Despatialisation: Towards the re-organisation of control. The case of telework in a biopharmaceutical company

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Abstract
Teleworking constitutes nowadays a component of a flexible way to manage work that challenges traditional organisation of work and human resource management practices. This article illustrates how despatialisation may contribute to recast control modes through the development of new managerial practices (closed to surveillance), as well as new strategies from employees who seek to signal their presence and visibility remotely. Based on a longitudinal case study conducted in a Belgian biopharmaceutical company through 37 semi-structured interviews, this contribution underlines the shift towards social and ideological modes of control in the case of home-based telework.

Key words
Organisational control, teleworking, identity regulation, human resource management

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Introduction

In theory, as in practice, telework constitutes nowadays a component of a flexible way to manage work which is potentially favourable to employees as well as to employers, but which can also lead to new sources of tensions (Taskin & Vendramin, 2004). In this article, we intend to illustrate how this new form of work organisation also challenges traditional organisation of work and human resource management practices. More specifically, we focus on control issues through the analysis of the regulations taking place when introducing telework in a professional bureaucracy.

Telework involves “the decoupling of work activity from one material workplace such as ‘the office’ (...) as well as from prescribed working hours, work schedules, scripts and practices” (Tietze, 2002: 385), what undoubtedly affects traditional organisation theory and management practices. Traditional management practices, especially the exercise of control, based on the visibility (i.e. the capability to observe the employee) and the presence (i.e. the capability of the employee to interact with co-workers) of employees are questioned and not directly applicable to remote working arrangements like telework (Felstead et al., 2003). Consequently, and as it has been demonstrated in the study of total quality management (TQM), empowerment or teamwork (see eg. Edwards and Collinson, 2002; Wilkinson et al., 1997; Bélanger et al., 2003), telework seems also involving a re-regulation of work, i.e. a re-organisation of the conduct of work (Edwards et al., 2002), which will have variable effects on the employment relationship.

This article focuses on how despatialisation may contribute to recast control modes through the development of new managerial practices, as well as through new strategies from employees, both teleworkers and non-teleworkers. To a certain extent, teleworkers gain discretion to organise, plan and execute work tasks, but our study illustrates that control simultaneously intensifies. Indeed, the traditional managerial and organisational principles prevailing on-site contribute to producing specific –formal and informal– control practices which superposes to existing ones in the context of telework.

The contribution of this article is twofold: first, we underline the intensification of control through the increasing role of social control in teleworking environment; second, we critically consider identity regulation as a control process, i.e. as the mean by which control intensifies when working remotely, and not only as the result of the managerial action. The use of a re-
regulation approach allowed us to observe the process that took place during the experiment and the changing rules of control and managerial routines (Taskin and Edwards, 2007).

This proposition is based on a longitudinal case study conducted in the biopharmaceutical industry, through 37 semi-structured interviews which were fully transcribed and analysed according to the structural analysis and the conceptualising categories method (Paillé and Mucchielli, 2005). This Belgian company, renamed BioPharma, introduced telework in January 2006 among a pilot group of 31 employees working in the Research and Development (R&D) and Information Technologies (IT) departments.

After having presented teleworking as a mode of flexible work, we focus on the control dimension by arguing this is the dimension most affected by remote working. Next, we present the longitudinal case study conducted in a Belgian biopharmaceutical multinational company. In the final section, we discuss the implications of this research for the theoretical and managerial considerations of control.

**Telework and Management: Considering the issue of control**

Since telework enables employees to work physically outside the conventional workplace by bringing work to the workers (Nilles, 1994), it questions the traditional way of managing people. Especially since this phenomenon is likely to be generalised in the forthcoming decade due to its irresistible attraction for employees and employers, seeking to add value and minimise costs. How exactly and how critically does this new form of work organisation affect management? This is the question we address in the following lines and that allow us to identify control as a core, critical and questioned dimension of management in despatialised environment.

**Telework and management at a distance**

The phenomenon of teleworking is emblematic of new forms of work organisation since it lies on and simultaneously contributes to major trends like the flexibilisation and individualization of work, or the increased use of ICTs (Felstead and Jewson 1999; Kirkman et al. 2002; Taskin and Devos 2005). While already widely used, telework is likely to become even more prevalent in the near future due to pressures on estate costs and space, the growth in the use of hotdesking, the increase in commuting times and costs, and the sensitivity of employees to balancing private and professional roles (Cascio 1999; Manoochehri and Pinkerton 2003; Stanworth 1997).
Referred as an alternative work arrangement facilitated by information and communication technologies (ICT), teleworking enables employees to work physically outside the conventional workplace by bringing work to the workers (Fairweather 1999; Feldman and Gainey 1997; Nilles 1994). Such flexible work arrangements include various alternatives to traditional offices, including home, satellite offices, telecentres or telecottages, client’s premises, modes of transportation, and other places of transit (Felstead et al. 2005). Otherwise, telework may be characterized by three main elements: (i) a distance, i.e. a spatial and temporal dispersion, (ii) a frequency, i.e. the extent of time spent teleworking, and (iii) the use of ICT.

In the literature, teleworking has been presented as a strategy to help organizations decrease costs and increase productivity (Baruch and Nicholson 1997; Jackson and van der Wielen 1998; Mitel 1998; Neufeld and Fang 2005), respond to employees’ needs for a healthy work-family balance (Baines and Gender 2003; Chapman et al. 1995; Hill et al. 1998; Mokhtarian et al. 1998; Tremblay 2002), and reduce air pollution and traffic congestion (Heinonen and Weber 1998; Perez et al. 2004; Salomon and Salomon 1984). According to this perspective, telework is often perceived as a ‘win-win solution’ that makes work both employer- and employee-friendly. Teleworkers are often portrayed as organizing their working days autonomously, managing their own work schedules, and shaking off workplace controls (Felstead and Jewson 2000). To a certain extent, however, the advantages of teleworking seem to sometimes take on mythical proportions (Lindorff 2000; Taskin 2003).

