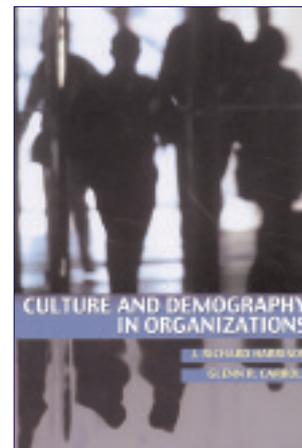


Culture and Demography in Organizations: How Do They Interrelate?

p.2 VIEWPOINT: Culture and Demography in Organizations

Based on the book by **J. Richard Harrison** and **Glenn R. Carroll**, Princeton, 2005, and an interview with J. Richard Harrison



p.5 RESEARCH: Discussion on the Alignment of Corporate Culture

Interview with **Sonja Sackmann**, professor at Bundeswehr University, Munich, Germany, and **Christophe Boone**, professor at the University of Antwerp, Belgium

p.7 TESTIMONY: Defining and Maintaining a Post-Merger Culture

Interview with **Clem Garvey**, Managing Director of NRG France SAS



Key Ideas

There have been some new developments in research into corporate culture. Two Americans, a mathematician and a sociologist, have developed a mathematical model that makes it easier to understand the complexity and dynamic of cultural transmission. They have used simulations to examine how a company's socialization processes and its demographic flow, i.e. employee turnover and recruitment, may affect corporate culture.

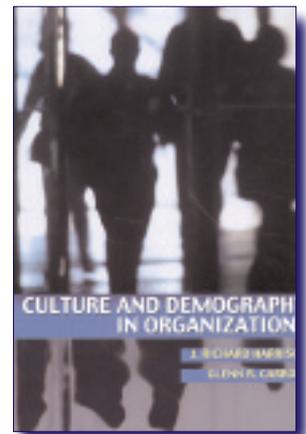
Their demonstrations have provoked a discussion on the role of corporate culture. In a joint interview, European professors Sonja Sackmann and Christophe Boone discuss the importance of aligning and homogenizing corporate culture to ensure performance.

There is a time in a company's life when its culture is in danger and anticipatory measures have to be taken – a merger. Clem Garvey is the Managing Director of NRG France, a subsidiary of Japanese manufacturer Ricoh and the fruit of a 2000 merger of Gestetner and Nashuatec. He re-examines the efforts undertaken to guarantee a strong, new post-merger culture.

Culture and Demography in Organizations

VIEWPOINT

How and why does a company's culture evolve over time? Many factors are involved and they closely interrelate in a complex manner. Harrison and Carroll have sought answers to these questions in a very straightforward manner, using computer simulation based on a new and more dynamic model of cultural transmission.



Glenn Carroll and J. Richard Harrison are specialists on cultural maintenance and transmission in organizations; the subject has been the focus of their research for fifteen years. They have developed a mathematical model to illustrate how culture is transmitted in a social aggregate. In their book, they emphasize that "an organization's culture is, quite surprisingly, very static. The purpose of our model is to figure out why a corporate culture remains stable despite rapid and

constant changes in the environment in which the company evolves". Carroll and Harrison's work is not directly aimed at helping managers who are having trouble managing their company's culture strategically, meaning those who are having difficulties understanding how culture works and how it can be levered to increase performance. The two researchers have a purely scientific interest in the subject. Still, they have produced a mathematical model that gives us insight into the inner workings of group culture (in the broad sense), and they thus provide readers with a vast array of possible applications, particularly in the field of microeconomics.

The Authors



J. Richard Harrison is a mathematician and physicist by profession. He has been teaching strategy, organization, and international management at the University of Texas at Dallas School of Management since 1985 and has been a visiting professor and visiting scholar in numerous countries (Korea, the Netherlands, Russia, etc.). He has written an article entitled "Simulation Modelling in Organizational and Management Research" that will appear in the next *Academy of Management Review* (issue 32).

Glenn Carroll teaches sociology at Stanford University. He is co-author with M.T. Hannan and L. Polos of a book entitled *Logics of Organization Theory*, which will be published in 2007 by Stanford University.



