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Industrial work in Germany: opportunities and potential for an innovative work policy

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Βιομηχανική εργασία στη Γερμανία: Ευκαιρίες και προοπτικές για μια καινοτόμα εργασιακή πολιτική

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ABSTRACT

The paper focuses on the long-lasting initiatives aimed at the restructuring of German industries and their adjustment to the new highly competitive globalized environment. The automotive industry has been used on various occasions for the development of economic, social and industrial strategies. The paper focuses in particular on the Volkswagen "AUTO 5000" programme and the empirical data collected by SOFI. "AUTO 5000" constitutes a best practice example, providing a win-win solution for both employers and employees. The paper claims that this productive-industrial restructuring was combined with an innovative employment policy which ultimately improves workers' position within the new capitalist production system.

KEY WORDS: Auto 5000, industrial work, innovative work policy, Volkswagen

ΠΕΡΙΛΗΨΗ

Το άρθρο αναφέρεται στις μακροχρόνιες απόπειρες αναδιοργάνωσης των γερμανικών επιχειρήσεων και προσαρμογής στο νέο, εξαιρετικά ανταγωνιστικό, περιβάλλον της παγκοσμιοποίησης. Οι διάφορες οικονομικές, κοινωνικές και εργασιακές στρατηγικές, που αναπτύχθηκαν σ' αυτό το πλαίσιο είχαν συχνά είχαν ως σημείο εκκίνησης την αυτοκινητοβιομηχανία. Το πρόγραμμα "AUTO 5000" της Volkswagen το οποίο αναλύεται σ' αυτό το άρθρο και βασίζεται στα εμπειρικά στοιχεία που συνέλεξε το SOFI, αποτελεί χαρακτηριστικό παράδειγμα καλής πρακτικής για μια σύγχρονη "win-win" διέξοδο με όφελος τόσο για τους εργοδότες όσο και για τους εργαζόμενους. Το άρθρο υποστηρίζει ότι αυτή η παραγωγική-βιομηχανική αναδιάρθρωση συνδυάστηκε μια καινοτόμα εργασιακή πολιτική με την οποία η θέση των εργαζομένων βελτιώνεται στο πλαίσιο του καπιταλιστικού παραγωγικού συστήματος.

ΛΕΞΕΙΣ-ΚΛΕΙΔΙΑ: Καινοτόμος εργασιακή πολιτική, Volkswagen, Auto 5000, βιομηχανική εργασία

1. Introduction

During the last fifty years, various work policy approaches have substantially influenced modern, industrial capitalist production conditions. Technological development has made rapid progress, new communication and information structures have arisen and high quality technological applications in production depict a utopia of deserted factories.

Today, many people, more than ever, are on a payroll in capitalist industrialized societies worldwide. However, while 35 million are employed in Germany¹, the number of registered unemployed is about four million, whose situation has become an important work policy issue. At

present, 760,000 approximately work in the automobile industry in Germany. In sum, about 40% of active employees in the German economy work within organizational structures of a Tayloristic type². Deutschmann (2001) draws attention to a more optimistic perspective, namely, that “40% means on the other hand 60% non-Taylorist workplaces, and of this amount 24% workplaces of the ‘autonomous’ or ‘semi-autonomous type’” (Deutschmann, 2001: 60)³. The significance of production-oriented activities will decline to about 25% in the future and qualified services will reach a 30% ratio per employed person. Nevertheless, actual industrial automobile production characterized by a Taylorist model of organizational structures, assembly-line work, repetitive activities and rigid controls with little self-determination, continues to substantially determine participation and autonomy in the work routine of many employees (Kurz, 1999). Capitalist industrial work is still characterized by a high degree of estrangement, “including exploitation, oppression and degradation” (Schumann, 2001: 6) and industrial workers still constitute a significant part of the German labour force.

From a historical perspective, even for Marx, there is generally no independent work in capitalist production contributing to the expansion or self-realization of the people, because all resources for the development of production are converted completely into resources used for control and exploitation. The worker is mutilated to the point of becoming a “partial man” and degraded into a mere appendage of the machine. Through suffering, the inner man is destroyed and the intellectual powers of the work process become alienated (Marx and Engels, 1962b). Furthermore, Adam Smith (in Marx and Engels, 1962b) assumed that the mind of most people develops in dependence on their everyday work. Men who during their whole life execute merely a few, simple operations –as is the case in the repetitive work in industrial workplaces– have no opportunity to use their intellectual capabilities: “He generally becomes so mindless and ignorant, as is possible for a human creature” (Adam Smith in Marx and Engels, 1962b: 383). Until now, the revolution, as Marx demanded, has neither taken place nor produced an abolition of capitalist society. Nevertheless, Marx put forward this idea: an association takes the place of old civil societies with their classes and class differences, and principles such as “the free development of everybody is the condition for the free development of everyone” and “each according to his abilities, each according to his needs” come true (Marx and Engels, 1959: 482; Marx and Engels, 1962a: 21). The basic antagonism between capital and labor is still present: workers are wage earners in a capitalist society –*Work alienation is part of the nature of capitalism*” (Schumann, 2001: 97)– and the current economic and social situation is still based on capitalism.

