# Environmental and Social Data Sheet

## Overview

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| Project Name: | **DEUTZ UMWELTFREUNDLICHE MOTOREN F&E** |
| Project Number: | **2010-0094** |
| Country: | **Germany** |
| Project Description: | Financing engine and related technologies R&D activities related to the relevant emissions requirements (EU Stage IIIB & IV and Tier 4i & 4) and fuel efficiency improvements. |

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| EIA required: | NO |
| Project included in Carbon Footprint Exercise[1]: | NO |

(Details are provided in section: "Carbon Footprint")

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

The project concerns investments in research and development that will be carried out in existing facilities already authorised. In addition, it does not include the construction of any facilities such as test benches that could fall under Annex II of the EIA Directive 85/337/EC, amended by Directives 97/11/EC, and therefore an Environmental Impact Assessment (EIA) is not required. The project per se does not have any impact on the environment; however overall, it is considered as environmentally acceptable with minor negative residual impact as, while the products of the programme will have significantly lower emissions improving the current situation, they will still add to the environmental load.

## Environmental and Social Assessment

### Environmental Impact and Mitigation

This project's main objective is the reduction of harmful emissions of heavy–duty engines to the requirements set by the different legislations around the world (Europe: EU Stage IIIB in 2012 and EU Stage IV in 2015; US: Tier-4 interim in 2012 and Tier-4 in 2015), including engines used in Gensets and Marine applications. The standards regulate the emissions of nitrogen oxide (NOx), hydrocarbons (HC), carbon monoxide (CO) and particulate matter (PM); NOx emissions in the future will have to be reduced by about 95% since the requirements in 1999 and particle emissions by more than 96% for the same period.

A secondary objective consists in the reduction of fuel consumption and $CO_2$ emissions, especially as the ambitious legislation on harmful emissions has required solutions that have adverse effects on fuel efficiency. Although the next level of requirements is not yet defined, it is widely expected that it will concentrate on fuel efficiency and $CO_2$.

[1] 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 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

## EIB Carbon Footprint Exercise

Project is not included - the EIB draft Carbon Footprint Methodologies only include emissions from Investment Loans, and large allocations under Framework Loans, above the methodology thresholds.

## Other Environmental and Social Aspects

In 2003, DEUTZ implemented a voluntary environmental management system. Its compliance with the internationally applicable standard ISO 14001 was confirmed by an independent auditor of the certification agency in September 2009.

With this programme, the company is setting voluntary targets for reducing the environmental impact that may result from its business activities, with focus on energy savings and reduction of plant-related emissions. Some examples of related activities include the implementation of generator brakes in motor test benches in order to increase the electricity fed into the company's power grid, and the centralisation of exhaust handling for the motor test area and installation of a soot filter meeting the criterion of "best available technology" at the Ulm plant.