

## **CONTROLLING THE FUTURE - INVESTING IN PEOPLE**

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The diffusion of calculative practices throughout society has gained speed and depth within the last decades, both within new programmes for governing the self (Miller/O’Leary 1987, 1994) and making organizational fields such like health (Kern 2009; Gebreiter 2009; Kurunmäki et al 2003) or higher education (Hanlon et al 2008; Vormbusch 2007) more accountable. In contrast to some critical research it is argued, that the increasing relevance and scope of calculation within society and its subsystems cannot be explained by pointing to it’s legitimacy facade, in particular the seemingly objective, neutral and distant character of accounting knowledge, and simultaneously deconstructing this notion as being false and ideological. At least in some areas the social rule of numbers is no longer based on such a traditional notion of accounting knowledge but rather on being used in the form of “weak knowledge”. This term induces that concealing the very rules for constructing and implementing calculative knowledge within social fields is no longer the prerequisite for it working according to the goals that are associated with it. Drawing on a case study in the field of Human Resource Management (HRM), I will illustrate how calculation is used as “weak knowledge” and only thereby can be extended into fields that, until recently, were considered incalculable, particularly the government of the immaterial qualities of labour. A prerequisite for applying calculation to the immaterial qualities of labour and to make these calculations relevant for the actors populating the field (the employees, in this case), therefore is a change in the form of calculation itself. This form has been labeled “sociocalculation” (Vormbusch 2008, 2012).

The organizational field of personnel is constituted by immaterial resources: skills of the workforce, its motivation and overall flexibility, the uniqueness of competences and their social networks. Being immaterial and elusive, they cannot be physically measured and compared and therefore escape those technologies that are informed by a traditional natural sciences approach to measuring (e.g. physical output per time unit as the standard measure within a Taylor-Fordist regime of production). More specifically, the field of HRM and performance evaluation has previously been known for the particular subjectivity of judgement. In contrast, “Human Resource Management” at least on the conceptual level stands for new ways of valuing employees, even recognizing their competences, and for systematically unfolding their individual working capabilities and evaluating these in the light of the respective business model and its functional requirements. Today this includes in the first place “entrepreneurial” competences closely tied up with the person and his or her experiences. As a starting point one could say that Human Resource Management draws on two kinds of knowledge simultaneously: weak and often implicit knowledge and “gut feeling” about employees as well as a body of knowledge, that is commonly deemed “hard”, objective

and valid across the borders of particular communities of practice. Human Resource Management is therefore located at the interface of hard and weak knowledge. Nevertheless, its objective is not to transform weak into hard knowledge by measuring. Rather, the categorical difference between these two types of knowledge is being dissolved and synthesized in a new way.

Sociocalculation serves as an instrument for holding individual (employees) and collective (Universities, departments) actors (see Vormbusch 2007) accountable for their past performance, but even more it is an instrument for ‘governing the future’. A concern with the future is at the heart of financial economics (Kalthoff/Vormbusch 2010), and it isn’t all new to accounting theory and practice as well. On the contrary: it at least dates back to the introduction of Discounted Cash Flow-models some decades ago (Miller 2005). While addressing strategies for “governing the future” the paper will draw on an argument recently advanced by Miller/O’Leary (2007): the significance of calculation for aligning the anticipations and strategies of autonomous and often competing actors under conditions of mutual dependency and uncertainty. Whereas Miller/O’Leary develop their argument in the field of technology management and innovation across the boundaries of the individual firm, I am going to sketch out how this might work in the field of the management of human resources. In other words: How does calculation contribute to governing the life courses and vocational biographies of employees under the general conditions of an increasing biographical and economic uncertainty within “flexible” capitalism (Sennett 1998)? Most commentators within the field of biographical research would agree that there is a radical change in individuals’ life courses taking place throughout the last decades. Kohli (2003) coined the term “de-institutionalization of the life course”, pointing out that the traditional fordist life course consisting of three major parts (education, work, and retirement) is gradually dissolving. Part of this is due to an overall normative change in attitudes, life styles etc. in contemporary capitalism, part of it is bound up to economic change, particularly the increasing significance of precarious work, part-time work, unsecure employment, the individualization of the work contract, new corporate requirements for flexibility, entrepreneurial skills and the like. I would like to outline the thesis, that calculative practices in the field of performance evaluation and HRM are an essential part of governing the future for those highly qualified and flexible employees who in the first place were willing to give up security and long-term calculability of their life courses – calculative practices and individual “career politics” are synthesized in new ways. The implemented “Human Resource Market” made up by numbers and immaterial resources alike acts as an instrument for aligning corporate and individual anticipations and strategies, structuring vocational insecurity and individual life courses in a new way. This comes at a cost, namely the cost of constructing one’s life course around the notion and practice of the “project” (see Boltanski/Chiapello 1999).

