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## HIGH-TECH CLUSTERS AND MULTINATIONAL CORPORATIONS: SUBSIDIARIES IN POLITICAL GAMES

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**Abstract:**

High-tech Clusters and Multinational Corporations: Subsidiaries in Political Games

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This paper explores the relationship between high-tech clusters and Multinational Corporations (MNCs). When MNCs enter high-tech R&D clusters through acquisitions of high-tech R&D companies, the outcome often is that an initial successful phase lasting some years after the acquisition is followed by a closure or a sale of the subsidiary. This tendency has for example been seen a number of times in the NorCOM wireless telecommunications cluster in Northern Jutland, Denmark. This article explores why this course of events occurs in high-tech R&D clusters.

It is argued, using literature on MNCs as social constructions (Dörrenbächer & Geppert 2006), that it is necessary to investigate the socio-political underpinnings of MNCs empirically, if we are to understand how and why such change through time. MNC subsidiaries located in clusters are positioned between two worlds. One is the world within the MNC characterized by socio-political processes shaping the identities and behaviors of employees in the MNC. The other is the world within the cluster characterized by a buzz (Bathelt, Malmberg, & Maskell 2004), which shapes institutions, shared understandings etc. in the cluster. Both of these two worlds influence the dynamics within MNC subsidiaries located in clusters, and hence their evolution. To uncover the dynamics leading to the course of events described above, it is therefore necessary to investigate the socio-political processes occurring in an MNC subsidiary located between two such worlds empirically.

A detailed case study of one such MNC subsidiary in the NorCOM wireless telecommunications cluster was therefore conducted. Detailed case studies are a methodology widely employed in the MNC literature treating MNCs as social constructions. The case study showed, that after the initial successful phase, employees in the subsidiary had to participate in political games about new work tasks and new competences, to claim a position within the MNC, and hence a *raison d'être*, and the study illuminates the dynamics of this political game in detail.

JEL - codes: F23, O19, O32

# High-tech Clusters and Multinational Corporations: Subsidiaries in Political Games

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## 1 Abstract

MNCs increasingly internationalize R&D activities to exploit certain technological capabilities or augment their technological capabilities (Criscuolo, Narula, & Verspagen 2005; Kuemmerle 1999). Birkinshaw and Hood (2000) have shown that MNC subsidiaries located in clusters develop characteristics similar to the characteristics of other firms in the clusters. This paper expands our understanding of the dynamics surrounding such MNC subsidiaries.

MNCs are treated as social constructions in this paper, and emphasis is therefore placed on the socio-political dynamics occurring in such. Foucault's genealogy is used as the analytical tool which forms the basis of a detailed case study of one MNC subsidiary located in a cluster. It is analyzed how the subsidiary changed between two points in time, time A and time B. I acknowledge that the subsidiary at both times was a social construction, and I investigate the emergence and descent of events, understood as changes in force relations, occurring in the subsidiary between these two points in time. On the basis of this I identify the strategy which was most immanent in these changes. This strategy, or in other words this practice, then forms the basic object in a second analysis, through which I write "the history of the present" of the subsidiary in time B. In utilizing this approach I dismiss the concepts of "development" and "evolution", since these concepts wrongly make it possible to assume that we can group a succession of dispersed events, that such events have a unifying force binding them together, which is also a force of life causing adaptation etc., and that society moves from one lower state towards a better state. Therefore I do not assume that time A in any way holds the key to the following changes occurring up to time B. This is the strength of the genealogical method, it offers a way of framing the analysis of how events occurred in society, and thus for example how a subsidiary has changed through time, in which the researcher is not forced to choose a specific focus in the analysis at the beginning, or make certain assumptions. This is often done in cluster studies, for example when it is assumed that processes relating to learning are key in understanding the dynamics occurring, and learning therefore is placed at the center of the analysis.

The investigation shows that the strategy, which was immanent in the force relations surrounding the events in the subsidiary between time A and time B, was a strategy about gaining new work tasks and new

competences. The following analysis reveals how employees in the subsidiary were constructed as subjects in a process involving discourses and practices from two different worlds, and how these two worlds came together in a construction process, which placed this strategy in the minds of the employees and caused it to gain more and more importance in their minds through time. One world was the world within the MNC organization with certain discourses and practices, and the other world was the world within the cluster with certain discourses. In this construction process we also see the history of a subsidiary, which was part of an MNC organization, but in which the employees had practices which was different compared to other employees in the MNC. This difference showed itself, amongst others, in relation to political games within the MNC, where employees in the subsidiary were more focused on technological quality and cooperation and less focused on political games compared to employees in other parts of the MNC, due to certain discourses in the cluster. This in turn made it difficult for the employees in the subsidiary to obtain an organizational position within the MNC and hence a *raison d'être*.

In presenting this analytics this article contributes with two things. Firstly it shows how the Foucauldian genealogy can be a valuable tool in the study of MNC subsidiaries. Secondly it expands our knowledge about the dynamics influencing subsidiaries located in clusters, by illuminating in detail the dynamics through which the cluster on one hand and the MNC on the other influences such MNC subsidiaries. Finally the implications of the study is discussed, both in relation to the literature on MNC subsidiaries in clusters and in relation to the literature on buzz within clusters.

## 2 Introduction

MNCs increasingly internationalize R&D activities to exploit certain technological capabilities or augment their technological capabilities (Criscuolo, Narula, & Verspagen 2005; Kuemmerle 1999). (Birkinshaw & Hood 2000) argued that subsidiaries located in clusters over time develop characteristics which are similar to the characteristics in other firms in the cluster. Their conclusion, in relation to the cluster literature, was that in clusters with high levels of foreign ownership, companies are less autonomous and have weaker capabilities. It therefore follows that their conclusion, in relation to the subsidiary management literature, was that in the debate about environmental determinism versus strategic choice, more weight needs to be given to the environment side.

They do not explain, however, *how or why* subsidiaries located in clusters develop characteristics similar to the other cluster companies; they only give suggesting why this might happen, and I believe that this has to do with their approach to the study of MNCs. If we are to understand the dynamics leading to this outcome in more detail, then we need to embrace another approach to the study of MNCs, in which such are seen as social constructions. In this paper I aim to expand our knowledge about the dynamics shaping subsidiaries of MNCs located in clusters by applying such an approach.

Conventional MNC literature perceives MNCs as rational actors, distributing activities geographically to tap into certain regions or clusters to obtain knowledge. Power is understood as being distributed along the hierarchical lines of the organization, headquarter (HQ) is the central authority, and HQ make all strategic decisions, and subsidiaries follows these decisions, and are thereby primarily responsible for operational tasks. The task for HQ management in this view is to create strategies taking into account needs and resources of each subsidiary (Dörrenbächer & Geppert 2006). This means, for example, deciding how the

activities of different subsidiaries should be coordinated and how much autonomy each subsidiary should be given to adapt to its local context (Hout, Porter, & Rudden 1998; Porter 1998b). In relation to the point made by (Birkinshaw & Hood 2000) it also means, that it is the task of HQ to identify the type of cluster in which the subsidiary is located, and then deciding whether to manage the subsidiary from outside or to give the subsidiary the autonomy needed to adapt to its local environment.

In the conventional literature on MNCs we see the assumption that MNCs are “cohesive, goal-directed rational actors”, to use the words of (Morgan 2001). By 2001 three broad streams of literature dealing with MNCs existed according to (Morgan 2001). The first line dealt with how MNCs make choices about how to expand their operations, i.e. should it be through joint ventures, mergers or acquisitions, which approach fits what cases etc. The second line of literature dealt with different stages of internationalization of MNCs, i.e. does MNCs go through a certain sequence of stages in their internationalization process or can they jump stages etc. The third line dealt with how MNCs are managed, i.e. issues of integration vs. autonomy of subsidiaries etc. (Morgan 2001). Binding these streams of literature together was, according to (Morgan 2001, p.8), shared assumptions about “academic knowledge, social reality, and models of the world”.

Firstly, the three lines of literature builds upon an economic perspective on models, which is that modeling begins with a market and rational actors pursuing their interests on the basis of cost calculations, and the allocation of resources occurs through the ‘hidden hand’ of the market. The construction of models for firms are simply examples of models that are scaled up, and made increasingly complex by the addition of variables, but the fundamental dynamics are simple, relating to rational actors pursuing profits (Morgan 2001). Secondly, empirical data occupies a secondary place in the literature, which means that model construction is the primary objective, and although empirical data might be useful in testing models or stimulating further model building, empirical data cannot change the underlying assumptions about rationality etc. (Morgan 2001). Finally, the goal on a management level of these three lines of literature is to identify structures and processes which can maximize profits. Again, the underlying idea is, that economic life is seen as a rational process, where rational actors makes choices on the basis of cost considerations and the activities they want to undertake (Morgan 2001). Given that the three lines of MNCs literature share these assumptions, they are not capable of addressing the social political underpinnings of MNCs, as (Morgan 2001) argues:

“Model-building and the development of theory from these presuppositions have little to say about the social embeddedness of rationality and the contingent and precarious nature of organizational order. It is therefore unable to address systematically the social determinants of organizational structures, the political nature of decision-making, the irrationality of organizations, and the social construction of markets.” (Morgan 2001, p.9)

I believe that it is a paradox that some researchers use the conventional approach in studies of something as social a cluster, because in the newer cluster literature emphasis is on knowledge and learning in particular (Malmberg & Maskell 2002; Malmberg & Maskell 2006; Maskell 2001; Maskell & Lorenzen 2004; Maskell & Malmberg 2007), and on social processes in general as exemplified in the discussion about buss and pipelines by (Bathelt, Malmberg, & Maskell 2004; Maskell, Bathelt, & Malmberg 2005). Therefore we need to choose an approach to the study of the dynamics surrounding MNC subsidiaries located in clusters which is capable of illuminating social processes. Let me therefore turn to literature which treats MNCs as social constructions.

