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# Feasibility of a Responsive Business Scorecard – a pilot study

Frans van der Woerd  
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**ABSTRACT.** Several authors have pointed at opportunities to develop the well-established Business Balanced Scorecard into a Scorecard that enables companies to integrate sustainability into their strategy. Recent case studies and research experiences show that social and environmental targets are more widely recognized as strategic drivers for management. However, experiments also show that the traditional Scorecard has its limits when it comes to e.g. stakeholder management and product chain management. The *European Corporate Sustainability Framework* (ECSF) program distinguishes several ambition levels for Corporate Sustainability/Corporate Responsibility. The traditional Balanced Scorecard is suitable for companies that aim for *Compliance-driven CS/CR* or for *Profit-driven CS/CR*, where the financial bottom line is the ultimate indicator for success. More ambitious companies want to balance economic, social and ecological targets in a *Community-driven CS/SR* or *Synergy-driven CS/CR*. For ambitious companies, we propose a format of a *Responsive Business Scorecard (RBS)*. The *Responsive Scorecard* enables companies to score at Profit, People and Planet, at the same time to integrate stakeholder demands into internal programs to improve performance. The RBS includes five Perspectives: *Customers & Suppliers, Financiers & Owners, Society & Planet, Internal Process and Employees & Learning*. We assessed the practical feasibility of a *Responsive Scorecard* in food and tourist industries. In the food industry, we analyzed whether existing business priorities of Italian companies can adequately fill a *Responsive scorecard*. Our conclusion is that traditional topics like finance, customers and employees are readily filled, but that sustainability

topics like chain management (suppliers) and environmental performance (planet) need further elaboration. The tourist sector is dominated by Small and Medium Sized Enterprises. We investigated whether existing eco-labels for camping-sites and marinas can be developed into *Responsive Scorecards*. Our conclusion is that such a sector specific development of a *Responsive Scorecard* is possible. Further research has to show what is the value added of the new scorecard for companies in the tourist sector.

**KEY WORDS:** Responsive Business Scorecard, Corporate Social Responsibility, business strategies

## ABBREVIATIONS

BBSC – Business Balanced Scorecard;  
CSR – Corporate Social Responsibility;  
CS/CR – Corporate Sustainability and Corporate Responsibility;  
ECSF – European Corporate Sustainability Framework;  
EU – European Union;  
MCA – Multi Criteria Analysis ;  
NGO – Non Governmental Organization;  
RBS – Responsive Business Scorecard;  
SBU – Standard Business Units;  
SME – Small and Medium sized Enterprises;  
UN – United Nations

## Introduction

Several authors have pointed at opportunities to develop the well-established Business Balanced Scorecard (BBSC) into a scorecard that enables companies to integrate sustainability into their strategy. Figge et al. (2002) presented a framework to use an adapted BBSC as a tool for value-based sustainability management. Zingales et al. (2002) presented a state of the art review of Scorecard experiences in several large companies. What

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becomes clear from these sources is that a Scorecard-including-sustainability-topics is in its infancy (INSEAD, 2003). This certainly applies to applications in practice.

We have the opinion that most ideas so far are too generic to be really useful for a broad group of companies. Especially Medium Sized Enterprises encounter great problems when they try to apply Balanced Scorecard approaches in their situation. In connection to this, a Dutch pilot study found that companies have a great demand to use sector specific indicators for sustainability (NIDO et al., 2001). BBSCs on offer today do not provide for such a sector specific approach. Moreover, it is doubtful whether the format of a traditional BBSC fits the strategy of a company that strives for higher ambition levels of sustainability.

For companies with higher ambition levels, this article presents the format of a *Responsive Business Scorecard (RBS)*. The *Responsive Scorecard* has to enable companies to score on Profit, People and Planet, at the same time to integrate stakeholder demands into programs to improve performance. Our proposal for a RBS includes five Perspectives: *Customers & Suppliers, Financiers & Owners, Society & Planet, Internal process* and *Employees & Learning*. We present the RBS in Section 3.4.

This article presents results of a pilot study to develop a RBS. We applied our RBS format tentatively to two sectors of industry. The study is conducted as part of the *European Corporate Sustainability Framework (ECSF)* program, an EU-supported research endeavor to assist companies in achieving higher performance levels as sustainable operating companies.

Section 2 presents elements of the ECSF program that act as a starting point of our study. Readers familiar with ECSF can delete this chapter.

Section 3 presents conclusions from literature. Our main goal has been to discover a list of do's and don'ts in the development of a Responsive Scorecard. Section 3.4 presents the format of a new, five-perspective *Responsive Scorecard*.

Section 4 starts with the design of a RBS in the Dutch tourist sector. Next, we discuss the feasibility of a RBS in the Italian food industry.

A final Section 5 provides conclusions about RBSs in general and about the sector application in particular.

## A business tool in the ECSF program

The RBS has been developed as part of the ECSF program. The ECSF is an international, EU-funded research initiative, coordinated by the Erasmus University Rotterdam. A consortium of internationally renowned quality institutions, consultants and academic researchers develops a new generation management framework to manage the increasing complexity that stems from striving for new ambition levels with respect to corporate sustainability (CS) and corporate responsibility (CR).

An overview of the ECSF program can be found at [www.ecsf.info](http://www.ecsf.info). In this article, two elements of the ECSF framework are of crucial importance: A definition of ambition levels of CS/CR and a method to analyze business complexity. For the latter, ECSF uses the so-called SqEME approach.