PRODUCING A MODEL OF CULTURAL TRANSMISSION

In the 1980s, J. Richard Harrison and Glenn Carroll started channelling their efforts into conducting research to produce a new, less static approach to corporate culture. At the time, there was a tendency for researchers to think of organizations as closed systems and to analyse their culture solely according to what happened within the confines of the organization. But the two American researchers discovered another important – and until recently, largely ignored – factor that seriously influences corporate culture: demographic flow. This term refers to employee movement into and out of a company. How can a company maintain its culture over the years when there is continual movement among employees?

An original representation (see the model, opposite)

Corporate culture is represented in terms of management's cultural preferences. Each member of the organization receives a score for "cultural compatibility" that is based on his or her ability to conform to the standards laid down by management, i.e. whether or not he or she has team spirit, is innovative, aims for high performance, and so forth.

An original model

The authors have produced a model that specifically details the functions of entry (recruitment), departure (turnover), and

socialization processes within an organization. They draw their conclusions from the complicated and often unexpected interactions between these three processes.

By varying some parameters and making some changes in the model (while retaining its basic structure), it is possible to analyze its implications for different types of organization and envision different growth scenarios for organizations of varying sizes and ages.

USING THE MODEL TO ENHANCE MANAGEMENT PRACTICES
Maintaining corporate culture in the long term

In his interview with Business Digest, J. Richard Harrison explains, "Increased employee diversification has made it increasingly difficult for companies to establish a homogeneous culture. People with different backgrounds have different beliefs, norms, languages, and mindsets, and these diverse factors must meld together and become culturally compatible. In addition, high levels of mobility among these employees make the task of maintaining a coherent culture difficult, because staff retention is problematic, which increases turnover and recruitment rates. Moreover, in some cases, changes in the composition of the employment market make it difficult for managers to find new employees with the right cultural profile".

Reducing costs

The authors do not recommend establishing a clearly defined culture within a company – and some companies do not necessarily even need to have a culture. However, Harrison and Carroll do attempt to encourage alignment between cultural content and set management preferences. They describe tools that are available to management for influencing corporate culture and aligning it closely with managerial preferences. They include incorporating cultural selectivity into recruitment, intensifying socialization efforts, and even encouraging employees who do not conform to company culture to leave the organization. A homogeneous and well-aligned culture may lead to substantial savings in administrative costs, as the organiza-

tion can to some extent "self-manage". Once employees have internalized the practices preferred by management, they are able to work with only minimal supervision. Nevertheless, the advantages of this type of culture need to be considered in terms of related costs.

Targeting fields of action

Harrison and Carroll's model should enable managers and HR teams to identify situations and areas (recruitment, socialization, and/or turnover) which require more or less managerial effort to maintain or influence the culture. To gain maximum benefits from the model, organizations need to develop methods to measure employees' or job candidates' cultural compatibility levels over a period of time. In Harrison's view, "Very few organizations carry out such exercises in a systematic way. When managers are aware of the importance of actually managing corporate culture, they are very often unaware of the techniques at their disposal, particularly demographic strategies".

