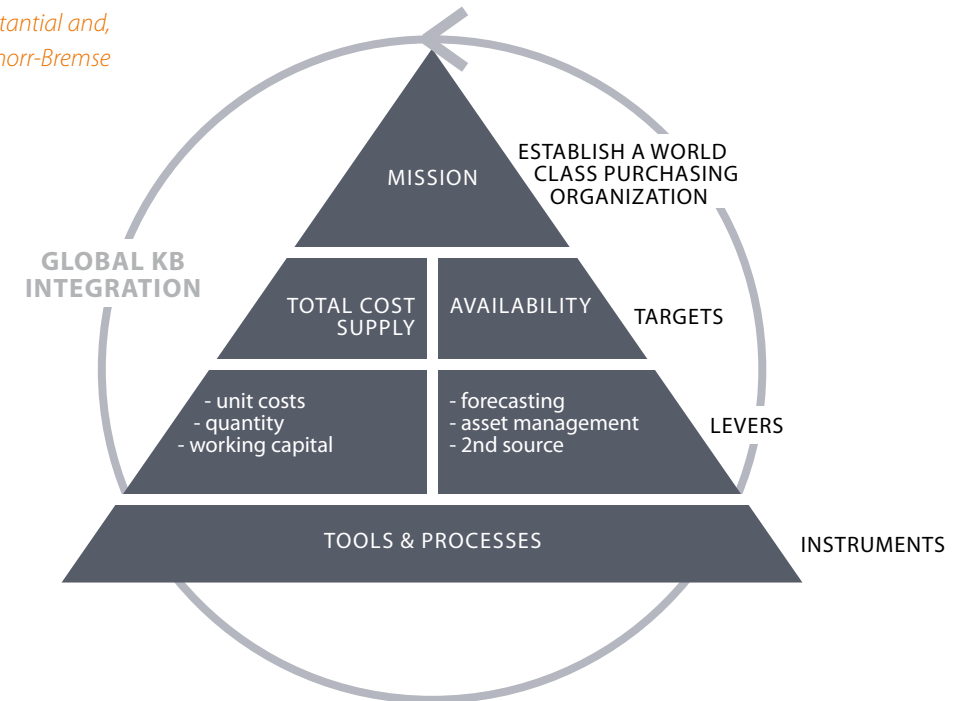
Purchasing is where our company meets the market. We identify technological advances in the sourcing market and transport them into the Knorr-Bremse Group, where they can be used to continue the expansion of our industry-leading position in terms of costs, technology and innovation.

**PURCHASING AS AN INTEGRATED PARTNER IN MODERN LOGISTICS SYSTEMS**

We see our suppliers as strategic partners in our shared business success and so we aim to incorporate them in our logistics systems as well. "Knorr-Bremse InSupply" is the name given to the targeted integration of suppliers in our procurement logistics. It ensures an

optimized and reliable supply of materials for our production operations while continuously monitoring costs. With these points in mind, we have formulated a mission statement for Purchasing:

*In the Knorr-Bremse Group, our goal is to establish a world-class purchasing organization that is a leader in its field. We aim to be a reliable partner to everyone along our value chain, making a substantial and, in particular, ongoing contribution to the success of the Knorr-Bremse Group.*



This pyramid illustrates the approach taken by Knorr-Bremse Purchasing.

**Targets, levers and instruments**

**TOTAL COST OF OWNERSHIP (TCO)**

Every product has its price – and not just the price of acquisition. Of course the latter plays a key role in most purchasing activities, but it is not the only consideration. It is our aim to keep an ongoing record of all costs associated with the process of sourcing the product and to analyze and optimize these costs.

Logistics, transportation, packaging, warehousing and quality-related costs are important line items that influence our sourcing decisions. Collecting this information requires a lot of time and effort. In the end, however, there is a pay-off for us and our suppliers in the shape of overall cost optimization.

**ACTUAL AVAILABILITY**

Be it third-party services, materials or components – we are responsible for ensuring 100 percent material availability. To prevent the negative impacts of supply bottlenecks, we have a second-source strategy in place for critical groups of components and production technologies.

Constant monitoring, regular quality testing of purchased components and working closely with our suppliers (e.g. through continuous supplier development and supplier audits) allow us to detect any problems at an early stage and react quickly to changing situations.

**„BEST-IN-CLASS“-INSTRUMENTS**

A number of effective instruments are part of Global Purchasing Excellence, including SAP Business Warehouse, SAP Supplier Relationship Management, our Material Price Index, EDI and our supplier portal. Just as Knorr-Bremse’s products set standards for technological innovation, we apply best-in-class instruments in Purchasing.

**Our objective**

Knorr-Bremse has a presence on every continent. Accordingly, we have a supplier portfolio that extends around the world, making it especially important for Purchasing to have a global focus. As early as the product development stage, we ensure that our suppliers are closely involved.

We aim to establish long-term relationships based on trust and are willing to share our expertise – the result of over a century in the field – with our suppliers. In return, we draw on their knowledge base. We use regular benchmarking to ensure that our strategy remains effective and our strategic and operational approaches live up to the high standards of modern purchasing management.