Over the past few decades, enterprises have confronted far-reaching economic and global changes and as a consequence have started focusing on their workers, particularly with regard to the expansion and development of human resources in order to use their creative potential for increasing productivity. Thus, within the wage earner-employer relationship a creative expansion is imposed. Due to this comprehension of rationalization, a modern concept of “innovative work policy” (IWP) was put on the agenda. Altmann (1998) defines the concept as follows: “An innovative work policy means the combination of rationalization policy (technology, labour organization) and personnel policy (‘human resource management’) that leads to an extensive use of human work capital. The business strategic procedure turned towards individual and collective expansion and towards participation of the labour force at the same time; it describes a withdrawal from a Taylorist model of work organization” (Altmann, 1998: 59). Partly breaking away from the strict division of labour and incapacitation of the working class, the various models of rationalization and economic policies of the last few decades have led to an upgrading of industrial work. This change in operational rationalization has been accompanied by the hope of a purge of the

estrangement of industrial work. Then arose the question whether work organization could entail the humanization of work within capitalism (Schumann, 2001). The new production concept developed during the 1980s brought about extensive opportunities for workers and promoted a growing self-confidence as well as an ability for operational and social action, and reflection (Schumann, 2001). Since the beginning of the 1990s, the progressive computerization and the conditions of technology in industrial automobile production paralleled the organizational innovations in corporate structure and labour organization. The rationalization strategies of the 1990's, which emerged during 1970s, revived hopes for an actual democratization of the working world, for an abolition of restrictive working conditions and for the erosion of conventional power structures. IWP decreases the disablement regarding work organization and influences business decisions. Decisions within a company can then be made at shop floor level through democratic agreement. Self-determined, independent activities and participation of the employees in decision-making in a company can lead to the highest possible measure of autonomy, self certainty and emancipation within the capitalist system. A profound change in the economic and social structures will take place through the globalization of capital and financial markets, putting once more the question of the limits of capitalist economic systems and of possible economic reproduction alternatives on the agenda (Hirsch-Kreinsen and Wolf, 1998). In this lime of argument Deutschmann (1998) questions the future potential of industrial capitalist production as follows: *"A class of owners who no longer want to get involved actively in the actual revolution of the economy, but who, nevertheless, do not want to abstain from a high profit margin and the control of production, must bring about a progressive social crisis with their behaviour. Then the question becomes: how realistic and responsible it is to entrust the material reproduction of society any longer to the capitalist mechanisms of creative destruction?"* (Deutschmann, 1998: 97). IWP, which can bring about a win-win situation for employees and employers, has been decisively engraved in the strategies of rationalization within the last few years. The elements of IWP have been applied quantitatively and qualitatively to varying extents in industrial plants: team work has been implemented, working time has been organized to be more flexible, business and plant organization has been restructured, and new management and payment systems have been applied as well as training activities and co-determination measures. With this innovative work design, the working conditions could improve and become more humane for the employees. Moreover, economic efficiency increases to create the basis for the opening up of innovation and productivity potential (Kuhlmann et al., 2004; Kochan and Osterman, 1994). Critics of capitalist industrial production hoped to be able to develop further new emancipation and democracy potential, leading to transparent dealings with industrial workers and bringing about self-realization for the employees instead of an alienated work environment. The working world has changed as a result of increasing globalization: the shift of production activities to the services sector, the increase in female employment and the threat of unemployment promote precarious employee-employer relationships and the acceptance of restrictive working conditions. Moreover, the loss of salaried work may lead to the phenomenon of social exclusion (Kronauer, 2002). If labour supply exceeds demand for workers and enterprises are exposed to the increasing global competition, politics which intend to increase economic efficiency will predominate contrary to those which seek to improve working conditions. The experience of the last few decades has shown that the concepts of democratization and humanization can not be realized against the resistance of enterprises. Elements of rationalization that combine entrepreneurial and workers' interests have to be profitable as quickly as possible for the enterprises, so as to provide the opportunity for a positive expansion for both interest groups. Schumann (1998) also draws attention to basic counter-tendencies related with the recent innovative trends

of rationalization and describes the above mentioned changes towards a return to conservatism, a withdrawal of technological equipment and the slowing down of ergonomic progress lead to **employee-oriented working conditions, with fewer breaks to rest; less shift, night and weekend work; and less influence of employees on work-time distribution.** There is a risk that time-bound manufacturing at the assembly line will increase, while extended task integration of indirect activities will be greatly reduced. Traditional hierarchical structures are booming and formerly consensual agreements are mutated to performance dictation. To the extent that this re-conservatism will continue, and as long as the expansion of productivity and innovation resources and the fight for technological superiority are central, companies will find it hard to break away from development of production intelligence and creative the human capital (Schumann, 1998).

