Sustainability management with the Balanced Scorecard

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Abstract

In recent years many corporations have implemented environmental and/or social management systems (such as ISO 14000, EMAS or SA 8000) in order to manage and control sustainability-related issues. However, these management systems often fall short in companies' practice for two reasons. First of all, in many cases these management systems are run on the operating level, i.e. they are not linked to the strategic planning and management of the company. As recent research has revealed, there is a lack of appropriate strategies regarding the management of environmental and/or social aspects in an effective and efficient way (e.g. Dyllick & Hamschmidt 2000; Baumast & Dyllick 2001). Secondly, these management systems are mostly executed separately from the traditional general management systems which are used by top and middle management to control and run business. These two problems of sustainability management have been the motivation for a qualitative research project at the Institute for Economy and the Environment at the University of St. Gallen (IWOe-HSG). In the project, the management tool and methodology of the traditional Balanced Scorecard (Kaplan & Norton 1997) have been developed further towards the „Sustainability Balanced Scorecard" (SBSC) integrating ecological, social as well as economic aspects. The co-operation with six companies has made it possible to gather valuable experiences when developing and implementing a SBSC.

As the research project has found out, a Sustainability Balanced Scorecard (SBSC) provides sufficient potential to overcome the above-mentioned shortcomings in sustainability management (see Figge et al. 2001; Bieker et al. 2001). It is a tool that has been developed to focus on more qualitative aspects (such as social and environmental ones). It provides a methodology to bridge the gap between the strategic and operative levels of companies. Yet the BSC is designed to "translate strategies into action". This implies that appropriate strategies are defined beforehand. So, five different types of sustainability strategies are presented that may be used as strategic input for the a Sustainability Balanced Scorecard. After that, two of these strategies are translated into action with a specific Sustainability Balanced Scorecard including the possible causal relationships between environmental and social aspects on the one hand and financial performance on the other hand. To conclude, opportunities and challenges when implementing a SBSC are discussed. As the paper shows, the type of the strategy chosen in advance bears several implications for the structure of a SBSC. This is illustrated with empirical examples of SBSC concepts from the companies Volkswagen and Unaxis.

The concept of the Sustainability Balanced Scorecard

This chapter presents the methodology of the Sustainability Balanced Scorecard (SBSC). The SBSC-concept is based on the "traditional" Balanced Scorecard (BSC), a management tool and methodology developed by Kaplan and Norton in 1997 (see Kaplan & Norton 1997). The idea to use the tool also for the purpose of environmental management is not completely new and has already been suggested by Kaplan & Norton. In recent years, the research project "A Management Cockpit for Corporate Sustainability" has developed the BSC further to a SBSC as a concept for sustainability management (e.g. Epstein & Wisner, 2001; Schaltegger & Dyllick 2002).[1]

What is a Balanced Scorecard? The BSC can be understood as a management system, which is structured according to the logic of the cybernetic management circle ("plan-do-check-act"). Kaplan & Norton position the Balanced Scorecard as a tool for organisations to manage the demands of relevant stakeholders and to translate strategies into action ("from strategy to action"). Possible stakeholders that are strategically relevant could be shareholders, customers or employees. Their demands are integrated into core management of companies within a "financial", "customer" or "learning" or "process" perspective (see Figure 1 below). So, the frame of the Balanced Scorecard consists of *four perspectives* (see Figure 1). Each perspective consists of relevant strategic goals, indicators and measures to achieve them. One should emphasise the fact that the concept remains open for integrating further relevant stakeholders or perspectives, e.g. an environmental perspective (cf. Kaplan & Norton 1997, pp. 33). When conceiving the BSC, Kaplan and Norton, maintained that companies are lacking sophisticated tools for the management of intangible or qualitative assets (e.g. customer satisfaction, processes quality, infrastructures, know-how). Intangible assets, however, seem vital in order to stay competitive in the future. So, the Balanced Scorecard provides 'enablers' that focus on the achievement of strategic goals in the future (*leading indicators*) as well as results (*lagging indicators*) to depict the effectiveness and efficiency of measures in the past. Strategies can be usually interpreted as a set of hypotheses of *causes and effects*. So within a BSC the relevant goals and corresponding indicators are linked to each other revealing this structure of causal relationships. Such relationships are both relevant within each perspective and also between them. Objectives of the "learning" perspective, for instance, serve as 'enablers' for the achievement of goals of the other 'overarching' perspectives (e.g. customers, finance).

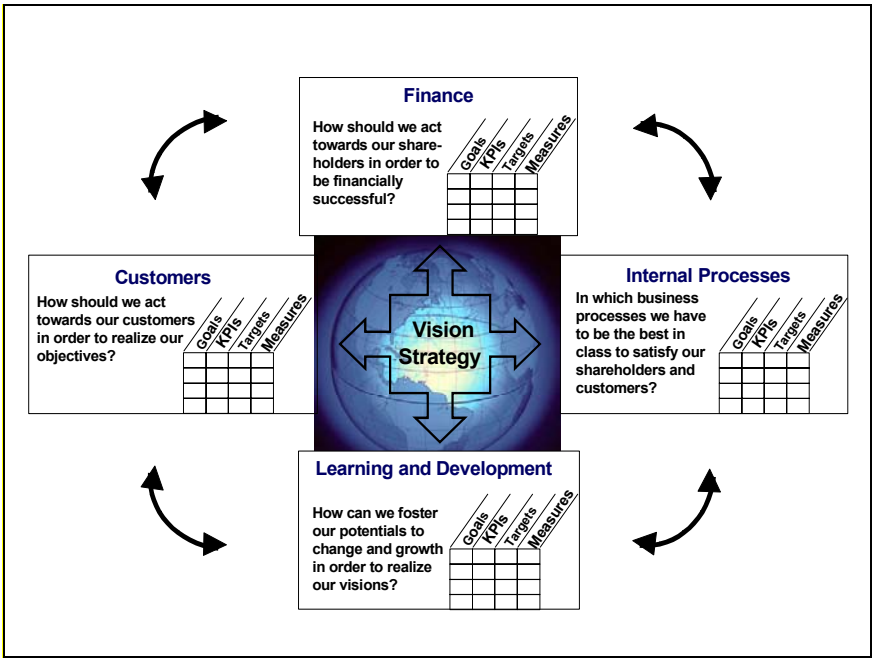

Figure 1: The methodology of the Balanced Scorecard (adapted from Kaplan & Norton, 1997, p. 9)

