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## Internationalization strategies of Japanese and German automobile companies

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# INTERNATIONALIZATION STRATEGIES OF JAPANESE AND GERMAN AUTOMOBILE COMPANIES

*Ulrich Jürgens*

## ABSTRACT

The questions in this article are directed at the relationship between internationalization and industrial relations. There was a shift in the constellation of actors in the world automobile industry in the 1980s. The internationalization strategy of the Japanese companies became the dominant phenomenon. Public perception also shifted: instead of talking about the power and domination of the "multinationals", the new topic of discussion was the management and production concept of the "transplants".

The term "transplant" has up to now primarily been used to refer to the internationalization of the production structures of Japanese manufacturers. This article deals with the more recent trends towards internationalization in the German automobile industry with a look at the same process in Japan. This reference does not only come from an interest in comparison. The development in the German automobile industry since the mid-1980s has been influenced and shaped to a large degree by the internationalization of the Japanese automobile industry.

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## 1. INTERNATIONALIZATION AS A PRODUCTION STRATEGY

In the past decades, the automobile industry has been one of the main actors in internationalization. The majority of the automobile companies has an international presence with its products; a minority, on the other

hand, has also internationalized production. We are primarily interested in these structures of international production and their strategic utilization in regard to questions concerning the industrial relations of the home company as well as those of the foreign subsidiaries.

In comparison with the international mobility of goods and investment capital, industrial relations are largely nationally determined. Much has been written about the tense relation between the international character of company activity and the national character of industrial relations (Flanagan and Weber 1974; Banks and Stieber 1977; Kujawa 1975; Kujawa 1980). Most studies on the automobile industry have focused on the two largest U.S. multinational car companies, General Motors and Ford. For a long time they were also the only companies which had firmly established themselves both in North America and in Western Europe. In the 1970s both companies developed a world car strategy. This strategy promised to compensate for the enormous costs of developing the new product generations by using the economies of scale which would correspond to their worldwide sales volumes. In this manner, they believed that they could take advantage of their strengths as multinational companies.

The world car concept did not live up to these high expectations. The aim of standardizing the product was in contradiction to the diverging market trends in the different regions of the world. There was no systematic attempt to standardize process technology and management systems in the world-wide network of plants established in the course of the world car strategy.

There was a shift in the constellation of actors in the world automobile industry in the 1980s. The internationalization strategy of the Japanese companies became the dominant phenomenon. Public perception seemed to shift: instead of talking about the power and domination of the "multinationals", the new topic of discussion was the management and production concept of the "transplants".

The term "transplant" has up to now been primarily used to refer to the internationalization of the production structures of Japanese manufacturers. In the following, I will be dealing with more recent trends toward internationalization in the German automobile industry with a look at the same process in Japan. This reference does not only come from an interest in comparison. The developments in the German automobile industry since approximately the mid-1980s have been influenced and shaped to a large degree by the internationalization of the Japanese automobile industry. My questions are directed at the relationship between internationalization and industrial relations under these conditions.

In industrial relations, our concern is primarily the level of work regulation in the plant.<sup>1</sup> There are close connections between industrial relations, production concepts and thus the form of work regulation in the plant. This has been shown for the automobile industry in a number of internationally comparative studies in recent years (Jürgens et al. 1989; Tokunaga et al. 1991; Sorge and Streeck 1987). A keynote of these studies has been the question of alternative paths for production organization and thus of possible options within the framework of strategies for production modernization and industrial policy. Nationally specific paths, in the sense of a "Japanese model" or a "German model", are discussed in this context (cf. Jürgens et al. 1989: 354ff.; Berggren 1988). With respect to their foreign sites, companies are faced with the following concrete question: to what extent do they consider the production concepts of their core plants to be transferable, or to what extent do they want to transfer them? The answer to this question is clearly relevant in determining which production concepts will prevail.

In the following, I would like to first of all compare the internationalization profiles of the German and Japanese automobile industries (section 2); following this, I will discuss the question of the extent to which internationalization is carried out through transplanting national production concepts from the German or the Japanese automobile industry. For the automobile industry I will be concentrating on Volkswagen as the most important German multinational company.<sup>2</sup> There was a clear change in VW's internationalization strategy at the end of the 1980s which was primarily influenced by Japanese concepts from Japan and from the "transplants" (section 3). The closing reflections deal with the establishment of international systems of industrial relations in view of the internationalization strategies of the companies (section 4).

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<sup>1</sup> In this article I am focussing on plant level industrial relations. I am not looking into the interrelations with the system of industrial relations made up by the triangle of state, unions, and companies which is the classical arena of industrial relations in the sense of J. Dunlop (1958).

<sup>2</sup> For this purpose I interviewed representatives of management and works council of Volkswagen AG and the International Metal Workers Federation in summer 1991. The following draws also from the Autoproject at the Wissenschaftszentrum Berlin (WZB). This project on "Challenges and Opportunities of the Current Restructuring in the World Automobile Industry for its Employees" was carried out in the context of MIT's research program on "The Future of the Automobile" by K. Dohse, T. Malsch and the author. The project's findings are published in Jürgens et al. (1989); the English version is forthcoming from Cambridge University Press.

## 2. COMPARING THE INTERNATIONALIZATION PROFILES OF THE GERMAN AND THE JAPANESE CAR INDUSTRY

In this comparison I will be limiting myself largely to the automotive area and to well-known car producers in both countries. Both dominant multinational companies General Motors and Ford already owned production sites in Germany (referring in the following to the Federal Republic of Germany, thus up until 1990 West Germany) which they were able to operate again after World War II (WW II). Their share of the entire car production in Germany was 42% in 1990. To this extent, a part of the German automobile industry was subject to the internationalization strategies of these American manufacturers from the start.

*Table 1: Strength of German roots of the German automobile manufacturers*

	Sales in F.R.G. 1990 in %	Change 1990 vs. 1980	Production in F.R.G. 1990 in %	Change 1990 vs. 1980	Labor Force in F.R.G. 1990 in %	Change 1990 vs. 1980	Purchases in F.R.G. in % of total supplies (1987)
VW	31	(-1)	59	(+2)	64	(+12)	85 <sup>7</sup>
Mercedes Benz	30	(0)	90	(-1)	78	(-3)	90
BMW	38	(-8)	98	(0) <sup>3</sup>	85	(-1) <sup>3</sup>	84
GM (Opel)	6 <sup>1</sup>	(-13) <sup>2</sup>	14	(-10) <sup>4</sup>	6 <sup>5</sup>	(+20) <sup>6</sup>	78
Ford	5 <sup>1</sup>	(-17) <sup>2</sup>	17	(+30) <sup>4</sup>	11 <sup>5</sup>	(+13) <sup>6</sup>	70
Porsche	28	(-19)	100	(0)	100	(0)	95

<sup>1</sup> sales in 1988.

<sup>2</sup> change 1988 vs. 1982.

<sup>3</sup> without motorcycles.

<sup>4</sup> change 1990 vs. 1982.

<sup>5</sup> labour force 1990 vs. 1982.

<sup>6</sup> change 1988 vs. 1980.

<sup>7</sup> only VW-AG; at Audi: 94 %.

*Sources:* MVMA (various years); Sauer (1991: 32).

