The Internet-Platform oekoradar.de – Interface between Science and Business in the field of Corporate Sustainable Management

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Objectives and characteristics of the Internet platform

oekoradar.de (eco-radar) is the name of an innovative Internet portal (www.oekoradar.de). It uses the most comprehensive and persuasive means to motivate sustainable management in those enterprises which have so far taken little or no interest in this aspect. www.oekoradar.de will be the result of a joint effort of 24 Research Institutes and 40 Companies. Small and Medium Enterprises (SME) will get access to best practices as well as most recent know how and developments in the field of sustainable development. In summer 2002 oekoradar.de will be launched on the Internet.

oekoradar.de pays attention to the fact that only a limited number of SMEs have so far developed a proactive attitude towards sustainable development. Although major progress has been achieved in the field of environmental protection over the last decades in Europe, the corporate sector has not yet met the targets which were set up in the Agenda 21 of the Rio Conference in 1992. Lack of reliable information, data and strategies which could facilitate the implementation of corporate environmental and social policy is one of the major reasons for these deficiencies.

The online service will be developed hand in hand with business. Experts from Science, Companies and Government will provide access to their experience and know how in regard to core issues of corporate environmental and social management. Global players such as Deutsche Telekom, RWE and others as well as small and medium sized companies (with a total number of employees of more than one million) will contribute best business practices which will be converted into reliable Internet content by a scientific team. The results of a survey on “Sustainable Management practise in Germany”, conducted by the IFO Institute for Economic Research in Munich, will be another important input. 9,000 companies are requested

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to contribute details of their practises and experiences in regard to sustainable development.

Development of oekoradar.de started in March 2001. It is funded by the German Federal Ministry of Education and Research and receives technical and administrative support from the German Centre for Air and Space Travel (DLR). The institutional base for the joint project is the German Competence Centre for Sustainable Management (Deutsches Kompetenzzentrum für Nachhaltiges Wirtschaften – dknw) at the private University of Witten/Herdecke, and it is run in co-operation with the Chair of the Department of Environmental Management at the University of Hohenheim, Germany.

Europe’s largest business-led environmental initiative, the German Environmental Management Association (BAUM e.V.), Hamburg, will organise a series of high ranking workshops to discuss the relevance of the generated content and approve it. This will strengthen the efficient transfer of know how from the corporate sector.

Step by step, oekoradar.de will expand its services. From the very beginning, oekoradar.de tackles the issue of “Globalisation and sustainable development”. Partner institutions in Brazil, China, India and Southern Africa have asked for help in setting up similar online services. European companies wish to use oekoradar.de as a tool for the development of strategies for sustainable development in their European and Overseas dependencies. The main thrust of the co-operation with Carl Duisberg Gesellschaft e.V. is to promote the international expansion of the system.

**Guidelines for action at the click of a mouse**

oekoradar.de is a prototype of an early detection system which will enable Enterprises to identify and assess technical, political and economic risks – as well as market opportunities – of environmental issues much earlier than their competitors. The oekoradar.de portal consists of eight oekoradar.de screens. Users can view them as an ensemble – or individually if preferred – to scan a company profile (Company Radar – ‘micro-level’) or the wider economic setting (Macro Radar – ‘macro-level’).

IT research should ensure that oekoradar.de actually fulfils its quality criteria, i.e. coherence and effectiveness, capacity for integration, clarity and, in particular, user-friendliness. The oekoradar.de system must stick to the latest developments in IT so that it can live up to its future-oriented role.
### Company Radar

The Company Radar is a system component that can be accessed from any oekoradar.de screen, enabling users to systematically record and evaluate their company Environmental Data, their company Environmental Policy and their company Environmental Goals.

