

renreservaten: Sie hängen immer noch ab von der Prosperität wertschöpfender, möglicherweise so nicht zukunftsfähiger Sektoren der Volkswirtschaft. Damit ist die „Expansionsmöglichkeit“ des Modells in benachbarte Räume nur mit Transferleistungen möglich, weil sich das Modell im Wettbewerb nicht durchsetzen kann. Diese Durchsetzungskraft könnte sich nur entfalten, wenn die wirtschaftlich-gesellschaftlichen Randbedingungen auf breiter Front verändert werden. Nicht die Biosphärenreservate müssen für ihre ökologisch-sozialen Leistung mit den Mitteln der nicht zukunftsfähigen Wirtschaft subventioniert werden, sondern diese Wirtschaft muss auf eine ökologische Produktion und die Gesellschaft auf eine veränderte Konsumtion gelenkt werden. Dann verlieren Biosphärenreservate ihre „Inselstellung“ als ein Versuch regionalen Wirtschaftens, und sie werden zu einem Baustein im bunten Mosaik stärker regional bezogener Wirtschaftskreisläufe. Neue Perspektiven könnten sich ergeben, wenn es gelingt, Biosphärenreservate auch in städtischen Verdichtungsräumen einzurichten. Aber auch hier zeichnet sich ab, dass nicht prosperierende, sondern strukturschwache Ballungsgebiete in Betracht kommen. So sinnvoll dies für deren Zukunft sein mag, so bleibt doch das Problem, dass hier erneut ein, wenn auch innovativer, von Transferleistungen getragener Prozess in Gang kommt.

## Perspektiven

Insgesamt zeigt sich, dass Biosphärenreservate einen Nutzen für strukturschwache Regionen haben, weil sie für Betroffene eine Möglichkeit bieten, ihre räumliche Entwicklung zu beeinflussen. Auch können in Biosphärenreservaten konzeptionell alle Dimensionen der Zukunftsfähigkeit integriert werden. Jedoch ist das Konzept unzureichend umgesetzt, vom Naturschutz dominiert und abhängig von Transferleistungen. Da Biosphärenreservate immer unter dem Druck der Dynamik von Wirtschaft und Gesellschaft stehen, sind sie nur defensiv modellhaft. Damit sind sie aber auch keine wirklichen Schonräume, denn auch die Transferleistungen können externe Einwirkungen nicht blockieren. Solange gesellschaftliche Randbedingungen nicht verändert werden und die Bürger bereit

sind, mehr Geld für Produkte auszugeben, die aus solchen Regionen stammen und unter ungünstigen betriebswirtschaftlichen Bedingungen produziert werden, wird das Konzept nicht nachhaltig auf große Gebiete ausstrahlen können.

## Anmerkungen

- 1) *Deutsches Nationalkomitee für das UNESCO-Programm* (Hrsg.), 1996: Biosphärenreservate. Die Sevilla-Strategie und die internationalen Leitlinien für das Weltnetz. Bundesamt für Naturschutz, Bonn (vgl. auch [www.unesco.org/mab/](http://www.unesco.org/mab/))
- 2) Vgl. [www.naturpark.de](http://www.naturpark.de)
- 3) Ob und um wie viel teurer solche Produkte sind, hängt von den regionalen Gegebenheiten (Bodenqualität; Lage etc.), ihrem „Ökostandard“ und der Größe der verarbeitenden Betriebe ab. Richtschnur dürfte ein Preisniveau von ca. 20% über dem konventioneller Produkte sein.

## Kontakt

Dr. Wolfgang Fischer  
 Forschungszentrum Jülich GmbH,  
 Programmgruppe Systemforschung und  
 Technologische Entwicklung (STE)  
 D-52425 Jülich  
 Tel.: + 49 (0) 2461 / 61-5205  
 Fax: + 49 (0) 2461 /61-2496  
 E-Mail: [wo.fischer@fz-juelich.de](mailto:wo.fischer@fz-juelich.de)

«

## The Implementation of Integrated Sustainable Development in German Companies

by Philip C. R. Gray, Forschungszentrum Jülich

**An integrated concept of sustainable development attempts to consider simultaneously the environmental, social and economic dimensions of human activity. The commercial company, as one of the key institutions linking society, economic life and the environment, has a special significance for the implementation of such an integrated concept. This paper investigates**

## how companies in Germany have implemented sustainable development, and to what extent they have used or developed an integrated approach.