Researchers have, however, put forward some challenges linked to this new form of work organization. Widely quoted and studied are the danger of social and professional isolation for teleworkers (e.g. Felstead et al. 2002; Hill et al. 2003; Kurland and Bailey 1999; Kurland and Cooper 2002). Previous research has also pointed to the links between teleworking and strategic HR issues such as turnover, commitment, culture, performance and knowledge management (Cooper and Kurland 2002; Illegems and Verbeke 2004; Taskin and Bridoux, 2008). However, the implications of telework in terms of management and employment relationship have been rarely studied. This contribution aims at contributing filling this gap.

We assume that teleworking, as other despatialised forms of work that extract employees from the traditional workplace, is critical for management, at least for two reasons: first, the existing and traditional management practices are challenged because they are built on the principles of presence and visibility, as mentioned earlier. In other words, working time and activity are closely associated to the employee’s physical presence. An illustration of this
taken-for-granted evidence is the “out of office” message we activate in order to signify our absence (when on vacation, e.g.). When out of the office, an employee is considered as non-working. Our first intuition therefore assumes the transformation of existing management practices when employees work remotely. Second, this new situation would require the development of new management capabilities. More than the physical distance, this is the psychosociological distance that has to be managed, namely in order to prevent social isolation, a lesser organizational commitment, and other outcomes that have been identified previously in exploratory studies (Bélanger, 1999; Harris, 2003). This capability of managing those two forms of distance refers to the notion of despatialisation that has been conceptualised and studied recently (Taskin, 2003, 2007).

At the core of management practices and theories, we find the dimension of control. What is management except control (of output, behaviour, competencies, quality, process, etc.)? Control is inherent to management and to each organizational activity since organizations pursue specific goals that are formalized and derived in norms, rules or targets that have to be met and respected. Control is commonly defined as a process of influence that directs behaviours in the intended direction (see Snell, 1992; Ouchi, 1979; Eisenhardt, 1985; Simons, 1995). This prevailing assumption of a process under the control of the management (who decide the “intended direction” to follow) is characteristic from the study of control in management. In other words, the literature assumes that management decides and acts on control, even when the object of those controls is subjective. Table 1 proposes a synthesis of the main authors who studied control in management, according to the content of the process of control (objective versus subjective dimensions), and deeply inspired from the broad distinction operated by Kärreman and Alvesson (2004) between technocratic and socio-ideological controls. The management literature recognizes informal and subjective controls, referring to norms and values, but, it is assumed that management influences people’s behaviours through acting on those levers intentionally and rationally (i.e. knowing the consequences of this action and considering management as the exclusive author of control). Note that, when speaking about control in management, we do not consider it as negative nor positive itself; what gives control a normative dimension is the intention justifying its use, as demonstrated by Simons (1995).
In short, we argue that telework unravels the traditional management and control practices by modifying visibility and presence that characterize work and the control of work in traditional organizations. At this stage, we still have to present the existing literature studying control in teleworking environments and to explain what ‘traditional’ organizations or management practices refer to.

Referring to Felstead et al. (2003), we argued telework puts into question management practices through the introduction of a breach within the fundamental characteristics of the traditional exercise of management control. Without referring to the principles of ‘visibility’ and ‘presence’ developed in Felstead et al.’s work, Lallé (1999) characterised the traditional organisation by the “rule of the three units” (of time, space and action), where the unity of place allows the supervisor to control de visu and in situ the work of subordinates. This rule refers to the industrial context where the work carried out in the workshop or the factory can be controlled directly by the foreman, for example. This model of supervision cannot apply in teleworking environment. Work is carried out –partly– out of the presence of the hierarchy, from one –or several– other place(s). In terms of control, the principle of the unity of time results in assimilating working time and the result of work. Again, when the operations are well defined and reproducible, employers have only to control the duration of work in order to control work. However, despatialisation makes this temporal control difficult. The term unity of action refers to the ability to define work procedures, methods and rules. In structured environments, this is reasonably straightforward, but telework entails functions that are more characterised by variety and the unforeseen, which makes a unity of action more problematical.

Lallé (1999), studying control modes within the bank sector, argues that new forms of work organisation call into question the unities of time, space and action that had been appropriate under traditional forms of control. In terms of control, telework has been presented as a factor in the liberation of the workers (from production constraints) as well as a mean to intensify work, namely through the use of electronic monitoring. In fact, several studies point to re-regulation, as mentioned by Taskin and Edwards (2007). Wicks (2002), studying the introduction of telework in a financial services company, found an increased use of technologically based supervision. Deffayet (2002) noted increased performance monitoring of engineers working for an auditing and technical advice company, when implementing telework. Valsecchi (2006), in an analysis of home-based telework in an Italian
telecommunication company where remote audiovisual control of employees was legally prohibited, found alternative methods of control including collective performance monitoring and the encouragement to customers to report any problems. Dambrin (2004) also pointed the development of new control practices when introducing telework. This process was conducted through managers in order to legitimate their role in a context of despatialisation.

All those cases illustrate the re-regulation process of control modes taking place when introducing telework in diverse organisations. This stimulates us to study the introduction of telework in a longitudinal way (before, during and after telework was introduced), in order to observe the transformations of the control process, in traditional organisations. The qualifier ‘traditional’ refers to a relatively regulated work and a stable organisation. Indeed, previous empirical works focused on the study of home-based telework in IT and consultancy companies (see e.g. Peters et al., 2004; Cooper and Kurland, 2002; Teo et al., 1998), which are emblematic of highly-skilled employment and deregulated work, i.e. where flexibility, informal arrangements and high-commitment practices are widely used. The reason is that telework mainly developed in those sectors. However, the future development of telework depends on its ability to be adopted in other companies where the conduct of work appears more regulated. A bureaucratic organisation therefore constituted a promising field of enquiry (see Taskin and Edwards, 2007 for the study of the re-regulation of management practices in the context of telework in the Belgian public sector). The formalisation characterising such work organisation allowed us to identify the norms of control and to observe the regulation process taking place around the telework project. The case presented here takes place in the biopharmaceutical sector, involved in a double movement of internal growing and external consolidation processes.

Case study

The longitudinal case study research strategy allows to understand relational processes, organisational (dys)functioning as well as decision processes (Yin, 1990; Miller and Friesen, 1982). Authors like Edwards (1992), Friedberg (1993) or Hlady-Rispal (2002) demonstrated the utility, the richness and the rigorous scientific character of case studies, namely for identifying causal links and in the study of change processes.

