POLES OF COMPETITIVENESS : LABORATOIRIES OF INNOVATION IN HUMAN RESOURCES?

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Summary:

Officially labelled in France during the summer of 2005, the poles of competitiveness bring together, in more than 30 geographical territories of the French national territory, corporations, universities, research institutes and local collectivities around a local innovation dynamic at both the national and international levels. Presented as a new form of industrial organisation, are these poles already producing new types of practices to facilitate working together? Will they necessitate or contribute to the development of new human resources management techniques while, at the same time, constituting social innovation laboratories? First, an overview of the current situation will compare the poles of competitiveness to the clusters, already well analysed in the literature, in order to induce potential human resource management (HRM) issues. A review of an inter-corporation cooperation experience, which served as a reference in the emergence of the poles of competitiveness, will then reveal the tensions existent in the existing HRM practices, and pleads for the development of new practices. An exploratory study of the actors of a pole of competitiveness currently under construction will show the differing perceptions of the HR issues, and also the need for social innovations.

Keywords:

Poles of competitiveness – cluster - innovation – HRM models.

Introduction

July 2005: the French government publishes the list of the 66 *"poles of competitiveness"*, destined to encourage innovation in the heart of what French citizens refer to as the "Hexagon"—our national territory—particularly those innovations on which the state wishes to concentrate its subsidies. Pulling together companies, universities, research laboratories, not to mention local collectivities, these poles are often presented by the public authorities as structures adorned with all virtues: they enable a better integration of industry,research, and education, while generating more patents, job creation, and industrial competition internationally. Some are already describing them as an original model: "[it is a matter of] *a method of decompartmentalisation of the French system (…) to produce new opportunities together (…) I think that the model that we have thus created is unequalled throughout the world."*[1]

Obviously, one must rejoice at such an initiative. However, such optimism often leaves the researcher dubious and perplexed. Dubious because the celebration of this alleged new form of organisation does not allow one to forget the diversity of the horizontal forms of inter-corporate collaboration already well tested such as industrial districts, or local production systems on which we dispose of a number of studies, some older, [Vidal, 1990] and other more recent [Huault, 2004; Gruber et al., 2005]. Do these poles of competitiveness really constitute a new form of industrial organisation? A researcher in human resources management (HRM) is equally perplexed: on a human and social level, maintaining partnerships between organisms as different as public administrations and private enterprise constitutes a formidable feat. Better combining the resources of a territory in order to render it capable of innovation: this challenge seems at once societal—involving economic issues for French society— managerial, in that it carries the seeds of new practices in management and human resources yet to be developed, and conceptual – inviting us to create pertinent categories of analysis to develop a reliable knowledge base of this reality which is currently coming into being.

In order to pass from this intention to its concrete realisation, are the actors of the poles of competitiveness building a new economic reality, different from districts or other *"clusters"*? Must they invent a new form of HRM, adapted to the contours of the heterogeneous groupings that constitute the poles? In adopting an exploratory perspective, we propose first here an analysis of the 'state of the art', allowing us to reconcile the poles of competitiveness with the existing cluster, already analysed in detail in the related literature, in order to induce the potential issues for the field of HRM (1). By using a re-evaluation of an inter-corporate cooperation experience, which previously served as a reference for the emergence of the poles of competitiveness, we may then be able to observe that, over and above the structure of common practices, tensions remain in the confrontations between respective HRM systems (2). A survey of the participants in a pole of competitiveness currently being developed will bring to light that, despite unequal perceptions in the field, a real need for social innovation exists (3).

[1] Interview with Nicolas Jacquet, General Director of the Paris Chamber of Commerce, as cited in *Le Monde,* 'Economie' supplement, Tuesday November 22, 2005.

1. Poles of competitiveness: an evolved form of the "cluster", purveyor of potential HRM issues

It would be suitable to begin by better understanding the concept of the French poles of competitiveness, notably in relation to other forms of collaboration already identified (1.1) In light of the literature on the *"clusters"*, we can discern, for these poles, several human and managerial issues (1.2), that must be studied in more detail in order to gain a more detailed understanding of the HRM issues in the strictest sense (1.3).