The automobile sector is one of the style-forming industries in Germany. Many work policies and societal developments have had their starting point in this industry and work policy trends have debuted in the motor industry before being transferred to other sectors. The development of industrial work, policy and technological innovations has led to far-reaching changes, particularly in the automobile industry. Many reorganization measures applied to German enterprises within the last few decades were introduced exemplarily in the motor industry. It is the main field for empirical researchers: many case studies have been based on the automobile industry, such as studies on flexibility, working time, pay systems, and working conditions. They have also often gained broad social attention among managers as well as in scientific debate. Industrial work in Germany maintains a basic role, despite a quantitative shift of employees into the service and information technology sectors. The society of the future will always be an industrialized one –depending on the situation– and the further development of its productive resources. Industrial work still holds central importance as a resource of economic opportunities and of societal prospects, especially for Germany. It still constitutes an influential power factor. Hirsch-Kreinsen and Wolf (1998) underline the clear influence of work on society: *“Employee-employer relationships have lost nothing of their significance for chance distribution and social power conditions even after the much affirmed ‘end of the employment society’”* (Hirsch-Kreinsen and Wolf, 1998: 8). Capitalist industrial society offers potential for humanization of the working world through withdrawal from Taylorist production principles. The trend of rationalization towards the use of production intelligence offers the opportunity of getting an essential improvement in working conditions in addition to several economic advantages. The concepts of rationalization are examined for their potential for emancipation and self-realization and, following that, it is also examined the extent to which they can contribute to the actual democratization of working conditions. The specific elements of IWP are described to give an example of good practice that can lead to both, more human and more efficient working conditions. The possibilities for additional self-realization and development arising from IWP elements are also explored. Effective synergy and positive coherence can arise from the simultaneous introduction of different elements of IWP (Kuhlmann et al., 2004).

The Volkswagen “5000 x 5000”, is described as an example of good practice. In August 2001, the German-based car producer Volkswagen (VW) and the metalworkers' trade union IG Metall concluded a set of company agreements for the new VW subsidiary, Auto 5000 GmbH. The new pay and working time provisions were set below the level of the main VW company agreement, but none the less equivalent to the level of the sectoral collective agreement for metalworking. Furthermore, the agreements included some innovative provisions on continuous training, work organization and co-determination rights. This case study demonstrates how IWP elements can effectively be combined into a coherent set of agreements for a flexible, productive plant and attractive working conditions.

2. Development of industrial work and organizational concepts in Germany

Since the beginning of the industrial age, industrial work has been subject to a series of changes. Industrialized societies differ from pre-industrial ones as a result of the use of highly-developed technology and the combination of a smaller number of capital owners seeking profit with a larger number of workers selling their labour to them. Capitalist industrialized societies are characterized by rigid labor division, mass production and by the hierarchical, civil class structure, with its own specific power and organizational structures. Under industrial production conditions, the relationship between capital and work is still present and determines modern economic production and plant organization. Although industrial production is still justified within a capitalistic system, there has been and still takes place a decisive change in the way the production process is designed. The economic markets, the technical possibilities, the claims concerning work and conditions of life as well as the measures of rationalization in order to increase productivity have greatly changed within the last century. These changes have had decisive effects on German industrial work. The impact of these changes on the car sector is, therefore, at the centre of attention.

When studying the development of industrial work, two persons come to the foreground: on the one hand, the North American engineer Frederick W. Taylor and, on the other hand, the automobile manufacturer Henry Ford. Taylor established a paradigm with his "scientific management" (Taylor, 1911) in industrial production, which calls for a particular use of human labour for maximum efficiency. This target could be achieved by standardization, specialization, functional labour division and individual workplaces. The areas of planning and execution are strictly separated and management has an extreme controlling function on individual tasks and the process flow in order to ensure efficiency as high as possible and to be able to supervise and evaluate every workplace within the system of extreme labour division. The concept of Taylorism stands for simple, easy to learn, repetitive work tasks in an individual work context within a hierarchical, bureaucratic plant organization. Taylor's "scientific management" was applied rigorously by Henry Ford in his car factory Highland Park. Ford, was conceived as the forefather of industrial mass production, established efficient work leadership with a labour division system and special machines that could be operated by semi-skilled workers and non-technicians, and since 1910, assembly-standardized work. At Highland Park, Ford built only one single model, the T-model, which had a "vehicle rack with drive, suspension and steering" (Berggren, 1991: 9), consisting of identical components. In 1913, Ford introduced a completely new manufacturing principle in the motor industry, the assembly line, which would become the industrial paradigm of the decades to come. From the mid-1980s till today, Japanese management methods, lean production, Kaizen (the Japanese concept of continual improvement) and the Toyota management system are central to the development of industrial work.

The French sociologist Georges Friedmann was the first to draw attention to the negative sides of the Taylorist-Fordist production paradigm in his work "L' homme et la machine", published in 1950 in France: the increasing lack of motivation and a tendency for fainting and fatigue. This was an attempt to re-establish intellectual, human and social values in industrial production (Friedmann, 1950).