**Our organization**

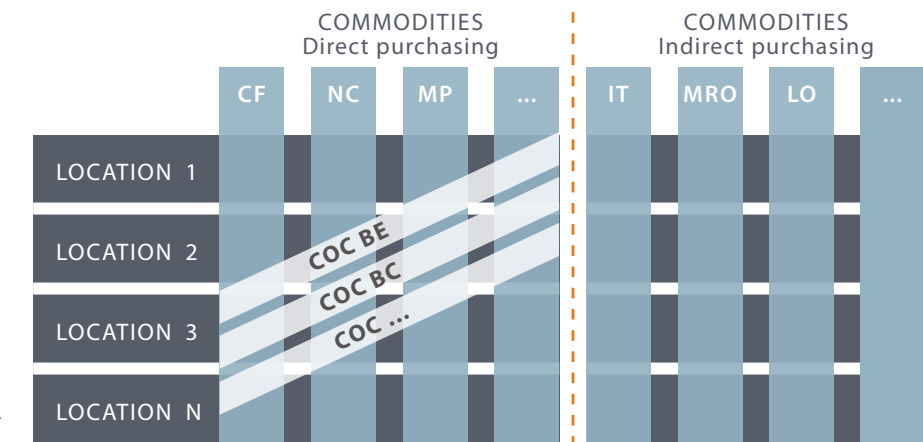
Purchasing also reflects the Knorr-Bremse matrix organization, meaning that it operates in three dimensions. Although the priorities and approaches of these dimensions differ, together they achieve an optimal purchasing result.

Our **Commodity Management** develop a commodity-group strategy that is coordinated across all our locations. To meet Group targets, it establishes an effective supplier base and leverages Group-wide synergies between our locations and centres of competence.

Our **Locations** make certain that our standard business processes run smoothly and with a high degree of automatization, resulting in a cost-effective and secure flow of materials. At the same time, they work to optimize the total cost of ownership (TCO) over time – from project to finished article.

Our **Centres of Competence** have purchasing functions that work closely with development teams to establish an effective cost structure for each end product. They have sole responsibility for keeping an eye on the end product at cross-locational level, while maintaining a focus on customer projects and internal development projects at global level.

Purchasing is integrated in the matrix organisation in our locations and CoCs.



**Roles**

**DIRECT PURCHASING**

Direct Purchasing is responsible for sourcing all commodities, articles and components which we sell to our customers, either following further internal processing or directly as part of our systems. Having worked to develop and improve Direct Purchasing in the past, we believe that we have achieved a very high level of effectiveness and integration.

The quality of our products, for example, can be tracked all the way back to the part numbers of their components, while the performance of our suppliers can be assessed in line with comparable metrics across the Group. The same applies to our purchasing costs, which can be tracked by article number over a long period of time. Everything that is sourced by Direct Purchasing has a direct impact on the success of our company. This means that we cannot afford to rest on our laurels, but must continue to strive for excellence.

**INDIRECT PURCHASING**

Indirect Purchasing is responsible for sourcing all goods and services that we depend on to work effectively and efficiently within our company. These processes are complicated by the fact that they cover a broad spectrum of purchased goods, including items or services that are sometimes only needed once, while a lack of material numbers makes it difficult to measure performance over

time. Benchmarking has shown that we are operating at a very high standard in many commodity groups. It is our aim to roll out these best-in-class approaches to all regions and countries and achieve a uniform level of performance.

**SOURCING, PURCHASING, MATERIAL PLANNING**

From selecting the supplier to the actual purchase and finally the use of the materials in production – a transparent process chain requires the clear allocation of responsibility.

Drawing on the Knorr-Bremse Group’s objectives, **Commodity Managers** work with the locations and CoCs to define a strategy that develop a supplier base to meets their individual needs and serves as a source of external expertise for the Group. By continuously evaluating the global sourcing market for the required spectrum of parts and/or services, Commodity Managers ensure that we can work with the established supplier base to optimize quality, delivery and cost performance. In cooperation with colleagues from operational units they maintain a constant focus on supplier performance. They are also responsible for realizing synergies between locations and centres of competence across the Group.

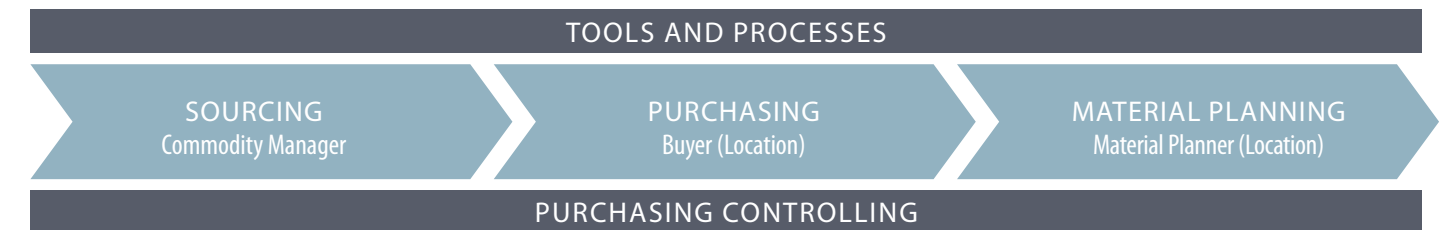
**Buyers** are responsible for keeping an eye on material and logistics costs as well as compliance with our high quality standards. They develop the relationship between supplier and location and ensure that third-party services are smoothly integrated into our company’s standardized processes. Working closely with our

developers, they try to modify the cost structure of future products to our advantage at an early stage.

**Material planners** keep a constant eye on the availability of materials, the delivery performance of each supplier and our inventories to ensure that our modern production processes operate effectively. They monitor the defined standards and address non-compliance whenever necessary and possible. They maintain close, day-to-day contact with the individual suppliers, providing feedback on current performance and keeping the suppliers informed of upcoming developments in the production sector.