It becomes clear from Table 1 that the German site plays a very differing role for the automobile companies with production in Germany:

- The two American companies General Motors and Ford both produce approximately one seventh of their world production at their German sites; this has a considerable but not decisive importance in the companies as a whole. However, both companies have important management functions located in Germany: in the case of Opel, these are the

- development and central planning departments for General Motors Europe; in the case of Ford, these are fundamental parts of research and development (R&D) and production planning.
- The Volkswagen corporation produces around 60% of its cars in Germany and two thirds of its workers in the corporation's two companies, VW AG and Audi, are employed here. With VW-Sachsen, a third company is emerging in the former GDR – however, in contrast to Audi and VW AG, without its own central functions like R&D and production planning.
  - Mercedes Benz is still exclusively a German company in the area of car production; it only has international production sites in the area of trucks and commercial vehicles.
  - BMW and Porsche, finally, are the firms which are most closely limited to Germany in their production and work force.

The German automobile industry is also largely rooted in Germany in terms of relations with suppliers. In 1987, VW AG still received 85% of its purchasing volume from domestic sources, while Ford and Opel even received 70% and 78%, respectively (Sauer 1991: 32).

If we exclude sales, the rootedness of the Japanese automobile manufacturers in Japan is still very great, but it has been sharply reduced in the course of the 1980s, as table 2 shows. Honda and Nissan have the most strongly internationalized production structures. Of the Japanese companies selected, Toyota is still most firmly rooted in Japan.

**Table 2: Strength of Japanese roots of the Japanese automobile manufacturers<sup>1</sup>**

	Sales in Japan 1990 in %	Change versus 1980	Production in Japan 1990 in %	Change versus 1980	Labor Force in Japan 1990 in %	Change versus 1980
Toyota	55	(+14)	87	(-13)	69	(-31)
Nissan	44	(-4)	80	(-10)	90 <sup>3</sup>	(-10)
Honda	36	(+13)	70	(-30)	85 <sup>2</sup>	(-8)
Mazda	35	(0)	84	(-16)	n.a.	n.a.

<sup>1</sup> not including the group companies.

<sup>2</sup> only for passenger car.

<sup>3</sup> in 1988.

Sources: JAMA (various years); The Economist Intelligence Unit (1991).

If we compare the internationalization strategies of the German and Japanese manufacturers in the area of car production it becomes clear that:

- Volkswagen was the only German automobile company that pursued an internationalization strategy with regard to its production system up to now. Originally it aimed primarily at Third World countries in which potential market growth was seen (Brazil, Mexico, Nigeria, South Africa, China). An exception to this strategy of "opening up the periphery" was its Westmoreland site in the U.S.A. which started production in 1978. Giving up the U.S. production site in the middle of the 1980s went hand in hand with the development of Volkswagen towards a European oriented corporation (the shares of Europe on the corporation's sales, production and work force in 1990 were 74%, 84% and 76% respectively). At the beginning of the 90s, the company is setting up new production sites in Southern Europe, Eastern Europe, and the eastern part of Germany.
- Up until the beginning of the 1980s, direct investments of the Japanese companies also went to production sites on the periphery. With the establishment of "transplants" in North America and then in Western Europe we see a decisive change in strategy at the beginning of the 1980s; starting then, internationalization meant a triad strategy building up their presence as manufacturers in North America and Western Europe.

Connected with the change in strategy in both cases is a difference in the relationship between domestic and foreign sites. Up until then there was a hierarchy in which the domestic core plants were outfitted with the respective company's latest technology and delivered their products in the core countries of the triad, whereby the peripheral plants applied "used technology" to supply the peripheral countries. The change in strategy now undermines the central position of the core plants. They are now confronted with parallel plants in foreign countries which are equipped with modern technology and operate under modern management concepts. The latter are now also "world market" factories able to meet the demands of the triad markets and even to export to the home market of the company. This holds true for the "transplants" of the Japanese companies and for some of the new production sites of the VW-Group. As a consequence parallel plants are now competing on the basis of comparable technology and with the same products in this international production system.

Parallel production of the same model at different sites was practiced early by General Motors (GM) in North America and became the basis for a system of control and systematic competition there. There are obvious advantages for central management control: better transparency for evaluating plant performance and exerting pressure on the laggards to



match the level of performance of the best factories. Thus parallel production also became an important control instrument for management at Ford and GM when they integrated their European organizations in the 1970s (cf. Jürgens et al. 1989: 196ff.).<sup>3</sup>

The installation of structures of parallel production obviously has far-reaching consequences for industrial relations. We will be returning to this below. In the past, parallel production in European companies, to the extent that it took place at all, had a totally different purpose. A system of main and satellite plants emerged with the rapid growth of these companies. If these were "single purpose plants" for the production of one model, then the factory works councils of the main plants attempted to preserve production structures with which one product could be produced exclusively and one product parallel with one of the company's other plants. In view of fluctuations in demand between the products, this would help safeguard employment in the core plant. With reduced demand for one product, the production of the second model could be increased to preserve jobs. Thus both basic models "Golf" and "Polo" were produced in Volkswagen's core plant in Wolfsburg during the 1980s, in the satellite plants in Emden and Pamplona (Spain), on the other hand, only the Passat and Polo were produced respectively. In the framework of the new international production structures at VW we see a reversal of this situation – the core plant with its main production line only has a limited conversion flexibility, and the new plants in the corporate group are so designed that several basic models can be produced with their equipment. (The Japanese transplants generally have a very high degree of process flexibility which is assured through two or three basic models that can be produced on the same production lines.)

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<sup>3</sup> Whether in Great Britain or in the U.S.A., the tenor of leading industrial engineers we interviewed in our WZB project dealing with the restructuring of the automobile industry was the same: "We endeavor to achieve a production lay-out and installation which is as compatible as possible. When we now plan new equipment, then the plants will be made exactly the same, even the colors, so that the people in England don't have any more excuses (an industrial engineer of a major European car company). "The division specified the tooling for work models and provided factories with the same equipment" (an industrial engineer of an American company quoted in: Jürgens et al. 1989: 197).

**Table 3: Production sites of car assembly and planned additional capacity of the VW group 1990-1995 (in 1000 vehicles)**

Concern company (assembly plants)	Production 1990	Additional capacity - 1995	(New plants)
VW AG/F.R.G. (Wolfsburg, Emden, Hannover)	1,644		
VW Sachsen/F.R.G. (Mosel I)	2	250	(Mosel II)
Audi AG/F.R.G. (Ingolstadt, Neckarsulm)	430		
VW/Belgien (Brussels)	206		
SEAT/Spain (Barcelona, Prat, Pamplona)	533	400	(Martorell)
TAS/Jugoslavia (Sarajewo)	37		
SKODA/C.S.F.R.		400	(Mlada Boleslav)
BAZ/C.S.F.R.		100	(Bratislava)
MPV/Portugal		80	(Setubal)
VW/Mexico	214	150	
Autolatina/Brasilia	265		
Autolatina/Argentina	8		
VW/South Africa	60		
VW/China (Shanghai)	19	300	(Changchung)
Total	3,418	1,680	

Source: Volkswagen: Annual Company Report 1990

Table 3 shows the current sites structure of VW's assembly plants and their production output for 1990 and compares this to the currently projected expansion and the additional capacities this will create. With respect to the newly created international production structure the following can be stated:

- Despite the possibility of surplus capacity, VW is planning additional capacity which exceeds the production volume of 1990 by almost 50% worldwide. A projected market share of almost 20% is projected for Europe (1990 around 20%). Volkswagen is thereby contributing to the heating up of competition in the 90s which can be expected in any case following the agreement between the European Community (EC) and Japanese Ministry of International Trade and Industry (MITI) to gradually lift the market entry barriers towards Japanese cars into West Europe.
- The competition for the core plant Wolfsburg becomes tougher: the production of the A-model (Golf) was the privilege of the core plant in Wolfsburg, in the future it can be produced at six sites: in Wolfsburg

and Mosel (the new site in the former G.D.R.), in Brussels (Belgium), in Puebla (Mexico), in Pamplona (Spain) and in the future also in Changchung (China).