During the 1970s Germany, resistance to monotonous and repetitive work organization increased. Efforts were made at that time to implement concepts of a more suitable labour organization in the context of "humanization and democratization of the working world", promoted

by the Federal Government (BMFT, 1980). Pilot projects of humanization endeavours with semi-autonomous working groups, such as in the VW plant Salzgitter, however, were met mainly with scientific approval. **Not even in Salzgitter was the teamwork concept continued existing after the completion of the pilot project.** Only some approaches and ideas of job rotation, job enrichment, job enlargement and semi-autonomous teamwork remain of this humanization wave.

Since the beginning of the 1980s, flexibility requirements have increased dramatically in the motor industry. Rationalization activities within the 1980s were an answer to economic pressure, a standing up against the economic crisis in Germany and the increased competition - primarily from the Japanese, who rivalled the European market. New technologies, information and communication possibilities, the introduction of electronic data processing (EDP) and modern automation techniques **generated, moreover, radical technical and organizational changes.** Assembly line production was more or less resistant to flexibility in markets where the demand was for a wider range of products, higher quality and faster delivery. The sociologists Kern and Schumann (1990) had noticed as early as the beginning of the 1980s that, on the one hand, there was an operational interest in the substitution of workers, **while, on the other hand, an entrepreneurial consciousness insisted that the "human worker" factor is indispensable for the optimal use of capital-intensive production facilities.** Enterprises were conscious of the fact that by the introduction of new technologies alone no increases in productivity could be reached in the desired level and so the new credo of production concepts became: **a) Automation of the production process is not a value itself compared to human work, in the context of a high level of technology - the extensive compression of human work does not lead to an economic optimum; and b) if access to the labour force is restrictively organized, one wastes important productivity potential.** No dangers but only opportunities lie in task integration. **Qualification and technical sovereignty are productive resources more and more necessary to use within the work process** (Kern and Schumann, 1990).

In the endeavours of rationalization during the 1980s a "*Japan hysteria*" had already appeared in German corporate management (Antoni, 1994: 20), **aroused primarily by the economic success of the Japanese in the motor industry.** Enterprises were in search of the reasons for the Japanese upswing. One essential technique they found was the well-developed human resource management in Japanese plants with teamwork and quality circles-volunteer teams of workers monitoring quality and performance and promoting improvement (Antoni, 1990). This had been tested in Japan after the Second World War to improve the quality of products. To this end, project teams which could detect and eliminate quality problems in their field of work were used. The Japanese quality concept contains not only improved final product quality, but also increased technical quality of material and machines, processes and process quality, and improved social quality of motivation and leadership as well as workplace conditions (Antoni, 1990). These quality circles can be seen as a kind of a forerunner of the future lean production and teamwork concepts. The quality circles were criticized intensely by the German trade unions in the early 1980s, threatened by the fear of extended access to the work force and, **therefore, a more extreme exploitation of the employees** (IG Metall, 1984).

In 1990, the results of a five year (1984-1989) study of the Massachusetts Institute of Technology (MIT) (International Motor Vehicle Program) were published. MIT's study sample included 90 motorcar assembly plants in 15 countries. The study showed that the jobs with the highest productivity were to be found in Japan or in their subsidiary plants in the United States (US) and Great Britain. The productivity of the US enterprises established in America was 40% lower and European factories were not even half as productive as the Japanese ones, **whose product quality was outstanding, too** (Womack et al., 1990). In the following period, the European and US automobile plants tried to copy

the so-called Toyota system of the Japanese by implementing teamwork, quality circles, lean production, time-to-market options and a more integrated plant organization concept, but with limited success. However, the introduction of new concepts of rationalization in the development of industrial production has been of special significance in the German motor industry during the 1990s. The entrepreneurial rationalization strategies of the 1980s were regarded as a failure, since they had not brought about the much hoped for cost reductions or efficiency advantages by introducing higher technology. Altogether, the crisis of 1992-93 led to much more intensive and much more complex competition in German industry, focused on quality, flexibility, prices, product and process innovations, and time-to-market strategies. Since the 1990s, more and more firms have been experimenting with new organizational concepts. Such re-organization is seldom carried out as a unified whole, i.e., in all levels simultaneously. Various lines of organizational renovation and various aspects of organizational restructuring (work and plant organization, management and pay systems etc.) exist side by side (Kuhlmann, 2004). Very often this results in contradictory effects. The main trend is that human resources and structures of cooperation become more and more important on the one hand, but at the same time cost cutting and intensification of work take place together with a risk of narrowing innovational resources. The various concepts of an IWP in the course of the lean production debate in Germany raised great controversy. Enterprises, large automobile manufacturers first and foremost, were looking for the possibility of developing productivity potential in order to be able to face competition, and to reduce cost and raise their profits. The applied rationalization strategies of the 1990s were diverse and different in quality of effectiveness. In the current debate, one of the much discussed concepts is Toyota's production system. Toyota speeds up business processes, improves quality and cuts costs while producing the highest quality cars with the fewest defects (Liker, 2004). A large number of managers around the world have tried to adopt Toyota's management principles to improve their own productivity, more or less successfully. There is a special business philosophy behind Toyota's worldwide reputation for quality and reliability that does not focus too much on worker's demands. Some of Toyota's principles can be generally applied to almost every production system, although some should be modified while others are simply not suitable. Considering various differences among national economies, philosophies, laws etc., one can hardly believe in only one best way. The concept of work policy described below is not alternative to Toyota's principles; on the contrary, it is based on its management principles, but with certain deviations due to specific German working conditions, such as the right of co-determination and cooperation with trade unions. Only by taking the specific conditions of a country, industry, production system and workers' demands into account can the best *modus operandi* work.