The generic definition of both CS and CR is the inclusion of social and environmental concerns into business operations and in their interactions with stakeholders. In practice, Responsibility (CR) is 'Communion'-oriented and therefore relates to phenomena such as transparency, stakeholder dialogue and sustainability reporting, while Sustainability (CS) emphasize the "Agency"-aspect, which cause organizations to focus on value creation, environmental management, environmentally friendly production systems, human capital management and so forth (Van Marrewijk, 2003a). In trying to cope with various CS/CR challenges, organizations develop new business strategies which reflect a variety of business contexts and strategic orientations. Each context/orientation provides a specific meaning of CS/CR. Therefore, ECSF does not use a "one solution fits all" definition for CS and CR, accepting that more specific definitions are necessary to match the development, awareness and ambition levels of organizations (Van Marrewijk, 2003b). In this article, four business contexts, and thus four different interpretations of CS/CR are important:

- *Compliance-driven CS/CR*: regulation and obligation decide on correct behavior;
- *Profit-driven CS/CR*: social and ecological initiatives have to contribute to the financial bottom line;
- *Community-driven CS/CR*: to find – in a process of stakeholder engagement – a balance between

economic, social and ecological concerns, which are all important in themselves;

- *Synergy-driven CS/CR*: actions creating value in the economic, social and ecological realms of corporate performance in a win-together approach with stakeholders;

Primarily, it is our intention to develop a Scorecard (RBS) that is suitable for the ambition level of *Community-driven CS/CR*. We strive to elaborate the RBS towards a *Synergy-driven CS/CR*, but it is not sure whether this is feasible because – as will be explained in Section 4 – the study had no scope for stakeholder interactions.

ECSF includes existing management models such as the European Model for Business Excellence (EFQM, 2003). Improving on an already existing methodology, the so-called SqEME approach, we use four focus points to analyze the complexity of businesses (SqEME, 2003; Van Marrewijk & Hardjono, 2003). The four focus points or windows are labeled: Constitution, Chemistry, Conduct and Control. The so often used “trial and error” approach results from only taking Conduct and Control into account. Including Constitution and Chemistry in the equation results in double and triple loop organizational learning. In Section 3.2 we will assess how a RBS fits with these 4C’s focus points. But Section 3 starts with lessons we can learn from the traditional Balanced scorecard.

**Beyond the Business Balanced Scorecard**

Corporate Social Responsibility (CSR) and Corporate Sustainability (CS) means the inclusion of social and environmental concerns in business operations and interactions with stakeholders. It manifests the awareness that social and environmental progress offers new opportunities for value creation in business. The BBSC is an earlier example of the perception that long-term corporate viability cannot be based on financial performance only. In fact, we envisage that BBSC value creation in e.g. customer relations, employee commitment and quality of suppliers will show up in CR/CS Frameworks as presented in Section 2 in related, though not identical fashions.

This chapter starts with an overview of the principles and methodology of the BBSC. Next, we

investigate whether the BBSC methodology fit the 4C approach (Constitution, Chemistry, Conduct, Control) that was introduced in Section 2. Last but not least, we investigate how the traditional BBSC can be transformed into a Responsible Business Scorecard (RBS).

*Principles of the Business Balanced Scorecard (BBSC)*

The BBSC is a tool to focus companies on strategies for long-term success. By identifying the most important objectives on which an organization should focus its attention and resources, the scorecard provides a framework for a strategic management system that organizes issues, information, and a variety of vital management processes. A BBSC embeds traditional financial measurement in a more balanced management system that links short-term operational performance with long-term strategic objectives (Kaplan and Norton, 1996).

To enable a strategic focus, the number of strategic topics in a BBSC must not exceed 15–25 issues. In a diversified corporation, a BBSC probably works best at the level of strategic business units (SBU), because in SBUs markets, products and production processes are sufficiently homogeneous.

Core elements of the BBSC are (see Table I):

1. A tool in the PLAN/DO/CHECK part of the Deming cycle. Therefore, the BBSC contains for every topic: strategy, actions and targets/indicators. As the authors stress: a BBSC is a tool for the

TABLE I  
Core elements of the Business Balanced ScoreCard

Perspective	Strategic topics Actions Target/indicator
Financial	Topics, actions and targets that decide on success to shareholders
Customer	Topics etc that decides on success to customers
Internal process	Topics etc that improve efficiency of business processes
Learning & Growth	Topics etc that sustain the ability to change and improve

Source: Kaplan and Norton, 1996

*implementation* of business strategies, not for the development of business strategies. Targets/indicators should consist of a mix of outcomes (lagging indicators) and performance drivers (leading indicators);

2. Core perspectives in the traditional BBSC are: financial results, customer satisfaction; internal processes and organizational learning. Customers, Internal and Learning are considered as value drivers, that decide on Financial outcomes. As De Graaf and Sanders (and other consultants) show, core perspectives can be reformulated to include business sustainability. We return to this point in Section 3.3;
3. In order to make the BBSC manageable, a company has to make a well-considered *choice* for a limited number of strategic topics (a maximum of five topics within each core perspective). This selection supposes a bottom up process, based on mission statement and SWOT analysis (and in future stakeholder dialogue). Selection of core topics poses a major challenge to companies.
4. It is wise to check and, if necessary, change the list of strategic topics every year. Within the BBSC framework, priorities are not fixed forever.

To conclude, for successful implementation of a BBSC it is important to limit the number of strategic priorities and to quantify targets.