[Case studies] have a sharper view of both dependent and independent variables than is possible from surveys. For the dependent variable, case analysis can consider just what something like team working really meant and how far it was embedded. For independent
variables, surveys can measure the number of job losses but not the qualitative effect on employees’ perceptions of job security (Edwards et al., 2002 : 103)

Case studies research have two main characteristics: a long observation period of time and the deep examination of complex processes. According to Yin (1990), the case study is a contemporary empirical research method that studies a contemporary phenomenon in its real context, when limits between the phenomenon and its context are not clear and in which multiple evidence sources are mobilised. This consideration of the context when understanding such phenomenons leads Burrawoy (1998) to conceptualise enlarged case studies.

The case BioPharma, which is an acronym, draws on 37 semi-structured interviews, conducted between November 2005 and August 2006 on the main site of BioPharma, where 2,000 persons are employed essentially in research and development (R&D) and production activities. The first period of investigation happened before the implementation of telework (18 interviews) and allowed us to observe and analyse the traditional organisation of work. After the planned end of the pilot experience¹, between June and August 2006, we conducted our second wave of interviews by meeting 13 of the 18 interviewed persons. The difference - that refers to the mortality rate characteristic of longitudinal surveys- is due to the dismissal of two employees and the impossibility to meet top-managers again (3). We also conducted multiple interviews with HR responsibles who piloted the project from October 2005 until November 2006 and during the whole experiment (6). All lasted for between 40 minutes and two hours and 30 minutes in duration (68 minutes on average) and were tape-recorded and fully transcribed. Interviews were conducted in French; translations below are ours.

Interviews followed a semi-structured schedule and we used a mixture of descriptive and contrast questions (Spradley, 1979). We started with descriptive questions asking the interviewee to present her/himself as well as the organisation and, subsequently, the organisation of work. We used emerging themes from initial interviews to guide the second data collection. NVivo software assisted us in the data analysis by allowing the grouping of the situations we observed and by systematising the coding process. We distinguished two levels of coding: a descriptive one (themes) mentioning facts and biographical information, and ‘conceptualising categories’ that referred to more complex processes (Paillé and Mucchielli, 2005). This second list helped us to identify emergent themes useful for theory building.

Background
Founded in 1928, BioPharma grow through the merger of the main Belgian chemical industries in the seventies. Since 2005, BioPharma focused on biopharmaceutical activities and sold its chemical and plastic activities while also acquiring major European biopharmaceutical companies. The company counts today more than 8,500 employees. The headquarters are located in Brussels but behind this matter of fact, management practices and culture appear to be inspired by what is developed in the subsidiaries located in Britain and the US, what illustrates a ‘reverse diffusion process’ (Edwards, 1998).

Today, this is first the appearance of a range of global functions that are located here, the development of remote management: we have teams here that are under the supervision of persons working in the UK or in the US. (...) I think that, globally, we have to face all the concepts of Anglo-Saxon management. This comes from a subsidiary that took importance in the US, by its size, its business, its turnover, and also through the integration of another company in the UK. [HR Director]

Characterised by the globalisation of the activities, the organisation of work tends to be more virtual (as employees qualified it): managers are often working from another country and piloting their team remotely with few face-to-face interactions. With a strong horizontal division of work (BioPharma relies on specialists), a low vertical division (employees may act at different stages of their work), a strong and centralised hierarchical power, and according to the heuristic model developed by Mintzberg (1982), the organisation of work at BioPharma can be assimilated to a professional bureaucracy. Anyway, we observed divergences across business units, as we will explain later. HRM draws on objectivity principles (Nizet and Pichault, 2000) as formal communication, the respect of formal rules (in terms of work organisation and security, eg.), a regular assessment of employees and the organisation of the collective representation of workers.

Facing an increasing need in estate facilities and buildings, the executive committee first asked the HR Director to conduct a reflection on teleworking in 2001. Finally not culturally inclined to make people work away, this first trial was abandoned. In 2004, facing the same need for building new premises while the collective assembly representing cadres asked for the development of telework, the project really started, conducted by an HR responsible person and sponsored through the top-management. In May 2005, the head of the IT-back office department (IT-bo) came with an urging problem of space to be resolved and asked for proposing teleworking to this aim. This was the starting point for the pilot experience which was officially launched in January 2006 and exclusively opened to volunteers from IT-bo and RD, with the agreement of their supervisors. Actually, 31 employees took part to this pilot
experience. This sample was composed from 17 men and 14 women and only five from them chose to telework two days per week from home, others opted for one single day.

The HR responsible established a telework policy which formalises the teleworking arrangement and its implementation at BioPharam by defining telework and stipulating who is responsible for the material and insurance, but also the day of telework, the criteria for being eligible for teleworking (e.g., obtaining a three-level at the annual appraisal, the possibility to perform tasks from home (output measurability), and the nature of the tasks to be performed at home). This internal policy is completed by a form assessing the feasibility of teleworking and which has to be filled in by the employees and his/her supervisor and asking, among others, about the need for face-to-face interaction the job requires and the possibility of having a dedicated room for working at home. Finally, a third formalised document consists in the required addendum to the working contract stipulating the home address of the teleworker as well as the period of time in which the teleworker is available for colleagues, according to the national and European legislation in this field.

At this stage, telework first introduces formalization and seems to reinforce the control dimension of HR. We now have to analyse what happened in the departments where telework was proposed (IT-bo and RD). Since the work organisation is quite different from one department to another, we will develop them separately.

**IT-Bo: spatial re-regulation and increased availability**

IT-bo is at the end of the IT chain of activities, what is not perceived as a valorised position. There are five distinct units within IT-bo: the data centers, the operations center located in Bengalure, the network, the communications and the processes. The highly qualified employees working at IT-bo present themselves as firemen who have to stop and resolve problems appearing everywhere on the site. The IT-bo department is in charge of the maintenance and management of servers, networks and communications infrastructures, what mainly requires a high level of reactivity.

