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***The future of environmental protection in German industry: Learnings from
a survey in various sectors***

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Background

In the past, public funding for environmental R&D activities in industry focused strongly on the technical side by looking for innovative solutions for production processes. Nowadays a broad shift from the end-of-pipe technologies towards integrated technologies has taken place. New priorities were placed on product-related aspects of environmental protection and the development of new instruments aiming at improving the environmental performance of the company in a holistic way. On the other hand, new tools and approaches were developed for public funding of environmental R&D efforts, such as tax incentives or joint industry-university initiatives. The current challenge with regard to the future of environmental protection in industry lies in identifying sector specific priorities as well as the choice of appropriate instruments for public funding.

In response to the above mentioned challenge, the VDI Technology Center was asked in 1996 by the German Ministry of Education, Science, Research and Technology (BMBF) to undertake an empirical survey in different industrial sectors in Germany in order to identify current and future priorities in environmental protection as well as barriers to the application of integrated environmental technologies. The main motif for BMBF was the need for innovative and sustainable solutions which go beyond the classical technological approach in order to enlarge the scope of the definition of environmental protection and thus improve the effectiveness of public funding in this area.

Survey

For the survey, three different sectors were chosen which represent firstly different attitudes towards environmental protection and will secondly play an important role in the establishment of a more sustainable society in the future. The three sectors were the chemical industry, the food and beverages industry and the construction industry. In a questionnaire, not only the current and future importance of the various instruments of environmental protection was reviewed but special attention was given to product-related aspects of environmental protection in the different sectors. The survey included some 3000 companies all over Germany and more than 1000 companies displayed their data and opinions. For the selection of the companies, special attention was given to the involvement of SMEs (resulting in over 50% SME respondents).

First conclusions

Initial results indicate that in all sectors a broad shift from technical to managerial instruments can be identified increasing the importance of instruments such as environmental management systems, training and environmental reporting. With regard to product-related aspects it seems that the awareness and knowledge of the environmental impacts of their products is not very developed.

Several results indicate in addition that priorities, activities and perceptions concerning environmental protection can be linked to general characteristics of the organisation such as size, key customers, organisational aspects and products. These results demonstrate that the general setting of an enterprise is closely linked to its environmental protection practices and that such links might be used for identifying specific priorities in environmental protection and thus contribute to a better understanding of environmental behaviour in industry.

The final results will be available by the middle of the year 1998 and will contribute to the establishment of new and more appropriate priorities in the field of environmental funding, especially with regard to the needs and attitudes of SMEs. In addition the results of the survey will provide an overview of current and future priorities in industrial environmental protection in the sectors analysed.