- With the new sites, the Volkswagen company is growing on the periphery of Europe, in countries with low wages (the wages at Skoda are presently around one tenth of those at the VW AG) and weak union structures. The same pattern is also discernable in its expansion strategies outside Europe, where growth is on the fringe or outside the areas of the other two triad powers.

This pattern of growth for the future contrasts with that of the Japanese companies. Here the core countries of the triad powers are the focal points of expansion. On the basis of the most recent announcements (Oct. 1991), a capacity of 1.2 million vehicles could emerge in Europe by 1995 (after 205,000 in 1990), and more than double the 1990 production figure of 1,320,000 vehicles could then be produced in the U.S.A. (around 2,700,000). In the United States alone the Japanese cars assemblers established eight new plants (not including the joint venture between General Motors and Toyota NUMMI (New United Motor Manufacturing Inc.)), and three in Canada; in Western Europe the new production sites are all in the U.K. (two existing production sites have been taken over in Spain, a Dutch plant of Volvo will be restructured as a joint venture, probably under Japanese management. With this focus of growth the Japanese manufacturers are obviously not counting on the advantage of lower wages. They are, in principle, facing strong union organizations who are observing this development with Argus eyes, although partly from the outside. This is also true for the political organizations and the public in these countries. The Japanese producers are going into the "lions den" to contest for market shares with the established companies! If they are neither counting on low wages nor on the established actors showing a particular readiness to make concessions, then what advantages could they bring to bear for themselves?

### 3. INTERNATIONALIZATION AS THE TRANSPLANTATION OF NATIONAL PRODUCTION CONCEPTS

#### *3.1. The Concept of Transplants*

"Transplants" is a well-established term for the new plants of the Japanese companies in North America and Western Europe. The term is even used for the joint ventures of Japanese and American car companies – NUMMI,

Diamond Star and CAMI (Canadian Automobile Manufacturing Inc.). The term is obviously being used analogous to the transplantation of organs from one body to another. This has two implications: on the one hand it means transplanting a part of the organ donor to a foreign carrier and it is not clear whether the transplanted organ will be accepted or rejected; on the other hand, it means that it is not only a minor operation for the recipient, but requires that the entire "body" adapt and adjust itself to the new "organ". It fits into the analogy of an organ transplant that with North America and Great Britain the Japanese manufacturers have chosen two production sites which are considered "sick" by many observers, whose automobile industries showed especially serious crisis features at the beginning of the 1980s (cf. Dertouzos 1989; Dunnett 1980).

However, the analogy of an organ transplant is misleading. It is probably unclear to everybody what the *necessary and sufficient* conditions are which make Japanese production systems function in the way they do. Thus, for the Japanese companies going abroad, it is also a question of trial and error, what they should take with them. In any case, it is not technology and not certain special skills or work rules which would have to be transferred. The "transplant"-discussion rather concentrates on three elements:

1. The production control system oriented to the "no buffer/no error" ideal together with a work organization based on teamwork, a multi-skilled work force and permanent improvement activities;
2. a system of industrial relations with the "three pillars" of lifetime employment (for core employees), seniority-based wages and company unions;
3. a supplier/subcontractor system in the well-known pyramid structure and long-term relationships within the company group.

Obviously, the process control/work organization improvement system lies at the heart of the matter; its elements and implications are currently discussed widely in the West under terms like "Toyotism", "Ohnoism", "lean production system" (cf. Dohse et al. 1985; Wood (unpubl. paper); Womack et al. 1990).

What is it what the German management might consider to take with them when going abroad with production? The following two elements could be regarded as typical for the "German way" to run production and to organize work:

1. The central role of qualified skilled workers and the system of vocational training by apprenticeship;
2. the system of plant level industrial relations which gives the works councils a strong degree of influence and in some areas co-determina-

tion rights concerning decisions on personnel policy, training and – to a lesser degree – on production organization. The basis of this system is the German labour law. It exerts strong pressure to find consensus solutions and forces “jointness” in developing plant level solutions.

In the following I will mainly deal with the first element. The most striking contrast when we compare the “Japanese” and the “German” way to run production is in the area of skills formation and labour deployment. The German system is traditionally oriented towards technical solutions (Jürgens et al. 1989: 354ff.), and the qualified skilled workers (*Facharbeiter*) are regarded as the most valuable asset to run the automated equipment. These skilled workers have gone through a solid apprenticeship at the beginning of their career (cf. about the “dual system” of apprenticeship training; Streeck et al. 1987); they are the specialized problem-solvers who also receive most of the additional training. Ordinary production workers are traditionally of secondary importance; often they are foreign workers (*Gastarbeiter*) working under what is still regarded in Germany as the “American concepts” of Fordism-Taylorism. As a consequence, production work in the “German way” is largely polarized between the poorly-trained unskilled workers in direct production and the qualified skilled workers in the off-line and indirect areas. Both direct and indirect workers have the same qualifications in the Japanese plants and there is no differentiation of status between them. Initial (apprenticeship) training and continuous training in the German system is still oriented to creating an elite of core workers with special technical competence; in the Japanese plants, training is a matter concerning *all* workers.

At the center of the “German model” is the qualified skilled worker (*Facharbeiter*) and a specific acknowledgement of skilled work as a “profession”. This understanding also includes an interest in one’s work, a willingness to accept comprehensive responsibility (also crossing over the borders of their own task area), and a large degree of self-regulation in carrying out work. Almost all of the first-line supervisors, the *Meister*, in German plants have a skilled trades qualification and have passed an external examination at the local Chambers of Industry and Commerce after having gone through an extensive additional training course with a focus again on technical training. These *Meister* would also be the supervisors in non-skilled production areas and thus represent a high technical problem-solving potential also in these areas. The *Meister* form the link between the direct workers on the shop floor and the skilled workers of maintenance as well as the technicians and engineers from the technical staff functions. It is the line *Facharbeiter* – *Meister*, technicians, and engineers which form the crucial axis, traditionally, in the German plants. The *Facharbeiter* tradition and the strong posi-

tion of the works councils based on the Works Constitution Act (*Betriebsverfassungsgesetz*) did not support a "job control" attitude like that in Anglo-Saxon countries to emerge on the shop floor. The relationship between the works councils and management developed on the basis of negotiating interests against the background of the situation in the individual factory. This system takes the different interests into account and serves to balance them out. This, in turn, ensures the work force's acceptance of the conditions of employment.

Taylorism established itself increasingly in the German automobile plants after WW II, and the *Facharbeiter* tradition was pushed aside. As it was generally recognized at the beginning of the 1980s that Fordist and Taylorist principles for production organization were no longer appropriate for a flexible, highly mechanized production, a model for production organization emerged against the background of the skilled worker tradition and the co-determination rights of the works councils which aimed at the increased deployment of skilled workers, including now direct production tasks as well. This went along with production concepts inspired by the vision of "computer integrated manufacturing" aiming at high degrees of automation even in areas like final assembly and low batch production, where until then human labour had prevailed. This meant increased demands for technology-related qualifications and independence in completing tasks. The qualified skilled worker received an even more pivotal role in the modernized plants of the German automobile industry.