That is not always easy because we are more firemen (…) Today, we complete 80 % of operational tasks and 20 % of planned projects. The problem, also, is that we are not very involved in the project. Sometimes, projects are coming after having been discussed and we have just to operationalise…. [Cadre IT-bo]

How do we work? Overwork! Because we lack collaborators, so, priorities always change and we have to make a lot of overtime. [Cadre IT-bo]

Reactive, ad-hoc, and therefore with a little improvisation and changing priorities (…) They are very flexible workers, enthusiasts and at the top during the whole day especially when there is a big fire…they are extra-firemen! [Manager IT-bo]
Those incidents are declared through ‘remedy tickets’ that are produced by an automatic system which select the problems and attribute them a degree of urgency.

*The most reliable indicator today is the amount of open incidents exceeding the service level agreement. Once we exceed 75% of the timing planned for the resolution, we receive a first alert from the system. This alert is also sent to the direct management. If the time exceeds what was allowed (100%), then I receive the alert. This only happens in 5 or 6% of the cases. This system also produces reports mentioning the amount of incidents, the amount of solved problems by team and by person and once a month, we can have a complete reporting on the workload and on the efficacy of a corresponding team.* [Manager IT-bo]

The resolution of those incidents requires a strong collaboration between the team members. Among the 44 workers, only 18 are employees (and are eligible for teleworking) whilst the remaining 26 are self-employed and considered as consultants. In early 2005, in order to increase the coherence and the productivity of the department, the manager aimed at bringing together the different units in a same place. Progressively, the employees were moved in a same building, on an open space and without appropriate furniture and space for hosting all the computer scientists. In this context, teleworking was proposed in order to maximise the available places on the open desk.

When speaking about control, most of our respondents interpret this notion in terms of security and validation. The dimension of supervision is not often mentioned and, moreover, this perspective is considered as obsolete in a virtual environment where it is easy to trace people’s acts. Obviously, several control modes seem to combine each other. First of all, direct control can be observed on the workplace where the physical proximity (open space) favours this mode of control that also relies on the availability. Most of the teams meet once a week, mostly informally. The objective of those meetings is to check the progression of the projects and the job done by each of the team members, what constitutes another way of controlling.

*Honestly, there is no control. Moreover, we are running all the day in every direction and we can easily see if someone does nothing!* [Cadre IT-bo]

*For transmitting information, that is very easy because we are near each other and we don’t need to organise meetings. If there is a big problem, we know it very quickly and we can diffuse the information. My supervisor sits just by my side and that is really easy, he can ask me if I did this or that...* [Cadre IT-bo]

The ‘remedy system’ described above constitutes the most formal tool of control and is completed by other procedures like the Project Framework Methodology that requires to obtain multiple agreements and documents before proceeding to certain technical changes. The Management by Objectives (MBO) is also perceived as a tool of control, even if its application varies from one unit to another. In terms of traceability, other tools exist but are
only used in case of necessity like the access badge, the logging-in process and the verification of days off. Unsurprisingly, self-control is also mentioned as a mode of control.

As Table 2 illustrates, interactions are frequent and largely informal in this department that has to react to unpredictable events. Control is mainly ensured by the organization (through the remedy system and the administrative structure) and by inter-individual interactions including supervisor-employee. The purpose of this control is the work itself (actions) and, to a minor degree, the adhesion to the value of availability.

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Insert Table 2 about here
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At this stage, we can worry about the introduction of telework which does not seem to fit with the work organisation prevailing at IT-bo and that strongly values the presence and the visibility of employees. However, the five units work in relative autonomy from each other and the open desk as well as the nature of the job may justify the willingness to telework.

*Adopting telework for valorizing back office jobs*

The lack of space and the open desk lead workers to be especially angry against the teleworking project, which was perceived as a last resort to the sharing desk system. Hopefully, IT-bo received additional square meters for its team end 2005. Anyway, the seven IT-bo’s computer scientists who opted for teleworking firstly decided to do so in order to escape the physical organisation of work, characterised by noise, reactivity and continuous interactions among colleagues. According to them, teleworking was more a *need* than a flexible solution.

*But staying a whole day on this open desk with the phones ringing, people speaking, that is sound pollution. Telework has an advantage: it becomes possible to focus on well-defined task and to deliver better quality. [Cadre IT-bo]*

Beyond the search for silence and quietness, workers thought telework could help them to better plan their work and, by the way, to reduce the feeling of acting reactively. Other motivations are more common and refers to mobility (avoiding spending time and money in commuting), environment and in one single case to the possibility of balancing professional and private duties and roles (one could argue this comes from the sample, exclusively composed of men).

In this environment largely promoting visibility and presence, telework seems lacking of legitimacy. Non-physical presence is largely assimilated to non-work. We observed
manifestations of this perception in people’s discourse when they were asked on the day they choose for teleworking (and all refer to the notion of weekend or days off), for example. Other excerpts also illustrate the difficulty for those employees to imagine working away from the office and the pregnancy of being visible and present. The latest of the three verbatim below especially refers to the risk of assimilating telework to non-work activity, what illustrates the lack of social legitimacy of telework which potentially introduces norms and routines that are in opposition to the existing rules of the game.

I proposed the Thursday because most of my colleagues spoke about the Monday or the Friday. This also avoids having a longer weekend! [Manager IT-bo]

Wednesday, I have got my children so, that is not a good idea. I chose the Monday...I had to choose one day and, usually, I keep quiet during the weekend so, it is not for relaxing. [Cadre IT-bo]

At the office, when taking a call, we can directly discuss the problem with the colleagues. The team directly knows about it. With telework, this is different, we lose this...It may create some problems. I cannot imagine how to communicate. Except if having a conference call with all team members everyday. [Cadre IT-bo]

After height months of experience, teleworkers mainly suffer from social isolation when teleworking one day a week. Presence and visibility appear difficult to recast remotely.

The disadvantages are less visual communication; we meet us less in face-to-face and send more e-mails. [Cadre IT-bo]

The only disadvantage is that we are not close the team in case of emergency. We are off the communication because we do not seat in the office. In case of trouble. [Cadre IT-bo]

The disadvantages are the difficulty to meet, to stand alone. [Cadre IT-bo]

Teleworkers also quoted a large number of advantages mainly in terms of flexibility and quality of working life.