1.1 You said "pole of competitiveness"?

In December 2002 an inter-ministerial committee on the zoning and development of territory, in the perspective of bolstering the French economy and fighting against what the French call 'delocalisation' or job flight, proposed the concept of poles of competitiveness. These poles are a combination of companies, educational centres, and public and private research units in a given geographical space, committed to working together within the same structure in order to extract synergies around common innovative projects, particularly those disposing of the critical mass necessary for international visibility. A call for projects was launched in November 2004: 105 projects were proposed during the following spring. Finally, 66 poles were officially established by the public authorities, among which were six global projects, and nine with global ambitions, in diverse activity sectors: agribusiness, biotechnology, software, micro techniques, energy, chemistry… These poles actually existed prior to receiving the official 'pole' label and the subsidies granted reflect more of a local dynamic towards economic cooperation than a pre-condition for their existence. .

Officially, these poles of competitiveness are presented as an organisational innovation, a model that *"differentiates from 'American clusters' and Italian districts by their global approach aimed at associating all of the players, without exception, in a voluntary method based on an industrial theme"*[2]. An examination of the literature permits a more nuanced proposal, situating the poles in relation to three other major types of inter-organisational collaboration: the "clusters", the local production systems, and the industrial districts. As described in table 1 below, two analysis criteria can be brought into inquiry: "is the collaboration recognised and reinforced by the intervention of the public authorities?", as well as "are the participants involved only companies, or does the collaboration extend to other types of partners, notably academic partners?" Depending on the answer:

- The industrial districts do not regroup companies alone and so are not necessarily granted the 'pole' status by the public authorities. This concept dates back to Marshall [1920] and insists on the spatial dimension; that of a territory in which a strong relational proximity exists [Zimmermann et al., 1998]. The fact remains that, in the heart of the districts, the most famous being those in the clothing sector in the North of Italy [Vidal, 1990], firms can be complementary as well as competitive [Mendez, 2005];
- The local production systems also include firms but are supported by the public authorities in view of sharing resources. The delegation for territorial zoning and regional initiatives (the DATAR) has characterised these systems since 1998 as: a geographical concentration, specialised around one profession, and the cooperative actions, in particular in the field of the education and the development of know-how [Pecqueur, 2005], and more generally in the field of the collective human resource management[CDIF, 2005];

[2] Interview with Nicolas Jacquet, ibid.

- Concerning the *"clusters"*, their configuration consists of diverse partners whose concentration is not necessarily publicly subsidised . Doeringer and Terkla [1995] defined them as geographical concentrations of industries which draw on the advantages of the identical implantation; but it is Porter who, while popularising this notion, revealed the variety of the committed partners' natures, *"Interconnected companies, specialised suppliers, service providers, firms in related industries, and associated institutions (for example, universities, standards agencies, and trade associations) in particular fields that compete but also co-operate*" [Porter, 1998]. Even if they vary dramatically in size, sector, or mode of development, [Rosenfeld, 1997], the functioning of these "clusters" relies on an important relational dimension.

Table 1: Poles of competitiveness, a form of inter-organisational collaboration

	The collaboration is first desired by the actors themselves (vocabulary and industrial registers)	The collaboration is recognized and reinforced by public authorities (vocabulary and register of public action)
The partners are only firms	Industrial districts	Local productive systems
The partners are a variety of organisations: companies, universities, etc	"Clusters"	Poles of competitiveness

1.2 "Of Clusters and Man" : numerous human and managerial issues

Considering that, in France, the poles of competitiveness were not born *ex nihilo*, but from existing economic cooperation dynamics; we can consider them as an evolved form of a "cluster": put otherwise, "clusters" that have received the approval and support of the state, which asks them to adopt a specific type of governance. Thus, the "clusters" rely, as we have seen, on a strong relational component: what can we learn from the literature that has been dedicated to the related human and managerial issues?

These issues are well addressed by researchers but rarely directly, because their work is focused, above all else, on the determinants for their competitiveness and creative dynamic. In terms of the clusters' sources of competitiveness and the reasons that push firms to occupy the same territory, the identified mechanisms appear to rely on their proximity, their concentration, and sometimes their diversity. When innovation is at the heart of the firms' competitiveness, the production, the transfer, and the integration of knowledge are at the core of the analysis. The central idea is that innovation triggers tacit knowledge, which lends poorly to the codification necessary for its proper circulation. It must be apprehended in its context and is dependent on the person who created it [Mahoney and Williams, 2003]. Proximity and concentration facilitate the circulation of minimally formalised knowledge [Dahl and Pedersen, 2004], through the mobility of engineers and researchers, and through the constitution of *"epistemological"* communities [Hakanson, 2005] or *"of practice"* [Bernasconi et al, 2004]; that is to say, sharing interpretive codes or even concrete work situations.