### 3.2. Segmentation According to Core and Periphery Sites

To what extent can we speak of a "transplant"-strategy of the German car manufacturers? In the following I will concentrate on Volkswagen's foreign production sites. In view of the central role of the skilled workers for German production management, I specifically want to look at the system of skill formation and the training of skilled workers in VW's foreign production sites. I will briefly touch the aspect of industrial relations in the first point. The following observations can be made:

1. No attempt has been made to transplant the institutions of jointness and co-determination to the plants abroad. Obviously, this system is accepted in Germany as it is stipulated by law, but plant management seems not to see benefits in establishing similar institutions on a voluntary basis in its foreign plants. At the same time, the experience of having to deal with the strong unions-based works council has not instigated German management to actively pursuing a union-free environment for its plant.

The existence of a union and its rights of representing worker's interests was never questioned anywhere.

The company adopted existing organizations and the peculiarities of the country's system of industrial relations. VW South Africa played a pioneering role in the recognition of the black union COSATU. The VW works council supported the struggle against apartheid.<sup>4</sup> The recognition of unions at foreign production sites, however, does not mean that the social partnership between management and the works councils which exists in Germany (cf. Brumlop and Jürgens 1986) is also practiced there.

There were intense labour conflicts between the workers and management in Brazil and Mexico (cf. Dombois 1987; Doleschal 1986). Brazilian union circles attribute the transfer of management to Ford in the framework of the joint venture Auto Latina to the fact that, in view of imminent restructuring, VW preferred to avoid direct confrontation. At many sites, Ford had acquired the reputation of being a hardliner in questions of industrial relations.

2. In contrast to the co-determination system, German management put high emphasis on introducing a German-type apprenticeship training of *Facharbeiter* in its foreign plants. Apprenticeship training was given considerable importance when compared to the conditions in the host country and other multinationals there. This holds true particularly for the Third World plants. Thus, before starting production at the new assembly plant in Pueblo, Mexico, VW set up its own training school for skilled workers; the training curriculum was almost identical to the German *Facharbeiter*-training, and in the early phase even the trainers were Germans. We can observe a similar pattern in most of the other new locations. Also, the VW plants generally take in more apprentices than other multinationals do in these countries. Thus, in 1991 VW South Africa with around 8000 employees trained about 300 apprentices, whereas the South African joint venture of Ford and Mazda with 5000 employees had only around 70 apprentices in the system.

At the new site in Shanghai, China, which was set up in 1985, they immediately set up a facility for vocational training to train skilled workers. As in the German dual system and in contrast to Chinese practice, this facility is not directly a part of the company and with a largely German curriculum; it trains around 200 apprentices.

In Germany since the 1970s, the intake of apprentices for training as skilled workers became more and more disconnected from the projected needs of the skilled workers' departments. At the beginning this was

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<sup>4</sup> Thus, for instance, John Gomono, President of the National Union of Metal Workers of South Africa spoke at company meetings at VW in Wolfsburg.

due to general labour market and youth policy considerations and a corresponding pressure by works councils and politicians to take in more apprentices. But in the 1980s, management saw the advantage of having "surplus" skilled workers who could be deployed directly in the production on unskilled jobs. Because of mass unemployment, these young skilled workers (*Jungfacharbeiter*) could hardly quit and look for another job. Thus, they had to accept direct production jobs which they and their colleagues in the skilled trades departments regarded as having "low value". But management could now use their competence to install more "intelligent" work structures (Jürgens 1989: 132f.). This strategy could not be implemented in most foreign plants. The graduates of the training schools regard themselves as an elite, and because of the labour market conditions, they can easily change employers. In addition, in most of these countries they have even less prestige than in Western Europe. The young skilled workers at the Brazilian VW Plant San Bernado, for example, went on strike in protest against their deployment in production jobs recently.

3. It is remarkable that in the case of the American plant Westmoreland, which was the only case where Volkswagen tried to get a foothold in the other two triad locations, VW followed even more a course of "adaption" instead of "application" of German concepts.

The division of labour (job classifications, job demarcations), the role of seniority in personnel measures and the principle of hire and fire, and the forms of worker representation and conflict that could be seen at the production sites in the U.S.A. were exactly like those of the Big 3 (cf. Dombois 1982: 249). This is also true for the role of the skilled worker and skilled worker training, which is a particular weakness of the American system (cf. Dertouzou et al. 1989: 81). VW did not make any particular efforts of its own to cover the scarcity of skilled workers, which was a particular problem at the Westmoreland site. Whereas VW has been setting up its own apprenticeship training system in all of its other foreign affiliates it did not do so in the U.S.A. Thus Dombois reports that in the situation of a particular skilled worker scarcity, the Westmoreland management tried to attract skilled workers from Detroit and hired almost one hundred British skilled workers. Dombois (1982: 249) summarized his observations of the Westmoreland plant in 1986:

The workers in the U.S. plants produce the same or at least similar products (the Golf/Rabbit) on the same equipment as their colleagues in Wolfsburg, but the conditions under which they work, are compensated and are employed differ considerably from those in German plants. Also the manner in which plant conflicts and



work and employment conditions are settled is different in German and American plants.

The Westmoreland site closed in 1988. A lot of reasons have been given to explain this decision which is still discussed controversially among VW's management. The intention to use the low cost production basis in Mexico and Brasil did play a role in that decision. Another reason was the rather poor performance of the plant in terms of quality and productivity. Either the plant had no warning time or it had already itself given up by the time of the decision to close Westmoreland down as it did not seem to make any efforts to turn itself around. The plant did not take part in the process of the establishment of "new industrial relations" in the U.S.A. (see Katz 1985), with the abolition of seniority-based practices for worker deployment, increased flexibility and participation in the framework of team-oriented work reforms. There were no attempts at using new concepts to achieve an increased efficiency and quality in production. We can speculate that management instead considered large investments in new technology as necessary – just as it saw the increased use of technology and the mastery of advanced computer-assisted technology systems as the best security for the future in Germany. At the end of the 1980s, machinery and equipment of the Westmoreland plant were shipped to China, where it serves as the hardware of VW's second plant at Changchung.

The picture is not yet complete, as we have not dealt with the new plants of Volkswagen in the south and east of Europe. For the international production structure up to the 1980s, we have seen the attempt to transfer some of the German skilled workers' tradition. But this was done without building on it and developing skilled worker based high-tech production structures there.

### *3.3. Internationalization Via "Transplants"*

The history of how the Japanese "transplants" in North America and Western Europe were established will not be reported in detail here. For North America this has been, in contrast to VW's experience, a "success story" up to now. The following factors help explain why:

1. Products: the shorter model change cycles and the wide spectrum of products on the basis of a higher product flexibility as well as the price and product quality.
2. Site selection and start-up preparation: a high selectivity in the choice of personnel, careful training of the core workers, who in part went through an extended training in Japan; heavy emphasis on training also for direct production workers.

The start-up curve was flat and extended over a long period of time. In this phase, possible sources of defects in the process lay-out, in qualification and diligence of the work force as well as in the quality of supply parts were carefully eliminated before the plant switched over to full operation. This was especially true for the early plant openings, like Honda's Ohio plant and Nissan's Tennessee plant, which had a first run with motorcycle and pick-up production respectively.