In Indirect Purchasing, the role of material planner is performed by the **requesters**. As the representatives of their departments, they initiate requisitions, outline specifications and are responsible for ensuring that the supplier provides the required services. They serve as the primary point of contact for Purchasing.

*By aligning the processes with the type of sourcing in question, we ensure that the specific requirements of each purchasing transaction are optimally met. Here we strike a balance between an appropriate degree of centralization, the best possible realization of synergies across the Group and strengthening the responsibilities of our locations and CoCs. The decentralized units that are primarily responsible for reaching our corporate targets.*







We aim to make optimal use of sourcing markets by contracting with the best suppliers for the materials and services we purchase. In a world that is increasingly networked, we make the most of the opportunities afforded by global sourcing while at the same time working to minimize the associated risks.

We have set ourselves the goal of procuring a significant portion of our purchasing volume in the sourcing market that best meets our total-cost criteria. Our purchasing departments identify sources offering high quality, attractive prices and optimal logistics and contract with them to obtain the materials and services that our company needs. We aim to cover all relevant sourcing markets. In addition to traditionally important markets and Central European countries such as Hungary, the Czech Republic and Slovakia, we are also focusing on markets such as China, India and several others in Southeast Asia – in other words, on low-cost and best-cost countries.

There is more to an optimized global sourcing structure than simply locating specific materials or services which the company needs for its value chain. As a developer and manufacturer of systems which are critical to vehicle safety, it goes without saying that we make no compromises when it comes to quality. We are extremely careful in our selection of partners, and we also make substantial investments in their development. At the same time it is necessary to build a logistics concept that ensures an optimal flow of materials, taking into account factors such as availability, stocks, flexibility, lead times and transportation costs.

The strategic task of evaluating sourcing markets, in order to identify reliable partners and promote their development is the responsibility of Corporate Purchasing, the CoCs and our locations. At Group level, a dedicated Global Sourcing Department focuses specifically on Asian sourcing markets. Global Sourcing acts as an internal service provider, offering integrated solutions to our centers of competence and locations and helping generate substantial added value for the entire company.

### Global Sourcing

Global Sourcing's key responsibility lies in contracting with suppliers in the Asian markets. In addition, it helps to coordinate the intra-company activities that allow components sourced in a particular market to be ultimately distributed within the Knorr-Bremse Group. Different sourcing markets have different characteristics and are subject to certain market and currency fluctuations. Against this constantly changing backdrop, Purchasing has the further key task of presenting all costs related to quality and on-time delivery in a transparent manner that allows comparison.

This takes the form of a clearly structured total cost of ownership (TCO) analysis for each individual case; a calculation which extends to the landed costs – all costs incurred on the often long path to the final destination.

A number of process steps illustrate the usual sequence of a project aiming to contract with a new supplier in new sourcing

## Focus on global sourcing markets

markets. Usually the initiative comes from our locations and CoCs, who have to cover specific needs through local sourcing (to fulfill local content requirements, for example). As a first step, Purchasing (Global Sourcing) identifies potential sources of supply and provides the locations or CoCs with additional information such as existing technologies, production methods, customer structures, business plans and/or SWOT analyses. Based on the results of a risk analysis and feasibility study, the internal customer, Commodity Management and the Global Sourcing team make a fundamental decision about whether it makes sense to proceed.

If this is the case, they next initiate the formal process of requesting a quotation. Product details such as drawings, specifications, test standards and projected quantities are included in the request for quotation (RFQ). Based on this, we contact the suppliers under consideration in the identified markets – both new suppliers and those we have worked with before. If the submitted bids prove attractive and the Purchasing team assesses the conditions positively, the potential new suppliers are subjected to a quality audit. These audits are necessary to prove that a supplier can meet our high standards for safety-critical components.

This is followed by the core function of Purchasing: The received bids are compared and potential cost savings are calculated based on the details of the RFQ, allowing the complete Purchasing

team – Commodity Management, Global Sourcing, location and CoC – to make a substantiated decision for or against switching suppliers.

If the decision is in favour of a new supplier in a selected sourcing market, Purchasing (in Asia the role falls to Global Sourcing) leverages its expertise and competence to assist in the roll-out process until series production of the components is well established. Through this process, our Purchasing team helps ensure successful, sustainable entry into global sourcing markets and provides long-term support to its internal customers.





Having the right suppliers is an important factor in Knorr-Bremse's success as a company. In keeping with our purchasing strategy, we regularly scrutinize the performance, quality and competitiveness of our suppliers with the aim of achieving continuous improvement in these areas.

### Supplier evaluation

Once we have chosen to work with a certain supplier, performing assessment is an important aspect of supplier management. We conduct these evaluations once a year using a centralized process. The end result is a transparent classification we can use to develop a strategy and specific measures, which we then pursue with the supplier concerned.

We assess both the competitiveness and the performance of our suppliers. Competitiveness defines the importance of the supplier to Purchasing. Performance is concerned with criteria such as flexibility, on-time delivery and product quality.

As a globally active company, it is in our interest to ensure that the results of our supplier evaluations can be easily compared. With this in mind, we have developed Group-wide criteria that reflect our defined purchasing goals as precisely as possible – and we review and update these criteria regularly. These criteria focus in part

on hard facts which we obtain from our purchasing systems, such as key performance indicators (KPIs) and other data. However, soft facts also play a role in our assessment.