When they study the dynamic of clusters' constitution, researchers show that the forms of competitiveness change with the company's life cycle and that the reasons that prevailed over its establishment can disappear. For example, Powell et al [2002] underscore the provocative role played by the simultaneous presence of research centres and venture capital firms in the biotechnology *"clusters"*. For Almeida and Kogut [1999], the *"clusters"* form attractive

markets that favour the implantation and the transfer of knowledge between firms through the recruitment and the circulation of researchers. In any case, the constitution of a network of economic exchange is embedded in a social network that limits and supports it [Barabel et al, 2004; Ferrary and Pesqueux, 2006].

The human dimension is thus well identified through the knowledge and the networks in this literature. However, this dimension does not directly address HRM issues. Undeniably, there are numerous articles that address innovation and HRM issues in enterprises engaged in *"clusters"* [Picq and Langevin, 2000], but in this case the latter is considered as a simple context variable. Science Direct does not identify any article in its database corresponding to the keywords "*cluster"* or "*Human Resource Management"*. Mendez [2005], for example, refers to HRM, but in a relatively marginal manner. She shows that, using the example of the French city of Grasse and its perfume industry, the competitiveness of companies in 'clusters' passes, as now, through a phase of pooling of research and development efforts as well as a formalisation of knowledge and competencies, while, just a few years prior, the individual management of innovation grounded in the mobilisation of tacit local knowledge largely sufficed.

1.3 Poles of Competitiveness : real HRM issues

If, then, an efficient *"cluster"* cannot exist without taking into account the human dimension, we can consider that, *a fortiori*, for those poles of competitiveness having opted for governance, this human dimension, and more particularly HRM practices, have to contribute to the proper functioning of the collaboration and synergies between the partners. Thus, even if specific literature on HRM for poles of competitiveness does not yet exist, public authorities and local collectivities have started to elaborate more on the form that should be taken by a large scale cooperation's social management..

One of the eight proposals presented by the DATAR in its 2004 report on the new territorial industrial poles of competitiveness policy specifically addresses this question (DATAR, 2004, p.115). Four main axes of development were identified:

- Encouraging anticipatory recruitment plans : all of the participants within the pole – the National Education public service, the employment public service, the organisers of the pole and the companies – should concert in order to deal with eventual instabilities of the labour market (local market and employment offers);

- Generalise collective training: the training organisms must be able to accompany the poles' development,

- Collectively manage human resources within the network: the necessity of a concerted human resources policy in terms of training, intra-pole and inter-participant mobility is underscored. Public incentives could support these initiatives,

- Encourage common structures: groupings of employers, economic interest groups and joint property companies… The recruitment of shared time salaried employees (for example for those highly-specialised employees in the areas of environmental technology) is a potential solution to be considered. Joint production or service companies can also be encouraged.

However, several difficulties were also identified by the DATAR. The mutualisation of human resources is, today, impeded by legislation which is cautious in terms of what could be perceived as 'lending' out labour. An additional concern is posed by the broad discrepancies between what is called in French the 'collective convention'—employee statues which are

collectively written on a per company basis and which vary greatly between companies existing within the same labour basin. These two subjects should be the object of discussions between the social partners and should lead, if deemed appropriate, to the modification of current legislation in effect. In addition, the organisations that represent the employees are not associated with the constitution of project dossiers for poles of competitiveness; whilst, for the complete mobilisation of the workforce, a clear understanding of the issues by these organisations is necessary. Finally, the competitiveness of the poles rests on their capacity to attract internationally renowned researchers to meet the needs identified conjointly by industrial players and research teams. The comparative salary base in France for these highly-skilled professionals is considered to be an additional impediment.

A need to structure and put into place an appropriate HRM that allows the collaboration to work, but also significant challenges to surmount in order to do so: thus is the social equation that must be resolved by the actors and organisers of the poles of competitiveness. This is even more important if one considers that the affected organisations use, from the start, very different HRM models [Pichault and Nizet, 2000]: How, then, do employees of small companies who practise under an arbitrary model, work together with large firms who run on a more individualising model, and public organisms that function on an objectivising model? Will the actors – salaried employees, managers, human resource staff – succeed in accommodating these differences? Must they build a specific HRM model?

2. The lessons of a great industrial alliance: common practices and tensions in HRM practices

The French poles of competitiveness appear to be a new manifestation of the American "*clusters"*: They are structured as much by local initiatives as by the good will of public authorities; they include non industrial partners such as universities and research institutes*;* they progressively adopt an identified and formalised form of governance. In this context, can HRM content itself with local arrangements, or does it have to formalise in a specific manner?