## **1 Immaterial Capitalism and the Crisis of Traditional Accounting**

Both proponents of a “new” accounting (e.g. Edvinsson and Malone 1997; Eustace 2000, 2003; Lev and Zambon 2003; Working Group "Immaterial Values in Accounting" of the German Schmalenbach-Gesellschaft für Betriebswirtschaft e.V.) and critics of the “new” capitalism (Boltanski and Chiapello 1999; Gorz 2004) share the view that it is the knowledge and competencies of a corporation’s workforce as well as its social networks that are at the heart of profitability and future success: “*The root of competitive advantage and economic regeneration lies in our ability to exploit immaterial things – so-called intangibles.*” (Mantos Associates 2004: 2). Intangible assets, particularly human resources, are supposed to represent

a corporation's true value base (Fried 2005; Moldaschl 2005). If man's creativity and sociability are regarded as the origins of value creation, then the very non-calculability of these resources is developing into a fundamental problem for contemporary capitalism. The question arises of how to measure and evaluate the resources of immaterial capitalism (Hanlon et al 2008). In the post-fordist settings of project- and knowledge work, the new centres of gravity of economic productivity, the workers' "cultural baggage" (Gorz 2004) is becoming ever more important. Yet, the growing significance of labour's immaterial qualities seems to be diametrically opposed to practices of traditional bookkeeping and accounting (as e.g. outlined by Weber). The value-adding potential of human work is an awkward "thing" to calculate. The increasing subjectivation of work (Baethge 1991; Moldaschl 2002 a/b/c) seems to be at odds with established, traditional regimes of calculation focussing on the "calculation of things" ("Buchhaltung der Dinge", see Vormbusch 2012) and relying on the "neutrality and objectivity claims that calculative practices bring with it" (Miller 1992: 79).

From this, two conclusions can be drawn: First, the hitherto predominant form of economic calculation, the "calculation of things", is in deep crisis. Second, new approaches regarding the form and logic of calculation itself are undertaken. Drawing on the case of Human Resource Management, I will illustrate in the following how calculation is extended into fields that, until recently, were considered incalculable. In analyzing new forms of control for immaterial values on the organizational level, this paper won't argue that there must be or always is a functional fit between different levels of economic action, as if a society's mode of production would be tightly coupled to its mode of calculation (Bryer 1993, 2000). In particular, no functional forms of control are about to emerge simply because there are new needs and new objectives for control deducted from the overall change of economy and society. On the other hand, there is a lot of incremental innovation going on that simply cannot be stopped. There is a chance that actors adopt new instruments and notions of the field they belong to, thereby making this notion more "true" or at least more workable as it has been at the point of its implementation (MacKenzie/Millo 2003). And there is a chance that some of this innovation will subsequently be institutionalized as part of a new system of control and governance.