The biggest advantage for me is the quietness, for sure. We can manage the environment, what is very, very good. We reduce the commuting times and the kilometres spent...at the current price of oil! Flexibility, for sure... [Cadre IT-bo]

We have other possibilities of working, we can go on in reporting or in things that require more quietness, more concentration. Because at home, this is quieter, we work in silence not like here where the phones are ringing all the day [Cadre IT-bo]

Social contract under pressure

Teleworking allows people to plan the tasks they will complete from home. Most of the IT-bo’s teleworkers select tasks during the whole week for their teleworking day. Telework introduces therefore the planning principle, what is completely new for those reactive workers and what procures an added comfort of work. The teleworking day then starts always by the
same action: connecting to the mailbox. It appears essential to teleworkers to connect to the office and to the colleagues and to signal, by the way, their presence.

Team coordination has also changed, in different proportion from one team to another. The main difference consists in the planning of meetings that were previously largely informal. In a certain way, telework introduces a kind of rigidity in the coordination of teams and coordination times still require the physical presence of co-workers.

> For the meetings, we encounter some problems. We have meeting with several teams. Naturally, my manager teleworks on Thursdays, I work from home on Mondays and one other on Tuesdays. So, we have to find a compromise. [Cadre IT-bo]

> My manager integrated it by planning a meeting every Thursday morning in order to have the whole team. He insisted on the fact that everyone must attend. [Cadre IT-bo]

Similarly, the communication also evolves. The use of electronic devices increases in order to compensate the invisibility of workers.

> We send more e-mails among colleagues. When it is too long, we call them. In a sense, we replaced the voice through the e-mail. [Cadre IT-bo]

> It’s true that I send more e-mails...I come back to the communication dimension because we have to use communication technologies like e-mails or the phone while here we can discuss and meet directly people. [Cadre IT-bo]

Anyway, if the amount of electronic communication rises (and this refers to the necessity to remain available), the feeling of isolation due to the reduction of face-to-face interactions increases. Teleworkers have the feeling to be extracted from the teamwork and feel invisible for their colleagues, which is paradoxically also what they appreciate in telework. Again, in the following excerpts, the confusion between non-presence (out of office) and non-work illustrates the lack of social legitimacy of telework.

> The problem with the distance is that they will maybe meet here, on site, for discussing the problem. (...) Even sometimes, since we are not physically there, they forget we are at home and we are not informed. [Cadre IT-bo]

> Now it’s true that sometimes, when we are on leave, and this is the same when teleworking, there are some meetings and things that are said without we know about them. We learned it later, occasionally. It’s true that at the team level, there are some informal things we miss. Not at the level of BioPharma, but well at the closer level of the team. [Cadre IT-bo]

Even the notion of ‘availability’ seems to evolve in a more individualistic way. Previously, the availability was a collective principle: the team had to react to the problems and to solve it together. Now, the teleworker is available for him/herself at home and deals with the tasks he selected.

> Yes, it is so easy here: we all sit by our side, everyone speaks around you and listen –even unconsciously- to what is said, and may help you. (...) Here, yes, we maybe lack something.
There is a lack in terms of mutual help and communication. However, there is an increase in terms of individual productivity and efficacy. [Manager IT-bo]

Control aim reaffirmed

Let’s analyse the control modes in this teleworking environment. The technocratic levers we identified earlier remain but the aim of their use seems to have changed. For example, where the ‘remedy system’ was used to trace the content of work, it now acts for tracing people working remotely. We observe the same regarding electronic communication: e-mails not only serve to exchange information but also to signal the presence of workers behind their computers. Those tools of management therefore contribute to make workers visible and teleworkers themselves advocate them for justifying their activity.

Yes, there are the log-ins. Managers may ask to have access to this information for checking what I’m doing. But, I consider this as the last step because this is real control. But it’s true that except by calling or sending an e-mail to check if we answer quickly… [Cadre IT-bo]

Already, by all the remedy recall (…) I’m tracking and dispatching them and therefore I can see how those alerts have been distributed and managed. [Cadre IT-bo]

There are remedy tickets, but also e-mails. The remedy system receives the calls and we can easily see the traffic. There are also e-mails: those sent by manager or those I send to my manager, as well as the phone calls…it does not stop. [Cadre IT-bo]

In addition to the tools we observed earlier, control is also systematically associated to the availability and to the manager, when teleworking. Availability constitutes well a locus of control which object is the employee’s presence that can be verified by the manager. In a teleworking environment, control appears more relational and hierarchical but also more ideological since the value ‘availability’ constrains behaviours.

In fact, teleworking, this is not during the week, this out of the working time and during the weekend… [Cadre IT-bo]

I don’t feel I have to work between 8 and 4:30pm. This frees myself from this constraint that requires that I have to be there during this period. Practically, one expects I have to be available during an extended period of time. [Cadre IT-bo]

To conclude the case IT-bo, we observe telework modifies the organisation of work by formalizing communication and through task and coordination planning. Far from experiencing the traditional advantages associated to telework in the literature (flexibility, work-family conciliation, e.g.), the computer scientists we met feel isolated and invisible. This feeling of invisibility justifies the ‘signaling strategies’ they adopted (reactivity to the e-mails, availability for team members), even if they only telework one day per week. Moreover, the object of control has been transferred from the content of work to the person at work. Technocratic tools of control are used in this purpose. Finally, we observed two
particularities: the raise of the value ‘availability’ as control mode and the extension of the hierarchical control.

Regarding the emergence of the value ‘availability’, we can observe that it is the substitute of the value ‘reactivity’ (which was more a fact than a value when working physically together). The distance contributes to making ‘availability’ a value and a norm which attests the ability to react. And this ‘ability to react’ refers to the physical presence (at work and on-line). By the reinforcement of the value ‘availability’ (among others.), presence and visibility have been rebuilt remotely. Of course, the availability has to be observable and the object of check (by managers and colleagues?) and this is for this purpose that we observed signalling strategies aiming at manifesting the presence at work of teleworkers. However, we can notice that ‘availability’ is a more penetrating notion than ‘reactivity’ since it covers diverse (more individual and private) spaces and times.

**R&D: personal efficacy and isolation**

The employees who took part to the pilot project in R&D department did not belong to the same units, contrary to IT-bo. Four PhD in chemistry work in the Global Chemistry unit, one toxicologist belongs to the Non Clinical Development unit and three other employees are part of the Global development unit and exerted support activities. They all have few interactions with their colleagues (within the unit) but develop a strong relationship with the heads of the projects on which they work, as well as with the team project. Those projects have a variable life time, from some weeks to several months. Their functions appear therefore quite isolated. They are highly autonomous and face a management by objectives.

