

Introduction

Strategic scanning and *sustainable development* are two notions that are seemingly quite distinct. Nonetheless they have certain striking commonalities, as much in their purpose as in their history.

The two notions appeared simultaneously around the 1970s. The concept of strategic scanning first appeared in 1967 with the publication of the founding work by Aguilar entitled *Scanning the Business Environment*. The origin of the idea of sustainable development dates back to 1970, when first Ignacy Sachs and then the international conference of Stockholm (in 1972) proposed the concept of ecodevelopment. This was finally replaced with “sustainable development”, in a work entitled *World Conservation Strategy*, presented in 1980 by the International Union for the Conservation of Nature. The Brundtland report, published in 1987, picked up on the concept of sustainable development, which became firmly established shortly afterwards by the Earth Summit in Rio in 1992.

The two notions represent an increased awareness for the intensification of interactions between economic activity and its external environment. Strategic scanning appears to be a managerial requirement, at least for certain authors, such as Ansoff for example, as well as a strategic requirement in order to cope with globalization. The complexification of the economic environment and the intensification of competition between companies, or between States – which can be a source of turbulence – surprises and can cause possible ruptures. Sustainable development is a public and political reaction to the devastation that economic growth wreaked on the ecological environment during the “Trente Glorieuses” (The Thirty Glorious Years) and the dangers that the economy is generally exposing society to.

Today, their respective developments are official and institutional “strategic” and political priorities. In France, the development of sustainable scanning is part of the assignments of the “senior competitive intelligence officer” – a position created at the end of 2003 that is under the supervision of the Prime Minister, and was then changed to the Interministerial Delegate for Economic Intelligence, created by decree in September 2009. This time the post was placed under the supervision of the Elysee and Bercy.

Sustainable development has been at the center of all debates on the Grenelle environment, in particular, where it was officially recognized as a national priority with the creation of the National Committee for Sustainable Development in 2003. This was followed by the Ministry of Ecology, Energy, Sustainable Development and the Sea.

The purpose of sustainable development is to define viable plans bringing together the three following fundamental principles:

– An *economic principle* that underlies a carefully planned use of financial, human and natural resources. It consists of the conditions of the economic development of companies, but also includes all the aspects of territories where they are located, all the while ensuring a decent standard of living for people, without putting future generations in jeopardy.

– A *social principle* that underlies the fact that everyone must be treated equally. This therefore relates to the social consequences of the activity of a company on all corporate levels: employees (for example, work conditions, rate of pay, equality of chances, etc.), suppliers, customers, local communities and society in general.

– An *environmental principle* that underlies the fact that civil society and organizations must equally protect natural resources. This involves the search for compatibility between the economic and social activity of a company and maintenance of the natural milieu, biodiversity and various ecosystems. It includes an analysis of the impact of the social development of companies and their externalities in terms of flow, consumption of renewable resources that are difficult to obtain or slow to produce, as well as in terms of the production of waste and polluting emissions.

The objectives of strategic scanning are to develop the ability of organizations to acquire and use information concerning events, trends, and the dynamics of the external environment, the knowledge of which would help managers adjust their current decisions and the course of their future actions. In other words, strategic scanning is an informative process in which the company is receptive to its environment, with the creative aim of discovering opportunities, reducing uncertainties and perhaps even anticipating threats. By way of analogy, strategic

scanning is sometimes compared to radar. It is to people and organizations what radar is for boats and planes. It is a system for helping decision making and coordination, the aim of which is to detect signals and signs that are precursors of the external and sometimes internal environment in terms of events, risks and actual or potential opportunities. The knowledge of this is important to people and organizations in order to adapt, *anticipate*, react *before the fact* and sometimes also to *innovate*. Like radar, strategic scanning is an information system. In contrast to radar, which is generally automatic, it is a human and organizational system that is more analogous to the “watchmen” on submarines. The sensors are men and women, often the members of an organization. The acquisition, diffusion, interpretation and processing as well as the use of information is carried out by people, within a framework of more or less structured and formal processes. Indeed, such processes are often relatively unstructured.