## **2 Human Resource Management**

It is only recently that Human Resource Management (Tichy et al 1982; Sherman et al 1998; Holton 2002; Kels/Vormbusch 2005) succeeded in establishing itself within at least the bigger German corporations. "The Human Resource Management (HRM) function, once responsible für record-keeping and maintenance, has evolved into a strategic partner, sharing comparable boardroom status with disciplines such as accounting, marketing, and finance." (Ferris et al. 1999: 386) Even if this isn't correct for the majority of German firms, it holds true for the bigger ones, particularly transnational corporations. There are some main differences compared to more traditional approaches to personnel on the conceptual level: first, the employee is seen as a value adding resource that has to be tied up to the firm. It is no longer purely seen as a cost-factor. Second, personnel management should be a strategic function within the firm, and third, related to this, it should be one of the primary tasks of management in general (Weitbrecht/Braun 1999; Hofmann/Mohr 2001). Within this conceptual shift, the importance of broader communicative, reflexive und general competences for action is highlighted especially when compared to the traditional approach relying on rather specialized, task-specific knowledge and training (Dehnborstel 2001). Within the HRM-discourse it is the employees' "competences", that are to be developed, competences that are closely related to the person as such, and his or her idiosyncrasies, aspirations, motives and

past experiences. Therefore „subjectivity is the fuel, no longer the brake“ (Moldaschl 2002 b: 31). Competences are a compound unit of analysis: they are regarded as consisting not only of *capacities* for action, but also of individual *motives* for action (Baethge/Schiersmann 1998; Frieling et al 2000). Part of the extensive literature on HRM recommends a strategic differentiation of employees dependent on the scarcity of their respective skills and the anticipated contribution to adding value to the business. Long-term contracts as well as personnel promotion/development are in this view confined to the best performing employees or to those which are regarded as „high potentials“ (Meier 2001; Staudt/Kriegesmann 2001; Berthel 2002; Scholz/Stein 2002).

### **3 The Case Study: Electronics Corporation**

I will draw on a qualitative case study that has been funded by the Deutsche Forschungsgemeinschaft (DFG) from 2004 through 2007 and has been conducted at the Institute for Social Research (Frankfurt) by Peter Kels and me. The initial objective was to study subjectivation processes in the field of HRM and Personnel Development. The study relies mainly on two intensive case studies with quite opposite conditions both regarding the organisation of HR and the employees' attitudes towards their career, their private lives and the organization of work-life balance. The first case represents one of the biggest insurance companies in Europe, where generally more traditional notions regarding life style, the relationship of employer and employees, career aspirations and the like could be found. Due to extreme conflict arising around corporate restructuring the employees were confronted with a rapidly disintegrating HR-function. I will not go into further detail here. The other firm, which will be discussed here in detail, is an industrial conglomerate that has undergone major restructuring during the last ten years. It will be called “Electronics Corporation” throughout this paper. We did intensive research within both these corporations with recurring sequences of interviews, discussion with management as well as group discussions with management and employees. We did a total of 31 expert interviews with managers from different levels of HR, as well as with line managers with personnel responsibility. Most relevant, we did 48 so called problem-centred interviews (Witzel 1982, 1996) with different groups of employees, which lasted from approximately 90 through a maximum of 120 minutes each. In this context, we spoke with mostly highly qualified personnel, particularly engineers, technicians, commercial clerks, IT-specialists, and project managers about their perception of work requirements, qualification, promotion, work-life balance, the support by the HR function etc. Finally, we conducted five group discussions (Mangold 1960; Bohnsack 2000; Loos/Schaeffer 2001) in two waves in either enterprise, and on different levels of hierarchy. Most of the interviews with the employees focused on how they were pursuing something, that we have subsequently called “career politics”. The idea is not to confine the significance of “career politics” to those segments of work that are traditionally associated with having a ‘career’: the leadership and management as well as some professional functions. If we take the “de-institutionalization of the life-course” as well as ongoing corporate restructuring, the flexibilization of work and the erosion of fordist labour relations into account, then consequently a growing number of employess – and not only the leadership - have to cope with the effects of flexibilization and growing economic insecurity. This holds true not only regarding the employees' strategies of coping with today's work requirements, but even more so with regard to future requirements and their respective ability to open up new fields of vocational opportunities – or failing to do so. Therefore not only present coping strategies, but rather the organization of a future vocational path as well as the way employees were striking biographical balances evaluating work experiences throughout their career, were essential for this study. Not everybody will act reflexively and strategically upon his or her vocational

future and we found huge differences in the ability and willingness to do so within the researched group. In the following, I will focus on the performance management system that had been implemented throughout the industrial conglomerate and its “being used” in everyday practices. I will try to outline an integrated analysis of performance management system on the one hand, individual career politics on the other hand, in that way showing how calculation and biographical politics are coupled.