*It is a work requiring simultaneously a lot of contacts and isolation.* [Data Manager]

Formal meetings on the planning and distribution of work are associated to informal and reactive interactions on the content of the projects on which those specialists intervene. Control is largely associated to the notions ‘results/outcomes’ and ‘objectives’ in coherence with the project organisation of work. Practically, the notions of ‘results/outcomes’ draw upon several types of control. First of all, direct control (both hierarchical and social) operates in the workplace, characterised by collective offices.

*With my colleagues, we share the same office. So, automatically, presence is checked. But there is no formal control on the working hours.* [Chemist]

Direct control also affects the respect of the delays. More generally, the control of the time appears especially strong at R&D since it is shared by all the employees and managers we
met. This control first focus on the schedule: presence is required from about 8:00am until 4:30pm. This is a ‘conventional’ norm since there is no formal obligation to be present at 8:00am. Nonetheless, this norm is adopted by all the employees we met. In contradiction to this observation, discourses of the ‘cadres’ all mention the autonomy they have due to their status of ‘cadres’ and the fact that they do not count their working hours (in opposition to what other status of employees, like blue-collar workers, have to do by using a clocking-in machine). Time schedules appear therefore to be more an object of social than technocratic mode of control. In one of the three units we investigated, another tool for measuring time is in use: the time sheets allowing allocating the amount of time spent on each project. This tool contributes to support the management by objectives (MBO). The latter is formally organised through several meetings during the year (at least one) and takes into account the comments of the heads of the projects on which the employee have worked.

Basically, it requires mutual trust between colleagues. But with the tools we have today, control is implicit in the sense that when one sends me an e-mail, one knows if I have read it. [Data manager]

Regarding the time, as I told, control takes place informally and is based on trust (…). But, if there are some repeated delays, we will note it and maybe that if the person does not stay later at the office… but this is not the most important thing when speaking about trust. Au niveau du temps, ça je vous l’ai dit, ça se fait de façon informelle et sur base de la confiance. [Chemist]

Beyond those direct controls, we observed a more ideological mode of control based on the value of ‘trust’ or ‘confidence’. Let’s note that when this type of control is quoted, it is directly associated to a technocratic control (like the e-mail or the schedule). Trust therefore appears as an historically constructed value but that needs to be confirmed (or verified) through existing indicators. Table 3 synthesises the different forms of control we observed at R&D before teleworking was introduced.

Adopting telework for its flexibility

At R&D, the pilot has been composed with selected volunteers (by the management and with the validation of the HR department) without any pressure for gaining space, as we noted for IT-bo at the beginning of the project. Other volunteers joined the pilot group after having heard about its existence. The experiment and the policy were presented and most of them
started to telework in January 2006 (two chemists started earlier in November 2005). They perceived telework as a strategy helping BioPharma to optimise space occupation while also contributing to mobility and labour issues (such as flexibility and the so called ‘war for talents’). Most of the teleworkers from R&D opted for telework in order to be able to better organise their work and to be more productive at work. The physical structure of work seems again to act as a locus of motivation for telework.

Let’s say telework seduced me through its ability to better and longer focus on a project…Here, when somebody comes in, we talk together… [Chemist]

And therefore to benefit from a better efficiency at work (...). This will allow me to increase the level of performance of my job, pragmatically speaking. And there is also this ability to organize work in a more flexible way. [Data manager]

The first dimension is the gain in efficacy and productivity. The second dimension lies on the fact I have to drive everyday and this allows me to save commuting time. This also allows me to pick up my children earlier. [Chemist]

When we met the teleworkers again, eight to ten months after they started the arrangement, the advantages they quoted were similar to their original motivation and refer to the ability to focus on a task, without being interrupted, and to gain in productivity. The opportunity to balance professional and private duties was extensively quoted2. The only limits they note refer to technical issues such as the speed of connection and the difficulty to connect to the network and/or to print documents at home.

The first disadvantage consists in not having the whole documents I need with me, but this comes from the fact that all our work is not electronically supported; the second refers to the speed of the connection to the intranet and to the Internet (...) and also the fact to be ‘out of the office’ and to miss all the pieces of information that are shared at the office. This is a fear I had before starting telework and I still feel it now. [Chemist]

Planned flexibility and problematic visibility

This latest testimonial illustrates the isolation teleworkers feel. This can be explained very similarly to what we observed at IT-bo: visibility and presence characterize the organization of work and telework is first associated to a non-work time since employees are no more visible. Managers also contribute to build and diffuse this social perception by depreciating telework. For example, telework—which is largely considered as an element of personal comfort—, has to be adapted to the requirements of the team, and especially to the organization of meetings.
The opinion people have about telework is maybe not positive. I will give an example. Sometimes, people say “I’ve got a child at home, so, I will telework today ». I feel that people think those who telework are those who are not willing to work but to stay at home. [Chemist]

At the beginning, I received some kind jokes, movies showing a person working at the swimming pool… But I think this comes from the jealousy some people may have! [Chemist]

I think my manager appreciated that I did not consider my teleworking day as prior to meetings she considered as important for the unit. [Chemist]

When there are important meetings, it is essential to be flexible. If we are constrained by teleworking days… when there are several persons involved in the meeting, this would be problematic. That is why this flexibility is important. [Manager]

This lack of social legitimacy contributes to develop a feeling of invisibility among teleworkers. This fear about the consequences working from home would have (namely on the existing trust relationship) transforms in a feeling of isolation. The nature of the interactions change and direct and informal communication decreases. Moreover, some teleworkers noted the possibility to become less committed to the organization as well as the possibility to reconfigure the strategic ties of a team, i.e. the power relationship between team members.