3. Political support: this concerns less the subsidies from the state or community, which Volkswagen also received in Westmoreland. Worthy of note is, in my opinion, rather that the American government did not undertake anything to compensate for the unequal cost burdens between old sites of the Big Three and the new transplant sites. As governmental systems for health insurance, old age pensions and unemployment compensation in the U.S.A. are very inadequate, the companies have established company internal systems on the basis of contractual agreements with the UAW (United Automobile Workers). These systems place a heavy burden on plants which have been at the same site for decades, have a high average age of the work force and a large number of retirees (cf. Mosley and Schmid 1991).<sup>5</sup> Management thus gave the industrial policy goal of modernization a clear preference over socio-political objectives.
4. The fact that a majority in the union and leading union representatives accepted that fundamental changes in the work practices of plants were necessary and that local resistance to such changes should be overcome. This meant a fierce fight against union opposition to the changes, which later formed the "New Directions Movement" (cf. Parker and Slaughter 1988; Mann 1987).
5. Last but not least was the new plant management practiced by the Japanese in their "transplants". Here they were obviously able to connect cost efficiency and quality performance with working conditions acceptable for the American employees.

It is well known that of the Japanese transplants only the joint ventures NUMMI (Toyota - General Motors), Diamond Star (Mitsubishi - Chrysler), and CAMI (Suzuki - General Motors), the Mazda Flat Rock site, which is partially a subcontractor of Ford are organized by the UAW. An attempt at organizing at Nissan in Smyrna failed spectacularly. First stu-

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<sup>5</sup> Iacocca put the average U.S. health care costs at around \$ 700 per vehicle (Financial Times, Sept. 1, 1989); the takeover negotiations between Ford and Chrysler have apparently foundered on the unfunded \$ 3.6 billion in pension obligations that Chrysler has from the 1987 takeover of American Motors (Handelsblatt, July 11, 1991: 19).

dies have shown, however, that the existence of union organization did not lead to fundamental changes in the plant management practices. The research done by Abo et al. has shown no significant differences between the eight automobile and parts "transplants" they investigated in North America (The Institute of Social Science, University of Tokyo, 1990).<sup>6</sup> An explanation for this could be that the Japanese management surveyed acted as if a Japanese type of union were present.

I do not have any further information over the forms of interest representation and conflict regulation in the non-unionized transplants in the U.S.A. It appears to me that "institutions" like presidential meetings, common cafeterias, open offices, involvement circles and teamwork have up until now functioned successfully as a substitute for an institutionalized system of interest representation with shop stewards and shop committees.

The "transplant" approach, i.e. the attempt to replicate a Japanese management and production concepts, holds true for all new plants of the Japanese car manufacturers in the U.S.A. and Canada (as well as in the U.K.). The differences between the "transplants" are small in this respect (The Institute of Social Science 1990: 95; Abo 1990). Possibly the most important success of the "transplants" was their demonstration effect – it works under foreign conditions, and it is accepted by American (and British) workers.

In surveys of and statements from employees of the Japanese transplants, two important positive points for Japan-oriented plant management from the point of view of their employees became apparent time and again:

1. "Management cares" – grievances are taken seriously, a solution to the problem is attempted promptly, those affected are included in problem solving and taken seriously as experts with their practical knowledge.
2. "Management shares the burden" – the attitude prevalent in Western plants, in which all problems are passed on down the hierarchy, does not exist here, privilege structures and status differences are clearly reduced. There is a high degree of sensitivity and recognition of this among the American workers (and British workers), precisely against

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<sup>6</sup> "...the existence of a labor union does not necessarily restrict the application of Japanese management on the shop floor." (The Institute of Social Science, University of Tokyo, 1990, p. 49). Abo's study had a surprise result here. In the indicator "adjustment to an American style" or "transfer of the Japanese style" which ranged from 1 – 5 the factor "union" scored 4.4, although only one of the eight companies surveyed was unionized.

the background of thinking in class categories or in terms of "top" and "bottom".

The overall success of the "transplants", their efficiency, quality record and social stability have already led to the conclusion that Japanese production concepts are universally employable (Womack et al. 1990; Murata and Harrison 1991). There are, though, a number of points which speak in favour of still considering the question of the successful transplantation as open:

1. The new plants were largely built as clones of Japanese plants, the products had already been run in Japanese plants, production methods had been debugged. Each problem at the "transplant" projects, which were very much in the limelight, definitely got a lot of attention from management. This might change in the future when the American plants have to stand on their own feet and might be regarded as competitors by their Japanese sister plants.
2. The development chances of the "transplants" and of each employee currently appear to be unlimited. There are many possibilities for promotion and improvement in these rapidly growing organizations, and this could help console an employee in the face of currently depressing and stressful working conditions.
3. Fundamental elements of the Japanese system, above all those which promote the mixture of individual incentive and competition within the work force (through personal appraisal, promotion policies) on the one hand, and the social integration on the other hand (the multitude of clubs, organized leisure activities, etc.) are missing in the "transplants". The wage system generally corresponds to that of the traditional U.S. plants (cf. Abo 1990).

In regard to their taking over the American wage system Abo said:

This is an example of an unfavorable 'hybrid' between Japanese and American-style practices, so we believe this wage system is of a somewhat transitional character, during which time the Japanese carmakers are trying, first of all, to destroy the traditional inflexible systems in the US. (Abo 1990: 11)

In my opinion there are many indications that the further development will lead to further "hybrid forms" between Japanese and American management styles. The development in the union-organized transplants is conspicuous for this. The New Directions Movement, which is critical of the Japanese style of management, could gain more influence here as of late. This school of thought, which has long been a strong faction in the NUMMI plant, recently won the majority in a local union; some modifi-

cations in the previously practiced team system in Flat Rock were carried out under pressure from this movement.<sup>7</sup>

The growing body of literature critical of the Japanese management practices in the "transplants" refers time and again to the issues of health and safety, speed-up, favouritism (in the appointment of the team leaders), equal opportunities, recruiting and promotion of minorities (Berggren et al. 1991; Fucini and Fucini 1990). These correspond to the traditional conflict points in American industrial relations (seniority is another). The Canadian Autoworkers' Union (CAW) put together an explicit catalogue listing the elements of Japanese production methods that the union is not willing to accept.<sup>8</sup>

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<sup>7</sup> Instead of the appointment of the team leader, he or she is now elected by the team.

<sup>8</sup> "1. We reject the use of Japanese Production Methods which rigidly establish work standards and standard operations thereby limiting worker autonomy and discretion on the job.

2. We reject the use of techniques such as Kaizen (pressure for continuous "improvement") where the result is speed-up, work intensification and more stressful jobs.

3. We oppose workplace changes which limit mobility, weaken transfer rights and erode seniority provisions.

4. We reject the introduction of alternative workplace structures and employee-based programs which purport to represent workers' interests while circumventing the union.

5. We reject efforts to shift compensation from wages to incentives and to individualize the rewards of productivity improvements.

6. We oppose the process of union nomination or joint appointees to new jobs created to perform company functions.

7. We oppose initiatives which undermine worker solidarity-structures which require conformity of company-determined objectives and which divide workers into competing groups internally, nationally and internationally.

8. We oppose the use of peer pressure in company campaigns to discipline and regulate the behavior of workers.

9. We reject workplace reorganizations which threaten job security by sub-contracting or transferring work outside the bargaining unit.

10. We oppose efforts to render work places so lean that there is no place for workers with work-related, age-related or other disabilities.

11. We oppose efforts to involve and reward workers in the systematic elimination of jobs or the disciplining of other workers.

We support efforts to involve and empower workers, to increase worker dignity, to produce quality products with pride, to make jobs more rewarding and work places more democratic. These objectives will be achieved through *our own agenda for change*, our own demands around: training, guaranteeing health and safety, technology, strengthening mobility rights, improving jobs, strengthening affirmative action, improving the work environment, strengthening the union."