The dictionary defines the environment as “the totality of natural and cultural conditions in which living organisms develop” and this definition is the one that most easily comes to mind when the word “environment” is used in everyday speech. Despite this, the ecological, social and cultural environment seems to have been long forgotten or neglected by practitioners and researchers in management science. There is no reference to sustainable development in management science before 2000, at least to our knowledge, and there does not yet seem to be a reference to sustainable development in academic publications on strategic scanning.

This book therefore explores the relationship between strategic scanning and sustainable development. It questions the utility, characteristics and implementation of a *sustainable scanning*, i.e. orientated towards sustainable development.

The first six chapters explore the concepts and characteristics of the notion of sustainable scanning:

- its definition;
- its aim and objectives;
- its outlines and content;
- the associated practices;
- the underlying motivations; and
- the difficulties the players involved in the construction and implementation of sustainable scanning practices will face along the way.

These chapters all offer answers to the questions: “what is sustainable scanning?”, “what new issues does it raise in terms of practice and management science?”, “who is involved?”, and “what forms can it take?”.

In Chapter 1, Yvon Pesqueux provides us with an outline, reminds us what is at stake and outlines sustainable development projects, all the while highlighting the gray areas and ambiguities. The author questions the aim and the role of sustainable scanning for the purposes of immediate economic concerns, which have been the focus of attention of those involved in strategic scanning. He thus lays down new principles, in line with the objectives of sustainable development, which can guide the discussion of collective action and elaborate on sustainable scanning.

In Chapter 2, Marie-Laurence Caron-Fasan takes on the task of describing the outlines of strategic scanning orientated towards sustainable development. By basing her chapter on works relative to the activity of traditional strategic scanning, she shows that an environmental scanning device orientated towards sustainable development has several characteristics. Such a project implies the construction of a global, transversal and systemic vision of the internal and external environment of the company. It is a project that relies on the investment of the company, in terms of sustainable development. Finally, it is revealed that this is a risky project due to the individual, collective and organizational learning that it implies, the number of players it involves and the extent of the scope for analysis.

Chapter 3 deals with the idea of a *sustainable company*, respectful of the locations of its operations. Alain-Charles Martinet and Marielle Audrey Payaud more precisely question the relations that large service companies have with the *territories* they work in and the key role of *middle managers* in this system of company-territory interaction. The authors present heuristic modeling and formulate a series of propositions to guide these field strategists in their learning of local characteristics, as well as their management and strategic environmental scanning.

Chapter 4 leaves the realm of the big companies to look at small businesses (SBs) and the entrepreneur. Michel Marchesnay questions the role of SBs in sustainable development and the characteristics of the activity of sustainable scanning when the company is of a very small size or has just one employee. The author suggests distinguishing four types of entrepreneur based on their thought processes and actions as well as their personal identity. This typology enables a distinction to be made between different practices of sustainable scanning and to help us make recommendations adapted to organizations of very small size.

Chapter 5 deals with one side of sustainable scanning: *human resources scanning* (HRS). Marie-Christine Chalus-Sauvannet questions the links between the notions of sustainable development and HRS. The author explores the reasons that some companies adapt their practices of strategic scanning to encompass sustainable development. She shows, on the one hand, that HRS – both internal and external – can be useful to motivate and involve the stakeholders in a process of sustainable development. On the other hand, she shows the possible impact of HRS in the

creation and implementation of new practices that are more respectful of man and the environment.

Chapter 6 widens the field of investigation of sustainable scanning by giving it a more *systemic* and *complex* dimension that takes into account the societal, economic and ecological environment all at once. Magalie Marais, Solange Hernandez and Olivier Keramidis question the outlines, content, possible significance and process of sustainable scanning. The authors put forward a definition that specifies both the stakes and sub-themes of surveillance. They show how and why interorganizational sustainable scanning is built and implemented in the *PRIDES*, regional relay structures, the end goal of which is to favor innovation, cooperation and mutualization of means and competencies between companies in the same territory and same business sector. Along the way, they specify certain difficulties encountered by the players involved when taking on board the notion of sustainable scanning and translating it into concrete actions and devices.