It means I have been desolidarised from the team. [Chemist]

I noted the feeling of being less committed in the group, as it is the case of part-time employees I guess… For example, Friday is the breakfast day (…) I have the feeling to loose information and to be less a member of the group [Chemist]

Another problem is the integration of new collaborators, what will appear in the team in a near future. I think this would be more difficult if I’m not there all the time… [Chemist]

Facing those perceptions that are shared by teleworkers, their colleagues and managers, we will now turn to analyse the regulations that took place in order to address those issues. The first phenomenon we observed at R&D is a formalisation process we already identified at IT-bo. Meetings were weekly planned in order to avoid the missing of information among teleworkers and non-teleworkers. As a consequence, the content of the job has been formalised. Teleworkers answer quickly to the e-mails they receive in order to signal their presence and visibility remotely, as we observed at IT-bo. The schedule also became a strong temporal norm framing the availability of teleworkers. According to them, respecting the schedule is a good strategy for remaining visible and present remotely. With the distance, time schedules constitute strong marks for the scientists. They are strictly observed with only (very) timid arrangements to their margins (in order to bring children to school, for example).
Other initiatives aiming at conciliate private and professional life are addressed to the manager for approval. This illustrates the introduction of a strong porosity between work and non-work (asking the permission of the manager for doing something private during lunch time, for example) while this contributes to strengthen the hierarchical relationship, namely by extended its scope on non-professional activities.

_I start working at the same time than at the office, at eight._ [Chemist]

_I do exactly the same as at the office. I try to correspond to the office hours what allows me to keep in touch with the colleagues._ [Data Manager]

_In counterpart, I asked my manager for having lunch with one of my child one of the two days of telework. I asked her for avoiding she tries to call me without success at noon. The HR responsible told us we could have some arrangements like this, that is why I take a longer lunch time, but I work later in the afternoon._ [Chemist]

Finally, the balancing of work and private life generates more confusion than conciliation. After some months of teleworking, employees noted the difficulty to separate working and private spheres, as it is possible when leaving the office and letting computer, e-mails and other work-related tools behind. The equipment installed at home materializes the interference of the organisation on private times and spaces.

**Self-control and controlled trust**

The signaling strategies we noted refer to the self-control teleworkers adopt. We observed other self-controls strategies like the systematic communication of the content of tasks to be performed during the teleworking day, by the teleworker to the manager (and where the initiative comes from the former). These constraining strategies undoubtedly refer to the disciplined worker thesis developed by Collinson et al. (1998, see below). Again, those strategies contribute to reaffirm the managerial relationship. Managers institutionalized meetings, time sheets, but also refer, as the teleworkers did, to the core notion and role of trust. In the context of R&D, trust seems to have been historically built on the principles of visibility and presence, notions that serve to verify trust. Is there a risk of erosion of trust in despatialised environement? No, since visibility and presence may still be checked, even remotely as we observed earlier and through the strategies and tools developed both by management, colleagues and teleworkers.

To sum up the investigation we conducted at R&D, telework seems formalizing information and communication. Anyway, most of the regulations taking place contributed to rebuild visibility and presence in a context where teleworking suffers from a lack of legitimacy,
including in the chief of management. The re-regulation process we analysed contributed to intensify supervision and technocratic control. In reaction to the eroded social perception of telework, which can be considered as a social control and which contributes to isolate teleworkers, they constrain themselves by developing self controls. In this sense, the ability to work from home is considered as an advantage teleworkers balance with the increased supervision and control.

Those two cases raise a lot of questions about the re-regulation process we observe. After having presenting them, we can now derive several lessons in the following lines.

**Discussion**

We illustrated control intensifies through the combination of different locus: the formalisation of processes and the extension of the hierarchical relationship, the raise of social control consequent to the lack of social legitimacy of the teleworking arrangement and the development of ideological controls. In the following sections, we will develop each of those phenomenons. We will then discuss the process of identity regulation we observed by pointing out identity was not here the target of management regulations as it has been presented elsewhere (see eg. Alvesson and Willmott, 2002), but the mean activated by all organisational actors in order to maintain existing norms of control, in a changing context.

In both environments (IT-bo and RD), despatialised work reinforces the technocratic end of control through formalization: new tools emerge and/or existing management tools are used for control purposes. The first formalization process we observed was due to the teleworking policy developed by the HR department of BioPharma and which constrains the practice of telework by requiring mentioning elements such as the day of telework, the availability hours, the nature of tasks performed at home, the planning of a regular feedback on the telework experiment with the supervisor.

The planning of the meetings constitutes a second process of formalization. These coordination times are part of the control process since they are supervision times: this is now the moment for checking what has been done instead of to coordinate teamwork as before, where what has been done was informally known before the meeting. Consequently, the potential flexibility associated to telework in the literature is not (or so little) used at BioPharma. In most of the cases, the commuting time is totally (or mainly) allocated to work duties. In the few cases where teleworkers benefit from this flexibility during the working day, it happens during the conventional lunch time, it does not affect the total duration of the
working day (working hours are fully completed) and it has been discussed with the supervisor who approved it.

This illustrates a third formalization process: the extension of the hierarchical authority, even if this process also mobilises informal regulations. Supervision extended and covers new matters (the more formal control of the content of the job, but also the content of the non-working time) and has more occasions to express oneself (authorization for teleworking, feedback and assessment on the experience, discussion of the day for teleworking, permission for having lunch with children, etc.). We also observed control was mainly exerted at the team level, what gives managers a real room for manoeuvre in order to regulate telework and reducing incertitude in regard to the conventional marks and, to some extent, to local specificities. Note that this unravels what has been written in the managerial literature about the undermining of the role of managers, assumed to become more ‘coaches’ than supervisors (see eg. Illegems and Verbeke, 2004).

Given this matter of fact, one question remains: why are the employees willing to telework? Trying to reconstruct their visibility and presence according to the prevailing norms of control, teleworkers adopt a disciplined behaviour, according to Collinson et al. (1998). This means that teleworkers accept more constraints since they value the teleworking arrangement.

The particularity and the ambiguity of this valorisation (that they oppose to the cost of being isolated) is to be embedded in the private sphere: teleworkers value the possibility to work at home and to benefit from the quality of the private environment for performing work. This is something new in the ‘disciplined worker’ thesis developed by Collinson et al. (1998): here, employees valorise a working arrangement within the private sphere, although it constrains their behaviours at work and at home. So, telework appears compatible with an intensification of control while also allowing employees a greater autonomy regarding the content and the organisation of their work. This illustrates autonomy and control is not a zero-sum game, as argued elsewhere (see Edwards et al., 2002).