A BBSC lists, targets and measures strategic issues. However, Kaplan and Norton are not completely clear on how to handle relations between strategic issues. Preferably, they advice to develop a cause-and-effect scheme as a background to the BBSC, but not being part of the scorecard. Leading indicators must act as performance drivers for performance indicators. As an example, Kaplan and Norton present the *Service Profit Chain*: Employee empowerment improves production processes, which in turn improves product quality and customer relations, which finally lead to revenue growth and improved profitability. Their examples are not quantified and only partially tested. This could be a focus for improvement. On the other hand, Kaplan and Norton present examples of companies that weight individual topics into an overall strategic performance. This is an application of Multi Criteria Analysis (MCA). Evidently, the authors consider this as a second best option: weighting – a core element

of MCA – is a possibility, not a core element of BBSC.

Section 2 presented four ambition levels of CS/CR: *Compliance-driven* CS/CR, *Profit driven* CS/CR, *Community-driven* CS/CR and *Synergy-driven* CS/CR. At what level does the traditional Balanced Scorecard fits best? Success in the Kaplan & Norton Scorecard is measured in terms of money and commercial assets. The financial bottom line is the ultimate target. Therefore, the BBSC is a tool that suits best the business context “Success and Entrepreneurship”, associated with the *Profit driven* interpretation of CS/CR. If that is the case, the question arises whether a BBSC is also able to assist a company that strives for a Community oriented or a Synergy oriented interpretation of CS/CR. We return to this question in Section 3.3.

#### *The Business Balanced Scorecard and the 4C approach*

As introduced in Section 2, the ECSF program uses a management framework that distinguishes four focal perspectives on business practices: the 4 Cs of Constitution, Chemistry, Conduct and Control. Does the BBSC fit into the 4C approach? We work this out for each C.

1. *Constitution*. The BBSC is a direct result of a business Constitution, but does not make up for the Constitution itself. Indeed, management principles, vision and strategy are a necessary starting point to define core perspectives and objectives of a BBSC. However, a view on the business Constitution must be available before the BSSC takes shape (Kaplan and Norton, 1996). In practice, the building of the BBSC often necessitates a (re)development of existing business strategies.
2. *Chemistry*. Cause effect relations should aid in the decision on what performance drivers and outcome indicators to include in the BBSC (Kaplan and Norton, 1996). Consequently, the business Chemistry plays an implicit role in defining the BBSC, but is not explicitly mentioned in the BBSC itself. It is very useful to make a cause-and-effect scheme next to the BBSC.
3. *Conduct*. By mentioning business targets and actions, the BBSC is explicit about business Con-

duct. Conduct is at the heart of the BBSC, because the scheme intends to “translate strategy into action” (Kaplan and Norton, 1996).

4. *Control*. By mentioning performance indicators and business targets, the BBSC is explicit about business Control. In fact, the 15–25 core indicators in a BBSC can be considered as the key performance indicators (KPIs) of the company. Because a BBSC deliberately does not provide a complete list of business targets, the scheme cannot in itself be a Management Information System (MIS). But there are good reasons to put the strategic items in a BBSC at the core of a MIS.

To conclude, the BBSC is directly related to the aspects Conduct and Control. Constitution and Chemistry are not explicit in the Scorecard itself, but are necessary prerequisites for a purposeful use of the scheme. In practice, it is necessary to keep updated versions of business strategy and cause-and-effect relations parallel to the BBSC proper. It is advisable to have KPIs mentioned in the BBSC at the core of the MIS. Section 4.2 elaborates on the relation between Scorecard and MIS in the Italian food industry.

#### *Alternatives for a Responsive Business Scorecard (RBS)*

The BBSC must be used as a flexible framework. Companies are free to add or delete business perspectives, strategic targets and performance indicators. Therefore, all kinds of CS/CR elements are open for discussion. We will call a Scorecard where explicit attention has been paid to social and environmental aspects a RBS. Notice that a RBS does not differ from the traditional BBSC in a methodological sense. Rather, the emphasis shifts towards sustainability aspects, therefore presupposes an adjusted set of cause-and-effect relations. Adjusted relations will result in an adjusted set of strategic topics and may result in a new set of strategic perspectives.

In the traditional Scorecard the emphasis is on Profit, while People and Planet play a supporting role at most. In a RBS, People and Planet must become on equal footing with Profit. What is the best way to accomplish this? Two options are open to adapt the BBSC into a RBS:

- Option 1*. To include social and environmental topics in the four perspectives of the traditional BBSC;
- Option 2*. To add dedicated social and environmental perspectives to the existing four. It is possible to combine this with a reshuffling of the traditional four perspectives.

Figge et al. (2002) mention a third option, namely adding a specific environmental and/or social scorecard to the BBSC. They consider this option not advisable, as a specific scorecard can never replace the core scorecard and can only be formulated *after* option 1 or 2 have been implemented. We agree that specific scorecards have little value added.

Table II shows an earlier proposal to adapt the four Perspectives of a BBSC into a sustainability direction (*Option 1*). In a recent conference, Kaplan proposes to include links from environmental performance to strategic efforts in the traditional BBSC. As such, Kaplan does not redefine the Perspectives. His approach is to develop a strategic map that aligns process and intangible assets with strategic that creates value within the traditional BSSC. This implies that companies should strive to identify the regulatory and social process objectives that will have the biggest impact for enhancing employee attraction and attention, the customer value proposition and financial performance. ‘(Companies) ... should be as diligent and rigorous in assessing their returns from community and environmental investments as there are in evaluating the effectiveness of their investments in tangible and intangible assets’ (INSEAD, 2003).