### **3.1 The Business Model: Body Leasing**

The following is based upon a case study from a transnational company operating in the fields of electronics, telecommunication and health/medical technologies, producing nearly everything from car phones up to gigantic power plants all over the world. The corporation’s employees find themselves within a process of radical change, transforming the traditionally strongly hierarchized, bureaucratic firm into a decentralized, departmentalized and shareholder-oriented firm. The study concentrated on one of the firm’s business units which supplies qualified labour to all other units of this corporation. The approximately 1.000 engineers, software developers, project managers, business clerks and technicians can be rented worldwide, which is why the management – and the employees somehow ironically, too - refer to their business as “body leasing”. If there is a construction project, a business unit, an R&D-Department or a testing facility, which cannot meet it’s need for qualified labour, they are going to ask for somebody from this “qualification pool” to fill the gap – for one week or for one year, the terms are to be specified on a case base. Even if all the employees have an unlimited contract, they nevertheless do not have a spatially, temporally or socially well defined workplace. Instead, they are part of a resource pool, from where their particular competencies can be ‘leased’. Normally, they are dispatched by their “resource manager” in charge, who is organizing the information exchange between those units who are in demand for the business unit’s competences, and the employees, thereby balancing demand and supply. Some more experienced employees even manage to build a reputation through the years as well as their own network of contacts with clients within the corporation, thereby keeping discretion about where and when they will be assigned to a new job and a new location.

### **3.2 The Role Model: Employees as Entrepreneurial Selves**

Basic and relentlessly repeated requirements for this work are the readiness for worldwide mobility, the ability to get accustomed to new social and cultural contexts in very short time and all over again, and the propensity to continually improve on professional knowledge and skills – essentially the model of the „entrepreneurial self“. This model can be interpreted as the counterpart of a decentralized, somehow fluid organizational form, which is increasingly made up by a succession of projects for different clients, and which lacks socially and spatially defined relations at work. One basic requirement for the employees therefore is their capability to permanently adjust to a fluctuating ‘job landscape’ and to secure their “employability” through continuous work on their competencies and their vocational ‘self’. Entrepreneurial agency is not only required to cope with present tasks and responsibilities, but – in a diachronic perspective - to envision and structure a future employment path. Within the above mentioned framework the individual biography has to be actively structured and coupled with the changes in the firm’s internal labour market, the anticipated shift in marketable competencies when moving to new businesses and technical infrastructure, and, last but not least, with a sustainable work-life balance. It is particularly the last point, where

the biographical balances of most of the questioned employees display a huge discrepancy with what they initially have hoped for – if they had explicit notions on that topic at all. Particularly those employees who work in the field of construction and maintenance of huge technical systems like power plants enjoy a very low level of discretion over time and place, being dispatched on short notice and for an unspecified time horizon, confronting severe difficulties in balancing work and life requirements, often followed by “burn out” syndroms.

*„The situation is, even for the new ones here, they have to learn, in that very moment, when my boss is saying, this is your ticket, and this is the [construction] site, and this and this has to be done, that they simply have to say good-bye at home and say: I am on this plane and when I will be back, I don’t know. And that’s a problem.“ (Instandhalter)*

### 3.3 Performance Evaluation within Electronics Corporation

#### A) Individual performance evaluation

How does performance evaluation work in this context? First of all, it is based upon a “leadership framework” as a set of performance criteria, which works as a frame for qualification, development schemes, and performance evaluation alike. This leadership framework has been standardized throughout the corporation and links strategic organizational goals, which themselves are derived from the four dimensions of a Balanced Scorecard (financials, employees, customers, processes), to key performance indicators on the individual level. These KPIs are split up into the dimensions of “results” and “capabilities”. Results reflect past performance, whereas “capabilities” try to reflect individuals’ future performance potential, with other words: their anticipated contribution to the business. The objective is to „break down the business to all of our employees in a very concrete way“ (resource manager, I 49: 4). Two times a year a dialogue is held between the employee and the leadership. Both have to agree upon results and capabilities within four dimensions each and a choice of five levels of performance (from “not achieved” to “permanently surpassed”). Both leadership and employee are going to value the latter’s performance independently first, trying to find a mutual consent in a second step. The respective performance dimensions can be read from the following tables:

Ergebnisse (Results)						Fähigkeiten (Capabilities)					
	nicht erreicht	teilweise erreicht	erreicht	teilweise übertroffen	permanent übertroffen		unbefriedigend	verbesserungsbedürftig	entspricht den Erwartungen	übertrifft die Erwartungen	herausragend
Finanzen (Financials)						Initiative (drive with energy)					
Mitarbeiter (Employees)						Umsetzungsstärke (focus and execute)					
Kunden (Customers)						Führungsstärke u. Überzeugungskraft (impact and energize)					
Prozesse (Processes)						Leidenschaft (guide with passion)					
<b>Gesamteinschätzung</b>						<b>Gesamteinschätzung</b>					

*Individual matrix “results”, for any employee (exemplary illustration)*

### ELECTRONICS CORPORATION Taxonomy of Results

<b>RESULTS</b>	<b>Not achieved</b>	<b>Partly achieved</b>	<b>Achieved</b>	<b>Partly surpassed</b>	<b>Permanently surpassed</b>
Financials		2			
Employees			3		
Customers			3		
Processes				4	
<b>Score</b>	0	2	6	4	0

*Individual matrix “capabilities”, for any employee (exemplary illustration)*

### ELECTRONICS CORPORATION Taxonomy of Capabilities

<b>Capabilities</b>	<b>Unsatisfactory</b>	<b>Improvable</b>	<b>Meets expectations</b>	<b>Above expectations</b>	<b>Outstanding</b>
Initiative/ Drive		2			
Execution/ Focus		2			
Leadership Impact			3		
Passion/ Impact				4	
<b>Score</b>		4	3	4	0

Obviously, this taxonomy has two parts: first the results of individual activity are broken down to four key performance dimensions. Here the performance of the past is measured in the dimensions of financial results, if and how employees have been managed, if customers have been gained and processes been improved. Reasonable enough, all of these categories have sub-categories, which cannot be analyzed here. The second table shows the individual’s capabilities in form of a specific “grid” (Hoskin/Macve 1986, 1994). They are perceived as an indicator for future performance and individual prospects by the personnel department and the leadership functions. Here we enter an area of highly subjective assessment: Does the

employee have “passion”? Does he or she have initiative? Is she able to motivate and to focus on the essential? In order to make these “immaterial” performance parameters accessible to measurement, an array of calculative as well as communicative techniques is being applied. For example, the employee is being asked quite general questions: “Do you see yourself as somebody who is really pulling somewhere? What do you think, where are you at the moment?” This kind of open questioning is intended to open up a space for reflexion, particularly the self-reflexion of the vocational self. The valuations by the leadership and the self-valuations of the self are the topic of this discussion, which is being held two times a year. At the end the two persons involved at this stage have to agree upon a numerical value for each of the fields opened up in the matrix. To “agree upon” is obviously not a form of representing the reality of performance and aspiration. But even if there is no “objective” yardstick for this in the traditional sense, the continuous stream of ongoing evaluations of manifold selves are establishing a network of valuations, in which every single valuation can be compared to others – by calculative means. Michael Power (2004: 772) calls this kind of “footless” measuring, which is not being rooted in a direct correspondence with an external reality, “second-order measurements”.