Results of the evaluation are calculated using a defined, percent-based weighting system. This not only provides a comprehensive and precise assessment of the supplier's current status, but also shows areas where there is room for improvement. The evaluation also forms the basis for our supplier classification, a cross-locational standard defined by Commodity Management with joint contributions from Purchasing and Quality. Using classifications ranging from "suppliers to be eliminated" to "preferred suppliers," each category is linked to an underlying strategy for working with the supplier in question. The strategy is supplemented by individually defined measures as needed.

It is our aim to establish at least one preferred supplier for every product segment. In addition to outstanding quality, cost structure and on-time delivery, a preferred supplier must fulfill other stringent criteria. In return, we will plan to boost purchasing volumes with this supplier.

**Supplier risk management**

When external suppliers have problems filling orders, it can mean significant risk for our company. The preventive measures defined by our effective supplier risk management system are aimed at minimizing this risk to the fullest extent possible. Supplier risk management helps us identify preventable risks as early as possible and raise awareness in all affected areas.

At least once a year we evaluate the supplier risk for vendors who supply articles that have been classified as critical or whose purchasing volume is significant. This evaluation is based on a systematic process that identifies and assesses potential risk. We then initiate risk management measures on the basis of the findings.

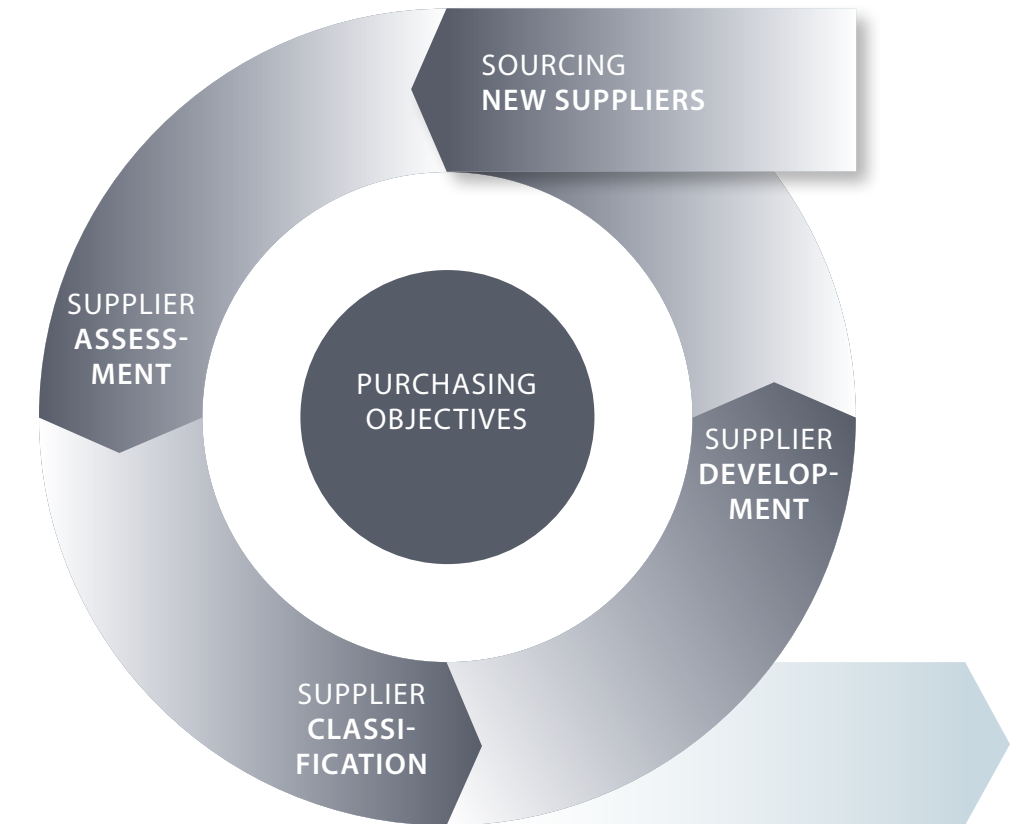
Cooperation between supplier and customer results in a certain degree of interdependency – which must be kept reasonable and proportionate, however. We see the greatest risk in becoming too dependent on any one supplier. The higher the dependency, the greater the danger to our company if the supplier cannot deliver. For this reason, there is a hypothetical question that plays a crucial role in supplier risk management: “If this supplier was suddenly unable to fill our orders, how long would we need to obtain the materials, goods or services from an alternative vendor?” We use a checklist of standardized questions to assess our degree of dependency; if it is too great, we work to reduce it in a timely fashion.

The second step of the evaluation is analyzing and identifying financial risks at an early stage. In the worst case, financial risks can lead to insolvency and an inability to provide contracted goods or

services. We therefore conduct a financial risk assessment of all suppliers for whom we have identified a high degree of dependency, analyzing KPIs such as return on sales, net income and equity ratio. We examine this data in the context of the overall economic climate and evaluate trends over recent years.

Standardized templates and benchmarks that we have developed in close cooperation with Controlling? are applied across the Group to assess our dependency on suppliers and calculate the probability of non-delivery. If the risk factors exceed a defined threshold, we initiate preventive measures to lower our dependency. These can range from modifications to the contract to establishing a second supply source. At the same time, where we have identified an increased risk of non-delivery, we inform all concerned parties within our company so we can introduce appropriate and timely measures in all divisions.

**Supplier management cycle**





In addition to ensuring security of supply, Purchasing's second priority objective is to obtain sustainable and lasting cost reductions. Value analysis is the most effective path to reaching this goal. By regularly reviewing costs, value analysis identifies the value of certain functions – and determines which of these functions actually have to be purchased.