Since the poles of competitiveness have been under construction for only a few months, it is difficult for the time being to observe their management and HRM practices. Nonetheless, it could be productive to consider the inter-corporate collaboration experience of *"Future chips project" (FCP)*, that inspired the public authorities to develop the pole concept ; this experience brought together international firms ('multinationals' tout court?) that combined their research and development efforts (R and D) (2.1). In this field, the participants progressively developed common and satisfying HRM practices (2.2), and yet they also face difficulties concerning the existing tension between the two company's very different HRM models (2.3).

2.1 « The Future Chips Project » (FCP) : an experience rich in inter-corporate collaboration, inspiration of the pole concept

The greater Grenoble area is known for its tradition of collaboration between industry, research and education. This tradition began more than 50 years ago on the basis of cooperation between the electricity industry and the local engineering schools, and has since grown with synergies in two key sectors: information technology and semi-conductors. At the heart of the Grenoble basin, a cooperation experience began in the year 2000, and caught the attention of the public authorities, including the President of the Republic, as well as several

Ministers, who have visited the "Future chips project" site. This project brings together three semi-conductor firms: "A", a company already well established in the region, as well as "B" and "C".

Sprouting up from the heart of this partnership are several characteristics that will form the concept of these poles of competitiveness. First, one encounters the desire to pull together the various participants, who are themselves associated with strong public incentives since the State and the local collectivities have developed a lobby and incentive strategy so that this geographical location be chosen. One finds in addition the overlapping of the industrial and academic players, the presence of numerous doctoral students, the development of research contracts with public laboratories, and the existence of a pilot committee including representatives from the three companies.

The goal of the FCP is to be a *"fablab"*[3], in other words, a research laboratory focussed on a pilot production activity. With the particularly high cost of the investments and equipment necessary for perfecting and producing chips —the cost of just one machine can reach $18 million US—the three companies decided, in 2002, to pool their financial, human and material resources on the basis of an agreement, renewable over the 2002-2007 period. There is no specific legal structure: «A»' 800 employees, «B»' 200 employees, and «C»'s 150 employees remain employed by their respective firms. The leaders of the three companies (general managers and technical directors) define specifications and negotiate the necessary means; each partner has the right to a production capacity in proportion to its contribution, and each reserves the right to develop concepts relative to its specific market specialisation.

Paradoxically, this collaborative experience, celebrated in the financial press, has until now been little studied by researchers. Do the collaboration and the common work models essentially fuse into the new framework, or do they require new formal HRM tools? In order to find out, we focussed our attention on the professional print media available[4], and also compiled the testimony of manager and human resource participants within the three companies (Frame 1).

Frame 1: interviews conducted at FCP

- 3 managers: 2 from «A», 1 from «C»;
- 2 human resource employees: 1 from «B» and 1 from «C».

These interviews lasted approximately 90 minutes and focussed on the function and background of the informant, the projects to which he/she contributed, his/her perspective on the collaboration, and on the role expected of HRM.

2.2 An HRM under construction: progressive formalisation of common practices

Due to the lack of an official legal structure, the engineers and researchers are subject, a priori, to the labour and HRM practices of their respective employer. Even if they formalised

[3] According to Andreas Wild, Research and Development Director at «C» Europe, during an interview in March 2006 for the internet magazine *JDN Solutions*.
[4] From the report « Stratégies d'alliances : quels défis pour les RH ? », *HR Lab Review*, n°9, 2005, p. 8-27 ; « A, B and C invented 'coopétition' ['co-opetition'] », *Entreprise et carrières*, 13 Septembre 2005.

a *"common FCP HR policy"* relative to recruitment, the organisation of labour, career development, ethics and confidentiality and, finally, dismissal procedures, the partners *"opted for simple processes, presenting a 'common basis' for receiving or integration, for example, to which each of the three partners adds its specific needs"* (HR Director, «B»). The evaluation, remuneration and career development practices are, inversely, marked by the management style and policies of the firm of origin: *"Since the alliance is not a joint venture, each partner preserves its specificities in terms of remuneration or benefits, for example*" (HR Director, «B»). How are these different elements experienced on a daily basis? Our interviews with the managers and human resources staff show contrasting perspectives on the perception of positive aspects as well as the negative ones confronted day to day in the field of HRM.