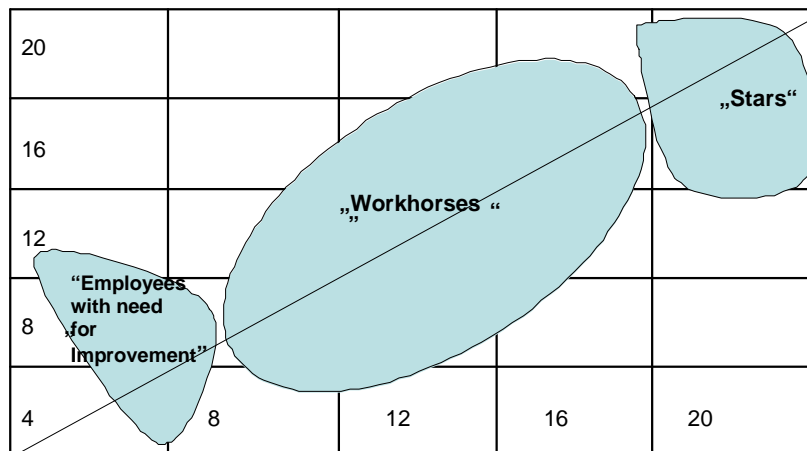
Of paramount importance for the leadership and the HR-department when evaluating an individual employee is if and how she „has won in additional turnover“, „is she someone, who is really thinking in terms of money and customer value“, is it somebody who thinks „proactive“ and „entrepreneurial“, somebody who „sees if somewhere there is money to earn, where you can do ‚something‘, this, well, ‚business feeling‘”. “There are employees who call the customer several times, and there are others complaining that everything’s going down here and that they can’t stand it any longer. And others that get themselves new projects and demand and always look for what they could be doing more ...“. At the end of the day a lot of fine detail boils down to „is this really somebody active, somebody who is doing something or is he somebody who has always to be told what he has to do ...“ (resource manager). Most of the HR-managers and the leadership stress that the only way evaluation could work is in form of a dialogue. This even more so, because the immaterial values that have to be „measured“ are seen as genuinely unmeasurable. Obviously, there is no such thing as an invariable algorithm for transforming self-evaluations as well as communicative action into standardized data. Nevertheless, at the end of this dialogue there always emerge two matrixes as well as a „master-indicator“, which sums up the performance points from each individual field of these matrixes. This master-indicator as well as the individual numbers in every single category are subsequently becoming the focus of debates about promotion, qualification, salaries.

#### *B) Human Resource Portfolio: towards the establishment of a market for immaterial values*

On a more aggregated level, each employee’s performance can be written in a specific “screen” (Callon/Muniesa 2005) or “abstract space” (Miller). Within the “discussion” section we will see how these two approaches differ from the one proposed here. The above mentioned footless network of valuations can be visualized this way:



## HUMAN RESOURCE PORTFOLIO ELECTRONICS CORPORATION



Note: *results* are measured on the vertical axis, *capabilities* on the horizontal axis. The maximum points of 20 in each dimension result from the maximum five points in each of the four categories in both dimensions. Odiorne (1984), for example, used the terminology “dead wood”, “workhorses”, and “stars”. He is well aware of its negative implications and recommending it not being used “in public”.

All employees of a specific function (this can be “engineers” or “project managers” or “technicians”) are added up in a tableau like this. Their individual position is determined by the total *sum* of their performance points in the two dimensions “results” and “capabilities”. “Well, and this is the first move, to talk about high potentials and development schemes on the basis of this picture, and to discuss this with HR and the leadership and to deduct interventions [like development schemes, time schedules, salary increases, a change in target function; U.V.], that will be subsequently wrote in our data base” (HR manager). This portfolio makes the relative performance and the relative capabilities of all employees of one kind visually accessible. It is used to discuss the future development, the development paths and the measures to be taken for every single employee of interest. This may be somebody who stands out, but also somebody in the midfield – we are not only talking about the “best-performers” here but about a systematic calculation of a big fraction of the workforce. And this particular screen is compared to a mid-range projection of the future business fields, technologies and vocational requirements of every business unit involved. So the question is not only who might be good today in the light of these measurables, but who could fill a vacant position within the job landscape at what point of time in the future and what developmental measures must be taken to expand her capabilities adequately. Discussion on the basis of this portfolio therefore is not only dealing with individual promotion and qualification. May be even more important, it is an instrument for the allocation and development of human capital within the respective business unit and across the boundaries of single departments.