### 3 MNCs as social constructions

In an editorial dealing with this new literature (Dörrenbächer & Geppert 2006) argues, that although the issue of the socio-political underpinnings of MNCs have been an marginalized field within international business studies, it is now a growing field, and several themes have been investigated in this approach. The argument in this literature is that MNCs should be understood as social constructions rather than homogenous rational social actors. They are constituted by numerous different actors pursuing different goals, and given that MNCs span different national contexts, the processes occurring inside MNCs are different from processes occurring in non-international firms (Morgan 2001). The basic economic assumptions about rational actor pursuing profits etc. are therefore abandoned in this line of literature, and the focus is instead how actors, and their goals are constructed, as (Dörrenbächer & Geppert 2006, p.254-255) argued:

“The focus on micro-politics in MNCs is first and foremost about bringing back the actors and examining the conflicts that emerges when powerful actors with different goals, interests and identities interact with each other locally and across national and functional borders”. (Dörrenbächer & Geppert 2006, p.254-255)

(Dörrenbächer & Geppert 2006) further argued for a move away from approaches founded on contingency theory, and the tendency observable in much MNC literature where actors remains ‘faceless’, and simple understood as being part of HQs or part of subsidiaries and as such characterized by what (Dörrenbächer & Geppert 2006) calls “universal” behavioral assumptions, for example “not invented here” attitudes or “knowledge sharing hostility”. Leaving these approaches (Dörrenbächer & Geppert 2006) argued that researchers of MNCs should conduct true studies of micro-politics in organizations, quote:

“... genuine micro-political approaches do not see individual or corporate actors as merely executive organs of external institutional and task environment features. Instead, they conceptualize actors as being informed by structural and institutional constraints but at the same time taking into account their subjective interests in organizing and strategizing. Very often those interests are self-centered, defined genuinely by issues of gaining power and autonomy, and by career ambitions within in a certain subsidiary or within the MNC as a whole. However, they might also be shaped by altruistic ideas and beliefs (Ortmann, 1988), personal identity construction (Weick, 1995) or group dynamics (Lee and Lawrence, 1995).” (Dörrenbächer & Geppert 2006, p256)

We should thus investigate, in other words, the micro-political processes through which actors within MNC HQs and subsidiaries are constructed, if we are to understand how and why such change through time. How can such a study be done? What is a micro-political analysis of an MNC organization? (Dörrenbächer & Geppert 2006, p.256) describes micro-politics in an organization context in the following way, quote:

“Like all other forms of politics, organizational micro-politics are understood as an attempt to exert a formative influence on social structures and human relations. Securing options, realizing interests, and achieving success however take place in a contested terrain. Thus micro-political conflicts are everyday occurrences which can appear in every organization, including in MNCs. Moreover, these conflicts are a fundamental mechanism of social interactions which either can hold organizations together or lead to fragmentation and disintegration. Micro-politics can affect a MNC as a whole, for example, when they concern global business strategy. However, they also apply to medium range issues, such as when decisions are about the location of economic activity or the re-grading of subsidiary functions and mandates. Finally, micro-political conflicts occur at the departmental level in either the HQ or the subsidiaries, for instance over the development of external (international) contacts or the negotiation of budgetary issues.” (Dörrenbächer & Geppert 2006, p.256)

Politics in an organizational context is thus about power, but what kind of power? How should power be conceptualized in an organizational context? This question is key if we are to analyze the MNCs and their subsidiaries, because over analytical approach depends upon how we conceive power.

We can, as (Clegg 1989) rightfully pointed out, trace the roots of different theories on power back to the writings of either Hobbes or Machiavelli. The quote above can therefore be understood in two ways, depending on whether we conceptualizes power as something which is possessed as Tomas Hobbes did or whether as something which is enacted as Nicòlo Machivelli did.

The classical theories on power presented by Floyd Hunter and Robert Dahl, the theories on non-decision by Peter Bachrach and Morton Baratz, the theory on the third dimension of power by Steven Lukes and finally the structuralistic views on power presented in for example the Marxian theory, can all be traced back to Hobbes view on power because these theories are preoccupied with possession, sovereignty and control. Conceptualizing power in this perspective will lead us to understand power in an organizational context in a rather simple Hunter & Dahl perception as "A makes B do something", or, if we make things slightly more complicated in a Bachrach & Baratz perspective where "B does something because he expect A to wish it" etc. All instances which lead us to ask the question: who has the power within the organization?

Opposing this line of thought is, according to (Clegg 1989), the post-structural theory presented by Foucault who builds on views presented by Machiavelli and Nietzsche, and therefore he focuses on exercise, strategy and struggle. Turning to the points made in publications such as (Foucault 1972;Foucault 1984;Foucault 1991;Foucault 1998), the question no longer is who has the power within the organization, but rather the point is that power is to be understood as the configuration of force relations in organizations.

It seems to me that a socio-political study is not only a study of power in an organizational context, it is rather a study of power as well as a study of how people within organizations are constructed, given the quotes above. Therefore I believe that a Foucauldian approach to the study of MNCs is an well suited approach in this context, because Foucault's goal was not to analyze power for the sake of power, rather he developed analytical frameworks, which can be used to analyze how people are constructed as subjects through a study of force relations in society. And this is exactly the goal according to (Dörrenbächer & Geppert 2006); we have to analyze how people within MNCs are constructed, if we are to understand MNCs, as argued in the quote above. In this paper I will therefore use a Foucauldian approach to study the dynamics surrounding MNC subsidiaries located in clusters and the employees in such.

#### **4 A Foucauldian perspective on politics within organizations:**

As (Carter, McKinlay, & Rowlinson 2002) pointed out, much has been written about Foucault in organizational studies, but as underlined by (Knights 2002), much of this literature does not really deal with Foucault's contribution. Often he is only used for what may be called ornamental purposes, which means that people flag his name, without really using his contribution. In some academic circles using Foucault symbolizes intelligence and radically whereas in other academic circles his name symbolizes "a sea of unintelligible jargon, airy-fairy trendy French nonsense", as (O'Farrell 2005, p.2) puts it. To avoid the ornamental use, I will go back to Foucault's own work and utilize that as the starting point for the analysis.

Space constrains makes it impossible to go into a detailed discussion of his ideas, and I am therefore forced to summarize the points I draw from his works and how I use them as the basis for my analysis. This also means that I do mention other organizational studies using Foucault explicitly in the following, because I devote the space to a discussion of Foucault's own ideas. The reader longing for such references should turn to the secondary literature on Foucault in organizational studies and a good place to start to get an overview is the editorial by (Carter, McKinlay, & Rowlinson 2002), or the secondary literature on Foucault, for example (Dreyfus & Rabinow 1983; O'Farrell 2005; Raffnsøe, Gudmand-Høyer, & Thaning 2008).

The first point I will draw from Foucault's works is that he created an analytics of power, not a theory (Foucault 1998, p.82). He was not interested in power relations for the sake of power relations, rather he was interested in understanding how humans was made into subjects in our society. Since this process is shaped by power relations, he needed to determine the analytical methods which would make it possible for him to study the power relations and hence the domain they create. As he argued:

“... I wish to suggest that one must analyze institutions from the standpoint of power relations, rather than vice versa, and that the fundamental point of anchorage of the relationships, even if they are embodied and crystallized in an institution, is to be found outside the institution” (Foucault 1983, p.222)

My focus in the following discussion is: How can Foucault's analytical frameworks serve as a tool for analyzing organizational change in MNC subsidiaries located in clusters? The first thing I will allow myself is to pick one of his tools, the genealogy. I believe that there are important relations between the idea of genealogy developed in (Foucault 1984) and used and refined in for example (Foucault 1991; Foucault 1998) and the idea of archaeology developed in earlier books, such as (Foucault 2002) and refined in (Foucault 1972). A discussion of this relationship must however be left for another publication, and I can only say that I have taken the relations into consideration.

What is genealogy and how can it be use in my case? As (Foucault 1984) argued, inspired of Nietzsche's work, genealogy is about investigating the “Herkunft” and “Entstehung”, descent and emergence, of things to uncover the “Wirkliche historie”, effective history, of such. The goal is, in other words, to write the “history of the present” as argued in (Foucault 1991). If we look at how Foucault uses the genealogical method, we see that he starts his book “Discipline and Punish” (Foucault 1991) with a description of the torture and execution of Damiens in 1757 in all its gruesome detail. Thereafter he describes a timetable from a prison in Paris, as it were eighty years later, describing in detail the prisoner's duties during the day. He then concludes that the public execution and the timetable each define a certain penal style. He then makes it clear that many changes occurred in relation to punishment in the less than 100 years which separates these two events, and “Among so many changes, I shall consider one: the disappearance of torture as a public spectacle” (Foucault 1991, p.7) Thereafter he begins his analysis of this, investigating the emergence and the decent of this disappearance, and in doing so he links the disappearance of torture as a spectacle to the emergence of disciplinary practices in society and thereby explains the emergence of the prison as we know it.

The genealogical method is deployed in a similar fashion in the first volume of “The History of Sexuality” (Foucault 1998). Here Foucault firstly presents the “repressive hypothesis”, which holds that in the Victorian time a silence was enforced by the powers in society. The sexuality of people, of which they had earlier been speaking quite openly about, was now repressed into silence. This meant that by speaking



about sex people were able to make resistance. By talking about their sexuality people were placing themselves outside the reach of the power which was repressing their sexuality, which implied that a distinction existed between power and truth. Power was opposed to the truth. This led to a 'will to knowledge', people would be trying harder and harder to speak the truth to place themselves outside the reach of power. Foucault then goes on to criticize the "repressive hypothesis", and he asks how a situation in which people are talking so much about their sexuality emerged. To analyze this he focuses upon the practices surrounding the confession. Why are people trying to tell the truth all the time? What lies behind this confessional practice? In undertaking this analysis of the descent and emergence of the confessional practice he shows that to understand this confession, it is necessary to understand some relatively broader practices in society. And this leads to his discussion about bio-power.

I shall use the same approach to my study of an MNC subsidiary. I will ask first: How did this subsidiary change from time "A" to time "B". Along what dimensions did it change? And then I will analyze this by investigating the descent and emergence of one specific practice, which in my analysis will be my equivalent to Foucault's focus upon the disappearance of torture as a public spectacle or his focus upon the confession. This makes it crucial how to choose the practice on which I center my analysis. Let us therefore look at how Foucault chose his focuses.

Foucault remained rather silent upon why he chooses exactly these two specific practices for further analysis. One is therefore forced to deduce this from his writings, and as I read his work the choice has to do with his points made about how we should perceive power and society. In "The History of Sexuality" Foucault argued that power relations are both intentional and non-subjective. Since they are imbued with meaning at their most basic level, they give rise to intelligible structures in society, but they are not the result of the actions of any specific person. We should therefore decapitate the king before conducting our analysis, as Foucault pointed out in relation to Hobbes discussion about sovereignty and order in society. This means, as he put it in relation to Machiavelli's advises to the Prince, that we should ask what strategy that is immanent in force relationships, and take this as our starting point:

"It is in this sphere of force relations that we must try to analyze the mechanisms of power. In this way we will escape from the system of Law-and-Sovereign which has captivated political thought for such a long time. And if it is true that Machiavelli was among the few – and this no doubt was the scandal of his "cynicism" – who conceived the power of the prince in terms of force relationships, perhaps we need to go one step further, do without the persona of the Prince, and decipher power mechanisms on the basis of a strategy that is immanent in force relationships" (Foucault 1998, p.97)

To understand the implications of this we need to go back to a point made in "The Archeology of Knowledge", a book which some authors, for example (Dreyfus & Rabinow 1983), has interpreted as a doomed project. I do not agree with this, because as I read this book, it can give important insights into the discussion in Foucault's later books, an argument also advanced by (Raffnsøe, Gudmand-Høyer, & Thaning 2008) in their interpretation of the book. In this book Foucault argued that we should dismiss a whole set of notions which all deals with the theme of continuity. Two of these are "development" and "evolution". Foucault argues:

"... they [DEVELOPMENT AND EVOLUTION] make it possible to group a succession of dispersed events, to link them to one and the same organizing principle, to subject them to the exemplary power of life (with its adaptations, its capacity for innovation the incessant correlation of its different elements, its systems of assimilation and exchange), to discover, already at work in each beginning, a principle of

coherence and the outline of a future unity, to master time through a perpetually reversible relation between an origin and a term that are never given, but always at work" (Foucault 1972, p.24)

The point made in the essay "Nietzsche, Genealogy, History" is that the genealogist should do the exact opposite. Genealogy opposes itself to the search for origins, to the search for the "Ursprung". Foucault, drawing on the ideas of Nietzsche, dismisses a search for the origin, because such a study is in fact an attempt to study things in their clearest form, and it rests on the idea, that in the origin it is possible to see things in their clearest and pure form. Nietzsche and Foucault do not believe in the existence of "immobile forms that precede the external world of accident and succession" (Foucault 1984, p.79). Rather, Foucault argues, that "What is found at the historical beginning of things is not the inviolable identity of their origin; it is the dissension of other things. It is disparity" (Foucault 1984, p.78). This means that we have to dismiss the idea that we in the origin is able to find something which influences the following "development" or "evolution" of something and which binds this something together in a unity. There is no such deeper meaning or guiding or uniting force, only accidents and struggles. The use of the term development in an organizational context brings the idea that an organization moves upwards from one lower state towards a better state, and that the beginning of the process is guiding for the future changes in the organization. The evolution concept likewise brings in the assumption that the organization evolves as a species with a certain coherence and unity specified in the origin and moves towards a more fit state; a better state more capable of surviving in the context it is placed. But this movement towards the better does not exist in society, which Foucault explicitly argues:

"Humanity does not gradually progress from combat to combat until it arrives at universal reciprocity, where the rule of the law finally replaces warfare; humanity installs each of its violences in a system of rules and thus proceeds from domination to domination" (Foucault 1984, p.85)

Likewise, there is no uniting force only the struggles and the accidents immanent in power relations and points of resistance. The genealogist, though his study of descent, is thus destroying foundations rather than building them:

"The search for descent is not the erecting of foundations: on the contrary, it disturbs what was previously considered immobile; it fragments what was thought unified; it shows the heterogeneity of what was imagined consistent with itself" (Foucault 1984, p.82)

This is why the notion of development and evolution should be abandoned; we are not able to identify "the development" of a thing or "the evolution" because such thing does not exist. Rather what we see is different events, which are the outcomes of struggles and accidents. We should therefore turn our attention towards these events, and investigate the emergence and descent of these empirically (Foucault 1984). As Foucault argued

"Genealogy is gray, meticulous, and patiently documentary. It operates on the field of entangled and confused parchments, on documents that have been scratched over and recopied many times" (Foucault 1984, p.76)

To do this we need to analyse the events from the standpoint of power relations. And this brings us back to the focus on the strategies most immanent in the force relations, as discussed earlier. We need to look at the events, go through the "field of entangled and confused parchments, on documents that have been scratched over and recopied many times" and analyze *what strategy that was most immanent in these and therefore gave rise to the structures we see in society, and hence the events we are studying*. This was why

Foucault chose the confession and the disappearance of torture as a public spectacle as his focus. In the complex discussion about sexuality and repression in society the most immanent strategy was to talk, to confess. So Foucault turned his attention to this. In the complex changes occurring in relation to the penal system in France, the most immanent strategy was that torture disappeared as a spectacle. I will utilize the genealogical approach also, and given Foucault's writings my approach will be the following: Firstly I will focus upon one MNC subsidiary located in a Porterian cluster (Porter 1998a;Porter 1998c). I will then ask: How did this company change from the time "A" to time "B"? Along what dimensions did it change? I will not assume that what I see is a development or evolution towards a better state. I will simply look at all the events along the way which changed the configuration of power relations within the subsidiary. Secondly I shall investigate all these changes, and ask what *strategy that was most immanent in these changes*. This will lead me to identify a practice, or in other words a strategy, which will, and this is the third step, form the basis for an analytics in which I will write the history of the present (time "B") subsidiary. In other words an analytics where I ask the question: How did the subsidiary get to the situation it was in before the closure?; and then analyze this using the identified practice as a starting point. This brings me to a discussion about the methodology employed in this article.

## 5 Methodology

In line with other Foucauldian studies, such as (Flyvbjerg 1998b) and (Jørgensen 2007), I have chosen the case study as a method. The strength of case studies is, as argued by (Flyvbjerg 1998a), their ability to uncover the details surrounding the event or object under investigation, in this case the changes of an MNC subsidiary. The approach is widely utilized in the never line of MNC literature described above, where MNCs are studied in details over time periods spanning several years. Examples of contribution which utilize this approach is (Kristensen & Zeitlin 2005) and (Geppert, Williams, & Matten 2003).

I chose one MNC subsidiary, Texas Instruments Denmark A/S (TIDK), located in the NorCOM telecommunications cluster and studied its history in detail. The existence and characteristics of the NorCOM cluster has been described in numerous publications, see for example (Dahl & Pedersen 2004;Dahl, Pedersen, & Dalum 2005;Dalum 1995;Dalum et al. 1999;Dalum, Pedersen, & Villumsen 2005;Lorenzen & Mahnke 2002;Stoerring & Dalum 2007), and will therefore not be discussed here again.

The story of TIDK stated when the R&D company ATL Research was acquired by Texas Instruments (TI) in 1999. In 2006 it was one of the most successful<sup>1</sup> R&D companies in the cluster, having grown from around 40 employees at the time of the acquisition to around 200 in 2006, winning Computerworlds<sup>2</sup> prize for the best growth in Denmark three times in a row in 2004, 2005 and 2006 and gaining the "Amcham Denmark Business Award 2005". I studied the company for three years, from 2006 until 2009, where the company was closed. Time "A" in my study will be the time of the acquisition, 1999, and time "B" will be September of 2008. The reason for not including the final months of the history of the company in the analysis is that I

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<sup>1</sup> Success is also a term I believe should be abandoned in a Foucauldian analysis since a success can by nature only be temporary in the perpetual struggle in society, and therefore it becomes impossible to distinguish success from failures, since it will rest on a artificial categorization; how long time should a certain situation exist before it can be called a success? Given the wide use of the term in business circles I have used it here because it can help the reader understand the nature of TIDK.

<sup>2</sup> Computerworld is a Danish IT newsmagazine

want to study the dynamics influencing a “living” subsidiary, and when it was announced that TIDK was put up for sale by TI in October 2008 the discourses and practices in the company fundamentally. I acknowledge that the company was a social construction at both times. It should therefore be made clear that the subsidiary must not be seen as a generic “local cluster company” before the acquisition, or a generic “MNC subsidiary in a cluster” at time B, on the basis of which we can make generalized statements. Instead the company at both times was a specific company with a specific history and specific characteristics, which I have looked into in the study. This also means that I have not only looked into dynamics occurring within TI between time A and B, but also into dynamics occurring before time A in ATL Research as well as dynamics occurring in other companies in the cluster. In section 7 I shall return to a discussion about what we can learn from the story about this specific company.

In line with the genealogical method I structured my data collection and analysis so that I firstly conducted a detailed qualitative study of the company to illuminate how the company had changed through time, and was changing in front of me. To collect data upon this I signed a non-disclosure agreement with Texas Instruments to gain access to the company.

I collected all data myself, and the data collection started in 2006 and ended in 2009. More than 20 interviews of key people within TIDK were conducted, lasting up to several hours each, and meetings were held with key people in TIDK to gain status on the situation within the company. I also followed a specific R&D project in TIDK for a period to investigate the practices surrounding this project, and in doing so I participated as observer in meetings in the workgroups related to this project. I further participated in two internal TIDK knowledge sharing conferences to investigate how knowledge was diffused with the company. Finally I conducted 7 interviews of key people in Texas Instruments site in Sophia Antipolis, the European headquarter of TI, and 2 interviews of key people in Texas Instruments headquarter in Dallas, to illuminate the position of TIDK within TI and how that evolved through time. Finally the three engineers who founded ATL Research, and later sold it to TI were interviewed to illuminate what type of company TI acquired, and the events leading to the acquisition. Newspaper articles dealing with ATL Research and TIDK and other relevant texts, such as company presentations, have been used in the analysis also. Finally I also conducted interviews at AAU, the local university, as well as in other companies in the cluster, to understand the cluster context TIDK was located in. All data collected under the NDA with TI and presented in this article has been cleared for publication by TI, so that no confidential information is disclosed.

To understand the nature of the changes occurring in TIDK I interviewed top managers, middle managers and engineers. I chose engineers and middle managers from different fields with the company, i.e. hardware, software, tools and solution delivery, to gain a broad understanding of the changes the company experienced. I also chose managers and engineers so that I both interviewed people who had been with the company since the ATL Research time, who could therefore tell about how the company changed they the years, and people who came to the company from other companies within and outside the cluster after the acquisition, who could therefore tell about whether the company was different compared to other companies within the cluster and outside of the cluster. The idea of choosing people coming from outside the cluster, and in one case from France, was that they were able to tell about the practices and institutions “NorCOM engineers” took for granted, due to the fact that these outsiders had to learn these and therefore were aware of them. When I interviewed people from TI Nice I also chose both engineers and managers for the same reasons.

The qualitative interviews were conducted according to the method containing seven steps presented by (Kvale 2004). A snowball approach was used to uncover how and why TIDK changed through the years. Some top managers in TIDK were interviewed first, the goal being to uncover what they saw as changes in relation to a number of fields: relations, work practices, technology, market, management of the work, organization etc. Using these interviews I constructed an overview of how TIDK evolved through the years and used the following interviews to elaborate on this, meaning that as my understanding of the changes the company experienced became more detailed, so did the interviews, as reflected in the interview guides used. I didn't only make sense of the reality in the company to use (Weick 1995)'s term, by conducting interviews. Small talks in the corridor where I talked to different employees in TIDK, conversations by the coffee machine when I visited the company, phone calls to different people in the company to get updates on the status of the company in turmoil times of downsizing etc. also became a source of understanding of the changes that had occurred and were currently ongoing. The same held for the meetings surrounding the R&D project I followed and the knowledge sharing conferences.

Through this process it became clear, that there were different views upon the company, its changes, and the reasons for these changes, depending on who I asked in the company. This is in line with the points made by (Foucault 1998), that there is no dominant discourse, instead a number of discursive elements exist which are continually being invented and recombined. This means that the reality in one company such as TIDK cannot be understood as one discourse, one narrative, rather there are several different narratives and hence understandings of reality. This is in line with the point made by (Dawson & Buchanan 2005) in relation to organization studies. This made it a challenge to analyze the strategies immanent in the changes, without doing violence to the empiric material by valuing some accounts of reality and disqualifying others.

To analyze what strategy that was immanent in the changes I went through all my data several times and created a text describing the history of TIDK as it was seen from the people inside TIDK in detail, presenting all the changes, and if there were different views upon some issues I tried to describe the different views also. This text, around 100 pages pure text, was shown to people in TIDK to verify I had understood their stories correctly, which again led to inputs and more details. In this work with this text it also became clear that I had to interview people in TI Nice and TI Dallas to get their view on the changes.