- In the predominant *financial perspective* objectives similar to traditional systems of management and accounting are included to depict the financial performance of the company. In contrast to traditional management instruments, the BSC concept stresses the importance of so-called *value drivers* for future profitability.
- The *customer perspective* aims at the identification of relevant customers and market segments that contribute to the financial goals. In terms of a market-based management of the company, this dimension makes it possible to get the internal processes, services and products into line with the necessities of current and future markets.
- Within the dimension of *internal processes*, firms should identify and structure efficiently the internal value-driving processes that are vital regarding the goals of customers and shareholders (e.g. innovation, production and after-sales; see Kaplan & Norton, 1997 p. 89).
- Human resources being an underlying strategic factor of success, Kaplan and Norton suggest a perspective for *learning and development* that tries to depict all staff- and organisational-related aspects that are important regarding organisational reengineering processes (cf. Weber & Schäffer 2000, pp. 201).

The Sustainability Balanced Scorecard is based on the traditional BSC, but provides a broader scope by integrating all three dimensions of sustainability. So, it has a different content and possibly a different structure ("architecture"). In addition to the four perspectives of the traditional BSC, it is possible to include a fifth perspective in order to explicitly address stakeholder issues. The BSC coming up with both financial and non-financial aspects and is an openly structured and flexible management instrument that provides a high potential regarding sustainability management. It is true that the BSC has been developed for the purpose of linking strategic goals in its four dimensions to the financial bottom line and to increase business profitability. Nevertheless, it is suitable for the management of sustainability or CSR as well (cf. Bieker & Waxenberger 2002). It is possible that the "financial" perspective and corresponding goals serve the achievement of society-related objectives and is no longer positioned "on top" (e.g. the Volkswagen example later on). But, as the BSC is a tool to implement strategies it is necessary to define a sustainability policy and strategy beforehand. This fact is reflected by positioning the "vision" or "strategy" in the centre of Figure 1. What is a SBSC compared to the traditional Balanced Scorecard concept? The SBSC may help to detect important strategic environmental and/or social objectives of the company, a single SBU or department and to illustrate causal relationships between qualitative "soft facts" and the financial performance (cf. Bieker et al. 2001, pp. 29). So, the use of a SBSC as a *planning instrument* could enhance transparency of potentials for (economic, environmental or social) value-added emerging from social and/or ecological aspects and prepare the implementation process of the strategy. It offers a reference frame ("strategy map") which makes it possible to understand how causalities between the single economical, ecological and social target dimensions may arise. In addition to this, the environmental or sustainability department of a company can gain experience with the instrument SBSC itself and may, by doing so, increase internal acceptance. As a conclusion, the setting-up of a SBSC may be already a very valuable training process. But there are several success factors to consider when implementing a SBSC. These are discussed in the following section.

Implementing a Sustainability Balanced Scorecard

When defining and implementing a Sustainability Balanced Scorecard, strategic, cultural, structural as well as methodological aspects seem to be most relevant. Similar to the traditional BSC

concept, the definition of a sustainability strategy on the corporate level seems vital, because within each perspective of the SBSC goals, measures and performance indicators have to be defined. There is practical evidence, that in corporate practice, this step is not trivial at all and indeed may be very time-consuming, because even "sustainable leaders" may frequently lack explicit sustainability strategies (cf. Bieker et al. 2002a). This is the reason why this paper puts emphasis on strategic aspects and corresponding types of SBSC (see sections 3 and 4).

Strategic aspects

A BSC as well as a SBSC implies strategies. But rarely do such explicit strategies exist in the area of sustainability management. So, it is important to define suitable strategies within a strategic planning process. From there, strategic goals, key performance indicators as well as appropriate measures can be deduced. Moreover it seems to be important that the corporate policy, on the one hand, and the strategy match well with each other in order to guarantee a "strategic fit". If not, employees may feel disoriented and insecure what the company stands for. Let me illustrate this idea with a quotation from an employee: "Internally, neither do we do know what are our visions or strategies nor where to go from here." But also stimuli from outside may force a company to lay down explicit strategies. As an example, the Swiss mechanical engineering company Unaxis has been confronted with increasing customers' requirements regarding the environmental aspects of its products. So, the SBSC project at Unaxis' triggered a process of formulating an Environmental, Health and Safety policy that stresses the importance of environmental and social goals. In addition to the existence of explicit strategies, the management tools that are used by the company are highly relevant. Project findings support the idea that those companies who have already introduced a "traditional" Balanced Scorecard (e.g. Berliner Wasserbetriebe) were acquainted with routines of planning and implementing corporate strategies. This turned out as a success factor since such companies already had well-defined and consistent strategic goals.

Generally speaking, if there is a lack of suitable strategies we frequently observed problems when defining appropriate strategic goals for the company. Moreover, well-established routines of planning and budgeting are a fostering factor when setting-up a SBSC. A part from strategic issues, cultural or micropolitical aspects seem to be most relevant when setting up and introducing a BSC or a SBSC.

The importance of corporate culture

There is no denying the fact that aspects of hierarchical power or prestige as well as career-related interests might have a negative effect on the introduction of a SBSC. A new management instrument entails deep *changes* in management. A SBSC is new because of both its methodology and its content that might question established strategies structures and processes. So, it is certainly true that, on the one hand, a SBSC bears risks. But, on the other hand, a SBSC provides the company as well as selected departments and employees with chances. There seems to be a trade-off between chances and risks that determines at the end of the day the internal acceptance of the instrument. Here cultural factors (Schein 1992) might play an important role. Here the underlying assumptions, thoughts and beliefs of employees regarding strategic and goal-oriented thinking and acting, quantitative controlling tools or the concept of sustainability itself are of utmost importance. It is certainly true that the use of key performance indicators on the company, department and employee level increases transparency and is often rejected by employees. So what are fostering aspects inside

corporate culture regarding the implementation of a SBSC?

