A Framework for Ecopreneurship
Leading Bioneers and Environmental Managers to Ecopreneurship*

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The author proposes a framework to position ecopreneurship in relation to other forms of environmental management. The framework provides a reference for managers to introduce ecopreneurship. Five basic positions are distinguished according to the degree of environmental orientation of a company’s core business and the market impact of the company: environmental administrators, environmental managers, alternative activists, bioneers and ecopreneurs. The author suggests an approach to the qualitative operationalisation of ecopreneurship and how to assess the position of a company in a classification matrix. The degree of environmental orientation in the company is assessed on the basis of environmental goals and policies, the ecological profile of the range of products and services, the organisation of environmental management in the company and the communication of environmental issues. The other dimension of ecopreneurship examined, the market impact of the company, is measured on the basis of market share, sales growth and the reactions of competitors. The approach is then applied to seven case studies of companies. The case studies show that the basic concept of ecopreneurship is applicable. The company representatives saw the approach as helpful in clarifying their position in ecoprenurial terms. The main benefit of the approach is that it provides a framework for self-assessment and indications for improvement.

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NNOVATIONS CAN ALTER THE ECONOMY AND SOCIETY FUNDAMENTALLY. CARS, computers and the Internet have changed the world in a more fundamental way than have most political programmes. To be innovative means to provide organisational and technical improvements that can be sold successfully in the marketplace. In order to create innovations a firm must overcome thresholds.

In a market system, sustainable development requires sustainable innovations and entrepreneurs who can achieve environmental goals with superior innovations that are successful in the marketplace. Market innovations that drive sustainable development do not occur by accident; they have to be created by leaders who put them into the core of their business activities. Actors and companies making environmental progress in their core business may be called ‘ecopreneurs’. They generate new products, services, techniques and organisational modes that substantially reduce environmental impacts and increase the quality of life.

Joseph Schumpeter (1934) referred to such entrepreneurial activities as ‘creative destruction’. Ecopreneurs destroy existing conventional production methods, products, market structures and consumption patterns and replace them with superior environmental products and services. They create the market dynamics of environmental progress.

In this paper I aim to provide a typology of ecopreneurship and to distinguish it from other forms of corporate environmental activities. This typology is summarised by use of a positioning matrix for ecopreneurship that allows management to assess the state of its company’s environmental and economic activities in relation to other companies. In the next section I define the term ‘ecopreneurship’ and its derivation from the word ‘entrepreneurship’. I then go on to discuss the elements of the positioning matrix of ecopreneurship and a first approach to assessing ecopreneurship. This approach is distinguished from eco-ratings and environmental assessments. In the penultimate section I present examples of companies and their management that have undertaken self-assessments of their ecopreneurial position. The company examples represent a sample of organisations that were regarded as potential ecopreneurial companies and invited to present their activities by the RIO management forum, a Swiss-based non-governmental organisation (NGO) promoting eco-efficiency and environmental management in industry. The case studies illustrate the conceptual approach and show its usefulness as a self-assessment tool for company leaders. Some conclusions are provided in the final section.

What is ecopreneurship?

The foundation of the notion of entrepreneurship

Economics and management theory neglected the phenomenon of entrepreneurship for a long time. So did the environmental management literature. However, over the past couple of years more and more authors have started to deal with entrepreneurship, following from the work of Schumpeter (1934) and Kirzner (1973).

The word ‘entrepreneur’ derives from French and can be taken to mean ‘taking the initiative to bridge’. An entrepreneur is a catalyst who brings together money, people, ideas and resources. Whereas all entrepreneurs deal with bridging activities between suppliers and customers to create and change markets, ecopreneurs differ from conventional entrepreneurs in that they also build bridges between environmental progress and market success. Entrepreneurship can describe various phenomena (Lambing and Kuehl 1997):
Many authors concentrate on the process of a start-up company (Bennett 1991; Ripsas 1997). In this view entrepreneurs are actors opening a new company and entrepreneurship is the process of creating and establishing a new company.

Another aspect of entrepreneurship is that of striving for growth (Kyrö 2001; Timmons 1986). Entrepreneurs are viewed as actors who enlarge companies and expand businesses.