The data forming the basis for this TIDK story was collected in TIDK before the announcement in October 2008 that TIDK was put up for sale. In the spring of 2009 the data in TI Nice and TI Dallas was collected, and this was done after the announcement that TIDK would be closed as well as several other sites in TI significantly downsized. One could argue that their situation at the time meant, that they would be biased in their views. One could, however, also argue that people in TIDK in 2008, where they were struggling for their jobs, was in a situation where they were biased in their views. I will further argue that given my approach to the analysis, where I investigate the different views, the issue of biased statements was not a serious issue because they stood out compared to other statements by other interview persons. Given the situation where TIDK was to be shut down, TI Nice and TI Dallas downsized, and many projects involving these three sites, and other sites in TI, terminated, gave an once-in-a-lifetime possibility to interview people regarding power relations between the sites and the struggles for positioning among the sites, because with the new strategy decision made by the top management in TI, which resulted in the closures etc., all these struggles, positioning strategies of the sites etc. lost their value. This meant that in the time

window, between the announcement of the closures and the actual closures, where I conducted studies in TI Nice and TI Dallas and discussed my findings with top management in TIDK, they were willing to tell about the political struggles that had been ongoing in the corridors in the previous years. This added a new layer of understanding to my findings, but it is important to say, that the data collected in this phase fitted the previously collected stores, and gave them more depth. This suggests that people were not biased in their statements.

The story about TIDK seen from inside TIDK was update in this phase and I wrote a second story, 46 pages of text, describing how TIDK was seen from the outside, i.e. from TI Nice and TI Dallas. Both were cleared for publication and form the basis for this article. Further, the 26 of Marts 2009, 6 days before the closure of TIDK, I conducted an interview of the two top managers in TIDK to get their final reflection, as the history of TIDK were drawing to a close. This interview was also cleared for use in this article.

After the data collection was done I analyzed the changes and found that the strategy most immanent in the changes, was a *strategy of the people involved to gain new tasks or new competences*. Let me therefore take this strategy as the starting point for the case study.

## 6 Case Study

TIDK 1999 and TIDK 2008 were two different companies. The competences of the company had changed through the years, and so had the organization of the company, the position of TIDK within TI, TI itself and TI's customers and suppliers as well as the market TI navigated upon. The wireless technology and the markets for this technology had also changed, and so had the feelings of the employees. Many employees from TIDK 1999 were still present in the company in 2008 but their feelings regarding the company and their work were different. And finally, the region housing TIDK, North Jutland, and its so-called NorCOM cluster of telecommunications companies had also changed during these years.

Having analyzed all these changes in detail it appears, that the strategy, which was immanent in the force relations, was a strategy about gaining new work tasks and new competences. Let me frame this in a way similar to what Foucault does in "Discipline and Punish" and "History of Sexuality". In 1999 TIDK was acquired by TI, and at that time and in the first years after the acquisition, TIDK had a clear position within TI, and the work tasks that the TIDK employees should perform and the competences they should utilize was clear both people in TIDK and people in TI more generally. By 2008 the situation was another, now people in TIDK, an in TI generally, was doubtful as to what work tasks TIDK was supposed to perform and what competences TIDK possessed, and people in TIDK was struggling to obtain new work tasks and new competences. The question is therefore: How did this second situation emerge? Among all the changing practices within the company, the practice which I will focus is this following: What practices surrounded the way in which people in TIDK tried to gain new works tasks and new competences, and how did these practices change through time? In the following case study I will investigate this question<sup>3</sup>, and in doing so, I will write the "history of the present TIDK as it was in 2008".

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<sup>3</sup> The economist might ask the following to this: "Yes, but we know, that people try to get new tasks and new competences to maximize their value, so that they can make a larger profit". To this I will answer, that this argument is wrong, because people in TIDK was not *only* thinking about maximizing their value. The economist making this

## 6.1 The strategy for competences and work tasks enters the stage

What was the decent of the strategy to gain new competences and new work tasks? What caused it to emerge in TIDK? Firstly, issues related to the wireless technology and the market for this technology made it necessary for employees in TIDK to focus on new work tasks and utilize new competences. The new work tasks and programs to develop new competences could, for example, have been awarded to TIDK by top management in TI, without people in TIDK having to worry about it. But it was not, and people in TIDK were therefore put into a position, where they had to do an effort to gain work tasks and competences themselves. But this alone did not cause people in TIDK to be focused on this strategy. Other dynamics came into it also. One of these was that TIDK was one among many R&D sites in TI, and competition between these. And here we see part of the decent of the strategy. People in TIDK found themselves in a situation with internal competition in TI about work tasks and competences, and this competition was intensified by a changing wireless technology and a changing market with declining margins. As TIDK employees participated in this competition, their actions were shaped by their identities as subjects, and it is therefore necessary to focus on how TIDK employees, located in the middle of changes involving technology, market and internal competition, were constructed as subjects. If we analyze this, it becomes clear, that the employees in TIDK were constructed as subjects both within the TI organization and within the NorCOM cluster.

The TI organization with its specific discourses and practices, relating to issues such as “best practice”, planning of the work, use of deadlines, use of business arguments, use of resources, monitoring of the work, evaluation forms, competence development programs, knowledge sharing arrangements, strategic bullet points etc., was shaping the subjects in TIDK; and at the same time the NorCOM location with the specific discourses and practices found in the cluster, discourses about the heydays of the cluster, discourses about how some of the early companies in the cluster became successful, discourses about best practices, discourses about the strengths of the local university, discourses about what good engineer work and what good engineering behavior ought to be etc., was also shaping the subjects in TIDK. These two worlds, the TI world and the NorCOM world, with each their different discourses and practices, came together in the construction process, and this process resulted in the subjects in TIDK ending up having identity characteristics which were different compared to subjects in other TI sites. And this was reflected in a different approach to the strategy about gaining new work tasks and competences.

To rephrase this, intersecting on multiple dimensions, changes in the wireless technology, changes in the market, TI’s internal competition, TI changing organizational structure as well as discourses and practice relating to the NorCOM cluster as well as discourses and practices within the TI organization came together

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argument is making the error of trying to fit the empiric reality into a pre-constructed frame, which is the idea of maximizing value and gaining profit. I will argue, that we have to look at the empiric data, and see what they tell us. And if we do so, we see, that people in TIDK was not *only* trying to get new tasks or competences to maximize their value. This was only *one among many reasons* why people in TIDK was pursuing new competences and tasks. Some were pursuing specific tasks or competences because they found them interesting seen from an engineering standpoint. Some were pursuing specific competences because they wanted to make sure TIDK had a future within TI. Some were pursuing specific tasks and competences because they felt that these were the “right” tasks to work on given the discourses they had been exposed to through their life. Some were pursuing specific tasks and competences because they wanted to be recognized by peers. This is why I put the strategy to gain new competences and new tasks at the center of the analysis, and not the idea of maximizing profit.

in a process around the minds and bodies of TIDK employees and shaped their identities in a way, so that it seen from their viewpoint was natural to put their main focus upon the struggle to obtain new work tasks and new competences in the latter years of TIDK history, and it also shaped their actions in this regard!

This is the conclusion of the case study. In the following, I will, to the extent the available space allows it, elaborate on this result. Let me start with the changing technology and changing market.

## 6.2 Technology and Market changes

ATL Research was acquired because by TI because of some specific competences<sup>4</sup>, and as the technology and market changed, so did the value of these competences within TI. TIDK therefore had to gain new work tasks and build new competences to gain a *raison d'être* within TI.

The core work task for TIDK was to produce reference designs. In the ATL Research days and early TIDK years produced form factor designs for the end-user. Focus was on quality, on producing the best designs utilizing exactly those components engineers in ATL Research and later TIDK found best suited for the task. Over time this changed to a focus on producing software development platforms for TI internally, and other issues came into focus too. These were a focus on TIs own components, a focus upon cost and a focus on a fast production time, i.e. TIDK had to be able to deliver a relative large batch of boards for software development relatively quickly after the chips was received. This meant amongst other that a new production department was set up in TIDK to help solve this demand. In the last years of TIDKs history focus was turned back to producing form factor designs for costumers, and by then the end-costumers had changed. In the beginning it was relative small costumers in Asia who might produce 1 million phones of each design. In the end the costumers were some of the largest in the industry who might produce 100 million phones of each type, which meant that the requirements for the designs also changed. So the ability of the engineers to choose components for the reference designs freely was to an extent lost through the years as other issues than the quality of the solution came into play. What was gained on the other hand was the ability to influence the creation of different chipsets and components. Engineers in ATL Research had to make use of the chips available on the market, and these were normally mature when ATL Research started working on them, meaning that ATL Research did not have an ability to influence the design of the chip. If an error in a chip was found by ATL Research, engineers would normally solve this on the board by adding the necessary components outside the chip. In the early TIDK years this situation was the same, but then things began changing gradually, so that in the last years TIDK was involved in the design and testing of the chips produced. One manager in TIDK argued that had TIDK not become involved in the chip development phase, then TIDK would not have a justification for existing within TI. Just making a reference design using a finished chip would demand nowhere near the staff TIDK employed in the last years.

The nature of the engineering work also changed, because of changes in the RF technology, which can be described using two dimensions integration and complexity. In the beginning a number of components, more than 200, were located externally on the board to form the radio in a GSM phone. Over time these components were moved into fewer chips as part of an integration process, so that in the latter years the GSM radio consisted of around 20 components. As this integration process occurred the engineering work

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<sup>4</sup> The core competence in ATL Research was knowledge about radio technology, particularly to TDMA (Time Division Multiple Access) which is the technique the GSM system operates upon, and GSM system knowledge.



needed to make a working GSM radio diminished as seen from TIDK. This did not mean however, that it became less work demanding to make a RF solution for a reference design, because the number of radios within a phone rose at the same time, to include for example GPS, WLAN, Bluetooth, GSM, W-CDMA, which in turn made the RF solution more complex.

The issue of increased complexity did not only relate to the RF area of the phone. By 2008 the RF area and GSM area was just a small part of the complete solution, and other areas had also become increasingly complex. The software part of the solution had grown significantly, and gaming and music capabilities as well as design issues had become important selling points. Therefore, the RF work on GSM was just a very small area in TI. By 2008 the RF and GSM competences which formed the basis for the acquisition of ATL Research in 1999 therefore only constituted a small part of the competences needed by TIs wireless division.

From 1999 to 2009 the market in which TI, and hence TIDK, operated changed too. The 2G, 2,5G and 2,75G technologies matured and focus was moved to cost and time-to-market in this segment of the wireless communications market. TIDK had been working on high-end phones and 3G phones, but in the last years the company was focusing only on 2G, 2,5G and 2,75G, i.e. low to mid end phones.

The changes in the technology and changes in the market made it necessary for employees in TIDK to focus upon what tasks and competences they had and how they fitted into the TI organization. At the same time as these changes occurred, and gradually increased the focus upon work tasks and competences in different TI sites, the internal competition within TI intensified.