### Introduction

Although several schemes exist for measuring sustainability in companies, most focus only on the environmental dimension, and few tackle the integration of different dimensions. This contribution will therefore focus on finding out how the companies themselves interpret sustainability in practice. The idea of "integrated sustainability" will act as an ideal, but still imprecise, standard for comparison. The paper will examine the organisation's motivation for dealing with sustainability and how it interprets sustainability; its strategy for responding and measures taken to implement sustainable development in each of the three dimensions. The companies examined come from a range of sectors including environmentally intensive industries, consumer products manufacture and services in Germany (Gray 1999).

### Motivations for tackling sustainable development

The companies have considered sustainable development to very varying degrees. Most do not mention sustainable development at all in their environmental reports (exceptions include *Shell* and *Volkswagen*). Nevertheless, all companies were able to answer questions about sustainable development either from the author, or from the Enquete-Commission's questionnaire. The most frequent motivations mentioned for considering the issue are (in approximate descending order): 1) *awareness of global problems* and of the company's responsibility for contributing to their solution; 2) the *demands of other stakeholders* (customers, environmental groups, regulators); 3) *economic motivations (savings)* – especially for environment-intensive companies; 4) *image gains*, which are mentioned by some companies, but are not seen as bringing direct economic benefits. In general, "non-material" factors play an unexpectedly large role.

### Definitions of sustainable development

Most of the companies outside the automobile and chemicals sectors had no formal definition of sustainability. Instead they used sustainable development as a synonym for "environmental protection". However where a formal definition was given, this did tend to link explicitly the economic, ecological and social dimensions (e.g. *BASF*, *Volkswagen*). The most important sources of sustainability definitions are the Brundtland Report, trade associations, and others such as the Wuppertal Institute's "Sustainable Germany" report.

### Practical implementation measures: the environmental dimension

An essential precondition for moving towards environmental sustainability is that a company has an effective environmental management system. In addition it must take measures relating to the production processes, the product, and dialogue with other stakeholders. An environmental management system (EMS) is an information and control system for environmental performance. The main voluntary standard for EMSs is the EU's Environmental Management and Audit Scheme (EMAS) which requires the company to have an operational EMS, to publish an environmental statement containing quantified goals, and to continually improve its environmental performance. The sample companies vary significantly in the extent to which they have an operational EMS. The chemical and automobile companies are well on the way to company-wide EMAS registration. Certain medium-sized companies were also early to register. The telecommunications and financial services companies in the sample are less far on, partly because EMAS was first extended to these sectors in February 1998. In general small companies appear to have more difficulties in implementing EMAS. "Sustainable production" is generally interpreted as the attempt to close materials and energy cycles. Most companies are moving in this direction, and particularly the chemicals, steel, and foodstuffs sectors can point to impressive achievements. Services companies also report surprising benefits from efficiency measures in paper and energy consumption.

Closing materials and energy cycles should ultimately extend to the use and disposal of the product itself. This implies the use of life-cycle analyses to obtain information, product designs aimed at longevity and reusability, and the implementation of reuse/recycling schemes. Some of the companies investigated, such as *Rank Xerox* and *AEG*, have invested considerable effort in this area. Service companies have also introduced innovations: *Allianz* contributes to environmental protection through its environmental risk insurance, research on environmentally friendly damage repair, and through the *Allianz Stiftung's* sponsorship of projects linking environmental and economic benefits.

Virtually all the companies in the sample said that they carry out dialogue with environmental groups. Some actively support particular nature conservation groups, and others have participated in the Local Agenda 21. An important indicator of communication with the public is the publication of an environmental report. Since the first one was published in Germany in 1990, over 700 companies have published such reports, including most of the companies studied here. Many supply fairly detailed quantitative information (cf. future e.V., 1998). In summary, the companies are highly active in both internal and external aspects of environmental protection, and are increasingly shifting towards sustainability-oriented instruments and practices in this area. There are differences in strategic emphasis according to the sector. Small companies are more restricted in what they can do and are poorly served by some existing instruments.