An important precondition for the internal acceptance of the instrument is a commitment from *top management* to introduce a SBSC. This implies both a methodological backing of the instrument itself as well as the importance of sustainability-related issues. Moreover there is a body of evidence that top management should take into account possible mental reservations of employees and tackle them in a proactive way. Here a discourse-oriented infrastructure may put the planning tool to internal discussion before implementing it. A development of the instrument together with involved departments and employees can be reasonable so that they adhere to the principles and goals of the company or the SBUs (see Bieker & Waxenberger 2002). As a SBSC stresses the relevance of ecological and social aspects. a cultural analysis regarding corporate sustainability may deliver top management with valuable data. The more aspects of sustainability are internally accepted by employees the more open-minded will they react towards new concepts of sustainability management. In addition to this, micropolitical issues such as influence and hierarchical power may also turn out to be relevant within a SBSC process. Here the executive personnel as well as environmental and social managers should be willing to promote "their" issue inside the company and also accept that environmental or social aspects are no more "owned" and managed exclusively by themselves. As a SBSC might substitute existing management systems, environmental or social managers might be afraid of a corresponding loss of power or independence and feel an increased pressure to succeed. This might entail a disapproval of the instrument inside the organisation.

Factors of corporate structure

If a new instrument is to be "alive" inside the management process it has to be internally accepted. Additionally it should be integrated into the general management of the company and revised regularly according to changes in corporate strategy. To achieve this, the SBSC can be used inside core management processes, i.e. as a management instrument in the business and review processes as well as a supporting tool in strategic planning and budgeting. Moreover, a SBSC may better integrate environmental and/or social management systems into the "core" management within only one instrument. This may help to avoid the above-mentioned redundancies or internal frictions of "separate" management systems. A SBSC may include the environmental and social goals and relieve existing sustainability-oriented management systems. But this implies fundamental structural changes inside the organisation and because of internal cultural resistances, a sensitive procedure. So, before setting-up a SBSC, one should carefully analyse which management systems could eventually be removed and assess the room to move within corporate culture. It is obvious that, here again, top level commitment to remove existing systems by a SBSC is become crucial. If this is not done beforehand it might entail another system that is not integrated into core management and is internally rejected as another "additional" tool that only represents extra work. This again might lower the internal acceptance.

Process-related and methodological factors

How should one proceed when setting up a SBSC? Here aspects of the development process itself as well as methodological issues should be taken into account. First of all, it is important to consider the internal "management calendar" and to provide sufficient resources (personnel, time) for the developing of such a tool. More-

over the way in which the instrument is connected with corporate strategies may be important. The SBSC as well as the traditional Balanced Scorecard rather suggest a top down oriented methodology. This implies that strategic goals are prescribed by top management. Not rarely does this lead to internal resistances because employees' concerned are not considered at all and existing measures and budgets are jeopardised. So coming up from experiences in corporate practice a combination of both top down as well as bottom up may enhance internal acceptance of the instrument and strategic goals. On the one hand the general strategic input comes as a guideline from top management that is put in concrete terms (goals, measures, key performance indicators) by lower and middle management areas. This is of course time consuming and requires internal discussions. But especially in the realm of sustainability management, the engagement of all management levels allows to promote the sustainability concept widely inside the organisation.

Methodological aspects refer to the architecture of the SBSC, i.e. the definition of goals and key performance indicators as well as suitable perspectives. As far as the number of strategic goals is concerned, Kaplan & Norton recommend the rule "twenty is plenty" coming up from the fact that no more than five goals per perspective can be observed simultaneously. In practice this frequently implies a reduction respectively aggregation of defined goals and is, frequently disapproved. Here, again, cultural and micropolitical influences (fears, loss of power or budget) play an important role. But, nevertheless, such a reduction of goals is extremely helpful to focus on the most important, i.e. strategic goals. As far as *key performance indicators* for the management of ecological and social goals are concerned, one can frequently observe that these are not approved of by employees. This phenomenon is most likely to happen in companies where the above-mentioned top management commitment regarding sustainability-related goals is lacking. Generally speaking and very similar to experiences from "traditional" management, the expressiveness, measurability and influence of performance indicators faces restrictions. Besides, the visualisation of causal relationships between the strategic goals is helpful to understand their interconnectedness and to define important key factors of success. In the context of corporate sustainability, depicting of causal relationships between single strategic goals as well as conflicts between them seems valuable (e.g. see the Volkswagen example above where reinforced ends of the arrow represent conflicting goals). In practice this frequently triggered off normative discussions concerning the priority of a goal or even a whole perspective. One project partner stated: "It is our aim to satisfy our customers' requirements and not the society as whole". So, for this company, customer-related goals where of a higher relevance than society related ones finding expression in a predominant customer perspective within the SBSC architecture. How many and which perspectives of a SBSC should be defined? To answer this question depends for example, as has been illustrated above, on the strategic orientation of the company. As a general guideline, it is advisable that all stakeholders that are strategically relevant have been considered. So, referring to sustainability, the integration of a society perspective may be sensible. The following figure summarises the steps when setting-up a SBSC.

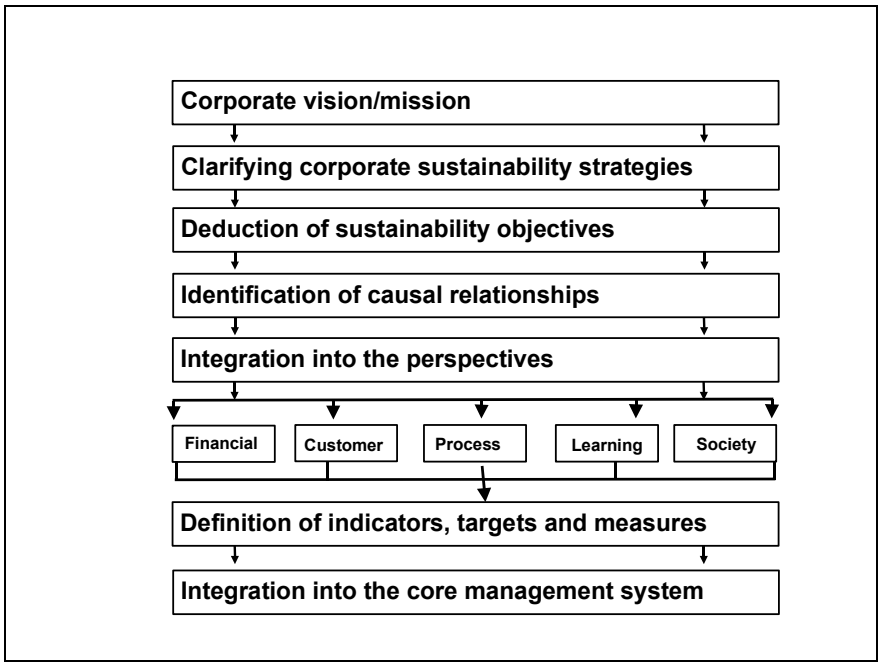

Figure 2: Steps when defining a SBSC

Sustainability-oriented competitive strategies

The BSC or a SBSC is a tool to transfer strategies to the operational level of corporations ('from strategy to action'). The tool requires that normative and strategic elements be defined in advance. In contrast to this, we frequently observe a lack of sustainability policies ("normative gap") and/or strategies ("strategic gap"). This entails that the definition of strategic goals, measures may appear difficult. The following aspects try to explan why visions, strategies and concrete objectives are difficult to link to each other:

- As has been stated above, strategies do not exist at all or are at least not explicit. This is of course frequently the case as far as environmental or social aspects are concerned.
- The strategies are very similar to visions which are rather broad and not understood by employees.
- Lack of support from the strategic development department when setting-up SBSC. So, the gap between strategy and action is not entirely bridged. But it might, at least, become closer, since strategies are taken into account when defining objectives.

In this chapter, I would like to lay the foundation for the management of corporate sustainability with the SBSC. Therefore, sustainability-oriented competitive strategies are discussed as possible strategic input for a SBSC. Research in various sectors (building, food, chemical, IT, freight traffic, mechanical engineering) concerning the competitive aspects of environmental management, carried out at the Institute for Economy and the Environment at the University of St. Gallen (IWOe-HSG) over the past decade, revealed an empirical body of evidence that sustainability strategies can be classified according to their strategic orientation (market or society) and strategic behaviour (reactive or proactive) (Dyllick et al. 1997; Gminder et al. 2002 pp. 108-112). They offer five possible sources of benefits a company can realise when putting them into practice:

- Strategy "safe" aims at reducing and managing risks
- Strategies of the type "credible" are tackling issues of image and reputation

- The improvement of productivity and efficiency is possible by implementing the strategy type "efficient"
- The "innovative" strategy aims at differentiating corporation's products and services in the market
- "Transformative" strategies aim at creating new markets by shifting existing institutional frameworks

Strategy "safe" - reducing and managing risks: Sustainability-induced problems and challenges, e.g. climate change, poverty, mobility, bio-technology etc. are tackled by the political system, market or the public and, hence, have impacts on companies' risk exposure. These risks could affect the financial, managerial or reputational sphere of corporations (e.g. Shell could not get rid off its oil platform in the North Sea; producers of genetically modified organisms (GMOs) are criticised by activists and frequently face a deduction on the stock-market, big chemical companies bear higher liability and credit risks etc.). Managing sustainability, in this respect, may aim at reducing, avoiding or having control of these risks. The objective of this strategy is securing the existing markets and the position in the markets.

Strategy "credible" - enhancing and fostering credibility and reputation: Due to the public and political importance of sustainability, the credibility and reputation of a company is a valuable non-tangible asset. It prevents businesses from conflicts with authorities and other stakeholders. It allows to attract suitable employees and satisfy customers. And it turns out as credibility capital to live from in situations of crisis, e.g. when accidents occur or when critical business projects are launched. Industries like chemicals, pharmaceuticals, military, oil, automotive etc. or technologies like nuclear energy, mobile communication, chlorine chemistry or multinationals (just because of their size or global impact) are bearing a particular high credibility risk. Hence caring for a good image in society and politics in the sense of being a "good corporate citizen" (Ulrich 2001) is a sound investment. The objective of this strategy is to build up, foster, keep and protect the credibility or "reputational capital" (cf. Fombrun 2001). Measures can be either defensive or offensive and can be done by acting or communicating. Rather defensive measures focus on communicating issues to the relevant stakeholders and are closer to the above-mentioned type "safe" and often. Rather offensive measures aim at generating sustainable products and services and are in fact very close to the "differentiation" type (see IV). They are recommended in industries with high credibility opportunities like food, textiles, finance, cosmetics, utilities etc. or with technologies like solar or wind power, organic farming, water supply etc.

Strategy "efficient" - Enhancing productivity and efficiency: Regarding environmental management this strategy is well-known and broadly applied as "eco-effiency" (Schmidheiny 1992). In industries, it seems to be the most prominent sustainability-related strategy, because it has successfully helped to reduce both costs and "the ecological footprint" (Wackernagel & Rees 1996) by achieving better energy-, water and material-efficiency. On the social side, strategies of this kind may try to improve their "socio-efficiency" (Dyllick & Hockerts 2002). This can be done by supporting employees in a way that both their productivity of work as well as their degree of job satisfaction (e.g. through flexible conditions of work and payment) can be increased. The objective of the strategy "efficient" is to enhance the eco- or socio-effiency of the business processes. Measures can be carried out on three different levels: On the level of operating processes, e.g. if the publisher Axel Springer Verlag (ASV) uses paper with less density and thus less weight when printing its newspapers. On the level of products or the product

life cycle, e.g. when ASV uses more recycled fibres in the paper. Last but not least, ASV may implement sustainability management systems inside the organisation.

Strategy "innovative" - Differentiating in the market: Environmental and social impacts frequently offer an opportunity of differentiating companies' products in the market place. Sustainable products and services can be found in many markets and sectors (e.g. the food sector, the car industry, fair-trade, management of natural resources in the wood or fishing industry) and contribute to a *unique selling proposition* (USP). The objective of this strategy is to increase sales and margins through developing and selling environmentally and socially friendly product innovations. Possible measures can be found in the attributes of the products (e.g. organic food or textiles as healthy, high quality products as long lasting, car sharing as easy, green energy as less risky etc.) with sustainable advantages in the production, the consumption or the disposal phase. Sustainable value added products are better to market on the condition that the value is perceived by the customer in the consumption and disposal phase. What emerges memorably is that the latter is quite clear whereas sustainable value added in the production or supply chain needs to be strongly communicated.