### 6.3 Internal competition in TI

In the early years TIDK was producing reference designs for the customers, and TIDK had the right to choose which components that would go into the designs and this coupled with some successful projects made TIDK visible both within TI and among TI's customers, and as one TIDK manager explained, quote:

“... that does also have a side effect in such a large corporation, and that is that there are people sitting different places who get envious and think, hmm we want a piece of the cake too. And I think I saw that rather early, that some people began different initiatives. It was most clear with our [TI's] site in San Diego, which was also a company which was brought by TI... ...depending on how you see it, well, I think if we are to call a spade a spade, then they tried competing with us. Luckily they couldn't do so [the interviewee laughs], but they tried” (Manager)

The internal competition which TIDK became part of, being one among many R&D sites within the TI organization, was about having work tasks, which were “important”, competences which were “important”, or both, because works tasks and competences could be used to gain new competences or new work tasks, which in turn was the basis for a future and growth as a R&D site within the TI organization. I have put “important” in bracketing, because there were no truth as to what was important. The fact that something was understood as being “important” was constructed through discourses and practices within the organization.

Work tasks and competences were two interrelated entities in the internal competition. Competences could be used as an argument by a given site within TI, that this site should have certain new work tasks or the ability to build certain new competences in the future. Arguments used in the competition were primarily technical in nature, but arguments regarding cost, about the organization of the work, about

time-to-market considerations, about customer relations etc. were also used. Work tasks could also be used both to gain new work tasks or as an argument to build new competences. Arguments were for example: we have this task, and therefore it makes most sense regarding the work split that we are assigned this new task, or, we are doing this work task and given the technological development in this field we therefore need to build new competences regarding that. Or, it fits into our time schedule etc.

Given the importance of new competences and work tasks, different sites within TI sometimes started secret projects to build new competences or gain work tasks. This was done by managers in the sites by delegating parts of the resources assigned to official projects to secret projects to build certain new competences or duplicate work tasks officially conducted by other sites. The project was then kept secret from the rest of the TI organization. If successful the outcome would be that the site would be able to convince the rest of the TI organization that the new competences added value to the organization, which in turn could lead to the site being given new work tasks suited for these competences. In the case of duplicating work tasks one example was, that exactly the same tests were being done at different TI sites, and a TIDK manager explained, that one of the higher CEOs in TI at the time did not worry much about this, because then he was sure that the tests were done properly. The reason why sites were duplicating work was to gain certain work tasks or competences in the future, by arguing, for example: we did the same test as site A, and we found x errors which they did not identify, so therefore we should do this testing work from now on. Failure of such secret projects would be that the money was wasted and the official project went over budget or failed to meet the deadline. The reasons for managers to use this approach were also multiple, it showed initiative to higher management, sometimes it was easier to get forgiveness than permission from management, sometimes it was the only alternative they could think of, sometimes it offered a way of avoiding complex negotiations along official organizational lines etc.

In relation to this competition about competences and work tasks, truth was constructed in the political processes within TI. People within different sites had to convince other people constantly what they were doing and why they were important for the organization. A top manager in TI Nice explained:

"I can tell you, I have spent my last 15 years always to explain what people were doing, why they were important and so on. Because TI is a company which is, you know, technically managed across business resources. You can imagine that I have 10 times or 20 times had to explain what was the mission that I am doing for Nice or for whatever site...

...I can tell you TI, Texas Instruments, is not slipping in activities just for the sake of certain activities, its activities which are key to any, to the business." (Manager)

In relation to this we should note, that it is a rather open question what things key to business is. One could for example think that if a site performed its work tasks perfectly; delivered the tasks on time and in the highest possible quality, then its place within TI would be secured. This however, was not true, on the contrary, as the R&D director in TIDK explained:

"...I would even add one point, which is very important for me, it is important to sell yourself and show the value every day, but on top it is required to not only sit and get phoned by the headquarter, but to phone the headquarter, to inject your ideas, your contributions, your ideas, how to contribute to an overall solution, or product, in the headquarter. You need to at least try to influence, otherwise it is very difficult to put yourself in the position to say I do the best job, everything you told me I execute perfectly. This will devalue you. This will devalue you. Even though you did the best, you never caused any problem, for, it's a good example, we all agree in TI worldwide, that TIDK never caused a serious

delay. Everybody agrees. Never ever a serious delay came out of Denmark. But at the same time, and this is really surprising, some people are not sure, at least on top management level, that Denmark is of high value to the chipset solution. It's a contradiction in my eyes. ***So meaning, if you do your job well, extremely well, it is not necessarily given that it'll serve the recognition for what you're doing. You may find yourself in a situation where you get devalued even, because you have no problem. So meaning, you have no problem, anybody else have no problems neither. Meaning, this job can be done anywhere.*** This is management thinking, be careful, this is how managers think" (Manager, italics added)

TI had a size and a position in the market, which meant that the company was both being influenced by the market and influencing the market. This meant that there were no "fixed truth" when it came to arguments about what would be the best solution to put on the market, because to an extent TI itself constructed the market. Likewise an argument about what technical solution to a problem that was the best was also constructed. As an example, we can take the issue of form factor design being seen as the best solution in relation to reference designs. The idea of a reference design is in brief to make a design for a printed circuit board (PCB) with all the components needed to make a using phone, which can be sold to customers who can then use it as a basis for production of mobile phones<sup>5</sup>. We can roughly distinguish between two types: a reference design and a form factor design. A form factor design is a reference design where the PCB is in the physical shape which will go into the phone, and the components are located as they will be in the finished phone. Employees in TIDK believed that form factor designs were preferable, and they therefore did an effort to make this view the "truth" within the TI organization. A TIDK manager explained how this was done:

"... then the political work starts with you having to convince people, and you have to keep on mentioning it in all the circumstances, all those that are out travelling from management in Denmark, and when people get visitors and such things, we have to put it into our slides for when we show something, that is one way to solve this issue, that could be this way. And that political work on, lobby work, on working up this momentum, and then suddenly it tips over..."

... and then it came from the top, that we should do this [PRODUCE FORM FACTOR DESIGNS], which we in reality have been working on that we wanted to do for a longer time" (Manager)

This competition within TI, where all sites tried to obtain specific work tasks and competences to gain a future within the organization, was made prevailing and important because of the technological development and the development in the market. To understand how TIDK employees reacted to becoming part of this internal competition, which was intensifying through time, and how they were influenced by this game, we need to focus upon their identity.

## 6.4 The organization of TI changes

To understand how the identities of TIDK employees were changed through time, we can begin within focusing of on how TIDK became "TI'ed" through time.

### 6.4.1 TIDK becomes TI-ed

In the yearly years following the acquisition people in TIDK had a relatively clear position within TI and was relatively unaffected by other parts of the TI organization. Seen from the employees in TIDK, the situation

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<sup>5</sup> The business idea is that the components specified to be used in the design are TI components, so if customers use the reference designs, they will buy TIs chips.

was therefore relatively much like it had been in the ATL Research days. The first reason for this was a company policy in TI. TI had, in the years around the acquisition of ATL Research, acquired a number of similar small R&D companies around the world, and TI had the policy, that the transition following the acquisitions, where the companies went from being small companies on their own to being parts of the huge TI, should come slowly, so that the employees of these companies would not leave them, and take with them the competences acquired. This policy meant that the management and engineering practices in TIDK only changed slowly in the first years following the acquisition, and it wasn't before several years after the acquisition that the real influence of the acquisition upon the practices within TIDK became visible<sup>6</sup>.

Another issue causing TIDK to receive relatively much autonomy in the early years was its size. With around 30 employees at the time of the acquisition TIDK was a relatively small organization within TI. This changed as TIDK grew, and this growth came relatively suddenly around 2002 where TIDK received around 35 new employees from the acquired Condat<sup>7</sup> and 15 new employees from Telital<sup>8</sup>, which meant that within a short time span TIDK was more than doubled in size from around 40 employees to around 100 employees, which in turn put more focus upon TIDK:

“...so suddenly we became an economically influential part of the Wireless Business Unit. This also gave us some rules, some more rules, which we should comply with. And it is then, well it is not black or white, but the fact that we became larger meant that there came more and more focus on the rules, and it is specifically from finance they monitor very carefully whether we comply with all TI's official policies.” (Manager)

As TIDK had to comply with more and more TI practices, work started to become more and more bureaucratic as seen from TIDK. This showed in several ways, and as an example, we can focus upon the practice of hiring people. When ATL Research received projects and manpower was needed, then new staff was simply recruited for the task. In TIDK the process of hiring new staff was more complex, as a manager in TIDK explained:

“What you can say there is restrictions on, but that is because we are an American corporation, that is, they are focused on headcount, and that means that there is restrictions on how many employees, you cannot just hire people. Say, if a manager comes into my office and says, we need a man in the coming time, because this and this and this, well, I say, then we go out and hire a man. That is not how it works. Then I have to ask to get a headcount awarded for this area, and make arguments for why I have this need, and then I am awarded a headcount from a central place. It has been a rather rigid process. But that is also the reason why you will see that there has been a relatively large increase in our staff of contractors, because we have never, well, first the last year, had any control on the amount of

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<sup>6</sup> It is important to note, that the influence was not only one way from TI upon TIDK. Rather it was a mutual influence where TIDK influenced the wireless division within TI and vice versa, and at the same time as TI was influencing and being influenced by changes in the wireless technology and market.

<sup>7</sup> Condat was supplying software to TI, and TI acquired the company for that reason. Condat had sites in Aalborg and Berlin, and the people from the site in Aalborg became part of TIDK.

<sup>8</sup> The reason for this infusion of Telital people is unclear, but apparently the reason was the following: The Italian Telital at the time owned the former Cetelco in Støvring, called Telital R&D Denmark. Telital at the time had severe financial troubles, and got a new manager in Italy, who was a former TI employee. Telital had previously used Siemens semiconductors, but with the new manager this changed to TI semiconductors and he created a deal with TI, that if TI would take over some of Telital employees than Telital would buy a certain amount of TI chips. In the end Telital site in Støvring was shut down, and TIDK received 15 employees from Telital.

contractors. There we could go in and say we need a contractor, we will take one in. So it has been easier that way. (Manager)

Through time TIDK thus became more and more involved in practices involving other TI sites, and this increased involvement also showed in the everyday work for managers and engineers in TIDK.

#### 6.4.2 From "no rules" to tight planning

In the ATL days "there were no rules", as some TIDK engineers described it. Engineers would get an idea, ask their manager, get permission to pursue the idea, and then do so. By the end of 2008 work was strictly controlled through time schedules and work pressure. Practices within TIDK had become embedded within complex practices within the TI organization. When asked about how controlled and supervised their work were, TIDK engineers would explain that it was not really controlled, because they got their assignments from their project manager, and then they would be free to solve their task on their own. However, when asked to time schedules some TIDK engineers and managers said that the tight schedule, amount of tasks to solve and available resources meant that they had relatively little freedom to pursue their own ideas, build new competences and do networking within the organization. What was operating here was some disciplinary practices through which the work day of the employees was controlled. The main tools employed in this disciplinary practice was time schedules and assignments given to the employee from managers, describing what the employees had to do; a time pressure which made sure that the employee did not spend time on other things than this; and finally Development and Performance Management (DPM) talks held with a manager or supervisor talks every half year, in which short and long term development goals for the employee was set and evaluated, which was the company's overall way of steering and evaluating the employee.