**Value analysis**

Understanding the cost structure of purchased materials is an essential part of value analysis. To achieve this, the Purchasing team must not only be well informed on cost factors such as commodity prices, hourly rates and testing periods, but also have an understanding of production and manufacturing processes. By comparing our analysis of the cost structure with the prices we currently pay, we can identify effective arguments to use in price negotiations with the supplier. It is not our goal to relentlessly drive down acquisition prices. Rather, we view this as an opportunity to partner with our suppliers to optimize cost aspects of the production process to the benefit of both parties.

At the same time, when our analyses identify potential cost savings for a typical component, we try to apply these savings to a broader spectrum of parts. We compare the cost structure of simi-

lar components so that the costs within a product family can be parameterized. When these are set in relation to actual prices, here too previously unrecognized savings potential often comes to light.

Value analysis involves systematically examining whether the importance of a specified element is proportionate to its cost. The goal is then to modify the specifications of the product we need to achieve an appropriate balance between cost and functionality. This usually leads to a tangible reduction in production costs. Ideally, value analysis is carried out as part of the development process in the context of a design-to-cost approach. Specific measures might include widening tolerance ranges, changing the material, modifying the manufacturing process or even eliminating certain components.

Here too our employees are called upon to play a vital part. Clearly, value analysis can only succeed with a cross-departmental team, and it is essential to have a good grasp of the function of the purchased component within the system as a whole.

### Advanced Sourcing

Many factors that affect costs are defined early in the development process. Advanced sourcing therefore involves Purchasing in the development of new products from an early stage. Our goal is to minimize the risk of suppliers being selected who are suboptimal from a purchasing point of view – which would severely limit our options at later phases of the development process.

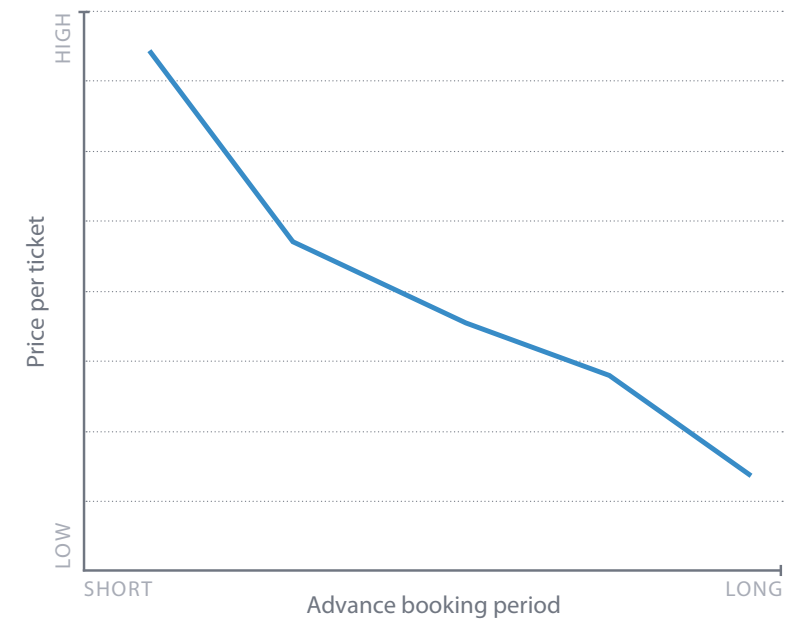
Advanced sourcing means that Purchasing acts as a service provider to the Development team - observing and analyzing the market, initiating contacts with potential suppliers, identifying possible alternatives and prioritizing cost factors during the development stage.


### Demand Management

In Indirect Purchasing, “demand management” is the phrase used to refer to the idea behind value analysis. It means regularly examining the specifications and cost drivers of the services we purchase and documenting them for our internal customers. In this way we make it possible for internal customers to modify their demand behavior to the benefit of Knorr-Bremse.

One example of a specific measure is a change in the approach to planning and booking business flights. Generally speaking, the earlier a business traveler plans and books their flights, the more reasonable the price. Since most business travelers can usually book their flights well in advance, we can optimize costs without sacrificing the comfort and services experienced by the traveller.

### How demand management cuts costs e.g. travel expenditures





The larger the organization, the greater its need for standardized processes. Only with the help of such processes can employees work together efficiently and effectively. This especially applies to the Knorr-Bremse purchasing organization with its decentralized structure. Buyers need standardized processes to make objective and transparent decisions that can be easily compared. In addition, tools assist us in guiding all involved parties in the company through these processes.