Entrepreneurship has also been interpreted as a social movement or some other kind of environmental grass-root movement (Pastakia 1998). From this perspective, entrepreneurs are actors who change existing consumption and production patterns on the basis of individual initiatives.

Entrepreneurs’ companies are sometimes distinguished from traditional companies by their capability to innovate and to create competitive advantage (Risker 1998; Schumpeater 1934; Staber 1997; Wiklund 1999). Entrepreneurship links inventions with market success.

Finally, entrepreneurship is characterised by the personal characteristics of a leader-like ambition, leadership, team-building personal involvement and commitment (Keogh and Polonsky 1998; Stevenson and Gumpert 1998).

The term ‘ecopreneurship’ is a combination of two words, ‘ecological’ (‘eco’) and ‘entrepreneurship’. Ecopreneurship can thus be roughly defined as ‘entrepreneurship through an environmental lens’. Ecopreneurship is characterised by some fundamental aspects of entrepreneurial activities that are oriented less towards management systems or technical procedures and focused more on the personal initiative and skills of the entrepreneurial person or team to realise market success with environmental innovations. After a first wave of literature, beginning in the 1990s, only recently have some authors started to deal in more detail with environmentally oriented entrepreneurship (see Anderson and Leal 1997; Bennett 1991; Berle 1991; Blue 1990; Isaak 1998; Keogh and Polonsky 1998; Kyrö 2001; Larson 2000; Lober 1998; Pastakia 1998; Schaltegger and Petersen 2001; Staber 1997; Wiklund 1999).

Narrow and wide definitions of ecopreneurship

Entrepreneurial thinking starts first with individuals, as environmental preferences are personal concerns. This is why ecopreneurs such as Claus Hipp (founder of the Hipp company, one of Europe’s largest producers of baby food), Gottlieb Duttweiler (founder of Migros, the largest food-supplier in Switzerland) or Ernst Pfenninger (head of Trisa, a leading European producer of brushes and brooms) embody the combination of strong environmental and social values with an energetic entrepreneurial attitude. Ecopreneurs show personal mastery (see Senge 1996) and consider their professional life as a creative act. Differences between personal goals and the perceived reality are taken as a challenge and not as a problem (see Senge 1996: 175). Ecopreneurs influence their company substantially with their personal goals and preferences in a way that these are reflected in the company’s goals. This is more often and to a larger extent the case with start-up companies and small companies than with larger enterprises. Whereas environmental managers can leave a company without the firm losing substantial character, ecopreneurs constitute and shape the ‘face’ of their company. Because of the strong influence of the personality of the company leader (or leaders) on company goals, ecopreneurship and the status of an ecopreneur can also be important to the whole company. As a consequence, ecopreneurship—defined in a narrow sense—deals with
a start-up of a very innovative company supplying environmental products and services 
(for a similar definition of entrepreneurship, see Ripsas 1997).

However, ecopreneurs can also be seen in established firms, as the process of creating 
substantial market success with environmental products and services also exists in 
established companies (e.g. in the process of building up profit centres, spin-offs and 
so on). Defined more widely, ecopreneurship can thus be described as an innovative, 
market-oriented and personality-driven form of value creation through environmental 
innovations and products exceeding the start-up phase of a company. This wide deﬁni-
tion of ecopreneurship takes intrapreneurs (Pinchot 1988), as an important subgroup 
of ecopreneurs, into account, as intrapreneurs represent actors inside an organisation 
who substantially change and shape the environmental and business growth develop-
ment of an existing company.

Ecopreneurship is thus distinguished from other forms of corporate environmental 
development by the company’s vivid commitment to environmental progress and its 
strong desire for business growth.

Where do ecopreneurs position their companies?

In this section I will show in more detail what can be understood by ecopreneurship 
and how it is distinguished from other types of environmental activity by companies. 
After an introduction to the positioning matrix of ecopreneurship, the two main 
dimensions of a model (the priority given to environmental goals and market effect) are 
discussed in more detail.