There were several factors contributing to the increasing pressure on the employees. Some have to do with the fact that the technology was maturing in the later years and competition on the market was becoming fiercer. Other had to do with the planning practices within TI. Apparently TI had a practice of creating tight and optimistic plans:

"You have always had a very optimistic evaluation of time schedules in TI. You have sort of had an idea that you had to, you were allowed to give an optimistic view, get them [CUSTOMERS] in early, and have slightly aggressive plans, and rest on people finishing quickly. You always had to push and push and push to speed up the development." (Manager TIDK)

Some managers had the view that such a practice was normal in the semiconductor industry, because companies would try to get customers involved early in plans to thereby save money, as one explained, quote:

"...the idea is to get them in early to do their job in the terms of evaluation, the reason for that is, to have them early involved is normally, if they get in too late, then you only find the errors on your side, but not when it is working in an application on their side. Meaning that in the end you end up making a spin only for the customer. And that's the reason why TI, and any other semiconductor company, is forced to get in customers as early as possible. That's the reason behind, because, there is real dollars behind it. It's cost." (Manager)

To understand the arguments for and against let us return to an issue discussed earlier, the rigidity in the process through which new staff was employed in TIDK. There were two views upon this TI practice and the consequences of it within TIDK. Some TIDK engineers and managers believed that the rigidity in the hiring

process made their work difficult, they felt that the decision about hiring or firing staff was taken somewhere else in TI, and that the people making the decisions did not have a view upon the engineering tasks the managers and engineers in TIDK needed to fulfill, and hence the manpower they needed, which in turn resulted in understaffing which led to a declining quality of the work. Seen from another viewpoint, also found in TIDK, the rigidity was necessary because TI needed to make money on the business, and engineers were always able to improve their work and use more resources on it. Therefore it was necessary to make restrictions on how many resources there could be assigned to different work areas. This was, however hard to understand for the engineers who focused upon technical issues, not business issues.

Engineers in TIDK were primarily focused upon the technical quality of their work and not economical issues. They believed that the technical quality of the phones, and not cost issues, should be the focus. One reason for this focus upon technical quality was that TIDK engineers were relatively far from the market. In the ATL Research time employees were aware that the survival of the company depended on the success of the individual projects. People were therefore putting long days into the work when necessary. Their logic was simple: ATL Research did the project alone, so the employees had to do all the tasks in the project. Within TI the TIDK employees found themselves part of a large concern with thousands of employees spread among many different sites around the world, and billions of dollars flowing around. Increasingly complex products, the growth of TIs wireless division and political games which were increasing in intensity with time, as the market changed and profits became smaller, made it unclear what tasks that should actually be done at TIDK and other TI sites. It also made people accept economically inopportune situations. People at TIDK were for example well aware that some work was done twice within TI, but this apparently didn't bother the managers and engineers in the beginning; possibly because of the situation where a large profit was still being made in the industry, possibly because they lost the overview. Nobody had the overview of the projects which were ongoing, the result being that people within TI was not sure that all the work tasks relating to each project, regarding tests etc., was actually conducted during the projects.

What happened over time was thereby, that people in TIDK found their everyday work increasingly more different compared to the situation they had been used to in ATL Research and the early TIDK years. The workday became increasingly strange in their eyes. The pressure on their work rose. The ability to influence the work became smaller. The employees lost the overview of the work. And therefore TIDK employees gradually lost their personal relation to the work. People stopped putting long hours into their work. And people turned towards discourses in the NorCOM cluster about the "good old days".

## 6.5 Discourses in the NorCOM cluster

Histories about the NorCOM cluster, its people, the companies in the cluster and their merits, which were circulating among employees in TIDK, became a reference point when they tried to make sense of the reality within the TI organization. Stories about what had once been in the NorCOM cluster, about how work had been in the companies such as Dancall, became guidelines for how people ought to behave. Often, even in 2008, employees were discussing over lunch how things had been at Dancall, a relative large local company in the NorCOM cluster, 15 years earlier, and how things therefore ought to be. Back then there were focus upon technology, not cost, the argument would go. Back then we were producing state of the art-technology etc. This happened even while some managers argued, that the "Dancall days" were history, that the technology and market were completely different in Dancalls heydays, and that the reality

today was different, both in relation to the technologies and the market for these, and that people therefore needed to face this new situation instead of talking about the old days. This didn't change the fact that people looked back upon the old days, also the ATL Research days, with what can be called nostalgia. Nostalgia can, according to Oxford Dictionary ([www.oed.com](http://www.oed.com)), be defined as "Acute longing for familiar surroundings". The engineers were longing for the Dancall time, or the ATL Research days, because back then their world seemed more familiar than the one they found within TI. They, in other words, turned to their histories about the NorCOM cluster to make sense of their current situation within TIDK.

ATL Research was a consultant company making a living from delivering top quality solutions. Cetelco, from where the three ATL Research founders came originally, also made solutions which were state-of-the-art technically. So did Dancall, and in the early 90's Dancall and Cetelco, through their joint venture company DC Development, was competing with Nokia and other large players in the industry (Dalum 1995). Many engineers in the TIDK, and generally in NorCOM cluster, knew each other from working together at either Dancall or Cetelco, which were the two biggest wireless companies in the cluster in the 1990's. And interestingly, when talk fell upon these companies, then the story normally was that these companies produced state-of-the-art solutions. Take for example this quote from a manager at TIDK who referred to Dancall:

"And I think that back in time is one of the most interesting stories, back when Amstrad, Dancall started, right, there are a lot of people who believe, that had they made the right investments and so forth, etc. etc. etc., then Dancall could have become Nokia, and Nokia could have become a wellington factory, as it stated out being. It is a bit of coincidences, right, well, they actually had the possibility, as they were ahead of Nokia back then. We were in Denmark, right" (Manager)

What is not mentioned is that while the technological competences were present, the financial side of the ventures was less successful. Cetelco, as an example never gave a surplus, and when it was closed different owners had poured between 500 million and 1 billion Danish crowns in it, according to different sources.

What the engineers were articulating again and again was stories about high technical quality and an ability to work together in the region and help each other. The core of the discourse was, shortly stated, that if NorCOM engineers stood together and helped each other, then they could make a good technical solution, and if external financial issues, which the engineers had no impact upon, did not mess things up, then their company would become successful, because NorCOM engineers could make world class technical solutions.

The point about helping each other seems to have its basis in stories about DC Development, which is often presented as a small company which was capable of competing with the giants in the industry because NorCOM engineers from Cetelco and Dancall came together in this company and helped each other competing against the giants. Interestingly this is again only view side of the story, and if one goes into details, it is possible to uncover a less beautiful story. A story about how people from Cetelco and Dancall were not so open about working together in practice, a story about "could air" between the "two blocks" within DC Development, a story about how people who were going to work at "one block" after the closure of DC Development erased hard drives in computers belong to people who were to work for the "other block" while they still had access to the offices etc. All in all stories about a cooperation which was maybe not so good as the stories circulating makes it.

The stories about the high technical quality and cooperation between NorCOM engineers “saving the day” were the discourses people in TIDK turned to, as their work day in TI became increasingly strange compared to what they had been used to. What we see here is the active subject, which Foucault portrays in “The history of Sexuality”, who forms his own identity from the discourses and practices he is exposed to. And this focus upon the NorCOM discourses had a price in relation to the situation of TIDK in the internal competition in TI. Let me now turn to this.

## 6.6 TIDK employees vs. other TI employees

As TIDK became exposed to the internal competition in TI, people in TIDK had to learn to participate in this competition. And so they did. One TIDK top manager, described as an extremely skilled engineer by colleagues in TIDK and other TI sites, explained in an interview that, quote:

“... it has been funny enough to try [THE POLITICAL GAMES IN TI], but I could just feel that it just wasn't me, becoming extremely good at the political games and things like that. I am, in my heart, I am an engineer, and I like to get down to the lab and talk to the guys down there. And maybe come up with suggestions as to what they could do and so forth. Look at some experimental results and stuff like that. But during the last three years it has more or less been a yearly visit to the lab. And you have been slogging away like crazy without seeing any tangible results.” (Manager)

The extent of the political games was actually one of the reasons why he decided to leave TI later. The thing to note here is that this manager saw himself as an engineer in his heart. Participating in the internal competition in TI, in political games, was not what he was “living for”. And as such he was an image upon the average TIDK employee. People in TIDK had seen the change in RF technology on the horizon early, but not taken any actions upon realizing this. A top-manager joining TIDK in 2007, after a career as manager at several other TI sites explained, that people in TIDK had seen all the changes come, and had thought about what consequence these changes could have for TIDK, but apparently not done anything about it:

“... I feel that, that Denmark site did not take enough care on that one. They were a little bit ridged to their boundary, which was GSM, and then I think some trains overtook Denmark. It was not really, in the beginning it was not really, you couldn't feel it, let's say, immediately, because still the big volume of mobile phones sold is in the low and mid segment, so you cannot feel it. But if I look at the growth rates, for the coming years, and even this year, you see that it's a clear gap. We missed the train. Meaning the look ahead of the management, the local management here for the next four years was not in place to the degree it should have been. They were not involved in, consciously or not I don't know, it depends on the agenda of the old management, they had a good agenda, that is not what I say...