The four following chapters explore the concepts, tools and methods that could be useful to players wishing to develop their sustainable scanning ability. These chapters all try to offer a few answers to the question “how can we carry out sustainable scanning?”.

Chapter 7 suggests using the *greenhouse gas report* as a tool to fight climate change. Odile Blanchard shows how the *inventory of emissions of greenhouse gases*, initially conceived as a *reporting* and diagnostic tool, can also be a useful source of information for sustainable scanning. This is the case both internally, for the entity that is building it, and externally, for the entities that are seeking information on emissions and what actions their competitors and partners are taking to tackle climate change. Implicitly, this chapter raises the issue of the usage, appropriation and new uses of current management tools in a process of sustainable scanning and anticipation. It also raises the issue of identification of useful and perhaps specific sources of information for sustainable scanning.

Chapter 8 deals with the *targeting* of sustainable scanning when its objective is to favor the global understanding of complex phenomena in order to develop the ability of organizations to anticipate and construct new solutions and strategic pathways for the future. Nathalie Fabbe-Costes, Christine Roussat and Jacques Colin suggest a processual systemic approach to help people define and isolate the field of investigation for sustainable scanning and identify the associated information to transform them into *intelligent products*. This is in view of building a vision of the future that guides strategic coordination and collective action. The authors base their methodological construct on their experience in the logistic and *supply chain* domain, labeled as one of the main causes of greenhouse gas emissions and global warming. Implicitly, this chapter shows that the strategic scanning and local

solutions are no longer adapted to address the complex task of global warming. New management tools must be thought of, implemented, and built to apprehend this complexity and suggest more relevant solutions to reduce greenhouse gas emissions throughout the lifecycle of products.

Chapter 9 deals with the anticipation of unknown and unexpected risks, which forecast and “classic” risk analysis tools do not always detect. Nicolas Lesca suggests a theoretical and conceptual framework for *strategic anticipative strategic scanning* that is based on the detection of *signals* and (*warning*) *signs* – sometimes weak, but early – that can manifest themselves in the peripheral vision of people. With the help of many examples, the author shows that *actions*, *events* and their possible *impacts* are often manifested by natural signs and human signals that are qualitative and sometimes not linguistic. The author pays special attention to the need to develop the people’s ability to perceive these clues and question their significance in order to explore the field of *possibilities* that they could reveal. This chapter raises the issue of individual and collective competency, heuristics and the management tools that need to be identified and built with the aim of developing people’s perceptive ability, to interpret signs and make sense out of them in order to anticipate and act *before the fact*.

Finally, Chapter 10 deals with the detection and use of sporadic information, some of which can be in the form of weak signals, playing the role of stimuli causing the construction of an anticipative vision of the future. Humbert Lesca presents two stages of an *anticipative strategic scanning* device in *warning mode* – the preparation of information and the *collective creation of meaning*. The aim of this is to begin a collective discussion in a field that is still unclear and uncertain, with a view to seeing a new strategic axis of innovation. The author illustrates this approach for the issue of *green/sustainable chemistry*, in the context of an organization that is asking itself questions regarding the future of its business and the direction in which it should aim its *governance* for the next 10 or 12 years. He shows that a learning process is necessary to develop people’s ability to detect weak signals that can cause warnings and collectively build meaning based on these stimuli. This chapter highlights the need to conceive new management tools and information systems adapted to support and allow for signal detection in various organizational contexts and the collective creation of meaning. Implicitly, this chapter also highlights that organizations should dedicate time and resources to these stages in the process of strategic scanning if the goal is to develop the ability to anticipate.