3. Development towards an innovative work policy (IWP) concept

In Germany of the latter part of the 20th century, different work policies are applied in every decade. In the 1970s, Germany's Federal Government promoted the concept of "humanization and democratization of the working world", which was also highly supported by the German trade unions, but had no particular effects on the working world nor did it improve working conditions. In the 1980s, focus was on new technology and automation systems combined with an increased use of human resources in some fields, however, global analysis was notably absent. In the 1990s, all the attention was on MIT research on international automobile plants and the concept of lean production, where teamwork was the core element in modern motor-car production (Womack et al., 1990). However, the concepts above were not homogeneously implemented in automobile plants worldwide. Today, no

best practice is widely accepted on organizational issues. The present situation in most industries and economies is characterized by pluralism and concept competition. Aiming at reducing payroll costs, large car manufactures have linked employment stability to lower wages and more flexible working hours. Employees and their representatives in trade unions and work councils cannot risk further relocation of production to lower cost locations, so employment crises compel them to concede to these demands. New approaches to shop floor organization and workplace structures are supposed to help reduce costs as well. In the car industry in particular, there is an on-going debate about various types of work policy (work and plant organization, management and pay systems). In many factories, a trend toward a re-Taylorization of work and plant organization is evident. In this Taylorism "renaissance", teamwork does not empower employees; instead it demands higher performance. Economic benefits are attained at the expense of the employees. In our research we focus on the "innovative work policy" (IWP) concept as mentioned earlier.

We use IWP as a "tracing concept", a non-restrictive one, not as a normative model. We are looking for organizational practices that enhance competitiveness as well as both productivity and the working conditions for employees. IWP is based on mutual gains. The aim is a win-win situation for both employees and employers. We focus on IWP because among the competing reorganization concepts it seems to stand out as a solution for the stringent economic requirements companies have to meet and the new claims by skilled workers. The concept of IWP is beyond teamwork; it is based on group work principles, job enrichment, elected spokespersons, self-organised team meetings not only at normal group work level, job rotation and less intensification on the shop floor. The core element of IWP is the broad and systematic mobilization of employees for the process of optimization. This means using workers' knowledge for a better economic output, active participation in improvement activities within a self-determined atmosphere with freedom of action, real empowerment and group-based "Kaizen". Developed teamwork structures and training possibilities are necessary to get beyond teamwork to an IWP concept. There are several organizational fields of IWP, comprising specific elements (Kuhlmann et al., 2004), as shown in the table below:

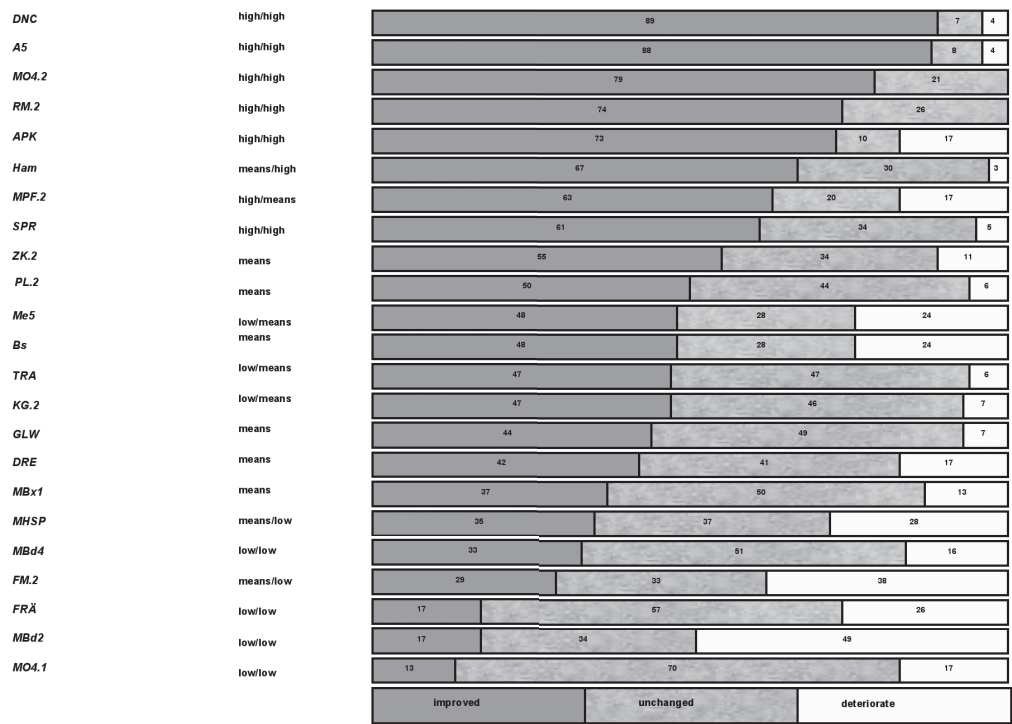
Table 1

Work organization	Extended group work (group self-organization and task integration); active role of blue collar employees in improvement activities; indirect and planning tasks
Plant organization	Decentralization; less hierarchy
Shop floor management	Upgrading of first-line supervisor ("Meister"); new type of leadership (consensus-oriented versus command-and-control)
Forms of coordination	Commitment instead of control management by agreement ("Zielvereinbarungen")
Pay systems	Better match between work organization (group work) and pay systems
Training	Learning-on-the-job; time for communication, team meetings, training, development of professional and methodical competences and skills

Problems arising from implementing this integral approach of IWP with its process-oriented organizational structures could stem from a company's hierarchy, organizational structure or profile, which must be changed together with the management's view on cost cutting and short-term thinking. Support is a high level activity from the work council to convince the management to adopt such an integral approach encompassing many varied and connected elements. The figure below (Figure 1) is an overview of some research results of various good practice studies, evaluations and research projects on various enterprises with different operating conditions and environments in different industries; it shows that the higher the grade of teamwork, group self-organization and task integration the better the working conditions for industrial workers become.

Figure 1

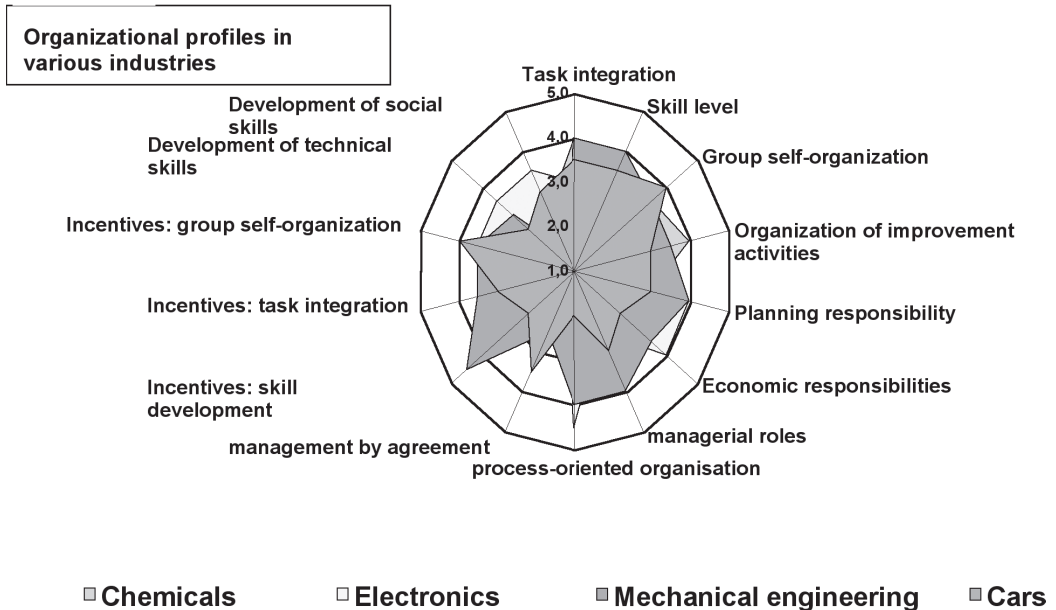
Question: "Has your working situation improved since the introduction of teamwork*?"



* Teamwork with group self-organization and task integration.

The results of our research enable us to detect a number of guiding principles of IWP. IWP needs a process-oriented, developed approach of implementation in a company where further development is continual and support open-ended. When these requirements are met, one can reap the benefits, which are win-win strategies (mutual gains) in the employee-employer relationship, the opportunity for performance improvement in quality, flexibility and a capacity for innovation as well as a higher level of employment security. The company can revert to a skilled, flexible, self-confident and motivated work force. The foundation of cooperative industrial relations can be proved beneficial to work policy agreements. The following figure shows how various sectors in German industries have been developed by IWP.