The stated strong points evoke the experience of the salaried employees themselves, as well as the more managerial point of view of the employer. On the salaried employee side, the first general statement is on the reality of the common work experience, at least from what the managers described: *"The Alliance works; it is pretty much a success. There is no difference, on the operational level, between two people from the Alliance, who are employees of two different companies"* ("A" Manager). The concrete work shared in common is visibly facilitated by an attractive, well-managed work environment and working conditions, creating favourable motivational conditions: *"The salaried employees are experts; they have means to work with (…) In December 2005, the Alliance stated its progress on the anticipatory level; we decided to develop continued investment capacities in R & D"* («C» manager). The multicultural character and the diversity of the business cultures present positive sides: *"The Alliance is very enriching from a human point of view, as well as on an interpersonal human relations level"*.

From a more managerial point of view, several virtues are associated with the Alliance partnership:

- The transfer of know-how: *"There have been transfers of competencies between the partners"* («C» HR Director); *"«C» brought its know-how in silicon on isolators, "A" on capacity and power of semiconductors"* ("A" manager);

- a growing confidence and positive pressure on the progressive adoption of good practices recognized by the partners: *"We are trying to put together a working group with the managers in order to elaborate a common culture (…) With time, we are getting to better know ourselves"* («C» HR Direcxtor); *"A mechanic pressure effect exists on the part of the salaried employees in terms of good practices observed in the two other Alliance companies"* («C» manager);

- a synergy and complementarity originating in human resource practices. Equally observed in the recruitment practices: *"We divide up the profiles to be recruited (…) The Alliance permits a better division of labour"* («C» HR Manager).

We are definitely faced with a case of partnership where the accent is placed, first, on technical cooperation and knowledge management. Yet over and above these recognized virtues, what are the HRM difficulties faced by the HR managers?

2.3 Contrasting each partners' HRM model

Despite these advantages, managing collaborative project's various participants on a day to day basis is not always easy. Even though we were not able to interview the engineers and the technicians themselves, our interviewees pointed out several difficulties. Three difficulties were brought to light in particular: the negative perceptions which develop when one compares the general relation to labour; the persistence of the differences in each employer's management styles; and the problems of intercultural management.

The first difficulty is the existence of frictions that emerge between the salaried employees of the three firms, caused by the differences identified in the employee/employer relationship. The employees exchange information on their pay and note gaps existing between salaries: "We discuss our salaries and we know that there are gaps, no doubt to the tune of 10 or 15%. *(…) Between engineers, and more specifically between young engineers, there are no taboos."* ("A" Manager). In addition, in terms of socialisation, «B» has a welcome booklet and integration training that the other two companies did not have initially. These differences and what they entail reveal the existence of intense informal horizontal communication between the personnel, a source of inevitable comparison, and even the emergence of demands: *"We have sufficient information for detecting any potentially risky situation, but not sufficient enough to prevent all problems."* («B» HR Manager)…

The second difficulty concerns the management of day to day work: the persistence of differences in management styles. The participants we met qualify the differences that they confront as differences in *"corporate culture"*: *"The "A" culture is: we get by, we create our own profession. «C» is more oriented towards a cost/profit approach. And at «B», its the Germanic culture."* ("A" Manager). Moreover, the partners have, since the beginning of the Alliance, twice attempted to define a common culture, but to no avail. While without a doubt common values exist – "No one questions the motto 'customers first'", notes the HR director at «B» - real differences in sensibility and approaches exist in the management styles, be they more or less directive, or, inversely, participative.

These differences in corporate culture are doubled by the inevitable intercultural complications, as the Alliance is comprised of employees from several different European countries: *"When we ask for something, it can be interpreted differently. When a French person or a Dutch person speaks English, there is a loss of nuance, proper to each language; we need a lot of communication"* ("A" manager).

Common practices which are still emerging and are little formalised, as well as the difficulties in day to day HRM can be perceived as creating organisational tensions between the HRM models proposed to each industrial partner. Of course, the three companies in the Alliance share the main principles of the individualising model [Pichault and Nizet, 2000]: strong corporate cultures, significant training efforts, evaluation with a direct influence on mobility, personalised career development, salaries with a variable component. Nonetheless, particularities exist, and it is the day to day work experience, over a longer period of time than that of a two-month project,, that brings to light and instigates these tensions: a culture, more or less participatory, salary policies that do not mix the same elements in the same proportions, and an internal communication which varies in its depth and practices.