### Macro Radar

The Macro Radar, a similar system component that can be accessed from any oekoradar.de screen, enables users to record and evaluate the 'macro-level' on the basis of the latest research – for instance global, national and regional Environmental Data and Environmental Goals.
The eight oekoradar.de screens in detail

oekoradar.de is the result of a wealth of research which has mounted up over at least two decades. There are copious research findings under all eight of the subheadings, along with applications that have been tested in practice, in some cases. Some parts of the oekoradar.de system rely heavily on the latest environmental performance standards. The oekoradar.de sequence of ‘Environmental Data – Environmental Policy – Environmental Goals – Environmental Organization – Environmental Knowledge’ largely follows the thought processes of the European Union Eco-Management and Audit Scheme (EMAS) and ISO 14001. The integration of the oekoradar.de screens ‘Environmental Costs’, ‘Environmental Market’ and ‘Environmental Technology’ in the overall system is largely attributable to experience reported by companies. In business practice apparently there is plainly a recurring need for this kind of information.

1 Environmental Data - Basis for action towards sustainable management

Environmental data are generally held to be the ‘oxygen’ of environmental policy. The regional, national and global environmental data provide a key basis on which companies can take action. Wherever the environmental situation is monitored and observed, wherever citizens are surveyed on their subjective experience of environmental problems, this can provide the impetus for action in environmental policy. Elementary company environmental data, for example, might be figures relating to energy, water, wastewater, waste, emissions and hazardous substances. Carbon dioxide emissions would be one example of key global environmental data.

2 Environmental Policy - Approaches for action towards sustainable management

The future environmental standards imposed on enterprises are moulded partly by their own environmental policies but especially by external government and party programmes. For example, national environment policy approaches for action form an important basis for the future use of ‘command-and-control’ instruments. In Germany, for instance, the ideas of the coalition parties, the opposition and the separate parties at national, federal state and municipal level are not the only matters of importance. A considerable influence is exerted on future environmental policy by the policy-making bodies of the European Union and numerous other international organizations.
3 Environmental Goals - Principles for action towards sustainable management

While environmental data represent a significant basis on which to take environmental policy action, environmental goals provide principles for action which, for their part, form the basis for the future application of environment policy instruments. Society should come together and use environment quality objectives to define core elements of environment policy action, working towards sustainable management in years to come. A company’s own environmental targets, in contrast, are an element of the internal early detection system. Basically these should be geared to continuous improvement of environmental performance.

4 Environmental Organization - The foundation of sustainable management

An effective environmental early detection system can only be incorporated successfully within the enterprise once an efficient organization is in place for the structure and processes of environmental performance. Because then, and only then, is it possible to perform the target-performance comparisons which are necessary for early detection. For early detection, another important factor is to work closely with the public environmental authorities and associations: environmental authorities are the pivotal interface between the letter of the law and its enforcement. Enterprises that maintain good contacts with environmental authorities have swift access to information on new requirements under environmental law. Associations are viewed as powerful environmental policy actors and can pass on to their corporate members targeted advance information on environmental performance, picked up during the course of their lobbying.

5 Environmental Knowledge - Assistance in the focus and design of sustainable management

Environmental know-how, both inside and outside a company, is a central element of environmental early detection. A cornerstone for knowledge transfer in the environmental sphere is formed by institutions such as the German Federal Environmental Agency, the Federal Agency for Nature Conservation, the Federal German Foundation for the Environment, and the International Transfer Centre for Environmental Technology. Likewise the media, as environment policy opinion-formers, play an important part in early detection.
6 Environmental Costs - Criteria for decisions on sustainable management

Monitoring and assessment of environmental costs in the widest sense (calculation of a company’s pollution control costs, anticipation of external costs and the costs of neglecting environmental aspects, identification of potential cost reductions) is a permanent task within early detection. In particular, deducting – at least mentally – the costs of environmental degradation (today’s external costs – tomorrow’s operating costs) is a strategic element of eco-controlling.

7 Environmental Market - Business segments for sustainable management

Environmental protection has developed into a significant economic factor over the past 30 years. In the year 1997 alone, German private and public sector spending on environmental protection was around DM 65,000 million. Studies predict that the market for environmental technology and environmentally friendly products will continue to grow internationally in the coming years. Admittedly Germany still has a high market share in this area. However, other industrial nations – notably the USA, Canada and Great Britain – have developed strategies for gaining targeted access to new markets and supporting exports of environmental technology by their suppliers.