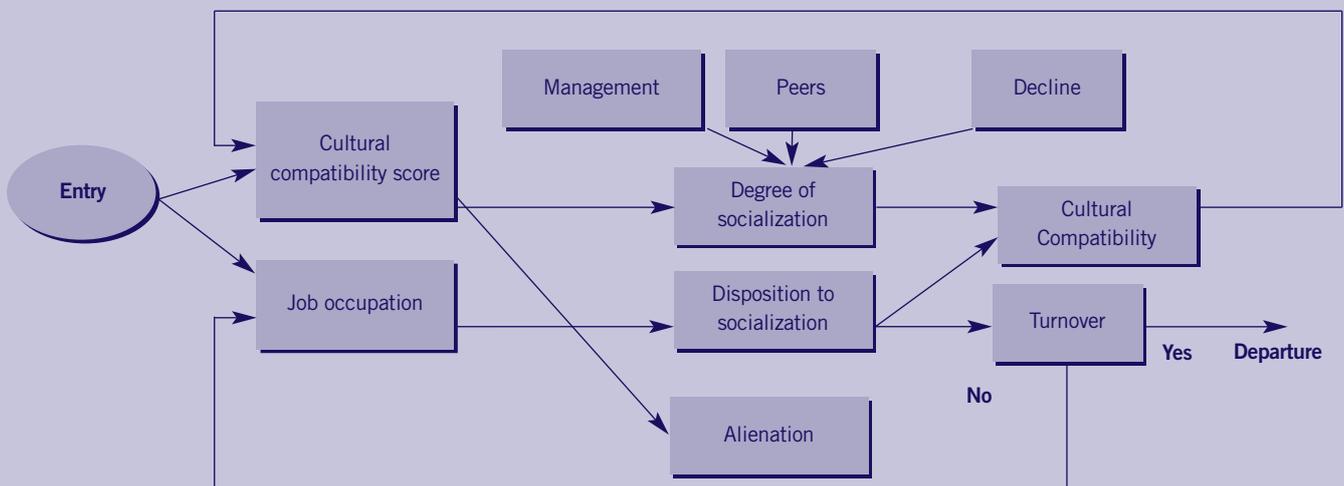
MODEL APPLICATIONS

The model can be used in different contexts to detect the dynamics of corporate culture more efficiently, to intervene effectively to achieve one's goals and, in the event of a merger, to ensure the establishment of a new and durable culture. It is amazing what can be learned from this model. It even provides a better understanding of how to weaken the structure of a terrorist group (see box, p.6).

Achieving a successful cultural merger

The extreme difficulty of integrating two corporate cultures during a merger is no longer debated. But the authors note that post-merger cultural integration projects are generally based on content. They attempt to reconcile cultural elements and involve a great many compromises on operational levels. According to the authors, who advocate a more dynamic approach, this method is very limiting. Firstly, analysis is often carried out in an abstract way, and it remains very difficult ●●●

Diagram of the model



... to determine to what extent a culture can be reduced to elements like how hierarchical an organization is. Moreover, there is no theory to measure the degree of compatibility between two cultures, and judgements are generally based on intuition. Finally, since many cultural phenomena are implicit, social science can only measure the people's reactions when they are changed. So quite logically, the authors suggest studying demographic dynamics to achieve a better understanding of the mechanisms involved in cultural integration.

- Scenario development

What should companies do with regard to demographic flows and socialization processes to reduce risks of cultural conflict following a merger? The authors created a model scenario in which the acquired company has cultural characteristics that are very different from those of the acquiring company. They then observed the effects of simulated variations on the size of the two original companies, and on several of the merged company's parameters: growth rate, recruitment practices, socialization processes, and turnover rate.

- Simulation results

The outcome of the simulations revealed that demographic factors have a strong impact on post-merger cultural integration. More precisely, the new company can prevent cultural conflict by becoming more selective in post-merger staff recruitment. In addition, the new culture appears to be stronger when the acquiring company is bigger than the company that is acquired. Still, the authors emphasize that the very common practice of laying off employees from the acquired company has no impact on cultural integration, provided lay-offs are not based solely on degrees of cultural compatibility.

- Anticipatory action

When it comes to cultural reorganization, consolidation, and changes, the authors stress the need to act very quickly to faci-

litate a merger. During the 2003 HP/Compaq merger, the companies' respective presidents took the precaution of each appointing a senior executive to organize integration a month before the merger was officially announced. These managers set up a joint team of 30 people, whose role was to benchmark the best merger and acquisition practices. In addition, they appointed 650 in-house cultural consultants to work part-time on cultural integration.