In the language of business, this is a portfolio that shows opportunities for investment in immaterial assets just the way an investment banker is looking at assets in the financial market (and, by the way, that’s the idea/intuition Odiorne had 1984, when migrating the concept of portfolio theory into the hitherto highly subjective field of Human Resource Management). What we see is not just a portfolio of present competences (a “snap shot”), but

rather a field of possibilities for future development – based on a footless taxonomy. Using calculation as well as discussion this screen can be transformed by comparing it to one from another business unit, by changing the criteria for the screening of the workforce, by cutting off the best or worst performers and so on. The outlined taxonomy is the basis for the comparison of the functional value of every single employee in this population. But his or her functional value cannot be read from a standardized scale like the strength of an earthquake can be read from the Richter-Skala. The calculation of functional value is meant to be the *beginning* – and not the end - of a series of discussions, that are informed by numbers. Therefore “talking numbers” is the language for assessing past performance and the government of individual futures. The objective of this device is not to pin somebody down to a specific and immutable value (a not so unlikely idea if you look at it from a Foucauldian perspective), but to induce discussion and measures about how to continuously work on the perfection of the self and how to adapt one’s aspirations to a space of possibilities that is put up by numbers. The scope, time horizon and frequency (for qualification, for moving onto different jobs within the “job landscape”) depend on the overall position in this “human resource market”. Employees’ development schemes are deducted from the gap between this present position and an agreed-upon (but always contestable) “target-function”. So the problem is to synchronize the development of the self, the development of the department’s/corporation’s objectives, business fields and investment strategies with the career politics of the particular employee (his aspirations, resources, strategies as well as social and family background). The time-horizon for such an integrated development plan based on investment strategies both in people as in technologies and markets is up to ten years for very highly qualified and scarce labour. On a regular basis, an individual development scheme is calculated back from the respective target function, just the way investments in technology and products are handled on the basis of “target costing” (Freidank 1999). It “has to be considered: how does the employee finally get to that function, which steps does he have to go. These will be defined, too. What input does he have to give to get there, which way has he to go, what functions, what experiences must he accumulate, to finally get to this target” (HR manager) These steps and required experiences are derived from the job profiles and aggregated job landscapes that are stored within the corporation’s/business unit’s data base. The strategic goal is not to develop every single employee to a “star” or top-performer. On the contrary, from the viewpoint of personnel the question is how to develop “stars” into “workhorses”, that is how to get them back into the middle-group. The employees in the human resource portfolio’s upper right corner, “for those I have to think about how to get them here ..., (resource manager, pointing to the middle group of “workhorses”) ... because only then they are in the right position”. Because, if you are in the upper right corner, it is a severe sign that human capital is underutilized by the firm. And from the firm’s perspective, a concentration of top-performers in the upper right corner indicates a systematic underutilization of the corporation’s entire human capital.

*„These employees could do better. They have super performance, super capabilities, and that’s when I am saying: ‘If I would be looking for a new team leader, then I will look here first (pointing to the “top-performers”). When he will be evaluated next time – not within his old peer group, but this time with the new peer group, the team leaders, then he will end up somewhere here (pointing to somewhere low midfield). May be he will be slowly crawling up in the following years ... and then, it would be not impossible for him to get promoted one more time, then he will slide down here again ... and this way it is always going on ...”.*  
(Resource Manager)

## 4 Sociocalculation

Similar performance matrixes can be found in other social fields. Even though the matrixes may vary in their structure and organisational objectives, there still exist striking similarities between them, and the ways in which the different fields in which they are applied have developed and are controlled. In conclusion, I would like to briefly characterise these similarities to further outline what I would call “sociocalculation”.