We also pointed out the phenomenon of social isolation, even when telework is practiced one single day per week. This isolation is experienced by the computer scientists who used to interact widely with their colleagues, but also by scientists involved in a more isolated and individualized work. This feeling of isolation leads teleworkers to rethink the way they work and to develop signalling strategies to the attention of colleagues and supervisors, as well as to adopt a very rigid schedule and planning (instead of taking advantage of the potential flexibility telework would provide, as mentioned earlier). The remaining question deals with
the origin of this feeling: why do teleworkers negatively experiment isolation since they are willing to telework?

The answer comes from the social perception and the lack of legitimacy characterizing telework. And this perception may be explained through the organization of work and the existing rules of the game in the departments we investigated. Indeed, work organization is deeply rooted in the principles of visibility and presence of the employees. Their physical non-presence is associated to their absence, i.e. to private activities and time. According to the prevailing convention valuing physical presence, you need to be seen to be considered as working. This perception is promoted by a direct management (associated to a direct control) not favourable to this arrangement (from which they are excluded as ‘managers’) or who consider it as an element of comfort, thus secondary and coming after the requirements linked to the job (meetings, reactivity, etc.). Facing those interpretations and missing informal (and sometimes formal) communication, teleworkers feel isolated and their managers consider them at a distance, far from the office, not directly involved in the day-to-day operations. This is the real starting point of the regulations we observed: teleworkers tend to rebuild their visibility and presence remotely and in a more constraining way in terms of schedules, interactions or respect of the authority. From the management side, the regulation leads to a new compromise through the planning of coordination and communication activities. In one way, we can say telework did not contribute to transform the existing convention. Reversely, the existing rules of the game constrain telework activity by producing control modes that allow them to survive and, somehow, to be strengthened. This is particularly illustrated through the prevalence of time schedules and supervision: the former constitutes a strong marks for expressing its visibility when teleworking (referring to the need to be at work at 8:15 in the morning) and became institutionalized through telework while this temporal norm remained informal previously.

Finally, the values ‘confidence’ and ‘availability’ became powerful ideological locus of control because teleworkers act in order to not transgress them. All the regulations we observed at the individual level (signalling strategies, communication with the supervisor, feedbacks, etc.) had as ultimate objective to consolidate the adhesion to them (I am available, you can trust me). The social legitimacy of telework may also affect the trust relationship by reconfiguring the power relationships, as we observed it at RD. Does it mean that confidence (or trust) is tied to physical presence? It seems to be the case in the bureaucratic environment
we studied. Trust needs a physical basis to develop, what we did not doubt. But it seems that trust may decay with despatialisation.

This latter comment leads us to consider the process of the regulation of identities developed in the critical literature by authors like Alvesson, Willmott, Worthington and Ezzamel who presented identity regulation as an organisational control, what made undoubtedly progress our understanding of organisations and their regulations. Nonetheless, this regulation was largely assimilated to a managerial process of regulation, i.e. referring to the intentionality of management, and where identity is the object of the regulation (Alvesson and Willmott, 2002). The case we presented here takes place in a changing environment (where the teleworking project is part of the change). It allows us to identify the regulation of identity as a means to reduce uncertainty inherent to change situations and, at BioPharma, to reinforce the existing norms of control. In other words, social pressure due to the lack of social legitimacy of telework, i.e. to its decay from the existing rules of the game, produced regulations that preserved the existing identity work. Within this process, management, in its collective and institutional dimension, plays a minor role. The main actors of this re-regulation are the colleagues of the teleworkers and teleworkers themselves.

**Conclusion**

The intensification of control is the consequence of the multiple regulations we observed around the teleworking project and having different authors. The re-regulation process of control resulted from the combination of technocratic, social and ideological control modes. Each of those locus is combined and justifies the others: for example, signaling the presence by answering quickly to e-mails provides an answer to social control and signal the loyalty of the teleworker to the group (ideological control). Anyway, the role of social control appears determinant. If all the modes of control combine each other, social controls influence the more those regulations and the behaviours of teleworkers who seek to conform to the perceived organisation’s expectations. In a context characterized by the principles of visibility and presence, telework is first associated to absenteeism: what the teleworker does at home is invisible. This effective –or anticipated- social perception sets off the signaling strategies we identified and the focus on marks such as time schedules and values. The lack of social legitimacy of telework therefore deeply contributes to reinforce existing norms of control and to constrain employee’s actions.
We mentioned earlier that control was defined as an intended process of influence in the management literature, where the intention came from the management itself. Our research enlarges this scope and define the process of control as the set of all influences—not only those decided by the management—affecting individual’s behaviours. In the process of change we studied, social and ideological controls played an important role in the re-regulation of work, consequent to the introduction of telework, without being directed through management. Those modes of control are culturally and historically embedded in the convention (of control, here) that historical actors have built and that constrains actions by producing norms that help to select conform behaviours from non-conformist behaviours. This conventional dimension has to be taken into account by the management when introducing organisational change. According to Gomez and Jones (2000), conventions are not static and may evolve, disappear or remain. As illustrated in this article, conventions and the regulations taking place around their marks and norms produce social control. This lightens the necessity of studying interpretations and discourses in social sciences as well as in management.
References

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Table 1

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Table 2

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<td>Group values</td>
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<td>Direct supervision (due to physical proximity)</td>
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Table 3

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The fact that our observations are derived from a pilot project may constitute a limit to our investigation since the regulations we observed are those from “discovers” or “early adopters” and that other regulations may proceed in the following months and years after teleworking was introduced.

Note that this advantage was exclusively quoted by the women of our sample, while men referred to the increase in productivity. However, the qualitative material allows us to explain this does not refer to a ‘genderisation’ of telework since the two men did not have children anymore at home. More than the sex, this is therefore the family situation that affects the valorization of work-family dimension.

It appears interesting here to consider the notion of ‘convention’ as developed by Gomez and Jones (2000) in the management literature. According to them, conventions refer to the rules of the game. Conventions produce a set of marks to which actors may refer to adapt their behaviour, especially in situations characterized by uncertainty. The specificity of their approach is to consider the dynamic of conventions, what consists in considering conventions are not imposed (externally) to actors but that they are also produced by them through regulations that are historically and culturally embedded. For a detailed analysis of this model and its illustration, see Taskin (2007).