Figure 2



4. Auto 5000 at Volkswagen in Wolfsburg, Germany

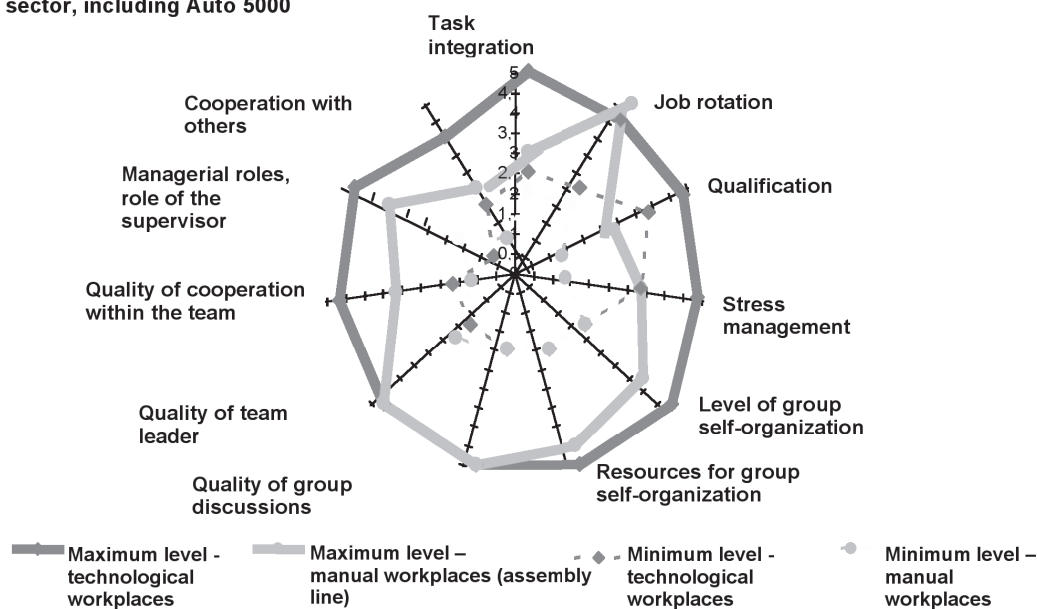
Volkswagen AG had been planning to produce a minivan since the 1990s. The company had originally considered a production site abroad, but then agreed with the work council and IG Metall's regional division at Hanover on Wolfsburg as the production site. In August 2001, a number of collective agreements were signed. In late 1999, Peter Hartz, the VW employee director, a member of the management board responsible for personnel matters, presented a new plan for the creation of 5,000 new jobs in the production of a new multipurpose minivan (A-MPV) and minibuses. According to Hartz, the "5000 x 5000" model was an attempt to create new jobs in automobile manufacturing in Germany, with VW aiming to achieve the same level of low costs as found in Portugal. During the negotiations over the "5000 x 5000" scheme, both sides -Volkswagen and the workers' union IG Metall- made concessions. Although the plant is at the VW's main production site and headquarters in Wolfsburg, it is not a real greenfield plant. Manufacturing is organized at the largely independent VW subsidiary Auto 5000 GmbH. The employees faced the following conditions: regular working hours, extended from 28 to 35 hours per week, with a gross income of DM 5,000 (~2,550 €); in addition to that three hours of "qualification time", only 50% being compensated by the company. Concerning the additional qualification time, IG Metall argued that, in principle, qualification and skill upgrading should be part of regular working time. Wage concessions are 20% vis-à-vis Volkswagen's company wage agreement, but still on a par with the collective bargaining agreements for the metalworking industry in Lower Saxony. IG Metall agreed on a higher level of flexibility in working hours in the form of obligation for additional work beyond standard hours and shifts in case of performance deficits. Although management emphasised that its initiative does not conflict with the VW company agreement, the IG Metall metalworkers' union and the VW work council stated that in the future there would be two groups of employees bound by two different collective agreements at the same factory. However, IG Metall and the workers council did not really have the

option of acting against the new scheme if they did not want to lose the opportunity of new jobs. These concessions bring forth two positive aspects: (1) In order to contribute to solving the labour market crisis of the region, Auto 5000 recruited only formerly unemployed. (2) The design of the new production facility does not conform to traditional concepts of factory organization or to the principles of Toyotaism, but instead its characteristics are decidedly anti-Taylorist. Further, far-reaching innovations of work and factory organization are expected prove that there is a future to German industrial manufacturing locations, provided that human resources are deployed more intelligently. Teamwork and lean management are of major importance in the new production plan. To evaluate whether these ambitious goals are indeed fulfilled, the collective bargaining partners agreed on commissioning evaluation research, conducted by the Sociological Research Institute Göttingen, Germany (SOFI). The research project followed the implementation of the new organizational scheme on a continuing basis, providing feedback on what had been accomplished and presenting a final assessment after the expiration of the collective bargaining agreement, in the beginning of 2006. VW planned to launch this pilot project at two production sites in Lower Saxony, bringing additional 3,500 jobs to the Wolfsburg plant and 1,500 to the Hannover plant. The pilot in Wolfsburg had been manufacturing the Touran for over three years prior to that, having about 3,900 employees on board. However, the future of the Hannover plant is still uncertain.

First of all, VW did indeed recruit formerly unemployed, a development that can be viewed as successful. Regarding the work policy, there is a high degree of autonomy that teams enjoy in organizing their affairs at Auto 5000, compared to other car factories. Figure 3 compares 52 case studies in the automobile sector regarding level of IWP. Auto 5000 is almost in every factor congruent with the highest level.