Aware of this *"friction"*, the participants interviewed thought of new ways to improve the system: how can the HRM, who had up until now remained discreet, facilitate the collaboration in the day to day workings of the Alliance? Several options are possible. Some consider a legal option: an "A" Manager wondered "if the Alliance shouldn't consider forming a legally autonomous entity", with, as such, one employee/employer relationship only. Others propose the development of managerial competencies and a better accompaniment of the teams: a «C» manager suggests the development of *"a training*

program for the managers in order to develop more synergy: how does one learn to manage a situation when the manager is not the only authority?" It remains that the development of human resources still poses the issue of double management, in particular in career management. Career management remains the responsibility of each employer: *"Even if the evaluation of one person is done by his direct manager, the evolution of his career depends on the HR policy of his source company."* From now on, inevitable tension must be managed between direct managers, each concerned with different issues. For example, one may want to keep an engineer in his current position while the human resources person from the other company – the employer – is concerned by the mobility of the engineer in question. It is not just a matter of stabilising the long term and short term logic, but also of bringing together two different employers.

In other words, even between industrial organisations that use similar HRM models, informal arrangements are not insufficient for facilitating day to day collaboration. The field actors are thus faced with the necessity of inventing, little by little, a new type of HRM – = not only through common practices, but also through the capacity to manage tensions and organisational diversity.

3. Do clusters require true social innovation ? An exploratory study

An examination of the case of the FCP, in which we see the limits of the informal compromise and the beginning of the formalisation of common practices, invites us to propose the hypothesis that the numerous human and social issues of the poles of competitiveness cannot all be resolved using the diverse current HRM models. However, are the political, institutional and managerial actors conscious of the social field that must be created in order to deal with these issues? Here, we will focus on one pole of competitiveness, *"Minalogic"* (3.1). A series of exploratory interviews leads us to note that, in many cases, the HRM preoccupations are unequal (3.2). Nonetheless, several key issues are becoming self-evident, inviting the development of a true social innovation (3.3).

3.1 A pole of competitiveness at the international level : « Minalogic »

The « Minalogic » pole was registered by the city of Grenoble and was labeled by the government as one of six international poles existing in France. "Minalogic » signifies « MIcro NAnotechnologies et LOgiciel Grenoble-Isère Compétitivité": the ambition is to construct a centre of a highly international scope in the field of intelligent miniature solutions, made possible by the combination of micro-nanotechnology and software technology resources. *"The principal objective is to create a durable competitive advantage in the domain of electronics and software on chips, mobilizing the values of the use of the miniaturization of intelligence and connectivity. Faced with the competition in the field, and excluding the cost of production that incurs industrial 'offshoring', Minalogic proposes to recreate a source of competitive advantages through innovation."*[5]

Minalogic depends on what observers call an "ecosystem of innovation" common in the Grenoble basin, in which the FCP is an important element, but that also integrates numerous dynamics of cooperation between industry, research and education. Since its creation, no less than 47 participants have decided to formally be associated with this pole of competitiveness : 28 companies (in micro-electronics and software), 6 educational and research organisations as well as approximately 10 local institutes. Four geographic sub-zones within the Isère region (the French *département*) were chosen in order to concentrate the majority of the human and

[5] Minalogic employment application, March 2005, pg. 3.

material means necessary: two in micro-electronics, one in software, and the third in image technology.

The establishment of this pole seems, at once, to be both a coherent *"cultural"* element in the Grenoble landscape and an element suggesting significant inquiries on the human level. Undeniably, many partners present at the Minalogic table know each other well and are already developing common projects. However, how can these 47 participants be governed? Can we count on the natural dynamics of the regional networks alone to facilitate the recruitment, mobilization, and assigning, and development of competencies? Aware of this dimension, the Social and Economic Committee of the Rhône-Alpes Region pointed out at the beginning of 2006 the *"conditions for success"* among which were identified *"the capacity of the participants to work together and to generate technological innovations, of course, but also social, organisational and managerial innovations"* [CESR 2006, p. 35]. Le Committee also encouraged the exploration of a *"concerted human resource policy"* [p. 27], and this recommendation resounds with the recommendation of the Social and Economic Committee of the Franche-Comté Region which created in early 2005 a working group with the goal of determining the professions enabling the association of the human dimension with the principles of innovation and development.

This proclaimed conviction reinforces our hypothesis on the need to invent a new form of HRM adapted to the poles' ambitions. Yet is this hypothesis coherent with the representations of the practices and the actors themselves, i.e. the local collectivities, the firms, and the research institutes? In order to find out, we conducted an exploratory study of nine people, described in Frame 2 below.