The picture of a dualization of the Japanese system of industrial relations with a traditionally America-oriented area and a Japan-oriented area is already almost outdated today. On the contrary, an immensely differentiated structure has emerged since the 1980s which also shows a number of concepts at the Big Three which were taken over from Japan. These follow with traditional organizational patterns. At the same time, with the new GM company Saturn we see the emergence of extensive union co-determination which has some points in common with the German system.

In Great Britain, on the other hand, we have up to now found a picture of a more heavily dualized structure of British and Japanese industrial relations. This is true despite the fact that the plants here are union organized. Thus the Amalgamated Union of Electrical Engineering Workers (AUEW), which organizes Nissan Sunderland, is also represented in the traditional British sites of GM, Ford and Austin Rover. The British union structure is too fragmented, however, for this to bring about a unified policy and a balancing and coordination of demands within the union.

The influence of the union in questions of plant organization and labour deployment is minimal anyway. There is no shop steward organization and no shop committee of elected union representatives at Nissan Sunderland as in the traditional British car plants. Instead, there is a "company council" with an equal number of representatives elected by the work force and representatives of management. Management gives information through this council, and bargaining and conflict settlement takes place here. It is reported by Nissan workers that there is no union activity in the plant. It is rather seen as embarrassing to be a union member (Williamsen 1991: 7).

Summarizing we can state that the basic principles of plant management have been successfully transferred into the new triad plants by the Japanese companies. However, this is not true – and the attempt has not been made – with respect to the system of industrial relations as we know it from Japan. Except for some guarantees of long-term employment security, neither the system of seniority-based wages (linked to personal appraisal systems) nor the system of company unions has been transferred. In the host country, the arrival of the transplant has triggered off a process of change in the system of industrial relations industry-wide. It cannot be expected that the "transplants" will not be affected by the feedback of the process which they have initiated. (The same might be true in the case of changes in the supplier relationships which I am not discussing here).

### 3.4. *The Japanese Threat and the Internationalization Strategies of German Companies*

Let us return to the German companies, and here above all to Volkswagen. In view of the perspective of a common EC and intensified competition with Japan, either as importers or as producers in Europe, and in view of the perceived differences of performance among the various concepts of production concepts (in the spirit of Womack et al. 1990), we can see clear changes in the internationalization strategies of the German manufacturers. Two directions of thrust can be observed:

1. The attempt to take advantage of the internationalized production organization through concession bargaining, in which concessions at one site are held up to another site as an example, with the threat of shifting production (this practice is called "whipsawing" by the union organization in the U.S.A.). A driving factor behind this are the high, and publicly widely discussed, cost burdens of the German site. This pertains to wage costs,<sup>9</sup> working hours and taxes. A second driving force arises from the recognition of the productivity gap between German manufacturers and their international competitors and the attempt to become lean producers. The MIT study (Womack et al. 1990) has had a great impact in this respect.

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<sup>9</sup> Wage Costs in the Car Industry – an International Comparison (D-Mark/Hour 1990)

Country	Wage costs earning	Gross hourly
F.R.G.	41,87	24,30
France	26,01	13,76
Italy	31,67	14,59
The Netherlands	31,20	16,86
Belgium	31,83	16,93
Great Britain	25,58	18,27
Sweden	23,72	24,56
U.S.A.	32,07	23,76
Japan	28,64	22,03
Spain	29,43	17,13

Source: VDA Pressedienst (VDA = Association of German Auto Industry), No. 2 (Jan. 30, 1991).

According to a recent study of McKinsey consultants the German companies lead the cost hierarchy and exceed the cost level of Japanese companies by 40–50%. With Japanese companies taken as hundred, Mercedes Benz 140–150, BMW 140–150, VW 140, Ford 130–135, GM (Opel, Vauxhall) 130–135, Volvo 125–130, FIAT 120–125, PSA (Peugeot, Citroen) 120, Renault 120, Nissan U.K. 110–115 (Der Spiegel No. 27/1991, p. 87).

2. The attempt to use the internationalized production structure for the introduction of new plant management practices in the sense of an explicit adoption of Japanese concepts for production and work organization. The newly established production sites appear more suitable for this endeavor than the core plants in Germany itself, where the traditional forms are deeply rooted in the structures and ways of thinking of management, the unions and the works councils.

The two new directions of thrust in internationalization will be dealt with in more detail in the following account. Regarding "concession bargaining", the situation in Western Europe in the 1980s was different from the situation in North America, where the American manufacturers were already losing market shares and plants had to be closed due to overcapacity. In Western Europe many companies experienced a lack of capacity due to a booming market. The union pressure to shorten the work week and the high investment in fixed capital contributed in advancing the issue of plant utilization as the central "whipsawing" theme in Western Europe by the end of the 1980s.

The chord had already been struck when the German Metal Workers Union, which organizes the employees in the car industry, pushed through its demand for shortening the working week. With a long annual vacation (30 days), high absenteeism due to sickness (around 10%), and long paid breaks during working hours (at Volkswagen 64 minutes per shift), the reduction of working time meant that the actual "utilization time" of the individual had shrunk to below 1400 hours per year in 1990 at companies like Volkswagen. This comes close to half of the figure for their Japanese colleagues.

The employer's response to the prospect of the shortening of the working week was the demand for a lengthening of plant utilization hours per week via shift work.<sup>10</sup> This could be achieved by disconnecting the individual working hours from plant utilization hours. The first model for such a disconnection was introduced at BMW's new Regensburg plant in

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<sup>10</sup> Yearly working hours for two shift workers on the basis of collective agreements in the metal industry (1989)

Country	working hours per week	public holidays	vacation	working hours per year
F.R.G.	37	11	30	1.528
U.K.	37,3	8	27	1.686
Belgium	38,36	10	25	1.734
Spain	40	13	25	1.784

Source: Bosch 1989: 69.



1986. A nine-hour shift was introduced with four individual working days and thus a working week of 36 hours (35,30 hours).<sup>11</sup> At the same time, the plant utilization time is 99 hours per week and includes one shift on Saturdays. This utilization time is achieved by a rather complicated three shift rotation system.

The strategy of increasing plant utilization times thus became one of the most important topics in industrial relations in Europe at the end of the 1980s. The actual driving force behind this were the capacity bottlenecks which appeared at some companies, although the European automobile industry as a whole tended rather toward excess capacity.<sup>12</sup> These bottlenecks appeared primarily at General Motors Europe, the fastest growing European automobile producer in 1990. This was behind GM Europe's interest in increasing output in existing facilities. Their pushing through of this interest is often quoted as an example of "whipsawing" within an international corporate group (cf. Steinkühler 1989). Thus the unions in GM's plant in Saragossa Spain were the first to agree to a third shift; in view of the improved performance of this plant, the Belgian unions in Antwerp saw themselves under pressure as well to agree to a third shift. Against this background, the works councils of the German branches saw themselves forced to give in, despite strong pressure from the IG Metall headquarters.<sup>13</sup> The record for plant utilization times achieved in this manner belongs to Opel's Kaiserslautern engine plant, where an agreement was reached in spring 1988 that in the planning of future investments management could assume a utilization time of 139.5 hours. This agreement includes round-the-clock production from Monday to Friday without stopping the line for breaks, two possible six-hour overtime shifts and a sixth night shift on Sunday night.