8 Environmental Technology - Innovations for sustainable management

Technical indicators play an important part in the early detection process. In particular, specialist trade fairs and exhibitions not only forge new contacts and stabilize business relationships but also provide advance information on technical innovations. Delphi surveys are increasingly conducted as part of this technology preview process, and these can serve to guide future strategic orientation.

The scope of the oekoradar.de system

oekoradar.de pursues the aim of systematically offering small and medium sized enterprises in particular the most wide-ranging and incisive tool possible for sustainable management. The tool seeks both to accommodate diversity and be serviceable in practice. Even so, it goes without saying that standard evaluation and classification as pursued by the joint project encounters certain limitations:
Completeness

oekoradar.de is not a model company environmental information system. It cannot claim to cover every aspect of the theme of ‘operational tools for sustainable management’. This cannot be achieved, on the simple grounds of time and cost constraints. Also it is impossible to guarantee that the affiliated experts will always be familiar with all the existing knowledge available. It cannot be ruled out that during a research and development period of three years, new insights gain currency which, for reasons of project organization, are impossible to take into account (at least initially) in the joint project.

Methodological problems

Oekoradar.de wants to make various tried-and-tested tools available to users as an aid for sustainable management in enterprises. These instruments (such as environmental input/output analysis, environmental indexing, eco-auditing, ecological benchmarking and environmental costing) are often associated with system definition, data collection and evaluation problems. Thus the theme of ‘Environmental Costing’, a key component within the oekoradar screen ‘Environmental Costs’, remains in the very early stages of its development.

Verifiability and comparability

Beside the methodological limitations, there may also be problems with verification and comparison of data: firstly, the processes of definition are far from concluded (for instance, as regards the terms ‘eco-controlling’ and ‘environmental cost management’ or even the concept of ‘sustainability’). In numerous cases there is no standard yardstick for evaluation. The latter point applies equally to supposedly mature instruments such as the EU eco-audit scheme (as the difficult EMAS II revision process made very clear).

Industry-specific factors

The functions of the oekoradar.de system as described apply largely to all industries. Due to the volume of industry-specific features (in particular, the technical-ecological side of environmental problems and their solution can vary greatly from one industry to another) oekoradar cannot provide comprehensive industry-specific solutions.
SME problems

Although SMEs form a special target group of the oekoradar.de system, it is only possible in rare cases to differentiate by company size, due to time and cost constraints.

Underlying assumptions

Oekoradar.de works on the assumption that enterprises involved in company environmental management can decide freely upon a defensive (passive) or an offensive (active) overall concept, depending on their general business objectives. The ‘defensive environmental management concept’ is still the predominant one today and is characterized by company inactivity, at best reacting to legal and market requirements, but not taking independent initiative. Companies acting on an ‘offensive environmental management concept’ will attempt to integrate the environmental standards emanating from the government or the market into their business procedures. The goal is to do more than ‘just’ meet requirements, but rather to use these as a business management tool to activate all the conceivable business advantages of more environmentally aware behaviour.

Economic viability

oekoradar.de must also be guided by economic restrictions in the question of suitable business tools to deploy, because the cost of utilizing business tools for sustainable management should be economically viable for the company.

Objectivity

oekoradar.de presents the outcomes of work done by about 25 project partners. It inevitably follows that numerous expert verdicts – some more free of value judgements, some less – are contributed to the oekoradar.de system. The aim should be on the one hand to keep subjectivity to a minimum. On the other hand, in those cases in which expert value judgements cannot be avoided, these should be marked clearly as such.

Instrument to raise demand for environmental consultancy

The admitted limitations of the joint project make one thing clear above all else: oekoradar.de does not make professional and tailor-made environmental consultancy superfluous. On the contrary: being a system that targets those enterprises which have done little or nothing towards sustainable management and
spurs them on to work on this aspect, the *oekoradar.de* system is actually an instrument that should raise demand for environmental consultancy.