A closer view on this Table II and Kaplan’s redefinition of the BBSC reveals that most Perspectives have become rather ambiguous. For example, different stakeholders appear in both the *Value added* and in the *Market* Perspectives. As for *Internal processes*, both economic (efficiency), social and environmental (clean) topics are thrown into one pot. Because each Perspective should contain not more than 5–6 topics, we expect that a Scorecard based on Table II will appear as a rather confusing melting pot.

In 2003, the French Business School INSEAD organized a conference where experiments with an adapted BBSC were discussed. In this conference, the founding father of the Scorecard Robert Kaplan expressed a preference to stick to four

Scorecard Perspectives (INSEAD, 2003). Four companies presented their experiences: Novo Nordisk (pharmacy, Denmark), ACEA (Roma street lighting), Veuve Cliquot Ponsardin (champagne; France) and “Textiles UK”.

Have the INSEAD companies been able to integrate social and environmental topics into their Scorecards? And have they been able to integrate social and environmental topics into cause-and-effect schemes (see Section 3.1)? The answer on both questions is: yes, but only if products, customers and stakeholders remain constant (cases ACEA and Veuve Cliquot Ponsardin). For these companies, it strikes that environmental topics are defensive and strongly relate to cost control: energy savings, savings on inputs, waste recycling.

As soon as the question of new products, customers or stakeholders arise, traditional Scorecard Perspectives need redefinition (cases Novo Nordisk and “Textiles UK”). Novo Nordisk redefined two Scorecard Perspectives (Customer into *Customers & Society*; Learning & Growth into *People & Organisation*), while “Textiles UK” added a fifth (sic) Perspective *Child labour*.

We conclude from the INSEAD presentations that is well possible to use an adapted BBSC in cases where social and environmental topics have a limited influence on business strategies. However, if companies strive for a sustainable adaptation of their product-market mix, existing Scorecard formats

become insufficient. There is a need for a renewed Scorecard format. In Section 3.4, we explore the possibilities for a renewed format according to *Option 2*.

*A five perspective format for a Responsive Business Scorecard*

In Section 3.1, we concluded that the traditional Balanced Scorecard typically fits a *profit-driven attitude* towards business as well as to *CS/CR*. A Responsible Scorecard needs at least space for People and Planet topics. Table II has shown how difficult it is to find this space in the existing Scorecard format. Therefore, we conclude that a *Community-driven strategy* and like-wise implementation of *CS/CR* demands a new format (*Option 2*). In the development of a RBS format, we combine the addition of one additional Perspective with a reshuffling of the four existing perspectives (Figure 1).

The RBS format starts with four dominant stakeholder groups: Financial, Market partners, Society & Planet and Employees (Van Marrewijk, 2003). The Triple P stakeholders *Customers & Suppliers*, *Financiers & Owners* and *Society & Planet* are the upper line. Quite similar to the traditional Scorecard, *Employees & Learning* feeds *Internal Processes*, that in turn feeds the three upper boxes. Expectedly, most cause-and-effect relations will point upward. The *Internal Processes* box functions as an anchor point, linking the different stakeholder groups.

TABLE II  
Outline of a Business Sustainability Scorecard

Perspective	Strategic topics Target/indicator
Value added	Financial, social and environmental performances that are decisive to stakeholders
Market	Critical factors for customers and other stakeholders
Internal process	Business processes that are not only more efficient, but also more social and more clean
Innovation & personnel	Drivers for continuous improvement, innovation and motivation

Source: De Graaf and Sanders, ny

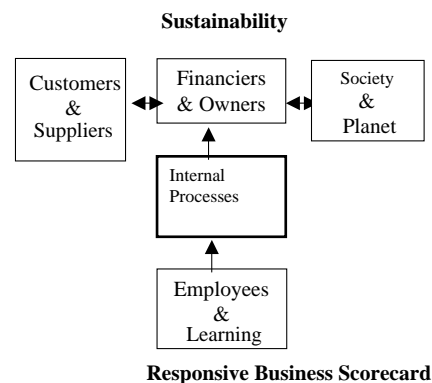


Figure 1. Responsive Business Scorecard.

The stakeholder groups are structured more or less similar to the EFQM Business Excellence Model (EFQM, 2003). The position of employees brings problems, because in EFQM employees appear both as *enablers* (cause) and as *result* (effect). We put some emphasis on the *enabler* perspective, considering employees and their learning capabilities as a pre-requisite for any business success. Of course, strategic targets of Human Resource Management (HRM) must be included in the *Employees & Learning* Perspective as well.

Our format of Figure 1 strongly resembles the Scorecard of Novo Nordisk, a company with well advanced sustainability policies. Novo Nordisk uses the Perspectives Finance, Customer & Society, Business Processes and People & Organization (INSEAD, 2003). If we split their Customer & Society Perspective into two separate Perspectives, our RBS and the Novo Nordisk Scorecard become very similar.

The strong emphasis on stakeholder interactions has brought us to the name of RBS. Because all stakeholders have a clear position in the format, we expect that the Responsive Scorecard will be useful for the *Community* as well as for the *Synergy* context of CS.

The Responsive Scorecard has several advantages compared to an adapted Balanced Scorecard:

1. Important stakeholders have an explicit, univocal place in the format. In an adapted BBSC this is not the case.
2. The three sustainability Ps (Profit, People, Planet) have an explicit, clearly defined place in the format (Financiers/owners, Employees, Society/neighborhood & Planet/ecology).
3. There is an equilibrium between external (Customers & Suppliers, Society & Planet) and internal (Processes, Employees, Financiers) Perspectives. In Figure 1, the internal Perspectives are on the vertical axis, while the external Perspectives are on the left and right wing.
4. Organizations who have “grown out” of their BBSC practices can turn to RBS as a next step in their progress to higher levels of corporate performance.