Positioning matrix of ecopreneurship

Companies contribute most to the overall environmental progress of an economy and 
society if their core business deals with environmental solutions and environmentally 
superior products and if their innovations substantially inﬂuence the mass market. This 
is the main thesis for the empirical investigation, outlined in the penultimate section 
of this paper and the basis for the deﬁnition of what is called ecopreneurship.

For a company to have a positive environmental inﬂuence it must make a real and 
substantial contribution to environmental progress. A real improvement can be created 
only if the production processes, products and services are environmentally superior. A 
substantial contribution requires that the company exert signiﬁcant market inﬂuence 
by gaining a large market share or by inﬂuencing competitors and other market actors 
(such as suppliers) to adopt superior environmental solutions. Ecopreneurs run compa-

dies that fulﬁl both requirements (see Fig. 1). Ideally, ecopreneurship pulls the whole 
market towards more environmental progress. Ecopreneurs strive for business success 
through environmental solutions for the mass market.

To measure how well a company has done, the dimensions of ecopreneurship can be 
进一步 subdivided. The priority of environmental goals (the vertical axis in Fig. 1) can 
range from low priority (environmental protection is regarded as a trustee duty), to 
medium priority (environmental issues are seen as supplemental to conventional busi-

ness issues) and high priority (environmental issues are regarded as an integral part of 
core business activities). The market effect of the company and its businesses (the 
horizontal axis in Fig. 1) can be small (i.e. the alternative scene), medium (i.e. the 
successful occupation of an eco-niche) or large (i.e. through a strong inﬂuence on the 
mass market).
The combination of these dimensions provides the business positions shown in Figure 1 and allows us to distinguish ecopreneurship from other forms of corporate environmental activities:

- Organisations in which environmental issues are of low priority consider environmental protection as a trustee duty and concentrate on the implementation of given environmental regulations and standards. Environmental issues are left to the legal department and to bureaucracy, which administer the issues according to formally defined rules and regulations.

- Company leaders who consider environmental issues as being a supplementary aspect of business establish environmental management systems and departments that attempt to pilot and control environmental impacts in the most efficient manner. Cost reduction, the improvement of competitiveness and eco-efficiency, image campaigns and the differentiation of products and services are major goals of environmental management.

- Companies located in the upper right-hand side of Figure 1 treat environmental issues as central to their core business because their economic success is strongly linked to their environmental performance.

Along the horizontal axis of Figure 1 the market effect is distinguished by alternative scenes, eco-niches and mass markets:

- Suppliers characterised by alternative economic modes (e.g. non-monetary swapping) act among themselves in an alternative scene or eco-scene. Turnover is intended to secure personal living style. Market goals are non-existent.

- Eco-niches mirror medium-sized market segments and are occupied by bioneers. The expression ‘bioneer’ is a combination of ‘bio’ and ‘pioneer’ and attempts to express the central role of research and development and the attempt to find...
customers with high preferences for their inventions and innovations. Bioneers focus on attractive market niches with their customer-focused eco-products.

- In comparison, ecopreneurs and their companies aim to gain a large and growing market share and to achieve high or increasing turnover in mass markets.

Importance of environmental issues for the core business

Now the typology has been introduced and a definition has been given, let us look at the dimensions of ecopreneurship and at a first qualitative approach to measuring ecopreneurship. The strong environmental focus of the core business is the first major dimension of ecopreneurship. Three stages or positions are distinguished: administration, management and entrepreneurship.

Environmental administration

The administratrive approach is of a stabilising character and can be interpreted as an aim to preserve the capital of nature. Environmental administration stresses the conservation aspect of environmental issues and nature. It reminds management of its duty to act as a trustee of nature. However, in the corporate context, administration is focused on correct implementation of guidelines and instructions. This often goes along with bureaucratic structures and procedures. Environmental administration reflects a defensive approach. Its aim is to achieve minimal change in market conditions and to safeguard the status quo. Environmental protection is, then, seen as a duty that has to be dealt with because of external (legal, market or social) pressures. New social or legal requirements and technical inventions are seen as menacing developments that question what has been achieved.