Frame 2: interviews on Minalogic

- 4 interviews of *"institutional"* players: The Deputy director general of the General Council of Isère, a consultant specialized in social law, researcher specialized in union confederation
- 5 interviews of *"corporate"* players: 1 manager of a Research and development team and 4 human resources directors or staff.

These interviews lasted between 30 min and 1h30 and focused on the function and the background of the interviewee, the reasons for his/her participation in Minalogic, on his/her experience of the inter-organizational collaboration, and finally, on the actions or fields of HR that could eventually lead to fostering the pole's human and social dynamics.

3.2 An unequal concern for HRM issues

In light of the interviews conducted and the documents collected, a relatively vague perception of HRM issues is predominant. Thus, since the job application proposal, the promoters of Minalogic have expressed their preference for informal cooperation practices: "The functioning of the Minalogic pole will be modeled on the organization and the good practices that presided over the creation of the Minatec pole of innovation[6] and on the FCP, with no formalized structure but only the obligation to succeed and the quest for unanimity in decision making."[7] It is striking to note that today, the human dimension at the heart of

[6] « Minatec », which existed before the Minalogic pole in Grenoble, conducts research and development on semiconductors with the CEA, the engineering schools, and several microelectronics companies
[7] Minalogic pole employment application, March 2005, pg. 4.

Minalogic resembles the HRM in the literature on clusters: it is present in an informal, elusive, underground way. It is the first thing that we notice when we consider the pole's "governance structure", still under construction at the time of the interviews : social issues are not really taken into account. Moreover, it is the conclusion reached by several privileged observers. A union leader explained to us that his confederation was not consulted during the dossier's preparation: "No one bothered to ask us our opinion". When this union asked Minalogic participants what the consequences would be in terms of employment, qualifications, and career development, "we experienced both cold and hot reactions. (…) The first reality that we discovered was the absence of specific facilities for HR. (…) Faced with colossal investments, I'm stunned that no consideration was given to HR and working conditions!"

Several human resource staff members, themselves sensitive to social and human issues, expressed the same reasoning. The HR director of a public research centre, whose director was one of the key members for launching the project, confirms that a consideration *"in human terms was limited to two things: creating teams for Minatec and soliciting sociologists to study the constitution of these teams... (…) Over and above this, the reflection on the new culture* [of Minalogic] *and the necessity to work with future partners; we never did that, it's true"*. If some have regrets, others are not convinced of the urgency to work on this issue: according to the specialist in social law, "there can be [already] a number of tools, I can think of number of them right now: economic interest groups, corporate groups, *umbrella companies…"* In the same line of thinking, the HR director of a microelectronics firm, a member of Minalogic from the start, saw, before all else, the necessity of "*developing the exchange of good practices* » and to reinforce "*what already exists: apprentice contracts, training interventions, etc*".

Inversely, several of the interviewees spontaneously expressed the conviction that, in order to make the pole of competitiveness work in terms of HRM, it is necessary to develop something other than that which already exists. Thus, for the HR director of a former *"start up"*, which in the space of a couple of years became a large semiconductor company, the difficulty will be *"the harmonisation of practices"* between the partners on common projects: *"We need to invent ways to manage and communicate on these projects… I'm persuaded that there is a need to reinvent human resource management for these projects!"*

Thus, at this stage, social consideration is practically inexistent at Minalogic's governance level, and the interviewees' understandings of this appear dispersed. For many, the pole's « social question » is eluded, or improperly associated with the functioning of informal networks. Does this mean that there are no real HR problems to be dealt with?

3.3 Significant questions to be answered, prompting social innovation

There are, in reality, many questions in field of HRM that remain to be addressed by the participants within the poles of competitiveness. They can be categorised in three families: legal questions concerning employment contracts, professional mobility, and the management of inter-corporate and multicultural teams.

Firstly, several questions emerge in the legal domain in relation to the employment contract. Should a specific contract be created for the pole's salaried employees? Undeniably, the initial intention of Minalogic's promoters was to avoid complicated structures; nonetheless, the experience of the FCP shows the limits of informal networks. "[At Minalogic] *a public research engineer, a researcher/professor from the public sector, a temporary employee, and a doctoral student under contract. (…) In the framework of Minalogic, who do we hire and under what type of contract?"* (leader, trade-union confederation). Certain HR directors are

already calling for the establishment of rules or exemptions for the pole of competitiveness: "*We need DDTE*[8] *exemptions not just on the company basis but on a project basis. At our office a temporary employee had special permission to work in the clean room, but this permission was only valid in our office and not in the partner's offices …Extending it would have required a waiting period of several months so we decided that it would be simpler to offer him a permanent contract..."* (HR Director, micro-electronics firm). This statement was confirmed by a member of the HR staff in a private research centre: *"The Minalogic participants could negotiate DDTE legal exemptions for inter-organisational and international mobility issues. Like, for instance, in 2000-2001, when we accelerated the recruitment procedure for IT staff."* Over and above the question of exemptions, there is growing concern on the recruitment process for not only the individual organisations, but also for the pole itself; according to the interviewee from the labour union confederation, we will evolve towards a significant increase in the number of salaried employees to be dismissed directly by the pole. *"The true hierarchy will be the pole and not the employer of origin."*