A disadvantage of the Responsive Scorecard could be that implementation demands a renewed

learning process for companies that have become familiar with the traditional Scorecard. However, as Table III shows, there is about 70% overlap between the old and the new scorecard. For aspects like *Financiers*, *Customers* and *Employees*, existing topics are a good starting point to fill similar boxes in the RBS. Despite the overlap, an organization growing into *Community values* has to learn to engage effectively with their main stakeholders. The RBS can support them during this process.

For sustainability topics, an internal discussion about strategic implications is necessary anyhow. Companies experimenting with an adapted BBSC found that discussions about the basic principles and about company specific changes in the Scorecard format resulted in a much better understanding about what type of tool this is, and what not. This type of fundamental discussions offers an exceptional opportunity to bring social and environmental topics into the mental map of top management (INSEAD, 2003; cases ACEA and Novo Nordisk). We conclude that the renewed learning process of a Responsive Scorecard offers a much desired opportunity to rethink business strategies. Of course, there is no free lunch: strategic rethinking demands time and effort of top management.

A risk of the Responsive Scorecard can be that “every P gets its own specialist”, that every box becomes the responsibility of a different person. But the same risk applies to the old BBSC, where finance, marketing, HRM etc. also have their ‘own box’. A proper organization of strategy development has to prevent this.

Figge et al. (2002) point out that environmental and social issues that represent *hygienic factors* basically

TABLE III  
Comparison of Balanced and Responsive Scorecard

Perspectives Balanced Scorecard (BBSC)	Perspectives responsive Scorecard (RBS)
1. Financial	1. Financiers & Owners
2. Customer	2. Customers & Suppliers (supply chain)
3. Internal process	3. Internal process
4. Learning & Growth	4A. Employees & Learning 4B. Society & Planet



should not be included in RBS. *Hygienic factors* are issues which have to be managed sufficiently to guarantee successful business operations, however addressing these factors does not lead to any competitive advantage. Examples are rules of social security systems and demands in environmental permits. In fact, these issues are examples of *Compliance-driven CS/CR*, whereby social regulations decide on low-level business ambitions (Section 2). We agree on Figge's opinion that a RBS must not be a kind of condensed Environmental Management System or a replacement of ISO14001. Just as the old BBSC, a RBS must concentrate on a limited number of strategic issues.

As said before, we consider the traditional Balanced Scorecard as perfectly suitable for companies that strive for *Compliance-driven CS/CR* and *Profit-driven CS/CR*. Our proposal for a Responsive Scorecard is aimed at:

- *Community-driven CS/CR*, finding a balance between economic, social and ecological concerns, in a process of engaging with main stakeholders;
- *Synergy-driven CS/CR*, creating economic, social and ecological value simultaneously in a together-win approach with their stakeholders.

In the use of a Responsive Scorecard, there will be many similarities between Community and Synergy-driven approach towards CS/CR, but compared to the Community-driven CS a Synergy-driven approach will put more emphasis on the outcomes of interactions with stakeholders.

To conclude, the interpretation of a Responsive Scorecard depends on the ambition level of CS. In practice, we expect that a *Community-driven CS/CR* ambition will be dominant.

In order to show the scope of issues under a Responsive Scorecard, we can develop a set of issues and measurable parameters that could be used. This means that a long list of potential parameters covering all potential issues can be relevant. Appendix 1 gives an impression. Because such a comprehensive list would be very long, it normally needs to be reduced to a specific list that match those issues that are relevant to the particular application. The following chapter will show how we tentatively tested the Responsive Scorecard in the tourist and food sectors.

## A Responsive scorecard in tourist and food industries

In Section 3 we found that the RBS identifies those environmental and social topics which are critical success factors and establish casual links between the different perspectives. In addition, a RBS leads to an integration of environmental and social management into general management systems. Our findings point to the direction that stakeholder interactions should have a clear, univocal position in the format and that there is an equilibrium between external (Customer, Society & Planet) and internal (Processes, Employees, Financiers) Perspectives. In an adapted BBSC this is not the case.

Will a RBS work in practice? As part of the ECSF program, in 2003 we conducted tests to assess the practical applicability of a RBS in companies. Our case studies relate to the Dutch tourist industry (Section 4.1) and to the Italian food industry (Section 4.2).

By working in a specific sector of industry, the idea is to use an optimal combination of top-down sector metrics (assessment of risks, opportunities and management capabilities at sector level) and bottom-up business priorities (management choices). This procedure implies that there has to be co-operation with both experts at sector level (e.g. trade associations) and management at company level (pilot companies). In order to remove the existing bias towards large companies, there should be a substantial number of Small and Medium sized Enterprises (SMEs) in the sector under review.

In the Dutch tourist industry, a sector dominated by SMEs, we try the top-down approach (sector opportunities and risks). In the Italian food case, dominated by two large companies, we use a bottom-up approach (management priorities).

### *The dutch tourist sector*

For a top-down pilot study in the Netherlands, we looked for co-operation at both sector level (e.g. trade associations) and at company level. We started our exploration by contacting Dutch trade associations that are known to have some type of environmental or sustainability programs for member

companies. To our surprise, it was very difficult to find a sector willing to co-operate. A common answer of trade associations is: “Our members are not ready for a strategic approach towards CS/CR”. Although not part of our research, such answers provide challenging views on business acceptance of CS/CR. It is well known that Dutch companies are well advanced in implementation of environmental management, including ISO 14001. Moreover, social regulations offer a high basic level of employee’s security. However, there seems to be large obstacles to move beyond and develop advanced CS/CR policies.