Figure 3

**Organizational profile of IWP:
52 case studies in automobile
sector, including Auto 5000**



Since teams at Auto 5000 elect their own spokesperson and organize their own team meetings, they themselves plan who will carry-out which tasks, when, how and with whom. Task integration is at a high level, while the manager has a supervisory role. The teams also plan learning and further training processes themselves. According to our research results, it is remarkable that the majority of employees think positively about their situation in the work teams. They especially value the fact that colleagues have the chance to cooperate and help each other within the team. In other contexts, regarding experience with teamwork, there are complaints that teamwork can lead to high amounts of peer pressure and to the exclusion of less capable team members. This does not seem to be an issue at Auto 5000. There is hardly any criticism of the new work organization concept. The predominant problem at this point is that implementation of the concept is incomplete while it is still dealt with hesitation. However, increased criticism is evident in the groups of workers working in the most repetitive assembly line, because the task integration there is more restricted. Altogether, nearly half of the employees see their work situation in a positive light. Only eight percent are dissatisfied, concentrated in the areas where implementation has lagged behind. The units where innovative work organization is already largely implemented show higher percentages of positive assessment than others. The production engineers approve of a broader spectrum of responsibilities and also favour the newly-established learning factories. Workers in these facilities are more closely involved in matters of the production units and so they can react more quickly to changes. However, cooperation between production teams and the experts is not yet as intensely developed, whereas skill upgrading as an especially important part of work organization has had a successful outcome. According to the collective agreement terms, three hours per week involve communication and further training. Fifty percent of this working time is paid by the company. This program includes short further training courses, external workshops and an intranet-platform for information and learning. These activities are intended to improve employability of the workforce, while at the same time increase efficiency and competitiveness. In addition, learning takes place within self-directed work activity and from the teams' enhanced capacity to autonomously solve technical and interpersonal problems. The concept thus explicitly rejects the hostility toward training and learning characterizing the Taylorist period. The employees evaluate the training efforts largely positively. About half of them rate the current training activities in their daily work context as good or even very good, and only a minority is negative assessment. Criticism focuses on specific issues, such as the fact that not all continual training courses are available for everyone. The majority of respondents say that three hours of training and communication processes per week is too much. Only a minority interviewed considered it fair not to be paid for half the training time. Remarkable is the fact that the more a worker participates actively in training and proposals for process optimization within this context, the more satisfied they are with the concept in general⁴.

5. Conclusion

Auto 5000 can be regarded as a reaction to the pressure of drastic cost reduction and innovation on the part of enterprises –in this case VW- showing that competitive industrial production is economical and effective in Germany without undermining the basic interests of employees. Work and business organization have proved to be openly future-oriented in interaction with a keen interest in regulation. Although this project, involving the recruitment of unemployed workers, its

own scheme, an innovative work and business organization, training agreement, similar wages for all production workers etc. is a unique case, Auto 5000 can be regarded as a good practice example, demonstrating the positive results one can obtain when all these innovative elements of IWP and their active continual implementation and development are combined. A win-win situation seems possible: on the one hand, productive and financially successful manufacturing, and, on the other hand, advantages for the employees and improvement of their working conditions. The financial gains that are beginning to materialize for the new project derive partially function of the innovative work organization, which has lead to increased labour productivity and a more effective use of resources (Schumann et al., 2006). The history of work policy in Germany brings us to the conclusion that a win-win situation for both employers and employees from the implementation of a highly-developed IWP concept can lead the way to modern and efficient mass production, even in a high-wage country like Germany. The concepts presented above are all part of the current production system within a capitalist society. The capitalist structures do seem to be resilient, but if there are possibilities for promoting emancipation within the system, giving workers the possibility develop into self-confident subjects, these concepts should be implemented, creating the potential and the opportunities to help erode the negative aspects regarded as impervious within a capitalist society.

Notes

1. Statistical Federal Office, Germany, June 2001: <http://www.destatis.de>. Germany refers to West Germany prior to reunification in 1989; afterwards, Germany refers to the unified Germany.
2. The results of a survey by the research institute IAT in Gelsenkirchen show that Taylorist organization accounts for about 40% over all sectors of the German economy. A total of 3,312 workers were questioned about aspects of their workplace, based on a 12-criteria scale, subdivided with regard to participation, cooperation and autonomy. By means of cluster analysis, eight workplace types were identified, each different regarding participation, cooperation and autonomy. Bosch (2000) summarized the three clusters defined as heteronomous, over-directed individual or teamwork workplace into a group where job description could be defined as Taylorist (Nordhause-Janz and Pekruhl, 2000; Bosch, 2000).
3. All translations of references in German into English by author.
4. A more detailed account about how workers evaluate their situation at Auto 5000 can be found in: Schumann et al., 2005a, 2005b, <http://www.sofi.uni-goettingen.de>.

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