Strategy "transformative" - Developing markets and society: This strategy seems to be much more fundamental than the others, because the transformation of existing or creating of new markets requires institutional changes within human needs, politics or institutional framework (e.g. cf. Hoffman 1997). Such transformations can be found in the field of mobility (e.g. car sharing), energy (by decentralised electricity production) or housing conditions (by designing low-energy houses) etc. In many cases, human needs or consumption patterns may be modified. The objective of this strategy is, consequently, to create or participate in structural changes in the institutional framework of markets and politics. Possible Measures are the participation in existing political committees or associations (e.g. UNEP, WBCSD), creating or joining sustainability-orientated industry standards and product labels (e.g. Global Reporting Initiative GRI, SIGMA Management System, Forest or Marine Stewardship Council (FSC for wood, MSC for fish), Fair Trade Labels etc.). Proactive lobbying in order to change existing rules and laws in the competitive field can also be an appropriate measure.

The following table summarises the five different sustainability-oriented strategic approaches concerning their strategic orientation (Public vs. market) and strategic behaviour (reactive vs. proactive). Please note that the first strategy type "safe" can be regarded as a "hygienic factor" for any other strategy type and is, consequently, not represented in Table 1.

Table 1: The four different types of sustainability strategies

	Public	**Market**
Reactive	"Credible"	"Efficient"
Proactive	"Transformative"	"Innovative"

These strategies may apply for a whole company, selected areas of business, sites, certain products or technologies. However, this classification of strategies seems to be idealistic, since in practice these types of strategies may overlap and cannot always be clearly distinguished from each other. Of course, companies, offering only a few sustainable products do not necessarily behave in the same way concerning all their Strategic Business Units, sites or technologies employed. Nevertheless, the order in which these strategies are presented provides companies with a possible sequence for getting acquainted with the management of sustainability. This implies, that companies of the "innovative" type, for in-

stance, are highly recommended to have carefully institutionalised a risk management to stay credible as a provider of sustainable products or services. Gminder et al. 2002 hypothesise that different strategic approaches imply different types of a SBSC (e.g. architecture, causal relationships). This is discussed in the following paragraph.

From strategy to action

This chapter analyses how sustainability-oriented strategies may be transferred to the operating level of a company. For two strategies a particular "architecture" (number and name of perspectives), possible generic strategic goals and corresponding causal relationships are discussed. Here, I would like to present the "credible" and "transformative" strategy type for illustrative purposes. This appears reasonable, since a rather proactive (transformative) approach may include far-reaching strategic goals and another structure within the SBSC than a rather reactive (credible) impetus. In order to illustrate the relationship between the strategic impetus and the "architecture" of a SBSC two examples of the companies Volkswagen and Unaxis are presented (using the strategy types "credible" and "transformative"). Last but not least, possible key performance indicators are given as an example bearing in mind that indicators depend on the context (e.g. the industry sector, the relevance of sustainability for the company, scope of application inside the company etc).

SBSC for enhancing and fostering credibility and reputation

Such a strategy may, on the one hand, aim at preventing possible image or reputational risks or at creating an image as a "good corporate citizen" (Zadek 2001). The aim of this strategy type ("credible") is to buffer or to improve the company's image of a "good corporate citizen". Firms using such a strategy, aim at demonstrating their business (i.e. production sites, technologies, products or services) as "green" and socially responsible to the public in order to maintain a "license to operate". Focusing on legal compliance and on regular dialogues with the public, this strategy tries to enhance trust and acceptance both in public and in politics. Means of self-limitation such as communicated business principles or codes of conduct intend to cover existing fields of business. Moreover, this strategy may intend to pre-empt public demands for sustainability or stricter regulations which might impose higher costs than any early voluntary action. A sustainability-related image strategy, of course, can also be relevant for the market place: As far as products are concerned, image and credibility aspects should be emphasised to foster the marketing of ecological and social products or services. However, companies trying to improve their image in the public, should consider issues of safety and cleanliness also inside their internal processes in order to stay credible. Below selected perspectives of a SBSC as well as corresponding goals and indicators are illustrated. As these may appear rather idealistic or generic, the SBSC concept for the management of social aspects of the Unaxis corporation (site Balzers/Trübbach, Switzerland) is presented (for a detailed case study see Bieker, Wyss & Hollenstein 2002).

The *learning perspective* may contain strategic goals that enable a sustainability-related knowledge inside the organisation. In the Unaxis example given below, this is reflected by goals such as the acquisition of graduates, supporting networks of co-operation as well as facilities for research and training. The *customer perspective* tries, in general, to maintain or to improve the corporate image, to buffer existing products and services of the firm and to attract further demand in market segments that are highly ecologically or socially exposed (e.g. development of sustainable products in R&D). Possible objectives are a rather

product-oriented eco- or social sponsoring, the publicly-declared renunciation of aggressive marketing techniques (e.g. Nestlé's baby food scandal, cf. Dyllick 1989) or even comprehensive communication campaigns dealing with issues of sustainability such as energy consumption for domestic appliances. Appropriate leading indicators may be the relative budget for sustainability marketing. Sales figures, the number of new customers obtained, company's goodwill among customers or cross-selling effects realised in relevant segments can be useful lagging indicators in order to control the success of image-related measures. The fact that the SBSC is a flexible tool is reflected by the Unaxis example given below. Here, strategic goals such as "communication of contribution of regional development" and "communication of the efforts for cooperation" are included inside the process perspective – and not as one may assume inside the customer perspective for the creation of goodwill – arguing that the *communication process* and not the final goals stand in the forefront.

As the objective at Unaxis was to develop a SBSC for the management of social responsibility at the Swiss site Balzers/Trübbach, the customer perspective has been replaced by a *society perspective*. Inside the society perspective, firms in general may like to assess their public image as a "good corporate citizen" (Zadek 2001). Important selected strategic society-related goals at Unaxis' are a "good relationship to the neighbourhood" or an "improvement of the quality of life in the region" as well as the "development of a sponsoring concept". Measures that help the company to achieve a better sustainability-oriented image, could be dialogues with relevant stakeholders or activities for the purpose of Public Relations. Leading indicators could be the relative budget for such activities or the number of people employed in these departments. Selected lagging indicators that may illustrate the success of such measures could be the frequency of negative articles or TV-reports.

Finally the *financial perspective* may comprise issues of corporate value, risk exposure ("value at risk") or reputation on the capital market or the costs for hiring new employees (see the Unaxis example below). Reputation in general seems to be important as it may largely influence the rating of the company by financial investors and analysts and, consequently, the capital costs.[2] The following Figure 4 illustrates possible causal relationships of strategic goals derived from the strategy type "credible". Here arrows visualise causal relationships between different strategic goals.[3] Goals like a "good partnership to suppliers", or "gaining employees as image carriers" or a "friendly and good relationship to the neighbourhood" are – in the terminology of the EFQM-model – "enablers", because they contribute to a good reputation and, consequently, reduces Unaxis' value at risk (cf. EFQM 1999). The goal "improvement of quality of life inside the region" as a "result" is achieved by "networks of co-operation", "good partnership to suppliers" or the "development of a sponsoring concept".