We did find interest in the tourist sector, more specifically in the trade associations for land recreation *Recron* and for water recreation *Hiswa*. *Recron* and *Hiswa* already work closely together and share the same office building. As will be explained later, they offer their members tools to implement environmental policies. *Recron* and *Hiswa* are interested in a Responsive Scorecard, because some of their members – frontrunners in the sector – look for opportunities to go beyond existing tools.

The recreation sector is of interest for our pilot because the sector is big and growing and because many companies are SMEs. Drawbacks of the recreation sector can be that it is a service industry, not directly involved in large social or environmental issues, and that it has limited powers *vis-a-vis* other sectors of industry because of SME dominance. The pilot has to show how characteristics of the sector interact with the RBS.

The trade associations advised to choose sub-sectors for the pilot, because they consider land and water recreation as too heterogeneous for a successful pilot. It was decided to concentrate the pilot on *camping sites* (land recreation) and *marinas* (water recreation). In co-operation with sector specialists, we developed a list of sustainability indicators for camping sites and marinas. Furthermore, we discussed how these indicators could become part of a Responsive Scorecard.

*Results for camping sites and marinas.* The Dutch tourist sector has become familiar with environmental management. We use this experience in the development of a Responsive Scorecard. We have to keep in mind that the trade associations *Recron* and

*Hiswa* want to use the Scorecard as a *tool-extra* for members well advanced in traditional environmental management.

In land recreation, *Recron* has initiated the *Milieubarometer* (=Environmental Barometer) as a sector specific eco-label. Recreation facilities that pass the “Golden Environmental Barometer” examination are allowed to use the national Dutch eco-label *Milieukeur* ([www.milieubarometer.com](http://www.milieubarometer.com), 2003). Recently, the European Union issued draft guidelines for an EU eco-label for recreation facilities. The EU- guidelines closely resemble, but are not identical to the Golden Environmental Barometer ([www.eu.int/eco-label](http://www.eu.int/eco-label), 2003).

The Golden Environmental Barometer puts several demands:

- Seven generic measures (organizational, i.e. implementation of environmental management);
- 10 obligatory measures (both technical and organizational);
- 11 optional measures from a list of 18 (both technical and organizational)

Several measures are precisely prescribed (e.g. water saving devices, micro fibre tissues to clean up), while other measures are more complex (e.g. nature management plan, sustainable construction and housing).

We use the Barometer examples as a starting point for environmental targets in the Scorecard. To assess measures as strategic topics, we combined and sometimes reformulated Barometer measures to Scorecard goals. They are listed in Table IV under C (=Camping sites).

In water recreation, the trade association *Hiswa* propagates the *Blauwe Vlag* (=blue flag). Marinas that want to use the blue flag have to meet criteria with regard to safety, environmental impacts and harbor facilities. Environmental criteria relate to waste management, energy saving, water management, green areas and customer information ([www.hiswa.nl](http://www.hiswa.nl), 2003). Sustainable marinas will have to go beyond the blue flag. A Dutch NGO has published a memorandum indicating 10 standards for a sustainable marina (Bollaert, 2002). We used this memorandum to formulate Scorecard topics for marinas (=M) in Table IV.

As can be seen, most boxes in Table IV are filled with 3–5 topics related to sustainability. We expect

TABLE IV  
Sustainability topics for camping-sites(=C) and  
marinas (=M)

Perspective	Strategic topics
Customers & Suppliers	<ul style="list-style-type: none"> <li>– Improvements in security (C,M)</li> <li>– Sustainability communication to customers (C,M)</li> <li>– Nature activities for customers (C)</li> </ul>
Financiers & Owners	<ul style="list-style-type: none"> <li>– Sustainability bonus in customer satisfaction (C,M)</li> <li>– Investments in energy savings (C,M)</li> <li>– Investments in water savings (C,M)</li> <li>– Investments in transport sustainability(C)</li> </ul>
Society & Planet	<ul style="list-style-type: none"> <li>– Use of renewable energy (C,M)</li> <li>– Sustainable construction and housing (C,M)</li> <li>– Nature management plan (C,M)</li> <li>– Sustainable anti-fouling systems for ships (M)</li> <li>– Relations with the local community (C,M)</li> </ul>
Internal process	<ul style="list-style-type: none"> <li>– Implementation of environmental management (C,M)</li> <li>– Waste management and separation(C,M)</li> <li>– Sustainable cleaning of premises (C,M)</li> <li>– Improvements in fuel supply (M)</li> </ul>
Employees & Learning	<ul style="list-style-type: none"> <li>– Employee awareness and training (C,M)</li> <li>– Professional growth of employees (C,M)</li> </ul>

that number and diversity of topics will enable companies to choose a well balanced mix between traditional targets and sustainable targets. In future research, it is necessary to rephrase and reformulate sustainability topics in co-operation with representatives of the trade associations and of companies. In addition, pilot companies will choose their priorities.

In Table IV, we found remarkable little topics for the *Employee* box. This certainly has to do with our sources, with their strong emphasis on the environmental perspective. What additional steps a Dutch

SME can take in HRM? Maybe the second pilot, about Italian food producers, provides an answer.