In concrete terms, this approach usually entails the appointment of an environmental officer to supervise emission standards, regulations and formal company internal procedure protocols. Documentation is a core activity of environmental administration and it is an integral part of standards relating to environmental management systems (EMSS) such as ISO 14001, from the International Organisation for Standardisation (ISO) and the Eco-management and Audit Scheme (EMAS) of the European Union. One of the main advantages of environmental administration is the safeguarding of legal compliance. The main disadvantage is the lack of focus on environmental performance and the creation of paperwork and environmental manuals that can destroy the motivation to undertake substantial environmental improvements.

Although environmental administration can be useful to secure legal compliance, it is in stark contrast to the innovation necessary for the achievement of substantial environmental progress. The improvement of eco-efficiency and eco-efficacy requires financial investments and commitment.

Environmental management

In comparison to environmental administration, environmental management is defined as taking a more active approach to tackling problems. To ‘manage’ can be translated as taking something in hand and gaining control over it. The intention is to shape the company, its products and services and to take advantage of technical and social opportunities. This requires that scarce resources such as time, money, energy and environmental resources are allocated in the most efficient way. Efficiency gains, not conservation, are the focus of environmental management. A major goal of corporate environmental management is to increase eco-efficiency, which is expressed as the ratio of value added to environmental impacts added (Schaltegger and Sturm 1990). To achieve this, management approaches and tools, such as life-cycle assessment (LCA), environmental accounting and eco-control (see Schaltegger and Burritt 2000), sustain-
ability balanced scorecard (see Figge et al. 2002; Schaltegger and Dyllick 2002) and environmental management systems (see Tibor and Feldman 1996), have been developed to control material and energy flows in the most systematic way possible. In contrast to standards such as ISO 14001, these tools focus on the improvement of environmental performance rather than on the correct functioning of a management system.

To improve the environmental quality in a market system a substantial increase in eco-efficiency is necessary. However, this will not be sufficient as long as relative improvements are counteracted by larger amounts of sold and consumed products that do not themselves contribute to environmental progress. This leads to the entrepreneurial challenge of substantially contributing to higher environmental quality through eco-effective products and services.

**Environmental quality as an entrepreneurial challenge**

To make sure that eco-efficiency gains are not counteracted by higher production, ecopreneurs must also focus on eco-efficacy. Eco-efficacy describes how well the reduction of environmental impacts is achieved in absolute terms (see Schaltegger and Burritt 2000). Are the environmental impacts caused by a product throughout the whole market reduced effectively? This goal cannot be equated to the goal of supplying environmental or pollution-prevention technologies, as illustrated by the suboptimal effect of end-of-pipe technologies.

The entrepreneurial challenge is thus to be economically successful with the supply of products and services that change—on a purely voluntary basis—consumption patterns and market structures, leading to an absolute reduction of environmental impact. In contrast to bioneers, ecopreneurs are not usually inventors. Instead of spending time in laboratories and workshops, ecopreneurs search for inventions that they can shape and place on markets to create turnover (Murphy 2000) and influence market structures. Only in exceptional cases are successful inventors ecopreneurs at the same time. However, ecopreneurs often work with bioneers in converting inventions into market successes. The core activity of ecopreneurs is thus to search for business ideas with products and services that solve environmental problems, to identify the market potential of inventions and to realise market success with them.

In the extreme, ecopreneurship can thus be defined according to Timmons’s 1994: 48) concept of entrepreneurship:

> as a human act that builds something of value from practically nothing. It is the pursuit of opportunity regardless of the resources, or lack of resources, at hand. It requires a vision and a passion and commitment to lead others in the pursuit of that vision. It also requires a willingness to take calculated risks.

The second dimension of ecopreneurship in the positioning matrix is the market effect, which will be discussed in the next section.

**Market effect of environmentally oriented companies**

Solutions to environmental problems are without much effect if they remain in market niches or if market introduction fails (Villiger et al. 2000). Many company examples that have been discussed as leading cases have had little meaningful market impact. Table 1 shows three positions of market influence that reflect environmentally oriented companies in practice.