1) Why actually *sociocalculation*? The notion of calculation is here used not only because new social fields are being subjected to calculations that differ from traditional measurements of distance and density. The measurement of people and socially constructed attributes of nations have long been important domains of calculation, most notably in statistics. The point is that the productivity of sociocalculation does not so much rely on the transformation of the social into numbers (as the traditional natural sciences notion of calculation would suggest). Its productivity consists in the *negotiations* induced by the calculative positioning of knowledge objects within a population of functionally equivalent and competing entities: individuals, organisations, even nation states and their educational systems (see e.g. PISA). It is a social productivity formatted by calculation. Only the margins that constitute and stabilise the abstract space and its parameters remain immutable within the ordinary course of action. And these margins, most likely, are knowledge objects of other, super-imposed or subjacent screens.

2) Sociocalculation is a constructive rather than a reconstructive or even representative device. The aspirations of control cannot be achieved, if the main purpose of calculation is to objectively represent a reality outside the calculative space. Rather, a new model world is created by establishing a set of objectives and parameters that redefine the idiosyncratic goals and rationales that real-world-individuals may hold. The explicit goal is not to represent reality the way it is, but to construct a new field of possibilities motivating individual as well organisational aspirations.

3) Sociocalculation is necessarily selective. It has no intention to represent every aspect of reality; particularly not the many aspects that native inhabitants of a field may think are relevant. This selectivity, which could be criticised, if the criticism were oriented towards the “representational truth” of numbers, here, is not a weak spot, but a functional advantage. The “weak” status of the numbers used (as not representing a given reality accurately) turns out to be their genuine strength.

4) Sociocalculation and its basic technologies (dialogue and visualization) are – on a certain level of everyday practice – easy and intuitively to understand. Its ability to open up complex negotiations in a very clear-cut frame makes it a “participative” technology of control.

5) Sociocalculation does not depend on actors’ beliefs in it being an objective measurement tool. The outlined measurements and calculations possess an empirical truth, which does not depend on beliefs in the “objectivity of numbers”. The numbers used in the case we studied were uncontested, not because their selective and intentional construction remained hidden from the participants. On the contrary, to a great extent, they remained undisputed, exactly because their constructed nature and contingency was at least partially obvious to the various actors, and objectivity claims, therefore, scaled back. A reflexive and communicative use of numbers does no longer need to deny the undeniable, the organisational, micropolitical and strategic foundations, of calculation. Sociocalculation, hence, is a “post-objective” technology.

## 5 Concluding remarks

There seem to be no limits to the „measurement of everything“ (Power 2004: 767), whether it be the developmental potentials of employees (Oechsler 2000: 574 ff.), „social security“ within Europe (Tangian 2005), or the literacy and numeracy of entire populations (see PISA). One of the prerequisites for the diffusion of calculative practices in ever more fields of social action is, as Power (2004: 770 f.) is rightly saying, „that the contemporary performance measurement imperative does not depend on a view that measurement reveals things as they really are“. For example, none of the actors we met in the field of HRM regarded numbers as being objective, distant and neutral. Some of them saw them as purely ideological, as a tool for legitimizing management decisions already made. But most actors didn't identify the use of numbers for performance evaluation with an objective and unbiased „representation“ of a given reality, in this case the competencies and the „value“ of a given employee. Rather, they are used to systematically stimulate interpretations, bargaining processes and self-improvement processes, which have calculations as their interpretative frame. Needless to say that it would be misleading to interpret communicative action within this context according to Habermas' „theory of communicative action“ (1981). On the other hand, the human resource portfolio as an abstract space is not entirely different to Foucault's notion of the subjectivating productivity of the panopticon. In fact, a portfolio made up of a population of employees reminds to the „see everywhere – see everything“ of Bentham's original panopticon (see Neuberger 2000 on 360°-Feedback). But there are two main differences: first, it does not rely on the observation of the body. The instrument for control is not the observer's hidden gaze, rather it is a social evaluation informed by measurement and calculative comparison. Second, the subjects within the two models are related to each other in quite different ways. Whereas in Bentham's panopticon the strict isolation of the subjected is critical, the most productive feature of the discussed virtual panopticon is to induce discussion and exchange about how to continuously get better, thereby stimulating a boundless competition between individuals. Not isolation is at the core of sociocalculation, but the systematic inducement of communicative bargaining within a system of hyper competition.

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