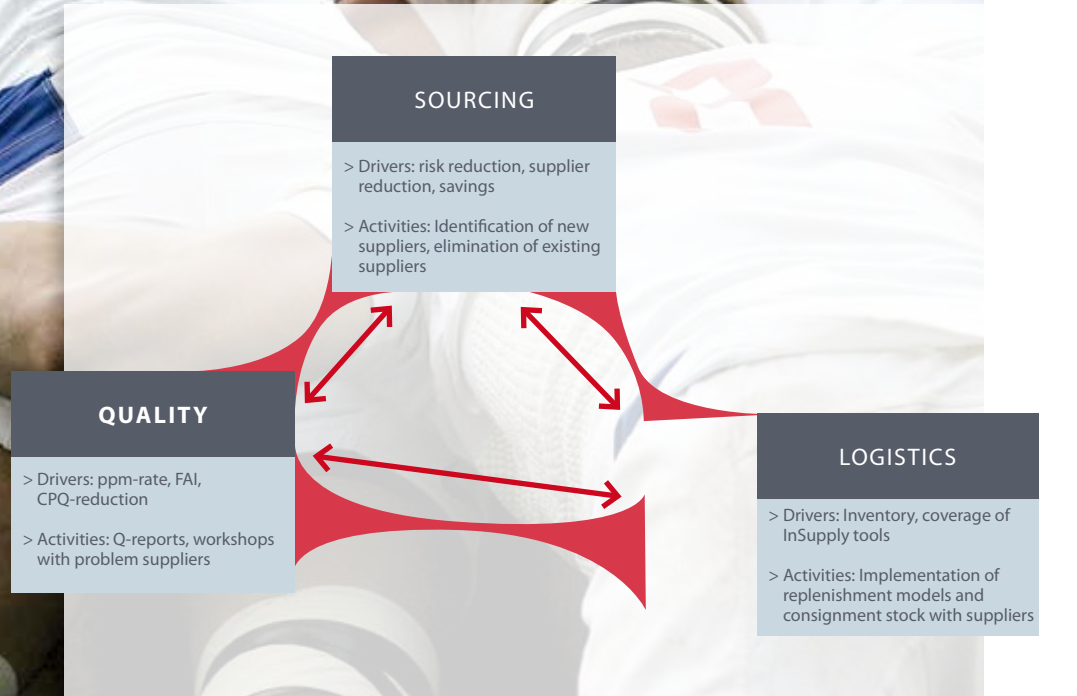
Our processes define a specific series of steps for identifying new suppliers, for example, outlining how suppliers are audited, how approvals are obtained and who then enters them into our systems. Tools help define other purchasing processes as well. We employ a purchasing platform to simplify and standardize cooperation and communication between our buyers and our suppliers.

This platform, which is primarily used for RFQs and auctions, forms a link between our processes in different departments and locations and those of our suppliers.

Our **Supplier Relationship Management (SRM)** system, which has already been rolled out in most of our locations around the world, integrates our core Indirect Purchasing processes. SRM links requester, Purchasing and supplier in a single system from start to finish. In many locations we have achieved a high degree of automation in our operational purchasing processes by using electronic catalogues as well as a call-off process for indirect materials known as "Link" that are triggered by stock levels. This frees Purchasing to place an ever greater focus on value-adding activities, such as supplier and commodity group management. We have also launched a standardized worldwide approvals system within our SRM to provide us with additional assistance in enforcing our stringent compliance requirements.

In addition to process management tools, we have other instruments that help us to master the many challenges faced by Purchasing. They allow us to organize our complex structures, which encompass dozens of international locations, different CoCs, thousands of suppliers and enormous quantities of goods and services. Not only do these instruments provide us with detailed evaluations and analyses, they also give us the oversight necessary to keep the wheels of Purchasing turning.

For example, we use SAP Business Warehouse to analyze our purchasing volumes and our terms of payment, as well as the performance of our suppliers in whatever degree of detail we need. The supplier performance data is also automatically made available to our suppliers on our supplier portal. Another internet platform, our Supplier Early Payment Program, provides our suppliers with an instrument that helps them – and our buyers – to ensure that our terms of payment are met. The Material Price Index is a further useful tool. It not only shows price trends for individual materials sorted by article number, but also makes it possible to document causes and countermeasures.



Purchasing targets and key performance indicators (KPIs) are determined by our strategic planning, which in turn is based on the overall corporate objectives of the Knorr-Bremse Group. The focus is on the two priorities at the heart of our Purchasing approach: Total Cost of Ownership (TCO) and availability of goods.

It goes without saying that prices play an important role in Purchasing. However, it is not the purchase price alone that determines the success of Purchasing and thus of the company as a whole. For one thing, we must keep an eye on all costs associated with the purchase of the product. The availability of the outsourced services, materials or components also plays a decisive role. It is our job to ensure they are obtained at the best possible prices, that the specified quality standards are met, and that they are available to our internal customers when they are needed, while keeping inventory levels to a minimum.

Four main KPIs are used to monitor these requirements: payables, on-time deliveries, number of suppliers and cost savings. We have also established KPIs to track compliance with and fulfillment of defined purchasing processes. One example of this is eCat, which measures the degree of automation in our ordering processes for indirect materials; another is classic contract coverage rates for non-disclosure or master supply agreement.

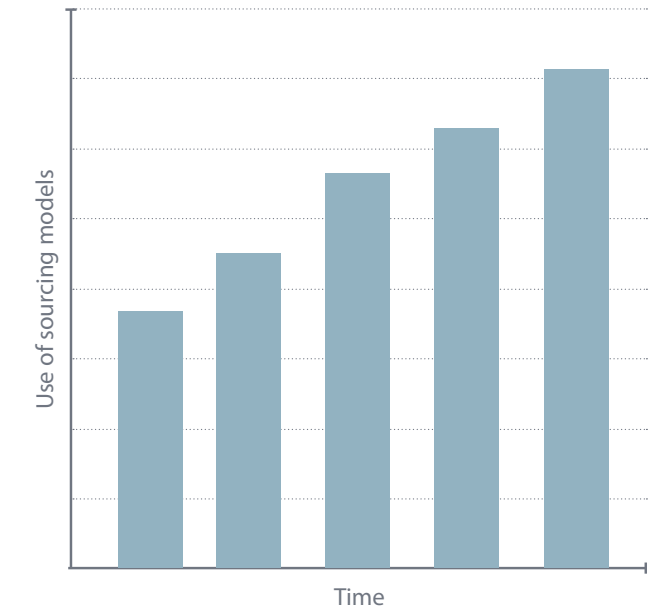
To use our defined KPIs effectively, we must also operate a sustainable monitoring and control cycle. This is the only way to identify developments at an early stage and define the right measures in conjunction with local and central departments, ensuring that key Purchasing concerns are met. The objectives for all areas of Indirect and Direct Purchasing are determined with these same considerations in mind – and are always closely based on the targets defined in our strategic planning.