**Production in the alternative scene**

Autonomy in management without bosses, the renunciation of hierarchies, craftsmanship instead of industrial production and the integration of leisure time and work
characterise the goals of the alternative scene, which attempts to create a counterculture to the conventional economy (see Conti 1984). The attraction of the alternative scene is to break out of normality and obligations of any kind and to create a small world of self-assuring structures and procedures (see Schulze 1996: 747). However, the total environmental effect is not of interest, as any imitation on a large scale would contradict the intentions and motivations of the actors creating the alternative scene. Nevertheless, the environmental movement of the 1970s and 1980s has created alternative structures that in some cases have survived for three decades and that have provided the background for many entrepreneurs and bioneers who have entered market niches in the past couple of years.

**A focus on eco-niches**

Niche market suppliers are companies that specialise in specific customer preferences (Kotler 1998; Porter 1999). The competition strategy is to focus on one precisely defined area of the market that is big enough to be economically successful and small enough to be neglected by the mass-market suppliers. Such suppliers serve exclusive target groups, with a consequent differentiation strategy. This requires innovation of the products and services supplied as well as innovation regarding production technologies and organisational concepts. Large competitors neglect these niches because they do not recognise them, they do not consider them to be attractive enough or they are not able to fulfil the specific customer preferences well enough.

Since the 1980s many autonomous producers and green activists have left the alternative scene and have started to enter commercial market niches (Horx 1985). Some suppliers (e.g. some producers of organic wines) show similarities to suppliers in the alternative scene. However, among eco-niche suppliers, property rights are more clearly defined. The company is characterised by a leader who makes the investment, takes the decisions and wants to earn money. The customers of such suppliers show a strong interest in the products or services and are willing to pay supreme prices for those products and services.

Suppliers driven by environmental invention may be called ‘bioneers’—they play the role of a pioneer by opening new paths of environmental development in markets. This is why the usual marketing and communication approaches of the mass market are not considered by bioneers. Apart from having higher income and specific environmental

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**Table 1 THE MARKET EFFECT OF AN ENVIRONMENTALLY ORIENTED ENTERPRISE**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Member of Alternative Scene</th>
<th>Enterprise type Supplier of Niche Market</th>
<th>Market Leader</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market served</td>
<td>Alternative scene</td>
<td>Eco-niche</td>
<td>Mass market</td>
</tr>
<tr>
<td>Supplier</td>
<td>Alternative actor</td>
<td>Bioneer</td>
<td>Ecopreneur</td>
</tr>
<tr>
<td>Customer group</td>
<td>Peers</td>
<td>A group making particular demands or with particular interests</td>
<td>Largest range and number possible</td>
</tr>
<tr>
<td>Strategic focus</td>
<td>Identification with exchange partners</td>
<td>Niche market</td>
<td>Market penetration and market development</td>
</tr>
</tbody>
</table>

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...
preferences, the customers usually need substantial market and product knowledge and more time to find the products they are looking for.

Many examples of bioneers can be found in the environmental high-technology sector (e.g. the solar and wind energy sectors), in energy contracting and in the textile industry. Another group of bioneers are traditional small and medium-sized enterprises (SMEs) that develop their products and services according to environmental criteria. They are often led and strongly shaped by a company owner or family authority striving for harmony between environmental, social and financial goals.

Although bioneers serve an important function in the environmental development of products, their direct impact remains small. The majority of customers and the main flow of materials and energy in the mass markets are not affected by the activities of bioneers. However, with their innovations, bioneers can influence competition in the mass market. Whereas in the past many environmentalists have supported the view that ‘small is beautiful’, the environmental management literature has recently started to step out of niche-market terms and to ‘think big’ in order to gain a substantial environmental impact in mass markets (Schaltegger and Petersen 2001; Villiger et al. 2000).

Measurement approach and case studies

Given the general description and distinction of ecopreneurship outlined above (pages 47-48), the question arises: how can ecopreneurship be measured in practice? This question required an approach distinctly different from the usual environmental rating or environmental assessment approaches, as the attempt is not primarily to measure the specific status of corporate environmental impact or to check the existence of environmental management systems. Instead, it is to investigate how well the process of ecopreneurship is realised.