...They had success, but they were thinking that creating, covering the other aspects of the modem, which is DSP or SOC as I mentioned before, is sufficient to occupy this cake. And, while big gaps in TI was opening at the same time, simultaneously, on the application side, on the complimentary communications systems side, here the gaps were opening like that, and here the density of the people were higher and higher, so that you know, it, but, as you are always busy with a lot of customer asking similar things at the same time you don't feel that. You are just trying, oh god I have so many problems, let finish that and think afterwards. And, now, everything I brought up in Denmark I can say that people have though through it already, so it is nothing really new.” (Manager)

Another TIDK top manager, described the behavior of the TIDK top manager who was an engineer in his heart, in the following way:

“... he is a person who stick to the hierarchy if you like, so he would put forward some things to his boss, being a boss in Nice, and then he is the type of guy that would then maybe lean back and hope for his



boss to carry things into the organization for him. And this is actually not that things happen in TI. If you want to do anything, if you want to have influence, you have to a certain degree be charismatic, you have to be more extrovert as a person to go and put forward what you want and to achieve.”  
(Manager)

It has to be underlined, that this is NOT to blame this one person for things unfolding as they did. Rather, he, with his approach to the internal competition is an image upon the average TIDK employees approach to the competition. His behavior therefore illustrates the behavior of the majority of TIDK employees. Most managers in TIDK had an engineering background, and had worked their way up from being an engineer to becoming a manager. Therefore this “engineering mentality” was widespread among managers in TIDK. But this was not TI style, as a TI manager with a career spanning several TI sites explained:

“...it’s not TI style to stick in the hierarchy to your next level boss. It’s accepted and good practice to do two things, first to push your boss to do something specifically for you. But you present and say this is what I want. I want you to go there and there and there to your next level, you are actually driving your. Secondly you bypass your boss also, meaning in a positive sense, meaning you create your network to the next level, to other people that help you bring in your ideas, I would say this is not only allowed, this is even more than accepted, this is desired.” (Manager)

The approach of sticking to the hierarchy was not leading to much influence upon things in TI, and with such approach the manager was an image upon the practice found within TIDK. One TIDK top manager explained:

“...it is far away from our culture here to do that [STAND UP AND SAY YOUR OPINION WITHIN THE ORGANISATION]. Because we will rather sit down, our engineers are very proud professionally, and they sit down, and they do a good piece of work, and if that person in USA or in France cannot see that this is a good piece of work, then it is he who has a problem and not me. Instead of coming out with the issues, well, saying, listen to this my friend, I have made something here, and I believe in this, and this is how it is going to be, right. That you don’t do. And it is a culture we have been struggling with, trying to change, but it has been very difficult, because it is so fundamental with many engineers. So the people who have made themselves count within TI, that is the most extroverted people, the most extrovert people. It is the ones who dare to stand up and say something in different contexts and that is maybe not the best engineers, but that is the way it is.” (Manager)

The whole focus upon technology and letting the technology speak for itself has its background in the discourses in NorCOM cluster discussed earlier, which the employees in TIDK was turning to, when they needed to make sense of their situation. And the focuses upon high-quality technology and cooperation lead to a practice in relation to internal competition in TI, which meant that the influence of TIDK employees upon things in TI was rather limited. Persons in TIDK were learning the game though time, because, as one reflected in an interview: “not playing the game is also to play, you just loose”. However, even though people were learning the game, they were still colored by NorCOM discourses. To understand this let us focus on how people in TIDK saw themselves in relation to the competition and how they were seen by people in other TI sites.

Towards the end of the history of TIDK, the organization was seen as a good execution site within TI, as a manager explained “I would say, I think Denmark is a very good execution toolbox... ....Many requests have come from outside, we accept and we do”. Why was other people telling TIDK employees what to do, why did they not decide for themselves? Reflecting on their situation some people within TIDK felt that they had been outmaneuvered in political games within TI, and this also fits view upon TIDK from Nice. A TI Nice

manager located above TIDK organizationally in TI explained that TI is a courageous company when it deals with making tough decisions, and decisions are made fast within TI, and this makes leadership important within TI. However seen from his chair, there had not been any leadership in TIDK. So one characteristic was missing leadership in TIDK. Another was a focus upon technique. Employees in TIDK did not participate much in the competition for tasks and competences, because they did not see it as the most important part of their job, this they thought was to produce good technical solutions, which is coming back to the NorCOM discourse. Coming to a third characteristic, TIDK employees were seen as being naïve by some people outside TIDK. To understand this, let us have a view of how one TI Nice manager saw the competition around the RF competence. He explained:

“...in the RF I remember, again I was telling them, that it was a problem in the way they were validating their layout of the RF. In the RF making a layout of the board is very complex, and you need a lot of expertise. And I took meetings with them, I was telling them, pay attention, I do not understand why you are not using simulation tools to do that. In my previous company I was using simulation tools, why you are not using that. They tell me, [NAME OF HIMSELF] that is not true, we are experts, we do not need simulation tools. Ok, I come back to [NAME OF TOP MANAGER IN TIDK], in my mind, that is a mistake. Guess what, two years after that, the group in TI Dallas came up. The guy was alone. He made a mistake, he made a meeting with TIDK, where he told the team that he and his team will do simulation and will do layout of the RF, and they would give guideline for layout of the RF to guys in TIDK. It was, for TIDK people, it was completely an earthquake because, again, they were the experts, and here is one guy, with no team, he was explaining that he would get his team ramping up, he would get a couple of guys and so on and so forth, and he was simply telling them, that he is going to take their job. And now the layout of the RF is going to be done by his team and they would have to follow his recommendations. And the next step was of course now this guy gets couple of engineers, he get the simple idea which I told them, you should use layout tool and simulation tool, and we end up about two years ago, where in Dallas, their simulation tool setup was up to speed, they use a board, they run the simulation, and they come up with 30 mistakes in the layout. They come in TIDK, they review, and the conclusion of TIDK is that, yes, the 30 they are not valid, some of them are second order, but yes, it makes sense. So what was the outcome of that, they could not have known in the management, and the conclusion of the management is what, TIDK is no more expert in the layout, TIDK need support from TI Dallas, because TI Dallas was able to find 30 mistakes. And now, what happened was that, now TIDK is shutting down, but, finally [NAME OF NEW TOP MANAGER IN TIDK] understood that, and finally there was a guy [NAME] that has been assigned to understand the simulation capability, the simulation tool, and be the expert in TIDK in this area. So this is another example of naiveness that was killing TIDK.” (Manager TI Nice)

Here we see the technical focus of TIDK again. People in TIDK believed that they were the best in the RF field, and therefore they did not take the necessary precautions to defend and maintain this position. It was, apparently, not only TI Dallas who out maneuvered TIDK in the political game around the RF area. TI Nice also made some moves, as the TIDK manager in charge of the RF group explained:

“Where things start crackle, for my group, for RF, is when we have to do [NAME OF RADIO]. We are into a time, again, where we cannot get people, we cannot get permission to employ people, which means that we are too few people on the project. We can only put two RF people on it, but finds out underway, that this technology is not at all mature, that we should have had far more people on the project. And that also means that suddenly Nice go in and makes a lot of system validation, which they did not do before. Well, they go in and makes some measurements for us, which I have later gotten presented as something they always have done, but actually it starts with that project, that they test in full temperature across all the channels and voltages and so on. And there is no doubt that this is the time where RF System they feel, the management in Nice feel, that Denmark is not delivering the goods with regard to information on the debug side of this chip. And that clearly we do not, because we have far too few people in the project. And that is maybe one of the places where things change sp that

suddenly, well, then Nice takes the power on that front, and don't think we have ever managed to really strike back at that. We have not. (Manager TIDK)

This again comes back to the practice of people within TIDK of focusing upon the technical solution, instead of focusing on the technology. Instead of seeing the pressure upon the available resources and the task as the starting point for the combat for future positions within TI, TIDKs biggest fear was that they were not able to make solutions at the right quality. It therefore hit people in TIDK, when the technical quality of their deliverables came under fire in political games, as a TI Nice manager gave an example upon.

"It is in TI wireless, classical, you know for example TIDK is the centre of excellence for making boards, these boards are used for our software team, and for our customers, to integrate and validate our software. There was some politics at a point of time, about four years ago. There was a group in TI Dallas that was always claiming to the management that they were late in their deliverables, because the boards coming from TIDK was not stable, were coming late, they did not get enough, so it was just a bad political game, and behind that there was simply the willingness to make their own boards themselves, and not being dependent from TIDK." (Manager TI Nice)

Apparently TIDK did not realize that the critics was part of a political games, because one TIDK manager explained that the critics from TI Dallas arose because people in TI Dallas was used to work with computer boards and therefore not familiar with production and characteristics of boards containing radios, and therefore they couldn't understand why TIDK was unable to deliver large batches fast. This again fits the characteristics of TIDK being naïve compared to TI Nice.

TI Nice managers used more of their time managing the relationships to other TI sites, focusing on overlaps, building networks etc. compared to managers in TIDK who were more focused upon managing within the TIDK site. Some people in TIDK explained that TIDK was not very well connected to other TI sites, and apparently TIDK engineers were not even communicating much with each other internally in TIDK. This had the consequence that micro-management was necessary in TIDK, meaning that TIDK managers spent most of their time managing ongoing work rather than building networks and participating in the competition about work tasks and competences with other TI sites to secure TIDKs further position. This can also explain why TIDK lacked leadership as seen from a top-management level within TI, because most management effort was spent within TIDK.

The micro management in TIDK was a different management practice compared to the management practices found in other TI sites. Further, TIDK planning was more focused upon the process than planning in other sites. TI Nice managers would make plans focusing on the product, which made adjustments of the processes relatively easy underway in the projects, and hence their plans were well suited to an organization as TI where changes occurred often. TIDK managers on the other hand were focusing more upon the process when they made plans, and then tried to stick to the plans, possibly because of the micro management needed in TIDK. The result was that it hit TIDK managers harder than TI Nice managers when changes occurred and plans had to be adapted, because then TIDK managers had to update plans and often redo plans, which lead to frustration among managers and confusion among engineers in TIDK. It further lead to conflicts among sites, because TIDK managers were focusing on fulfilling the plan whereas TI Nice managers were focusing on the products, as a TI Nice engineer explained:

"Conflict, we had a lot of conflict actually, because we have some deadline, usually, these deadlines also are aligned with customers, according to the customer plan, because customers like to use our ICs, integrating to their new phone models. They have also their own planning, they have their own

schedules, so the point is we have all the time some conflict because from let's say Denmark site they are saying, ok guys, we need to be on time, and to deliver the results, and the performances of the chip, and so on time. And here we are saying we don't want to deliver on time some bad performance, especially if we know that the chip is better than the result that we showed them" (Engineer TI Nice)

A TI Dallas manager explained the same, and importantly added that although it gave conflict, it also made the quality of the deliverables higher, when TIDK was given the change of sticking to their plans. Again we see the focus on quality above all.

