

## Environmental and Social Data Sheet

Project Name: KNORR-BREMSE RDI II  
 Project Number: 20130388  
 Country: Germany  
 Project Description: The project concerns primarily the company's R&D on brake systems in both its corporate divisions of rail and commercial vehicles, and also on powertrain systems for commercial vehicles. The main project objectives are improvement of safety, energy efficiency, reliability and reduction of wear and tear of the different components. In addition it concerns the construction of the company's central Technical Centre, and the vocational training expenditures over the project period.

EIA required: no

Project included in Carbon Footprint Exercise<sup>1</sup>: no

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

### Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The project primarily concerns investments in research and development that will be carried out in the promoter's premises. A minor part of the project concerns the construction of the company's Technical Centre within the existing premises; in the building permit process the competent authorities have included the environmental measures that need to be observed during the construction and operation of the new building. No EIA has been required by the competent authorities.

The results of this R&D project are expected to contribute to improvements in terms of passenger and pedestrian safety and also energy efficiency of the rail and commercial vehicles they will be applied in.

### Environmental and Social Assessment

#### Environmental Assessment

The most important R&D activities in the Rail systems are in the areas of energy efficiency through the optimisation of operating speed and deceleration, cost, and primarily safety. In the commercial vehicles area the company's R&D is focusing on safety, fuel efficiency and traffic improvement with activities in the braking and powertrain teams in electrification, electronic driving assistance systems and fully electrification of the braking and steering systems.

The design and construction of the Technical Centre take in consideration high energy efficiency requirements. The building's primary energy consumption is expected to be at 148.6 kWh/(m<sup>2</sup> year) complying with the requirements of such buildings which is at 164.5 kWh/(m<sup>2</sup> year). The building will be constructed within the promoter's premises in the existing industrial park where its main operations are now located.

The promoter has received a conditional building permit and has started the construction of the Technical centre following the established national procedures. While no EIA has been required by the competent authorities, this permit includes certain environmental measures that have to be complied with, during the construction and also the operation stages. The promoter will report during the project closure report the environmental measures that were put in place as required in the construction permit.

<sup>1</sup> Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100 000 tonnes CO<sub>2</sub>e/year absolute (gross) or 20 000 tonnes CO<sub>2</sub>e/year relative (net) – both increases and savings.

## **Other Environmental and Social Aspects**

Knorr-Bremse is integrating sustainability aspects into the Group's procurement structures and in the suppliers' selection processes. In both the Commercial Vehicle Systems and Rail Vehicle Systems divisions the company has revised the quality management guidelines for procurement and added elements aimed at implementing the ten principles of the UN Global Compact. These guidelines set requirements for continuously improving process, quality, environmental compatibility and productivity in close collaboration with suppliers. As part of the contract, these guidelines are binding for all suppliers of production materials.