#### **Practical implementation measures: the social dimension**

Unlike the environmental dimension, which has taken on a clear profile for companies in Germany, the idea of a "social dimension" of sustainability is for most firms a vague or an entirely unknown concept. Neither the Enquete-Commission's nor the author's survey uncovered any ready-made approaches to this area comparable to those available for the environmental dimension. In general the companies agreed that sustainable development includes at least the training of workers, safeguarding jobs, and flexible working hours. Relationships with

customers were also mentioned; some companies have specific programmes to inform customers about sustainable consumption. A traditionally strong area for German companies is involvement in the local community (e.g. *Bayer*, *Volkswagen*). However as far as could be determined, no company in the sample has yet carried a social audit of its activities.<sup>1</sup>

#### **Practical implementation measures: the economic dimension**

The economic dimension of sustainability can be interpreted in two ways for companies. The "conventional" aspect is what effects environmental (or social) sustainability strategies have upon a company's financial viability. While most companies saw a sustainability-oriented strategy as good for their image, the effects on competitiveness were assessed variably. The product-oriented companies seem to see greater financial benefits at present than the production-oriented companies. A more "active" interpretation is to examine the implications of sustainable development for a company's financial strategy. Most companies interpret sustainability in economic terms simply as corporate economic survival. Other researchers suggest that sustainability should have deeper financial implications, including using longer time periods for financial evaluation, setting up a system to link the environmental, social, and economic aspects of performance, and aiming to achieve qualitative growth. Such concepts appear to have had little practical influence; only a few companies mentioned them briefly.

#### **Integration of the three dimensions**

For most companies, sustainability is in practice a synonym for "good environmental management", while the social and economic dimensions have no clear meaning. Therefore no evidence was found of formal systems for integrating all the dimensions. Most companies agreed that the different dimensions can be reconciled, at least "long term" or "in principle" – although in practice it appears that tradeoffs are often necessary. However no formal mechanisms for making these tradeoffs or for gathering the necessary information were discovered. Such approaches are being developed

elsewhere. The *Shell* group has published an ambitious plan for creating comparable indicators in all three dimensions, with the ultimate aim of combining them in a single management information/ accounting system (Shell International 1998). On an international level, the Global Reporting Initiative (GRI) is attempting to create a template for integrated company reporting covering all three dimensions, although the social and economic dimensions still appear to present difficulties (see White 1999). Neither of these initiatives has yet found a significant echo in Germany.<sup>2</sup>

### Conclusions

Most top German companies acknowledge the importance of sustainability, based on considerations of responsibility, awareness and business opportunity. So far their practical efforts have focussed very much on the environmental dimension. Certain aspects are relatively well covered: EMAS, production-oriented sustainability, and in some sectors, product-related sustainability. Environmental reporting is developing rapidly, although continued efforts are necessary to improve informativeness and consistency. There are differences in strategic emphasis according to the sector. The chemical and automobile sectors are especially active overall. Other companies focus more on production aspects or on the characteristics of the product or service, depending on the sector. Small companies are restricted in what they can do and are poorly served by some existing instruments. The social and economic dimensions of sustainability remain largely undefined, and the concept of integration is barely known. Although the sample was biased towards environmentally pioneering companies, no clear models were found for dealing with the other aspects of sustainability.

Two different conclusions for research are possible. Firstly, a three-dimensional model of sustainability is not meaningful in practical terms in the corporate context – perhaps because the social and economic room for manoeuvre is too limited. Secondly, there is a need for researchers to specify what the three-dimensional model of sustainability means, and to produce workable tools and methods for

implementing it. The progress of efforts such as the Global Reporting Initiative should help in assessing which of these conclusions is correct.

### Footnotes

- 1) This was only explicitly asked for the five companies in the author's questionnaire sample.
- 2) No German organisations are represented in the GRI steering committee, although some and research groups have contributed in other ways. A GRI meeting was held in November 1999 in Wuppertal. The Wuppertal Institute is coordinator for Germany.

### References

- Future e.V.*, 1998: Die besten Umweltberichte. Future e.V., Osnabrück (archived at <http://www.umis.de/>).
- Gray, P.C.R.*, 1999: Umsetzung des Leitbildes der nachhaltigen Entwicklung in deutschen Unternehmen. Arbeiten zur Risikokommunikation, 75, Research Centre Jülich/ MUT, pp. 70.
- Shell International Ltd.*, 1998: Profits and Principles: Does there have to be a choice? 4.98/ 50. Group External Affairs, Shell International, London.
- White, A.L.*, 1999: Sustainability and the Accountable Corporation. Environment 41 (8), October 1999, 30-43.

### Contact

Philip C.R. Gray  
 Forschungszentrum Jülich GmbH  
 Programmgruppe Mensch, Umwelt,  
 Technik (MUT)  
 D-52425 Jülich  
 Tel.: + 49 (0) 2461 / 61-3536  
 Fax: + 49 (0) 2461 / 61-2950  
 E-Mail: [ph.gray@fz-juelich.de](mailto:ph.gray@fz-juelich.de)

«