A complementary management tool

Carroll and Harrison invite us to reconsider a number of generally accepted ideas. For example, high staff turnover is not necessarily synonymous with a weakening of the corporate culture. The variables that influence corporate culture are numerous and very complicated, and the authors advise us to be wary of cut-and-dried managerial practices that are based on "common beliefs". The two researchers' model enables us to take a further step forward in examining this complexity. They invite us to think of other uses for their model, such as in facilitating a change in organizational culture, as was the case at Texas Instruments after the sudden death of CEO Jerry Junkins in 1996. The model could also be useful for understanding the effects of age, gender, and ethnic diversity on an organization's degree of cultural homogeneity. As Harrison points out, "cultural management is complementary to the management of talent and skills. Understanding the effects of demographic flow will enable managers to make more informed choices about talent recruitment, retention, and development and about knowledge transmission policies". ? ■

Based on Culture and Demography in Organizations (J. Richard Harrison and Glenn R. Carroll, Princeton, December 2005) and an interview with J. Richard Harrison

Fighting Terrorism

Carroll and Harrison first applied their model in 2002 to a very topical subject and with a specific goal – understanding how to defeat terrorist organizations. A terrorist group is a social aggregate just like any other organization and would not survive without a culture. Understanding how such groups maintain and transmit their culture has enabled the two researchers to suggest highly sophisticated plans of action to be used to erode the cement that binds the group together.

Thanks to their model, Carroll and Harrison are able to understand how terrorist organizations recruit, train, and maintain the devotion of their members over time.

The researchers' conclusions certainly worried some of the American Department of Defence officials who had called upon their expertise. Not only did eliminating some of the cells in a network have no impact on the network's overall strength, but killing their leader had no effect on the network's operating ability either. Just as company leaders may

be replaced in a micro-economic environment without endangering the organization, a terrorist leader could also be immediately replaced.

However, increasingly neutralizing terrorist cell members over a long period of time appears to be a much more effective way of weakening a group. The model also suggests that delaying the admission of new members is a good way of destabilizing the organization.

But in spite of these two strategies, the model does in fact show that terrorist networks do generally succeed in retaining their operative capacities sufficiently to carry out successful operations.

The groups are strong and difficult to defeat. Dealing with the motivations behind terrorism and its root causes-- not its results-- remains the most effective means to combat these groups.

Should Corporate Culture Be Subject to Alignment?

Interview with **Sonja Sackmann**, professor of organizational behavior, University BW Munich (Germany) and **Christophe Boone**, professor of organizational theory, University of Antwerp (Belgium)

Richard Harrison and Glenn Carroll's thought-provoking book is an invitation to delve more deeply into the subject of corporate culture. How is it linked to performance? How important is it to have an alignment between the corporate culture and business units' specific sub-cultures? How realistic is the notion of a coherent corporate culture in an ever more global environment where diversity is increasingly valued and sought after? Two European researchers debate these issues.

Is there truly a link between corporate culture and business performance?

SS: A growing body of empirical research indicates links between corporate culture and business performance. Most studies can, however, not be directly compared since they use different ways of measuring culture and business performance. (e.g., Sackmann, S. (2006) *Assessment, Evaluation, Improvement: Success through Corporate Culture*. Gütersloh: Bertelsmann Stiftung). For example in a recent study by Eric Flamholtz (2005), a business unit whose culture was closest to the strategically desired outperformed other units who showed a larger gap between current and desired culture. Leadership seems to have an indirect influence on performance: it influences employees' identification with their company and thus impacts performance. However, other studies have shown that company members have a strong tendency to reproduce actions, processes, and behaviors "that work". These successful actions are repeated which may have, on the long run, a negative effect on performance. Several examples exist of firms who were praised for their culture ran into problems some years later. To sum up, there is a link but this link is rather complex and dynamic.

CB: This relationship is actually quite complex as there are many aspects of culture that may be studied and compared with organizational performance levels. For instance, cultural content (i.e. the norms and values the company has chosen, promoted, and nourished), or its strengths and weaknesses (Is it more or less consistent throughout the organization?). In addition, recent research of Jim Baron and Michael Hannan (Stanford Project on Emerging Companies) reveals that different types of cultural configurations can lead to acceptable organizational performance. Important, however, is that these cultural blueprints should be internally consistent. What this project also makes clear is that firms that change their blueprint pay a heavy price.

SS: I agree that context plays an important role. For example, in highly bureaucratic environments, focusing on innovation is not going to contribute to improved performance. If ●●



Sonja Sackmann is a professor of organizational behavior at the University of Munich and director of the school's Institute of Human Resources and Organizations Research.