The fact that the Kaiserslautern works council was so willing to make concessions can be explained by the fact that it did not do well in comparison with its parallel plant Aspern, near Vienna. The Aspern plant is

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<sup>11</sup> In 1986 the contractual working week was 37.5 hours; the difference of 1.5 hours at Regensburg was fully paid by the company. With the further reduction of the weekly working hours to 37 hours, this 1.5 hours advantage was kept.

<sup>12</sup> For the middle of the 1990s, the consulting company Ludvigsen Ass. Ltd. is reckoning with a market caused surplus capacity of 10-14% in Europe. (cf. Frankfurter Allgemeine Zeitung, Aug. 21, 1990)

<sup>13</sup> After that, the central works council representing the works councils of the German plant wrote a letter to the worker representations at the other European GM sites: "We now fear that the measures GM has planned will lead to a competition over lengthened plant utilization times. The winner of this competition will be GM, the losers will be the workers in the affected plants and worldwide." (express, no. 5/1988: 7).

General Motors' first team plant in Europe, where lessons learned from NUMMI could be realized at a new site and a high flexibility in labour deployment could be achieved on the basis of the team principle (Scheinecker 1988).

**Table 4: The disconnection of individual working hours and plant utilization hours in European car plants in 1990**

<i>Working hours by collective agreement</i>		<i>Regular (resp. potential<sup>1</sup>) utilization hours</i>	
GM Antwerpen	1570	GM Zaragoza	5336
VW Brussels	1625	Opel Bochum <sup>2</sup>	5220
Opel Bochum	1628	VW Brussels <sup>3</sup>	5198
- Night shifts	1576	GM Antwerpen	5160
VW Wolfsburg	1628	VW Wolfsburg	3712
Opel Rüsselsheim	1628	Ford Dagenham	3650
Ford Cologne	1628	Ford Halewood	3650
Ford Saarlois	1628	SEAT Zona Franca	3632
Vauxhall Luton	1695	Vauxhall E. Port	3588
Ford Genk	1710	Ford Genk	3541
Ford Valencia	1720	Ford Cologne	3450
GM Zaragoza	1725	Vauxhall Luton	3442
Vauxhall E. Port	1763	Ford Valencia	3441
SEAT Zona Franca	1768	Ford Saarlois	3345
Ford Dagenham	1786	Opel Rüsselsheim	3333
Ford Halewood	1786		

<sup>1</sup> The figures do not take into account the lower intensity of equipment utilization during night shifts at Bochum, Brussels and Zaragoza.

<sup>2</sup> The figures for Bochum and Brussels are extrapolated to cover the whole year 1990.

Source: Lehndorff (1990: 31).

Table 4 shows that by 1990 the plant utilization rate in terms of operating hours for the equipment in some European plants has reached spectacular heights. The GM plant in Saragossa thus has an operating time of over 5300 hours a year, an operating time which even the Korean plants can

hardly match. In comparison, the Opel (GM) plant in Rüsselsheim runs around 3300 hours. This plant produces an upscale product, which does not compete with Saragossa, otherwise the plant could not have withstood the pressure to come into line.

We now come to the second direction of thrust of the "new internationalization" – the achievement of Japan-oriented production and work methods. As the first Western company to do so, Ford had begun early in its American and European organizations to modify its own traditional forms of plant management and pursue an "after Japan" strategy. Focal points of its measures were integrating direct and indirect task areas, above all returning quality responsibility to production, decentralizing production responsibility and a number of measures and forms for including the work force in solving factory problems, activating potentials for improvement found in the experience of each member of the work force, supporting the identification of the workers with their factory, and improving communications beyond the previous horizontal and vertical interfaces.

Ford also played a leading role among car assemblers in restructuring its supplier relationship and reducing its degree of vertical integration. Ford had not made the attempt to introduce teamwork in its plants during the 1980s. General Motors has taken the lead here in propagating teamwork after the model of NUMMI as a central productivity concept. Estimates on the order of up to 30 per cent productivity increases by introducing teamwork are currently making the round among German automobile managers. Teamwork also plays a central role in MIT's paradigm of the lean production system (Womack et al. 1990).

During the 1980s General Motors accumulated experience with the whole range of experiments with new forms of work. But the NUMMI concept had largely asserted itself by the end of the decade. GM also pursued a strategy in Europe of introducing new concepts in peripheral plants, first of all in the engine plant in Aspern (production starts 1982) and at the beginning of the 1990s at a new site in Eisenach, in the former GDR. "The intention from the start was to create a transplant in Germany" stated Opel's chairman. "We would've wanted that in any green field site in Europe, but Eisenach is particularly advantageous. The East-German workers are enormously ready to try new methods. They don't know how it's done in West Germany. They only know that what they've done in the past (building Wartburgs) was the wrong way to do it. So they're very open to learning." (Opel chairman Hughes in: Ward's Automotive International 1991: 11f.). At its "transplant" of NUMMI in Eisenach, Opel tries to proceed the way the Japanese did in the U.S.: plant management will be recruited from the transplant plants NUMMI and CAMI who have

experience with Japanese management methods. Personnel selection for the new plant was just as scrupulous as that of the Japanese in North America, and key workers for the plant will be trained at NUMMI and CAMI.

Volkswagen also regards its production system as too "fat" at the beginning of the 1990s and is starting various initiatives to introduce a "lean production system" according to the Japanese model. Different approaches are being followed:

- In a joint venture with Toyota, it is producing vans in its Hanover plant; this joint venture is limited to a small area of the plant, which is under German management and work methods. Nevertheless, Volkswagen admits to have learned a lot from the way the model start-up was organized by the Toyota staff in the plant.
- The change toward a just-in-time process with team production and *kaizen* activities has begun in its engine plant Salzgitter, i.e. in one of the core plants of the old Volkswagen system.
- New work practices explicitly oriented toward the Japanese model are being planned for the new locations which are currently being built at Martorell and at its new East-German plant in Mosel. Volkswagen hired a former manager of Nissan's U.K. plant in Sunderland, C. Griffith, as manager of the Martorell plant in Spain. Teamwork and flexibility between direct and indirect tasks within teams, quality responsibility by teams, Kaizen activities, visual management, just-in-time processes and a low degree of vertical integration shall be introduced at Martorell.<sup>14</sup> Almost the same measures are planned for the Mosel plant (Jürgens et al. 1991) which is already called by its employees "*NUMMI in Sachsen*". Nevertheless there seem to be differences: At Mosel a policy of recruiting only qualified skilled workers for production jobs is in line with the paradigm of the skilled worker-based high-tech production of the parent organization. In contrast, at Martorell the broad further training effort for unskilled workers has started, and on-the-job training schemes are being planned which is more in line with the paradigm of Japanese plants.
- The next plants in the framework of VW's internationalization strategy are in Czechoslovakia; we can assume that a further step toward Japan-oriented production management is planned here.

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<sup>14</sup> At Martorell it was even suggested recently to introduce an individualized payment system on the basis of personnel assessment by the supervisors (cf. European Industrial Relations Review, July 1991: 9). Such a payment system has also been installed at Nissan Sunderland in Britain. As we have seen above it has not been introduced in the American "transplants".

- Last but not least we have the joint venture VW/Ford in Portugal for the production of a minivan.

The bulk of the Japan-oriented strategy for work reform is still in the planning stage. But it shows the clear endeavour of the companies to get away from forms of traditional practices and regulations.