#### *Italian food producers*

For a bottom–up study, we use information collected by the Italian ECSF partner *SCS Consulting* (Caldelli, 2003). We developed a draft for RBSs from the KPIs in the MIS of two Italian companies in the food sector (Table V). *Coop Adriatica* is a co-operative supermarket chain, while *Granarolo* is a dairy company. The number of MIS-indicators will be larger than the number of topics in a Scorecard, because:

- A Scorecard should contain strategic core topics, while a MIS also contains underlying data and data for operational management;
- Topics in a Scorecard should be interlinked by cause-and-effect chains. A company should especially look for *performance drivers* next to the selection of *performance indicators*. In a MIS, the selection of criteria is more diverse and more open.

Theoretically speaking, a list of MIS-indicators is an intermediate step, that must be followed by a selection of strategic indicators to be included in a RBS. The process from long list (MIS) to short list (Scorecard) can only be done by the company itself. In this exercise, we are only able to investigate whether the MIS-priorities seem sufficient to elaborate a Responsive Scorecard.

*Assessment of the five Perspectives by the authors.* *Customers & Suppliers* are underdeveloped by *Coop Adriatica*. *Suppliers* are absent, which is a pity because supermarkets have become increasingly powerful in their product chains. Additional information learned that *Coop Adriatica* has no purchasing Department, because this task is delegated to the umbrella organization *COOP Italia*. Consumers are restricted to co-operative members.

*Granarolo* shows a well balanced mix of suppliers, consumers and quality over the whole production chain. A reduction to 5 or 6 strategic Scorecard topics is advisable.

*Financiers & Owners* indicators of both companies are almost similar. Indicators are traditional, likewise suited for a company with a *Profit-driven CS/CR*.

TABLE V  
Responsive Business Scorecard of two Italian Food Companies

Perspective	Coop Adriatica (supermarket chain)	Granarolo (dairy products)
Customers & Suppliers	Member-consumers of co-operation – Number; – Participation Price difference to competitors  <i>PM Central purchasing is a responsibility of COOP Italia</i>	Milk with traceable origin Decline of product defects Customer satisfaction Satisfaction on sale points Dialogue with consumers Supplier quality incentives Rapidly supplier payments Suppliers with SA8000
Financiers & Owners	Sales revenues Sales revenues homogenized Gross operating margin Profit or loss  Cash flow Investments Financial index Net global value added	Sales revenues Fresh milk market share Gross operating margin Operating results Results before tax Cash flow Investments in technology Net financial indebtedness
Society & Planet	Total materials use: – energy consumption; – water consumption Sale points with waste sorted collection  Local community (participants in social initiatives; charity donations; expenses for social initiatives)	Energy consumption; Water consumption Energy efficiency in distribution Use of freon in distribution Social initiatives at national and local level
Internal process	—  <i>PM Experiments with a Sustainability Budget</i>	Production sites with environmental certification Product quality control (lab analyses done) Visits to company web site
Employees & Learning	Personnel: – Newly hired; – Labor turnover; – Indefinite contracts;  – Engaged in training – Internal growth	Newly hired workers Labor turnover  Engaged in training Professional growth Trade union membership Wage level

Source: Caldelli, 2003

Several indicators are interlinked, e.g. profits, investments and cash flow. A consolidation into four or five strategic topics can be envisaged.

Both companies restrict the natural environment in *Society & Planet* to basic aspects applicable to all companies i.e. water, energy and waste collection

TABLE VI  
Are the MIS-indicators a basis for a Responsive Business Scorecard?

Perspective	Coop Adriatica	Granarolo
Customers & Suppliers	Limited	Yes
Financiers & Owners	Yes	Yes
Society & Planet	Yes	Yes
Internal process	No	Limited
Employees & Learning	Limited	Limited

(MEPI, 1999). In this respect, the companies show little ambition, similar to the experiments presented in the 2003 INSEAD Conference (INSEAD, 2003).

The local community is little developed with Granarolo.

*Internal Process* is missing for Coop Adriatica, and is basic for Granarolo (but: Coop Adriatica says a set of KPIs – the “Sustainability Budget” – is under construction). It is necessary to have further thoughts on this perspective, both by the companies themselves and by the ECSF-researchers.

Indicators for *Employees & Learning* are almost identical for the two companies. They are not very ambitious and restrict themselves to “normal” HRM. It must be easy to choose three strategic core indicators for the Scorecard, but is insufficient to initiate a Learning Strategy.

*Our conclusion.* For Coop Adriatica and Granarolo, it will be relatively easy to fill the Scorecard for the Perspectives *Financiers & Owners* and *Employees*. Coop Adriatica has a well developed basis to fill the

#### APPENDIX 1

##### Preliminary list of topics for a Responsive Business Scorecard

Perspective	Traditions topics (in Balanced Scorecard)	Sustainability topics (extra in Responsive Scorecard)
Customers & Suppliers	<ul style="list-style-type: none"> <li>– Market share</li> <li>– Customer retention</li> <li>– Customer satisfaction</li> <li>– Buying procedures</li> </ul>	<ul style="list-style-type: none"> <li>– Market share of ‘green’ products</li> <li>– Products for <i>niche</i> markets</li> <li>– Customer retention by <i>chain responsibility</i></li> <li>– Sustainability assessment of suppliers</li> </ul>
Financiers & Owners	<ul style="list-style-type: none"> <li>– Sales growth</li> <li>– Percentage revenue from new products</li> <li>– Profitability</li> <li>– Strategic investments</li> </ul>	<ul style="list-style-type: none"> <li>– Brand and label recognition</li> <li>– Recognition of intellectual capital</li> <li>– Strategic investments</li> </ul>
Society & Planet		<ul style="list-style-type: none"> <li>– Energy efficiency</li> <li>– Waste separation and recycling</li> <li>– Application of <i>eco</i> design</li> </ul>
Internal process	<ul style="list-style-type: none"> <li>– Good quality control</li> <li>– More efficient production processes</li> <li>– R&amp;D expenses</li> <li>– Good management information</li> </ul>	<ul style="list-style-type: none"> <li>– Synergy between business units</li> <li>– Environmental management</li> </ul>
Employees & Learning	<ul style="list-style-type: none"> <li>– Employee satisfaction</li> <li>– Employee training</li> </ul>	<ul style="list-style-type: none"> <li>– Professional growth</li> </ul>