Christophe Boone teaches organizational theory and behavior. PUniversity of Antwerp.

there is a large discrepancy with what the outside context calls for, cultures that you would expect to generate top performance may support the opposite.

CB: The context indeed matters too. This is underscored by a recent study of Jesper Sorensen showing that in relatively stable environments, strong culture firms have more reliable (less variable) performance. In volatile environments, however, the reliability benefits of strong cultures disappear.

Rather than the composition of the organizational culture, does its degree of alignment within a company improve performance?

SS: As Collins's research on companies that made the "leap" from not so good to great and lasting performance showed, alignment with the purpose and goals within a company is crucial. Achieving this alignment is all the more difficult in large organizations operating at a multinational level, ●●

••• where sub-cultures necessarily emerge. In this case, the top management needs to make a conscious choice about what should be observed in different locations to keep the identity of the firm and in which areas they allow for cultural variations and adjustments to local specifics.

CB: Everything depends on the organization's corporate strategy. If large companies want to promote synergies between business units they should make a point of taking advantage of a common corporate culture. And in cases of mergers and acquisitions, as soon as a merger has gone through, management should implement personnel selection, retention and socialization processes to ensure the stability of the organizational culture. If this is not done immediately, the two entities in question may fail to truly become one.

SS: The question could be asked in this way: Is the existence of sub-cultures harmful to group culture or performance? It all depends on how much these sub-cultures interact with one another. For example, in a holding company, separate business units may not have a need to communicate, so differences between their respective cultures is insignificant. However, in a company where R&D and marketing divisions each have their own culture and are unable to speak a common language, performance is bound to suffer.

So to what degree should an organization aim to a homogeneous corporate culture?

SS: Several studies have shown how difficult it is to change a person's values in adult age. It is easier to hire for the "right" values and to place then strong emphasis on the socialization process, especially for people in management positions. It is hard to hire outside people for upper management positions, because they already have ingrained values. At NovoNordisk, a pharmaceutical company, the word goes that you can always fail on the business side, but never on the values side. And there are several examples of firms that place conscious effort on the culture aware management that they have let qualified people go because they did not behave in line with the desired culture. In other words, it is more important to ensure cultural compatibility between people and their firm than skill matches.

CB: I have studied the changes in the demographic composition of the top management teams of the five largest Dutch newspaper editors in the period 1970-1994. We found that these teams select new managers that have similar characteristics compared to incumbent members, whereas dissimilar managers leave first. Apparently, these teams tend to reproduce their demographic composition over time. The end result is that the top management teams became more homogeneous over time. Although a certain level of homogeneity might be beneficial in the short run, it is, however, likely to undermine performance in the long run.

SS: Furthermore, interviews with 50 top managers of American corporations on the issue of managing complex situations showed that they sought to hire people with different backgrounds, but who shared the same "philosophy" and were no yes-sayers. That is, people's willingness and ability to express their open opinions—even to supervisors—was also

taken heavily into consideration. One crucial factor for success is an organization's learning ability and a culture that allows for and encourages free expression and constructive criticism. In addition, it is essential to support teams composed of members who come from different backgrounds. For example, I have worked with project teams with members from the same company but with different professional backgrounds. So even if they used the same language, they did not necessarily raise the same issues.

CB: It is important to mention that different types of diversity have different effects. Team research shows that surface-level differences such as age, gender, and ethnic background might hamper team effectiveness, but that such effects disappear relatively quickly if people have the opportunity to get to know each other and to communicate. In contrast, the negative impact of deep-level differences (such as values and personality) tend to increase over time. Overall, teams should be composed of people with different expertise and knowledge, but should be homogeneous with respect to values and personality.

SS: Nevertheless, in the long run, interaction is not enough to make people abandon their prejudices. Once again, people and teams may need a significant amount of support to explore differences in order to use them constructively.

Is it harder for multinational corporations than others to achieve the right degree of cultural homogeneity?

SS: Multinationals absolutely must define what they want to preserve on the global scale and how much freedom to adapt they will allow on local levels. This is a strategic question and choice. At companies in which culture is seen as important, members of the management committee are seen as "ambassadors" of the corporate culture. They travel around to different locations of the firm and make sure that people understand the intended meaning of, for example, the firm's corporate values. This is especially important in an international context since words may carry different meanings from one country or culture to another.