The new Volkswagen plants no longer belong to the organization of the actual VW core group. They are part of new, independent subsidiaries, Seat, VW-Sachsen and Skoda, which, together with Audi and the VW AG, now make up VW-EUROPE. Wage agreements and accords made by the works council with VW AG management are thus not valid at the new sites. Agreements on breaks, shift work, etc. have to be negotiated anew. This also includes, for example, the introduction of a regular third shift and Saturday work, as we have already discussed above.

It is obvious that in the course of this development, the possibilities for locally or nationally limited interest representations to exert influence on decisions have decreased, and the possibilities for central management to play off sites against each other and thus to break the resistance to measures it wants to introduce have increased. In regard to the new sites at the end of the 1980s, management sees here the opportunity to try out new concepts in the sense of a clean sheet approach, which no longer only attempt to achieve individual elements, but rather "integral" Japan-oriented concepts. The experiences with the "transplants" and the MIT authors' universalizing interpretation of these concepts as "lean production" have played an important initiating role. However, the transfer of Japan-oriented concepts to the new plants – with all of the differences that have to be made here – does not go so far as to make cuts in the central role of skilled workers (*Facharbeiter*) and vocational training in the German tradition. The causes for this can be found less in industrial relations than in the still prevailing interest of German management in technological solutions of problems, for which the skilled worker track appears necessary.

#### 4. INTERNATIONALIZATION OF INDUSTRIAL RELATIONS?

##### CONCLUSIONS AND PERSPECTIVES

Our starting question was to what extent the Japanese or German companies are attempting to transfer their indigenous production strategies within the framework of their internationalization strategies. The study has shown that the Japanese companies in their triad sites attempt to transfer their own management and production strategies as far as

possible and tend to see deviations from the point of view of necessary compromises with the social and political surroundings. We cannot discern a purposeful modification of the concepts in the "transplant" with the aim of providing feedback in the core plants at home and thus acting as a catalyst for restructuring. This does not mean, of course, that the Japanese companies did not learn from their transplants. For instance, after Toyota had found out that it could stretch its *kanban* system even to include the NUMMI and Kentucky plants in the U.S., it gained the confidence of breaking off from its tightly knit network in Toyota City with its newest assembly plant which is now being built on the southern main island of Japan, Kyūshū.

The desired feedback from its foreign affiliate is a fundamental element of the new internationalization strategy of Volkswagen, which we studied as an example for the German companies. In this sense, Volkswagen does not pursue a "transplant" strategy, *but a modernization and restructuring strategy, which aims at the centre from the periphery*. At the same time, however, such new concepts are already being tried out at the centre with the cooperation of worker interest representations.

The company modernization strategy which is strongly oriented to Japan is, in principle, being supported by the company works council. Japanese production and management methods are, in principle, also not being rejected by the German unions.<sup>15</sup> However, the determination of position and, previous to that, the reception of Japan are still in their beginning stages. Nevertheless, there is a great degree of uncertainty in regard to these methods and management's increased possibilities to realize them in the framework of international production structures. The idea of meeting the companies' internationalization strategy with an international strategy for interest representation arose above all from the above-described concession whipsawing in the question of plant utilization times. Against the background of changed corporate structures, it was also a reason for the formation of a European corporation works council for the VW corporation (EVW-KBR).

In the past, the unions and the plant or company works councils had little to counter the emergence of international production structures. There were periodic corporation conferences in which representatives of differing sites of the same corporation came together to exchange information and consider strategies in the framework of the International Met-

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<sup>15</sup> There has been no discussion in the German trade unions like the one which currently takes place in the British Trades Union Congress which has just condemned the "alien approach" of some Japanese investors (Financial Times, Sept. 7-8, 1991: 6).

al Workers Federation. These bodies could not pass binding resolutions; at the most they could increase the understanding of their respective situations. Here they were dealing primarily with questions of international solidarity in comparison to sites in the Third World. There were few interest conflicts and interdependencies which were important for the interest representations from the core country.

This situation is changing in view of the emergence of European corporate structures for Ford, General Motors and now also VW. The interdependencies were clear here, and they touched on the primary interests of the parent plants. Beyond this, the establishment of a common European market also poses the question of the establishment of European political and social institutions. The demand for co-determination in the decision-making bodies of transnational companies or corporations has also been discussed in the political bodies of the EC since the 1970s. Numerous drafts thus foundered primarily on the attitude of the British government as well the position of the employers' associations, who rejected the creation of Europe-wide forms of interest representation (cf. *Industriegewerkschaft Metall* 1990).<sup>16</sup>

The European Volkswagen corporate group works council was formed in 1990 and includes representatives from Seat, VW Brüssel, VW AG und Audi. In the future, it will also include members from the Czechoslovakian plants and, possibly, VW Sachsen. The EVW-KBR meets at least once a year – its elected executive body meets more frequently – in order to reach common positions on topics which effect several national sites: securing employment and sites, the international production structures, corporate structures, issues of working time, working conditions, rationalization through new technologies, new forms of work organization, compensation, health and safety and environmental protection, social benefits, political developments and decisions. The preamble of the

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<sup>16</sup> This corresponds to the fact that they are trying to recruit managers with transplant and Japan experience for the top positions. This has hardly been successful in regard to Japanese managers up to now.

Shimada labels this "foreign aid" of the Japanese companies for Western industry as an opportunity and responsibility for the Japanese companies: "This trend, in fact, has extremely positive implications for the future of Japanese businesses which are in the process of globalizing. For it suggests that Japanese firms and industries could be deeply involved in the future development of the world's industry. This, however, holds true in that Japan can actively participate and contribute to the building of a new corporate model as international public assets, so to speak, which can be shared by people of the world, instead of forcing them to use Japanese experience and engineering." (Shimada 1991: 6).

rules of order for the European Volkswagen corporate group works council reads as follows:

Our common union activity is required so that the work forces of the VOLKSWAGEN corporate group are not played out against each other. We want to cooperate more intensely in international solidarity so that secure jobs and sites, humane working conditions, food wages and social benefits can be achieved or secured in the future for all work forces in the VOLKSWAGEN corporate group. For this reason we are for a solidarity in the equalization of employment and development possibilities for all sites of the VOLKSWAGEN corporate group in order to achieve this goal.

The establishment of European corporate group works councils is also being prepared at Ford (Aigner and Kuckelkorn 1991: 140). Beyond this, Aigner and Kuckelkorn, prominent works council representatives of Ford in Germany, see it as necessary for the future to also establish such institutionalized forms of comprehensive cooperation with suppliers.<sup>17</sup>

It goes along with the social partnership tradition of the VW corporate group that the EVW-KBR is recognized by the company. There is no formal agreement, though, in view of the rejection of Euro-corporation works councils by the employers' associations. The costs for the EVW-KBR's travel, interpreters lodging and board, are paid by the companies. VW's board member of Labour Affairs (*Arbeitsdirektor*) states: "We need a social dialogue which does not end at the national borders" (Gesterkamp 1991). The general secretary of the corporate group works council fears, though, that if the other companies do not keep up with the internationalization of their worker interest representation, then this institution could lead to a competitive disadvantage for the VW corporate group. We have to conclude that the internationalization of interest representation still has a much longer path to go than internationalization of the management and production concepts.

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<sup>17</sup> "This integration would also require different forms of work organization and task allocation which, besides other places of deployment, would also deal with classifications and questions of subordination. The cooperation of management with a supplier must also include the cooperation with the corresponding worker representations at this point at the latest... A systematic and coordinated cooperation is necessary in order to prevent the worker representations of the supplier firms from being played off against the Ford-works councils." (Aigner and Kuckelkorn 1991: 140).



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