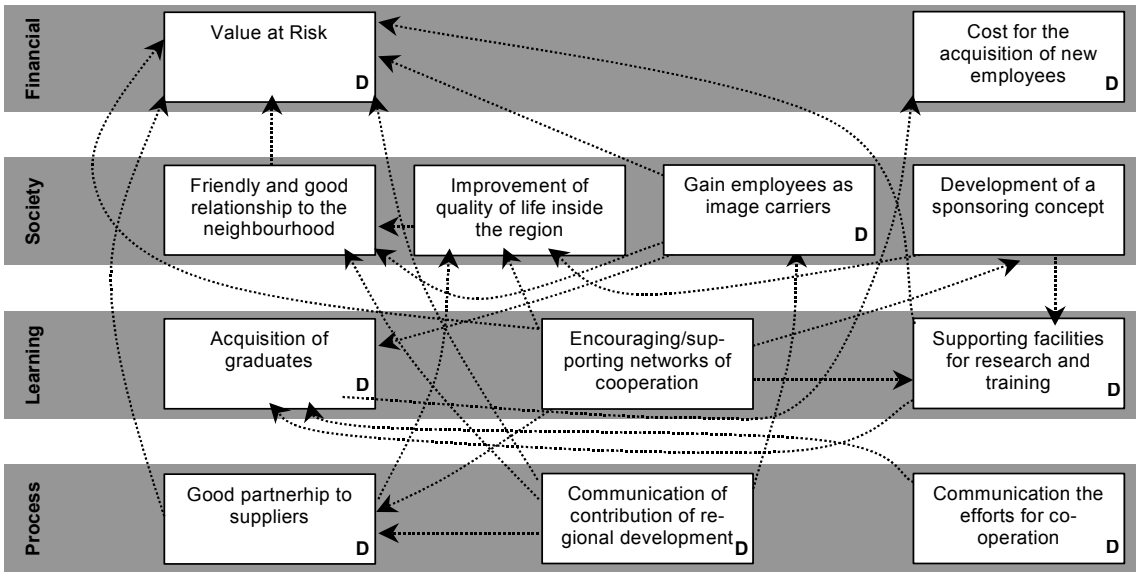

Figure 3: Management of social responsibility at Unaxis (site level Balzers/Trübbach)

SBSC for developing markets and society

The objective of this strategy is to create or participate in structural changes of the institutional framework (e.g. markets or politics). It is highly recommendable that companies, adhering to such a strategy, have gained experience with other "underlying" sustainability strategies types ("safe", "credible", "efficient" and "innovative") so that products and internal processes are prepared towards these changes. The following paragraph outlines selected relevant perspectives, possible strategic goals as well as selected indicators and measures. In order to put these rather general aspects in rather more concrete terms and to illustrate the strategic type "transformative", the SBSC concept for the research department of the Volkswagen AG is referred to on the side (for a whole case study see Bieker, Herbst & Minte 2002).

In the *customer perspective* objectives may focus on developing markets for sustainable products or on changing existing markets. Instruments of a "transformative marketing" (Belz 2001, pp. 91-99), the orientation towards functions, service concepts and levering the know-how of consumers and distribution partners represent possible basic objectives and measures. Preserving or initiating industry standards or label criteria as well as the co-operation with other partners along the value chain are suitable measures of a transformative marketing approach (cf. society perspective). So Unilever was one of the driving forces regarding the institutionalisation of the „Marine Stewardship Council" label that observes catching fish in a sustainable way. By labelling and marketing renewable electricity, a new market was created (cf. Wüstenhagen 2000). Another example are the so-called "Wolfsberg principles" that several banks published in 2000 in order to establish an industry standard against bribery.

Inside a research department as a starting point of new future products, the "development of innovative solutions" both in applied and basic research is of utmost importance (see Volkswagen example below). Innovations can be generally found by carefully analysing human needs and determining corresponding functions of appropriate future products. By defining objectives, indicators, targets and measures in the

different perspectives, a company has to enable itself inside in order to institutionalise changing market frameworks quickly and successfully. In general, on the basis of a "high degree of motivation and performance" (see Volswagen's learning perspective) as well as innovations of products or services, a company may be prepared to realise turnovers in new or further developed markets.[4] This is supported by "shaping of institutional frameworks", i.e. actions developing politics and society as well as by "exploring sustainability-related chances and risks" and is addressed inside the society perspective (see Figure 3).

The *society perspective* seems to be, generally speaking, of utmost importance if a company aims at shifting institutional frameworks. Here, in general, the development of society regarding its awareness towards sustainability appears sensible (e.g. through campaigns). This is a necessary prerequisite for the hundreds and thousands daily decisions of consumers and politicians. Possible leading indicators are the number or expenditures for co-operations, lobbying, know-how campaigns. Lagging indicators may consist in the number and relevance of changed legislation and market conditions the sustainability image of the company and the know-how in society regarding particular sustainability problems. Co-operations with research institutions or NGOs may help developing solutions to sustainability problems and bring know-how and competence into the company. This applies particularly for small and medium sized companies which can do usually not have sufficient resources for huge R&D departments. So, the development of CFC-free refrigerators was carried out in public research institutions and bought and developed further by the private sector after a Greenpeace campaign. The development of sustainability standards and labels is mostly done by societal institutions, e.g. research institutions (Öko-Tex 100), governments (EMAS), private organisations (ISO-Norms), foundations (Max Havelaar), church organisations (Rugmark, Gepa) and NGOs (FairTrade, Demeter, Bioland/BioSuisse, SA 8000 etc.). *Leading indicators* may seize the number and expenditures for co-operations and research, *lagging indicators* may be the number and value of gained know-how and inputs for R&D. Measures comprise lobbying in favour of ecologically and/or socially friendly concepts of doing business, e.g. by building pro-active industry association like "oebu" in Switzerland or "UnternehmensGrün" in Germany. Also companies in the area of renewable energies have been creating such associations in order to act as counterbalance to the huge nuclear and coal power lobby. "Real" sustainability-oriented lobbying must be responsible as well as transparent. If not, it may run counter to shifting existing frameworks. Developing politics may consist of cancelling subsidies and frameworks with negative environmental impact, e.g. subsidising nuclear power, tax free aircraft fuel, obligation to create parking space when setting up a new building. In addition, subsidies for "clean" technologies like the "development of integrated mobility concepts" is extremely sensible within the strategy type "transformative" (see Volkswagen example below).