Knorr-Bremse is represented in numerous locations on every continent, and each location has a multitude of unique regional characteristics. By applying our standardized purchasing logistics we are aiming to foster best practice approaches and leverage synergies around the globe. Here we must walk a careful line. On the one hand, uniform Group standards are essential to meeting this objective. On the other, we must always keep local conditions in mind to prevent overarching Group standards from negatively impacting the performance of the individual locations.

Our **InSupply programme** allows us to meet these challenges in an intelligent manner. The classic sourcing model – a normal order in which a specific amount of a specific article is ordered from a supplier to be delivered on a specific date – has been refined and taken a step further. The goal is to establish a high level of security of supply while providing an optimal balance of short call-off times, low inventories and the most attractive prices possible.



Our toolbox of sourcing models helps us find the optimal form of sourcing for each of a wide spectrum of articles at our different locations. It primarily consists of five models which can be classified as plan-, consumption- or other production-driven methods. In most cases the models are based on long-term contracts between us and our suppliers.

One classic model is the **schedule agreement**, which provides a framework for us to regularly communicate automated forecasts and call-offs to the supplier. This gives the supplier a good overview of upcoming demand. We, in turn, profit from a high degree of process automation, reducing our manual input and boosting our flexibility.

In our **Supplier Managed Inventory (SMI)** model, we define minimum and maximum stocks of an article which the supplier can maintain through flexible deliveries. We use a web portal to communicate demand and inventory data to the supplier on a daily basis. The supplier uses this information to schedule deliveries of the article autonomously. This degree of freedom allows suppliers to make their own production processes more efficient.

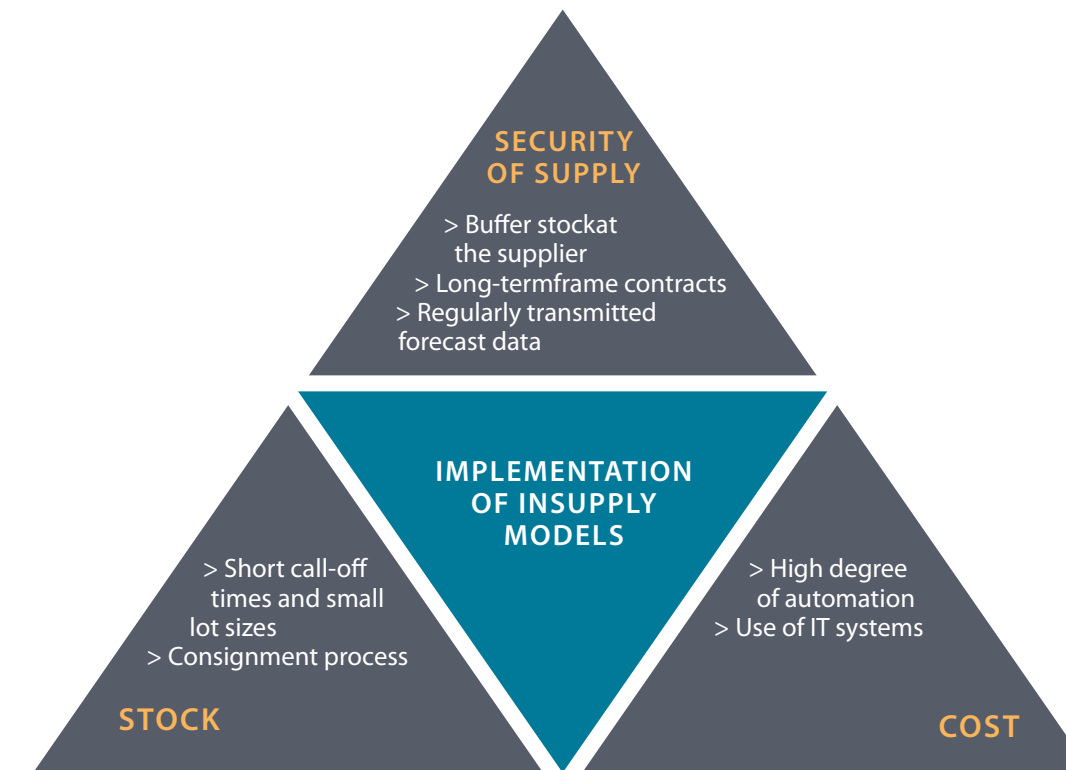
The **Kanban model** uses actual consumption of materials as the basis for planning deliveries of goods. In this cycle, production requirements are covered by the supplier replenishing stocks after an empty container signals the need for a predefined quantity of the article. To avoid fluctuations and supply bottlenecks, with this model too the supplier receives regular forecast data.

In **just-in-time** sourcing, we do not transmit our call-offs until the production order has been authorized – a form of just-in-time. Based on our regular forecasts, the supplier establishes a buffer stock that can be used to deliver at the short notice required. This model allows us the highest degree of flexibility and low buffers – but only makes sense if the supplier is able to respect the short lead times.