CB: Every person and every sub-group has its own values, which are extremely hard to change. A CEO who travels around cannot spread his or her or enterprise values, but he or she may be able to promote the adoption of certain behavioral standards. In a multinational corporation, I do not think that there can actually be an "organizational culture", strictly speaking. At most, it may have an identity. It is impossible for people belonging to the more moderate ranks of the hierarchy to identify with corporate headquarters! There will always be tension between centralized intent and local realities!

SS: Sub-cultures naturally form wherever there are organizational intersections (functional, departmental), and every organizational member is usually carrier of multiple identities.

CB: Identifying with a group is a very powerful human inclination, but organizations are sometimes responsible for generating disproportionate feelings of "local" belonging to subgroups. Not only multinationals but also all large companies should adopt structures or designs that will motivate their members to transcend their attachment to sub-groups if synergies need to be realized. Internal cooperation makes an excellent starting point! ■

Defining and Maintaining a Post-Merger Culture

Interview with **Clem Garvey**, Managing Director of NRG France, SAS

Defining and maintaining a post-merger culture is a truly challenging task. Clem Garvey, managing director of NRG France, knows a thing or two about the subject. And he managed quite brilliantly to overcome the obstacles. He describes the procedures he used to ratify and encourage social cohesion within his company.

NRG FRANCE – THE FRUIT OF A SUCCESSFUL MERGER

“In 1999,” relates Clem Garvey, *“when I was appointed managing director of Gestetner and Nashuatec, my mission was to oversee the merger of the two companies”*. The companies were highly compatible in terms of distribution networks and clientele, and both had the same logistical, technical support, and marketing requirements. *“The resulting entity – NRG France – was destined to become the leader in a market that was emerging at that time, which was the meeting point between office equipment and information technology,”* Garvey continues. Today, NRG France’s financial results are an eloquent testament to Garvey’s successful approach to his role as merger orchestrator. With a 336 million euro turnover in September 2006, (compared with the two companies’ combined turnover of 120 million euros at the time of the merger), the NRG France Group now caters to 75,000 customers and is the third most successful group in its market. Garvey insists on the importance of creating and maintaining a shared culture, emphasizing that both of these actions are vital to success.

CREATING A LASTING POST-MERGER CULTURE

For NRG France’s managing director, *“growth and innovation”* are the two watchwords. Garvey explains, *“The resulting entity should be a vehicle for growth through its new offer and clientele. We also believe strongly in the importance of ongoing innovation, which can be achieved through new technological solutions, sharing ideas, and strategic alliances.”* It was two years before Garvey was able to experience the satisfaction of seeing NRG France’s workforce embrace this new culture and cast off their *“original identities”* forged at Gestetner and Nashuatec. Garvey readily admits that the road to cultural cohesion was a long one. How was the culture for the new entity actually established?

• Communication and proximity

Clem Garvey insists that *“during a merger, clear and transparent communication is one of the driving forces that motivates the troops. And this communication is also the vehicle for passage into a new culture.”* From the start of the merger, NRG France wanted to involve the workforce as much as possible, so it carried out an internal communication campaign that prioritized proximity. For example, documents were sent directly to workers’ homes; posters were put up in every office to spread the message about the new company’s values; festive celebrations were held for all the workers at headquarters, including – with a nod to the managing director’s Irish background – St. Patrick’s Day! And last but not least, Garvey made a point of holding separate consultations with each and every team.

• Reinvesting expended resources in staff development

Clem Garvey emphasizes that *“fortunately, shareholders agreed to plough back the initial fruits of the merger into the company and into the development of its human capi- •••*



Irish-born **Clem Garvey** graduated in business and management from the University of Dublin. After launching his career at KPMG Peat Marwick, he became corporate finance manager at Willis Faber PLC, London, where he remained until 1991. He went on to join the Gestetner group, where he was initially given the responsibility of running the finance division before moving onto European development. In 1994, he was appointed finance director of Nashuatec Belgium. He came to France in 1995 to take up the position of deputy director-general and operations director for Gestetner France, SA (Ltd). In April 1999, the shareholders voted him in as managing director of Gestetner France and Nashuatec-NRG France. Clem Garvey was appointed managing director of NRG France in 2001, and since March 30, 2005, he has been managing director of NRG France, SAS and of Rex Rotary France, two of the 318 wholly owned subsidiaries of the Japanese constructor Ricoh Company Ltd., which has a 76,100-strong international workforce and reported a 12.8 billion euro turnover in 2005.