What are important chains of causes and effects within Volkswagen's strategy map? The "development of innovative solutions within basic research" is, for instance, achieved by a "high degree of motivation and performance" of employees, by "exploring of chances and risks within 'sustainable mobility'" and depends on a certain "volume of budget". The "exploring of chances and risks" leads for example to an "improvement of internal customer satisfaction" (i.e. the engineering or marketing departments) as well as the "development of integrated mobility concepts". Another (methodological) lesson that can be learnt from the Volkswagen case is the possibility to depict conflicting goals. This is

extremely helpful within the realm of sustainability management. It is certainly true that the financial goal to "ensure budget discipline" conflicts with the "development of innovative solutions within basic research". These situations of conflict can be analysed and solved according to their relative strategic importance. In Figure 3, situations of conflict between goals are visualised with reinforced ends of the arrows.

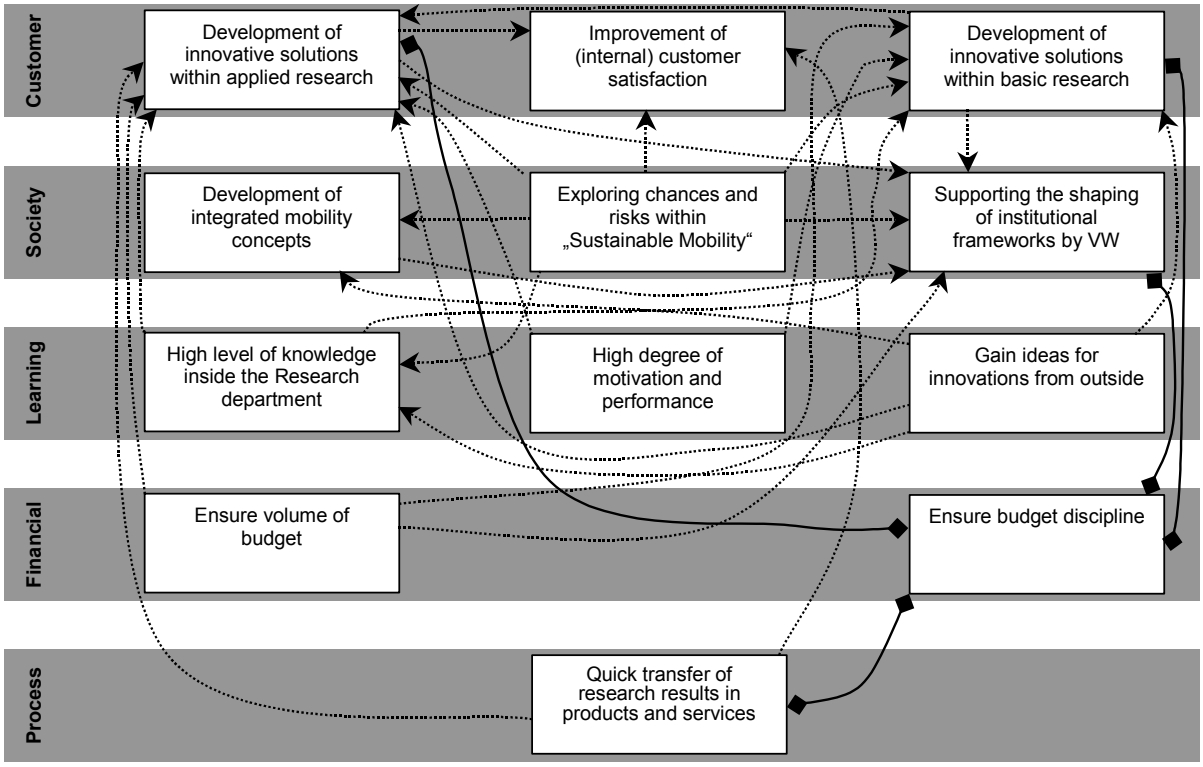

Figure 4:Concept for the strategy map of Volkswagen's Research department

Conclusions

The concept of a "Sustainability Balanced Scorecard" offers a possibility for companies to translate sustainability visions and strategies into action. This approach seems to be interesting for both researchers and practitioners because it shows how intangible assets may contribute to the sustainability of companies. Moreover the SBSC provides high potential for the integration of environmental and social aspects and objectives into the core management of companies. This is a huge step forward for the environmental and social management. But, according to practical experiences, developing and implementing such a SBSC does not simply refer to the definition of perspectives, objectives, indicators and measures. It is rather a complex, highly micropolitical process requiring a lot of patience, power and persistence. People pushing these processes need to be aware of cultural implications when introducing a SBSC. If it is not top management itself that pushes, powerful "promoters" of the project are a grant for success. Moreover, the broad participation of employees in the development process combining a top-down and bottom-up approach, an attitude of being open and willing to learn, a skilful project management and a good placement of the tool within the management tools and processes seem important success factors. These factors are typical for change management processes, but what is particularly for sustainability? It is the mindset of the powerful persons who are

able to influence corporate culture. It is the way of acting by the sustainability managers: do they try to keep the subject within their power sphere or do they allow that objectives and measures are determined by other people? Do they foster the project as their "child" and are afraid if other colleagues hop on a project train that runs successfully? Do they really support the idea of integrating sustainability into traditional management? Or do they rather prefer keeping their own environmental and social management systems in order to preserve their positions, departments or working spheres? If sustainability managers manage to overcome these "conservative" attitudes, if they are aware of cultural aspects and able to discover "windows of opportunity", they may achieve a sound integration of sustainability in the traditional management. But it may represent a long, hard and winding road to go.