NB For each topic, a Scorecard has to include a strategic goal, actions and target/indicator. Do not choose more than 15–25 strategic topics.

perspective *Society & Planet*, while Granarolo has a well developed basis for *Customers & Suppliers*. *Internal Process* and the *Learning Perspective* demand fundamental thoughts from the companies (see Table VI).

## Conclusions

From a theoretical point of view, a RBS can be a powerful tool to develop and implement sustainable strategies in companies. As such, the Responsive Scorecard fits the ambitions of the ECSF program. The Scorecard will especially be useful for companies that aspire to the *Community-driven* level of CS/CR and to the *Synergy-driven* level of CS/CR. For companies aiming at *Profit-driven CS/CR*, an adapted version of the traditional BBSC seems more appropriate.

Experiences show that the adapted BBSC indeed can serve existing products, clients and stakeholders. However, to meet strategic challenges for new products (innovation), clients and stakeholders, companies need to redefine the perspectives and even the enlargement of the Scorecard with a fifth perspective. In those cases, a Responsive Scorecard with five Perspectives is more suitable.

Implementation of a RBS will put heavy demands on management, employees and other stakeholders. The use of a RBS is much more demanding than e.g. implementation of ISO 14001. Therefore, we expect that for the time being only a limited number of “enlightened frontrunners” are ready for a pilot.

A top-down approach in the Dutch tourist sector has listed a set of sustainability topics for camping sites and marinas. Assistance of trade-associations has been both efficient and indispensable. Further steps have to show whether companies are able to include these topics into company specific RBSs.

A bottom-up approach based on KPIs of two Italian food producers resulted in two draft-RBSs. We concluded that Indicators for *Financiers* and

*Employees* are well advanced, while indicators for *Customers* and *Society* need refinement. Expressive indicators for *Internal Processes* and *Learning* are missing.

In order to improve the practical usefulness of RBSs, it is necessary to conduct more extended pilot studies. With regard to sector-oriented RBS formats, implementation in individual companies can show how these formats support managers in their quest for higher ambition levels. With regard to company-specific RBSs, a dialogue between corporate management, major stakeholders and RBS developers can demonstrate the best use of a RBS in corporate quests for sustainable policies. By a comparison of results from sector-oriented RBS and company-specific RBS, we can discover what is the scope of sector generalizations.

## References

- Bollaert, C.: (2002), *Duurzame Jachthaven -de Eerste Stap*. Waterpakt, Harlingen.
- Caldelli, A.: (2003), *Key Performance Indicators for a Management Information System of two Italian food producers*. ECSF-Mimeo, SCS Azioninnova, Bologna.
- Figge, F. et al.: (2002), “The sustainability balanced score-card - linking sustainability management to business strategy”, *Business Strategy and the Environment* **11**, 269–284.
- Graaf, F. J. de and T. P. J. B. Sanders (ny): *Duurzame zaken*. Mimeo, Amsterdam.
- INSEAD: 2003, *Presentations of the Balanced Scorecard and Sustainability Conference*, 20 November 2003, Fontainebleau.
- Kaplan, R. and D. Norton: (1996), *The Balanced Scorecard: Translating Strategy into Action*. Harvard Business School Press, Boston, Mass.
- Marrewijk, M. van: (2003a), *A Value Based Approach to Organization Types*. ECSF orking paper, Rotterdam.
- Marrewijk, M. van: (2003b), ‘Concepts and definitions of CSR and Corporate Sustainability,’ *Journal of Business Ethics*, May 2003.
- Marrewijk, M. van and T. W. Hardjono: (2003), ‘The European Corporate Sustainability Framework for managing complexity and corporate transition’, *Journal of Business Ethics*, May 2003.

- Marrewijk, M. van and M. Werre: (2003), 'Multiple Levels of Corporate Sustainability', *Journal of Business Ethics*, May 2003.
- NIDO, J. Cramer, T. Rutten en and R. van Tilburg: (2001), *Duurzaam ondernemen: praktijkervaringen met een nulmeting*. Leeuwarden.
- www.ecsf.info: (2003), *European Corporate Sustainability Framework* website, seen 24 December 2003.
- www.eu.int/comm/environment/industry/eco-label, seen 10 March 2003.
- www.milieubarometer.com (2003), seen 23 July 2003.
- www.sqeme.nl (2003), seen 23 July 2003.
- Woerd, K. F. van der and T. van den Brink: (2002), *Beyond the Business Balanced Scorecard – Building blocks for a Business Sustainability Scorecard*. W-02/19, IVM-VU, Amsterdam.
- Zingales, F. et al.: (2002), *Balanced Scorecard and Sustainability- State of the art review*, CMER Working papers 2002/65, INSEAD, Fontainebleau.

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