“During a merger, clear and transparent communication is one of the driving forces that motivates the troops. And this communication is also the vehicle or passage into a new culture”.

- *tal*”. NRG France invested heavily in HR to introduce a four-part philosophy:
 - **Competencies:** Hire people with new skills so as to be able to access new markets.
 - **Training:** Fully train all technical, administrative, and commercial team members in the latest technologies.
 - **Equipment:** The new group benefited from a new ERP (Entreprise Resource Planning), which involved setting up computing resources and establishing a new call centre.
 - **Motivation:** This was achieved through a range of positive measures, such as arriving at a favourable agreement over the 35-hour working week, maintaining existing benefits, and excluding any wage cuts. All these benefits encouraged the staff to associate the merger with an improvement in working conditions.

IMPLEMENTING THE WATCHWORDS OF CORPORATE CULTURE

Clem Garvey is categorical. *“There is a direct link between performance and culture.”* This point is well illustrated by his successful handling of the merger between Gestetner and Nashuatec. The workforce’s cultural development was linked to operational success and the establishment of a new organization. And cultural coherence, in return, promoted operational excellence. Post-merger, the culture of performance and innovation is perpetuated principally by:

→ **Inclusive work processes.** *“Growth results mainly from alliances and purchases,”* explains Garvey. *“In July 2005, we bought up the French subsidiary of the American group IKON.”* Now in its integration phase, the company has mobilized 73 people in 8 think-tanks that include IT, HR, sales, after-sales service, etc. All of them represent opportunities to create common philosophies, cultures, and habits. The operation of integrating the subsidiary IKON was called *“Connecting Forces”*, and the role of HR was particularly important to ensure that human sensitivities were taken into consideration. *“The HR department,”* continues Garvey, *“is the very “cement” that facilitates the attainment of all our goals”.* Great tact was required when implementing changes. For example when it came to renaming IKON France (which was a contractual obligation), NRG France chose the name that the subsidiary itself used and which described its operations: La Réseautique (*“Networking”*).

→ **An appropriate organizational structure.** NRG France’s culture of innovation is nurtured by four or five units, each of which is dedicated to developing a particular market approach. *“For example,”* Garvey explains, *“one of these units was behind the setting up of ‘Pay Per Page’ in 2000. This system enables companies to control all their administrative costs. We have since implemented a joint venture with another company. Thus, internal divisions and the resulting synergies are a direct organizational reflection of our culture.”*

→ **Tools designed to communicate company goals clearly.** *“On each wall, we post red lines that reiterate, in a simplified way, the main points of a Balanced Scorecard: shareholders, customer satisfaction, processes and yearly investment. And on the Intranet, each team’s KPI (Key Performance Indicator) is represented on a band and can thus be followed in real time,”* explains Garvey.

→ **Development capacity.** *“Given current demographic realities, we are anticipating many retirements. When our head of general services retired, I asked myself how we could preserve the benefits that his personality and his values – availability and commitment – had brought to our culture. When someone leaves or joins the company, it is better to focus on their personality rather than their job title. As far as recruitment is concerned, the human capital value department is aware of what the company seeks and instinctively encourages hiring people who are most suited to our corporate culture. The task is a little more complicated when it comes to departing workers, because right now we have not sufficiently anticipated the potential cultural consequences of an individual’s leaving our company. Our culture has consequently been threatened by departures or arrivals in key positions which have been detrimental to the culture rather than value creative. Whilst people may help company culture to grow, they may also harm it.”* Garvey is realistic but not pessimistic. He favours a company culture based on non-negotiable fundamentals which is also able to adapt and evolve in order to increase its potential”. ? ■