Notes

[1] I would like to acknowledge financial support from the „German Ministry for Education and Research" (Bundesministerium für Bildung und Forschung, BMBF) that has made this qualitative research possible (Project No. 01RU0001). Frequently, within qualitative research, the variety of data collected from practice ensures both reliability and applicability. So, within this research project, the participation of six companies from different branches and with different strategic impetus has enriched the empirical findings. Therefore I am also thankful for the committed and open participation of managers from the Berliner Wasserbetriebe (BWB), United Bank of Switzerland (UBS), Unaxis and Volkswagen. Finally I would like to thank Kai Hockerts (INSEAD), whose enthusiastic support in developing the research project „A Management Cockpit for Corporate Sustainability " has been invaluable.

[2] As a possibility to quantify the *reputational capital*, Fombrun (2001) suggests a "reputational quotient", that considers "traditional" variables (e.g. products, financial bottom line, vision or management) as well as aspects of social responsibility, the internal working conditions or company's transparency.

[3] A „D" inside Unaxis' strategy map indicates that these site-oriented goals may also serve as strategic goals on the division level and might be integrated in a corresponding SBSC concept.

[4] The realisation of turnovers due to innovative concepts has not explicitly included inside the financial perspective of Volkswagen's SBSC concept for two reasons. First of all, the research department is rather budget-driven and secondly turnovers from inventions and innovations are only generated in the remote future.

References

Bieker, Thomas; Dyllick, Thomas; Figge, Frank; Gminder, Carl Ulrich; Hahn, Tobias; Schaltegger, Stefan; Wagner, Marcus: Erfahrungen und Schlussfolgerungen, in: Schaltegger, Stefan; Dyllick, Thomas (eds.): Nachhaltig managen mit der Balanced Scorecard, Wiesbaden 2002.

Bieker, Thomas; Dyllick, Thomas; Gminder, Carl Ulrich; Hockerts, Kai: Management unternehmerischer Nachhaltigkeit mit einer Sustainability Balanced Scorecard – Forschungsmethodische Grundlagen und erste Konzepte, IWOe-Diskussionsbeitrag Nr.94, Institut für Wirtschaft und Ökologie an der Universität St. Gallen, St.Gallen 2001.

Bieker, Thomas; Gminder, Carl Ulrich; Hahn, Tobias; Wagner, Marcus (2001): Unternehmerische Nachhaltigkeit umsetzen, in: Ökologisches Wirtschaften 05/2001, pp. 28-30.

Bieker, Thomas; Herbst, Stephan; Minte, Horst: Nachhaltigkeitskonzept für die Konzernforschung der Volkswagen AG, in: Schaltegger, Stefan; Dyllick, Thomas (eds.): Nachhaltig managen mit der Balanced Scorecard, Wiesbaden 2002.

Bieker, Thomas; Wyss, Hans-Ruedi; Hollenstein, Martin: Divisions- und Standort-SBSC bei der Unaxis Balzers AG, in: Schaltegger, Stefan; Dyllick, Thomas (eds.): Nachhaltig managen mit der Balanced Scorecard, Wiesbaden 2002.

Bieker, Thomas; Waxenberger, Bernhard (2002): "Sustainability Balanced Scorecard and Business Ethics – using the BSC for integrity management", Paper preseted at the "10th International Conference of the Greening of Industry Network", Göteborg/Sweden" 2002.

Dyllick, Thomas (1999): Environment and competitiveness of companies; in: Hitchens, D.M.W.N; Clausen, J.; Fichter, K.: International Environmental Management Benchmarks. Berlin, Heidelberg 1999.

Dyllick, Thomas (2001): Unternehmerische Nachhaltigkeit: Anleitung für ein Leitbild, in: Unternehmerische Nachhaltigkeit – auf dem Weg zu einem Sustainability Controlling, Bieker, Thomas; Gminder, Carl Ulrich, Hamchmidt, Jost (eds.), IWOe Discussion Paper Nr. 95, St. Gallen 2001.

Dyllick, Thomas: Management der Umweltbeziehungen, Wiesbaden 1989.

Dyllick, Thomas; Belz, Frank; Schneidewind, Uwe (1997): Ökologie und Wettbewerbsfähigkeit, Zürich 1997.

Dyllick, Thomas; Hamschmidt, Jost (2000): Wirksamkeit und Leistung von Umweltmanagementsystemen. Eine Untersuchung von ISO 14001-zertifizierten Unternehmen in der Schweiz, Zürich 2000.

Dyllick, Thomas; Hockerts, Kai: Beyond the business case for corporate sustainability in: Business Strategy and the Environment, Volume 11, 2002 .

Dyllick, Thomas; Schaltegger, Stefan (2001): Nachhaltigkeitsmanagement mit einer Sustainability Balanced Scorecard, in: UmweltWirtschaftsForum, Heidelberg, December 2001, pp. 68-73.

EFQM European Foundation for Quality Management (1999): Das EFQM-Modell für Excellence, European Foundation for Quality Management, Brüssel 1999.

Epstein, Marc; P. Wisner (2001): Good Neighbours: Implementing Social and Environmental Strategies with the BSC. In: Balanced Scorecard Report. May/June 2001, 3:3. Massachusetts: HBS Publishing.

Figge, Frank; Hahn, Tobias; Schaltegger, Stefan and Wagner, Marcus. (2001): Sustainability Balanced Scorecard. Wertorientiertes Nachhaltigkeitsmanagement mit der Balanced Scorecard, Lüneburg, Center for Sustainability Management, 2001.

Fombrun, Charles J. (2001): Corporate Reputation – Its Measurement and Management, in: Thexis, Fachzeitschrift für Marketing der Universität St.Gallen, 4/2001, S.23-26.

Kaplan, Robert S.; Norton, David P. (1997): Balanced Scorecard: Strategien erfolgreich umsetzen, aus dem Amerikanischen von Horváth, P., Stuttgart 1997.

Kaplan, Robert S.; Norton, David, P. (2001): The Strategy-Focused Organisation. Boston 2001.

Reinhardt, Forest: Down to Earth, Applying Business Principles to Environmental Management, Harvard 2000.

Schaltegger, Stefan; Burritt, Roger (2000): Contemporary Environmental Accounting – Issues, Concepts and Practice; Sheffield 2000.

WBCSD – World Business Council of Sustainable Development (2000): Eco-effiency - Creating more value with less impact, Brochure of WBCSD, Geneva 2000.

WBCSD – World Business Council of Sustainable Development (2001): Sustainability through the market – seven keys to success, Brochure of WBCSD, Geneva 2001.

Weber, Jürgen; Schäffer, Utz: Balanced Scorecard und Controlling, 2. edition., Wiesbaden 2000.