**POS Kitting** sourcing is similar to just-in-sequence sourcing, but is only used for “C” Class components. This model is based on variable kits which are commissioned by a “C” Class component provider after a production order has been approved, and supplied directly to the active production line.

To help our buyers select and apply the most suitable model in each case, we have developed the InSupply Control Cycle. This helps us use the right model to source the relevant components in the required quality and amount. Standardized processes ensure a uniform application. Purchasing works with each location to regularly assess the effective implementation and optimized utilization of the different models.

Sourcing logistics objectives





# Employees

The skills, motivation and dedication of Knorr-Bremse employees are essential to the long-term success of the company. Our active culture of corporate values, which we call “Growing with Values,” holds the key to attracting the best and brightest, supporting their professional development, fostering their talent and retaining them in the long term.

Employees in Purchasing are responsible for a large share of the value added across the Group. Because they represent its interests – within the company on the one hand, in the sourcing markets on the other – they occupy a special position.

The employees in our purchasing organization carry out many different tasks with clearly defined requirements. On the one hand they face the not-insignificant challenge of reacting flexibly and appropriately within our three-dimensional organizational structure. But at the same time this results in an attractive level of autonomy in their decision making. Combined with a certain hands-on mentality, this gives employees a chance to demonstrate their entrepreneurial qualities. Another attractive aspect of working in Purchasing is the many opportunities afforded by our numerous worldwide locations and projects, which allow us to regularly offer our employees short- and long-term international assignments.

Certain competencies are, of course, essential to working in such a global environment, such as a degree of cultural awareness and the ability to network. Within Purchasing there are formal networks such as regional purchasing conferences. At the same time

our employees are required to form and proactively manage their own networks outside our purchasing organization as well.

Part of the employees’ power to act and make decisions concerns identifying and using the right instrument from the Purchasing toolbox. For example, employees might use our instruments to arrange multi-year partnership agreements, negotiate specific prices or complete total-cost analyses of complex purchasing decisions. To work effectively with partners within our company and lay the groundwork for, make and act on decisions, employees need a high degree of expertise as well as knowledge of broader contexts and relationships. These are precisely the skills in which the members of our Purchasing team excel.

It is our responsibility to provide each of them with the training they need to do their jobs and to actively promote the development of high potentials. We offer professional and attractive training and continuing professional development opportunities, both through the Knorr-Bremse training program as well as a specialized Supply Management Academy.



## Guidelines for behavior

Knorr-Bremse is a reliable partner that offers its customers the best service and quality and, as a healthy corporation, provides job security. Our business is built on the foundation of our binding Code of Conduct, which applies across the entire Group. Our system of values also encompasses guidelines for behavior by which we measure our daily actions.

## Employees

### CONFIDENTIALITY

Confidentiality is extremely important to us. All information about our activities that has not been published or entered the public domain, is handled confidentially by our employees. Specific knowledge they have gained as a result of their employment with us is not used for other purposes.

### AVOIDING CONFLICTS OF INTEREST

We avoid situations in which our own financial or personal interests conflict with those of the company or its business partners. In their contacts with existing or potential customers, suppliers, contractors and competitors, our employees act in the best interests of Knorr-Bremse and exclude any personal advantage to themselves, their families or their friends.

### INVITATIONS AND GIFTS

Our employees conduct their business in such a manner that no personal debts or obligations are incurred. In making business decisions, they do not allow themselves to be influenced by any sort of gifts, incentives or other benefits. They know that accepting such incentives exposes Knorr-Bremse to legal risk and harms our business relationships as well as our reputation. For this reason our employees are not allowed to directly or indirectly request, accept, offer or grant any unauthorized incentives, whether in the form of monetary payments, gifts or other services or benefits.

### Suppliers

We also expect our suppliers to comply with a comprehensive code of conduct. Knorr-Bremse is a member of the UN Global Compact, which we consider an important and globally recognized frame of reference in this respect.

#### THE GLOBAL COMPACT INCLUDES THE FOLLOWING KEY PROVISIONS:

In addition to **complying with the law**, suppliers commit to a zero-tolerance policy towards all forms of **corruption and bribery**. They respect the **human rights of their employees**, guaranteeing them equal opportunities and treatment regardless of race, national or social origin, disability, sexual orientation, political or religious beliefs, gender or age. Companies also respect the personal dignity and freedom of each individual and do not tolerate any unacceptable treatment of their employees. They commit to providing **fair remuneration**, complying with the **maximum working hours** defined by local laws, and **abolishing child labour**.

Suppliers assume responsibility for the **health and safety** of their employees, minimize risks and take the best possible preventive measures against accidents and occupational illnesses. In addition, they respect legal requirements and international standards of **environmental protection**. They pursue continuous improvement in this area, minimizing the impact on the environment as far as possible and applying an effective environmental management system.



Notes

Notes



**Knorr-Bremse  
Systeme für Schienenfahrzeuge GmbH**

Dr. Tobias Buck, R/PU  
Moosacher Straße 80  
80809 München  
Germany

Tel.: +49 89 3547 180464  
E-Mail: Tobias.Buck@knorr-bremse.com  
www.knorr-bremse.com

**Knorr-Bremse  
Systeme für Schienenfahrzeuge GmbH**

Hartmut Sievers, R/PUD  
Moosacher Straße 80  
80809 München  
Germany

Tel.: +49 89 3547 1622  
E-Mail: Hartmut.Sievers@knorr-bremse.com  
www.knorr-bremse.com

March 2013



Knorr-Bremse Group