"... what I did notice is, TIDK is, and I think it is mainly historical a little bit from their company's heritage, they are by the book. And they set a plan and they cannot deviate from the plan. And, so when unexpected events happen, they do tend to have a bit of a hard time dealing with unexpected events because it doesn't go by the book then. And so we struggle a little bit with them, because they have these checkpoints and even though they knew the checkpoint would fail, they went ahead and did it anyway, because, they had decided they were going to do it on this day, instead of just holding it up and fixing it before the checkpoint. Sometimes we struggle a little bit with them because they had these procedural things they wanted to get done. But on the other hand they delivered top notch documentation. Their documentation was, is impeccable. And again maybe because they keep all these checkpoints, and they have all these checks and balances. So the team, at least over here, has checks and balances but not to the same degree. And sometimes maybe a little bit more risk is taken here in Dallas." (Manager TI Nice)

The point about high quality documentation leads to final characteristics, the openness of TIDK. TIDK was very open with regard to information, and open to take new challenges. Two TI Nice managers explained that TIDK employees were very open and honest in their documentation, and therefore it had to be filtered before it reached customers. One of them explained:

"In general at engineer level, the quality of the deliverable was higher in TIDK [COMPARED TO TI NICE AND TI DALLAS]. I think the, in general, I do not want to be, appear to strong, but in general, there was in the presentations, in the way of presenting the outcome there were, it was better. There is an effort to explain things. But back to the kind of naive approach, in the report were there would have been some problem that we were understanding so. So in general I have to do more filtering, more work on the presentation because they, in a way they were putting all the problems on the table, and they were putting, they should, if we should communicate like that, you can get the customer very anxious about your capability to make a solution working. So you know sometimes, when you are developing high technology it is not working over night. We have a validation cycle that can take 9 months to a year. So the way we explain our results, the way we explain our problems, is something we pay a lot of attention to. And TIDK in general, they don't, they less pay attention to that. Which is another approach of explaining the stuff, but what is really behind that in my view, is that when you explain the problem to a customer, either you don't know what is going on, and the customer in general say ok, so you have a problem, I would like to have conf call and you explain, so explaining to quickly things to customers is just increasing your work load." (Manager TI Nice)

The openness also showed in relation to the internal competition. People in TIDK was playing with the cards on the table, they were not holding back information to their own advantage. A TI Nice engineer explained that this was a different practice compared to the practice found in TI Nice:

"I believe that from Denmark point of view it is difficult for them to work with us. Because first we are not so well organized, we are changing, so they can say we are changing regularly, so its really a bit more difficult for them to follow us. And most of the, and also we are sometimes, so, I believe not me, but I have noticed that my colleagues, some of my colleagues do that, we are reluctant sometimes to share information, to get, as I said, some advantages. So I believe that for them it is not so easy to work with us." (Engineer TI Nice)

People in TIDK was also open for volunteering to take new assignments, and maybe too open according to some managers outside TIDK. But when they had done so, they created plans for how to solve these tasks and were less open to deviate from these plans underway in the tasks. To openness also fits with the NorCOM discourses about people being able to make successes when they work together.

So TIDK management was characterized by planning and micro-management and people tried to stay with the plans. This also explains why people in TIDK developed a more and more impersonal relation to the work, as this became under more and more pressure and changes occurred more and more frequently. What was the outcome of this practice of TIDK employees in relation to the internal TI competition? This was that TIDK did not put enough emphasis on positioning itself within TI. Managers in TIDK spent most of their time managing within the company, and there were not times to build new competences. The consequence of this was that engineers used solutions they knew and had tried before without looking into new possibilities. Therefore by 2008 it had become uncertain what the position of TIDK within TI was to be, and hence what TIDK *raison d'être* was, and TIDK had become an execution site.

So the story of TIDK is a story about an organization which employees becomes exposed to the internal games within TI though, but whom is shaped in their actions by discourses within the NorCOM cluster, which in turns leads to them being less successful in gaining new work tasks and competences within TIDK and therefore TIDK loses its position within TI through time.

## 7 Discussion and conclusion

The first point I need to touch upon in this section is the following: What can we learn from a Foucauldian analysis? To understand this we need to look at the use to which his analytical tool, genealogy, was developed? Foucault argued:

“Maybe the target nowadays is not to discover what we are, but to refuse what we are. We have to imagine and to build up what we could be to get rid of this kind of political “double blind,” which is the simultaneous individualization and totalization of modern power structures. The conclusion would be that the political, ethical, social, philosophical problem of our days is not to try to liberate the individual from the state, and from the state’s institutions, but to liberate us both from the state and from the type of individualization which is linked to the state. We have to promote new forms of subjectivity through the refusal of this kind of individuality which has been imposed on us for several centuries” (Foucault 1983, p.216)

If we analyze how we has come to the situation in which we find ourselves, if we write “the history of the present”, or in relation to the case study in this paper, if we investigate how TIDK came to be what TIDK was before the closure in 2009, then it is possible to uncover a history, which can make the people who were part of TIDK question who they are, and maybe refuse who they have become. And further, other people in similar organizations might use this history to do so also. As such the genealogical analysis is what “disturbs what was previously considered immobile; it fragments what was thought unified; it shows the heterogeneity of what was imagined consistent with itself” as (Foucault 1984, p.82) argued. The goal of my study of TIDK was to write “the history of the present” of TIDK before it closed, so that people in TIDK, and hopefully also people in other subsidiaries, can look at this history and reflect on it.

My goal is thus to present a piece of history which can hopefully alter the way people understand themselves and behave in their everyday life in MNC subsidiaries located in clusters. I believe that this is

the basic goal of research, to change the world, or at least, a small part of it. My goal is not to make theories about how power works in subsidiaries located in clusters, since I do not believe in such theories. Foucault argued, when he was asked whether the Greeks way of life offered an alternative to our current way of life:

“No, I am not looking for an alternative; you can’t find the solution of a problem in the solution of another problem raised at another moment by other people. You see, what I want to do is not the history of solutions, and that’s why I don’t accept the word “alternative”. I would like to do genealogy of problems, of *problématiques*. My point is not that everything is bad, but that everything is dangerous, which is not exactly the same as bad. If everything is dangerous, then we always have something to do. So my position leads not to apathy but to a hyper- and pessimistic activism” (Foucault in interview, cited in Dreyfus & Rabinow 1983)

This explain the involvement of Foucault in activities surrounding the prisons in France in the 1970’ies, or his involvement with psychological illnesses and psychiatry at the time of his books (Foucault 1967; Foucault 1973). He wanted to change certain parts of world with his analysis. I want to present, with this analysis, a piece of work which might help people in subsidiaries change their world. This is also why I will not go into a discussion of whether my results can be generalized to other subsidiaries or not. This is not the point. Foucault created an analytical framework which can be used to analyze how people have become who they are, and I have used this to analyze the history of TIDK. Will similar courses of events occur in other similar companies? I don’t know. The history of TIDK is not meant to be an “alternative”. It is not meant to prescribe that if people in TIDK had done this or that, then things would have been different or better. It is a history, which is to be used as a starting point by the people who were part of TIDK as well as other people, to reflect about their current situation. The study does not offer a solution. The “solution” for the NorCOM engineers in the Dancall heydays was to focus upon high quality technology, but this “solution” did not work later in the TIDK time, as the study showed, where the context had changed. I therefore cannot offer a “solution” for other companies in other clusters at other times.

Can my results expand our understanding of the dynamics shaping MNC subsidiaries in clusters? I think so. This case study shows how subjects in the MNC subsidiary were located between two spheres of discourses and practices in relation to the process in which they were constructed as subjects. On one side were the cluster, with its stories about technical quality, teamwork and the success of some of the early companies, which had an impact. On the other side was the MNC organization, with its specific discourses and practices, which also had an impact. What I find most interesting and alarming is that the employees in the subsidiary were influenced in a way by the discourses and practices in the cluster about quality and teamwork, which gave them an approach to the internal competition in TI, which was rather limiting for TIDK. Instead of making their voice heard within the organization, being aggressive in the positioning game, fighting to maintain their work tasks and competences and gain new, as people in other TI sites did, TIDK employees were rather polite focusing on executing the tasks they were given to the highest quality level, because that was what they had “learned to do” from the discourses in the NorCOM cluster. They did that and then they were hoping that the quality of the solution would speak for itself within the organization. My argument is not, that people in subsidiaries similar to TIDK should be more aggressive, or that people in TIDK should have been more aggressive. It was not their fault that they did as they did, and the story unfolded as it did, because as I have tried to show, a lot of dynamics came together in constructing them as the subjects they were, with the specific identities they possessed. The objective of my research is to show to other people in a similar situation how and why the story of TIDK unfolded as it did, and then they can

hopefully use this “history of the present” as a basis for asking themselves: Am I being influenced by cluster discourses and practices and MNC discourses and practices, and if so reflect over this. If the impact is similar to what we saw TIDK case, people might want to ask themselves whether they want to do anything to change their situation, and refuse who they have become.

Returning to the point made by (Birkinshaw & Hood 2000); their argument that MNC subsidiaries develop characteristics similar to the cluster in which they are located, one can say that the study of TIDK supports this point, and it adds an dimension to it, by illuminating the dynamics which surrounded this movement towards the cluster in the case of TIDK. The study showed how the employees in TIDK were constructed in the intersection between discourses and practices from TI as well as discourses from the clusters, and the dynamics behind the movements toward the “cluster characteristics” was therefore not simply caused by employees thinking “we are part of TI but we want to be like other NorCOM companies, because they are successful”. On the contrary, it was a more complex process causing the movement, in which changes in technology, market and the TI organization lead to a situation which made employees in TIDK turn to discourses they knew to make sense of their situation, and since these were discourses from the cluster, these started to shape the identity and behaviour of the subjects.

I argued earlier, that the discussion about Buzz and Pipelines demands that we put more emphasis on studying the social aspects of clusters. Let me therefore turn to what the case study can add to this discussion. (Bathelt, Malmberg, & Maskell 2004) describe buzz as, quote:

“Buzz refers to the information and communication ecology created by face-to-face contacts, co-presence and co-location of people and firms within the same industry and place or region. The buzz consists of specific information and continuous updates of this information, intended and unanticipated learning processes in organized and accidental meetings, the application of the same interpretative schemes and mutual understanding of new knowledge and technologies, as well as shared cultural traditions and habits within a particular technology field, which stimulate the establishment of conventions and other institutional arrangements. (Bathelt, Malmberg, & Maskell 2004, p.38)

Buzz takes on different forms, such as “chatting, gossiping, brainstorming, in-depth discussions, problem analysis” (Bathelt, Malmberg, & Maskell 2004, p.39), and the value of buzz lies in the diffusion of information that follows from it, which enhances learning in the cluster. Further buzz supports the construction of shared understandings and institutions in the cluster, which in turn gives value to the information diffused:

“Being located in the same place also enables firms to understand the local buzz in a meaningful and useful way. This is because co-location within a cluster stimulates the development of a particular institutional structure shared by those who participate. Firms develop similar language, technology attitudes and interpretative schemes” (Bathelt, Malmberg, & Maskell 2004, p.39)

The case study showed that people in TIDK did talk to people in other companies in the cluster, and hence the case study supports the basic argument. What I find more important however, is that the case study showed how discourses in the cluster can shape the identity and hence behavior of people in companies located in a cluster. This implies that more focus should be put on the part of the buzz discussion dealing with the role of cultural traditions and norms within clusters. As I read the literature dealing with buzz in clusters, the concept has mainly been used in studies dealing with diffusion of technical knowledge, i.e. person A in company X talks to person B in company Y, and person A or B gets a new idea. The case study suggests that in the future we need to investigate in more detail how discourses shaping the identity of

employees are constructed in clusters. Turning to the pipeline concept, the case study indicates that the world, as seen from TIDK employees, was not sharply divided between buzz within the cluster and pipelines to people outside the cluster. Rather, it seems that a symbiotic relationship existed between “the local” and “the global”, and the definition of buzz also fits the type of communication, construction of shared understandings, institutions etc., occurring within the MNC rather well.

An interesting issue for further research is how the cluster discourses were constructed. As the study showed the NorCOM stories influencing TIDK had a focus upon technical quality and cooperation, but were rather silent on the financial problems experienced in the cluster, or rather, these issues were seen as something the engineers could not influence. Why was this case? How was this discourse constructed, and even wider, how was the awareness of the existence of the NorCOM cluster with certain characteristics constructed? This is what I aim to illuminate in future studies.

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Kristian Hegner Reinau

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