Towards a measurement approach

To measure ecopreneurship and to test the positioning matrix, the two dimensions (environmental priorities and market effect) have been operationalised in the following way (Schaltegger and Petersen 2001: 26ff.):

**Programmes of activities.** Business policies, environmental statements, corporate strategy papers and activity programmes reflect the strategy and the importance given to environmental issues in the core business. They provide the objectives of operative management. Concrete assessment questions to measure this aspect of ecopreneurship are as follows:

- Are environmental principles part of the business policy?
- Are these principles reflected in the strategy papers?
- Have quantitative goals and timetables been defined on the basis of these principles and strategies?

**Range of products and services.** The range of products reflects how well the company has been able to convert its policies into concrete market actions. The main question to check this requirement of ecopreneurship is: how environmentally oriented are the products and services of the company compared with those of its competitors? A problem with this issue is that a reliable measurement of the environmental impacts of a product through an LCA is generally not feasible. The
following indicators can be used to approximate this aspect:

– An easy measure is the number of explicitly labelled environmentally oriented products compared with the total range of products of the company.

– Another proxy is to measure how well the goals defined by the company have been achieved. This indicator requires that the goals be defined precisely enough to be measured and that they be made public.

– The product range and production processes can be compared with those of the main competitors. An environmental benchmarking fails in most cases because of a lack of data. However, the question of whether there is a substantial difference in the case of the majority of production processes and products can often be answered more easily.

– One proxy is to check the opinion expressed by environmental experts, assessment companies and media. This includes whether environmental criteria of external assessment organisations have been met and whether eco-labels and prizes have been received.

– In addition, a comparison over time is necessary to get a picture of whether ecopreneurial progress exists.

Organisation and communication processes. Ecopreneurship is possible only if environmental issues are dealt with at a top-management level and integrated into all business activities. Possible assessment questions are:

– Are environmental issues an integrated part of every management level and business unit in the company or are environmental matters delegated to an environmental, legal or public relations department with a bureaucratic organisation structure?

– Is the company involved in scientific environmental research and development projects and do these projects address core business activities?

– Are environmental issues and their relation to economic performance addressed in the company’s core communication activities (e.g. financial report, advertisements)? In many cases ecopreneurs tend to give a high priority to oral communication by the company leader.

Market effect. A main market effect is directly measurable as market share or sales of the company. Indirect market effects occur when environmental innovations are copied by competitors or when an environmental product feature becomes a standard in the market. Ecopreneurial companies have a large market share and/or a strong influence on product standards and firm behaviour. In general, the main requirement for achieving this is that the price of the environmental products can be reduced to the existing market level. Sometimes, they can also extend or develop a market by influencing a change in legal and political conditions, as in the market for wind energy in northern Europe. Among the main questions leading the assessment of the market effect as part of ecopreneurship are:

– Does the company have a substantial market share?

– Is the growth of market share and sales larger than the average market growth?

– Have the innovations of the company been copied by competitors?

– Is the price level of the company’s products in the medium range of the market or does it reflect a niche strategy focusing on an exclusive group of customers?

– Has the company been able to extend the market for environmental products? This is in some cases achieved by political means (see Kotler 1986).

These ways of qualitatively measuring ecopreneurship have been tested through seven case studies, described below.
Case studies on the assessment of ecopreneurship

The following case studies centre on companies that were invited by the RIO Management Forum in Lucerne to its annual conference. This conference is one of the larger annual practice-oriented conferences on environmental management and policy in Europe. The empirical investigation is based on responses to a questionnaire (Schaltegger and Petersen 2001). The questionnaire was answered by company representatives and supplemented by informational material—such as company policy data, environmental statements and reports, advertisements and communication materials—requested from the companies during the preparation phase. Table 2 provides an overview of the seven case studies, which are mainly European companies. Some of the