The second point concerns questions of mobility and career development. How much mobility is appropriate, and what inter and intra-organism policies should be adopted to facilitate this mobility? This theme has been emerging for several years in the literature and in the field because of the increased collaboration between public and private research initiatives: the public institutes represent possible career opportunities for private sector researchers who did not opt for professions in the private sector, and inversely, the public sector can provide experts companies need [Ferrary, 2005 ; Fort et Fixari, 2005]. However, do the respective human resource development policies of the different organisations involved in the pole suffice in their present form to generate such mobility? The HR Director of a public research centre points out the challenge raised by the variation between the HRM models: "[At the research centre], we have lots of support and structure, which means that are services are more expensive. We are not very flexible. *We intend to modify our HR policy. (…) In the fields of microelectronics and technological research, our pay scale policy, which is set at the national level, does not make it possible to attract foreign experts."* It remains to be seen if Minalogic, often characterised by observers as another "silicon valley", will, one day, actually really resemble the real Silicon Valley [Saxenian, 1996; Brasseur and Picq, 2000]. The main obstacle is to synergise labour flexibility and a large volume of available jobs: the union leader interviewed, for example, does *"not want to see a structure in which one can be fired without the compensation of a sufficient labour offer. The sector needs to structure itself and adopt ethics and really take into account the careers that it plans to develop."*

The third family of issues concerns the management and the motivation of plural, diverse, and intercultural teams. How can HR facilitate and support the work of these teams? This may be the category of questions the most discussed by our interviewees, namely because the experience of the FCP brought such issues to light. On one hand, there is the alchemy created "*between men and women with different professions who imagine technological solutions together*." (Deputy Director general, General Council). On the other hand, *"The presence of multiculturality requires precaution and prior examination"* (labour union confederation leader). For the HR Director of a public research centre, this *"sharing of culture"* will not work by itself: *"We don't know each other! We will need a lot of communication to create a common culture."* The management and support activities can also take the traditional route of intercultural management training, but that can also take the form of a formalisation and clarification of the hierarchy: The HR Director of a microelectronics firm confided that, recently, in the framework of the first Minalogic labelled projects in which his company

[8] DDTE = Direction départementale du travail et de l'emploi (Departmental Head office for Labour and Employment).

participated, *"for the first time, we put into place a project team together! Until then we had been working together, but with two separate teams, each managed by two different managers. Here, we have a common team. (…) In fact we held an R & D seminar last week. Thanks to* [this common structure], *we've really made progress."*

Employment contracts, mobility, team management…we can see that these questions are central and indicate that the task of structuring the contours of an adapted HRM, which is at the heart of these poles' future, has only just begun.

Conclusion

As we have seen, the French poles of competitiveness represent an evolved form of the "cluster", pulling together, as does the former, a broad variety of partners, but also progressively adopting a governance in favor of strong public support. The examination of similar, previous inter-corporate collaboration experiences allows one to think further than in simple terms of arrangements and the natural functioning of social networks: a specific HRM remains to be invented. In the case of *"Minalogic"*, while reflection on this subject by the partners is very limited, some actors anticipate the opening of new social fields: a modification of the work contract, the structuring of itineraries and mobility assistance, or the development of managerial competencies for complex teams.

The analysis presented here is simply exploratory and thus remains to be completed, both by a follow-up of the first steps carried out the pole of competitiveness, and by further research targeting publicly supported projects and the effective practices that are therein developed. In this respect, we believe that research in this field should not only observe and understand. It should equally contribute to the operational consideration of what the social management of the poles should be by stimulating exchanges between practitioners, by to analyze and decipher their practices, and by offering recommendations in accordance with the analyses. In this way, we hope to add a brick to the ambitious wall of this *"territorial competency"* demanded by the participants in these poles of competitiveness. By locally combining different resources, an innovative measure for collectively creating a durable competitive advantage can be achieved..

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