<table>
<thead>
<tr>
<th>Company</th>
<th>Industry or market</th>
<th>Market position</th>
<th>Number of employees</th>
<th>Approximate sales, 2000 (€ millions)</th>
<th>Geographic focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballard Power Systems</td>
<td>Fuel cells and energy</td>
<td>It is a market leader; however, it is a bioneer because it is invention-focused and the technology has not yet entered the mass market.</td>
<td>N.A.</td>
<td>770</td>
<td>World</td>
</tr>
<tr>
<td>Geberit Ltd</td>
<td>Water closets and sanitation</td>
<td>It is a market and technological leader.</td>
<td>4,240</td>
<td>1,000</td>
<td>World</td>
</tr>
<tr>
<td>Hess Natur</td>
<td>Clothing and natural textiles</td>
<td>It is the largest national mail-order business for natural clothes.</td>
<td>200</td>
<td>50</td>
<td>Germany and Switzerland</td>
</tr>
<tr>
<td>Landis &amp; Staefa (Siemens Building Technologies)</td>
<td>Energy contracting</td>
<td>It is a market leader and innovation leader.</td>
<td>15,000</td>
<td>2,000</td>
<td>Europe</td>
</tr>
<tr>
<td>Migros</td>
<td>Food retailer</td>
<td>It is the national market leader.</td>
<td>81,000</td>
<td>13,000</td>
<td>Switzerland</td>
</tr>
<tr>
<td>Rohner Textiles</td>
<td>Upholstery materials and furniture textiles</td>
<td>It is the market leader in environmentally friendly textiles for furniture.</td>
<td>30</td>
<td>10</td>
<td>World</td>
</tr>
<tr>
<td>Sika Finanz Ltd</td>
<td>Chemicals, building materials and engineering</td>
<td>It is among the market leaders.</td>
<td>7,900</td>
<td>1,500</td>
<td>Switzerland and Europe</td>
</tr>
</tbody>
</table>

N.A. = not available

*Table 2* Case-study companies involved in the investigation of measurement of ecopreneurship
companies are internationally oriented and others are focused more on a national market. For many companies, the entrepreneurial leader is familiar to the public (e.g. G. Ballard, at Ballard Power; G. Duttweiler, at Migros; H. Hess at Hess Natur). All companies have environmental or sustainability reports that are released to the media. All companies are considered either in the portfolio of sustainability funds or in the portfolio of sustainability venture funds. In addition to the questionnaire and the examination of company publications and documents, the companies were asked to position themselves in the ecopreneurship positioning matrix. To do so, the company representatives were guided by the questions for company self-assessment listed above.

In the next step the respondents were interviewed in order to countercheck the results of the questionnaire and the examination of company documents with the results of the self-positioning exercise. In some cases the position was changed by mutual agreement after a discussion of all considered documents and arguments. This was mainly the case when a difference existed in the company goals and the current position of the company.

The results of the case studies are shown in Figure 2. The squares show the current positions, the triangles past positions and the circles future positions.

The results show to what extent the company representatives identify themselves with the concept of ecopreneurship. In many cases the role of intrapreneurs was seen to be as important as the role of the company leader in driving the process of ecopreneurship. The answers to the assessment questions provided indications of possible steps to improve the ecopreneurial position. In some cases company internal measures will be necessary to further develop the position. In other cases (e.g. Ballard Power; ‘B’ in Fig.
2) further technological and external political developments should create the desired market breakthrough (note the significant movement involved from the current position to the left of the ‘bioneers’ category to the future envisaged position to the far right of the ‘ecopreneurs’ category in Fig. 2).

Conclusions

The proposed classification and self-assessment approach is intended to support bio-neers and environmental managers in their attempts to realise ecopreneurship in practice. Furthermore, the approach provides a framework for classification, a terminology and a first step towards the measurement of ecopreneurship. The case studies have shown that the basic concept of ecopreneurship and the approach of (self-)assessment is indeed applicable. The company representatives found the approach helpful in clarifying their position on ecopreneurial activity and in providing indications as to how to proceed on their path towards ecopreneurship.

The aim of the assessment approach is not to judge and distinguish ‘good’ from ‘bad’ companies. The main benefit of the assessment of the ecopreneurial position is to provide a framework for self-assessment and to highlight areas for improvement. However, the topic of ecopreneurship has only recently emerged in the literature; therefore, in order to support this process more conceptual work and further development of the measurement approach is necessary.

References


