

Planning Social Adjustment to Technological Change at the Level of the Undertaking

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Introductory remarks on technological change

BASICALLY technological progress is nothing new. Its dramatic impact in our day lies in the multiplicity of the changes involved and in the ever-increasing rate at which they are introduced. "Automation" is a catchword, implying both the displacement of human labour and changes in its content. But not all innovations that produce such effects can be lumped together under the heading "automation" in its narrow and technical sense. In industrial life we are faced with the combined effects of a whole constellation of different types of technical and organisational change. Fully automated plants, on the other hand, are still rare.

The question what proportion of the economy can be automated is purely rhetorical—a straw-man set up only to be knocked down again. Even the level of mechanisation reached in a given undertaking provides little indication of the actual effects of technological change. A farmer who wants a field ploughed may provide his hands with teaspoons, shovels, spades, a wooden plough or a power-driven plough. Each successive improvement in tools displaces more labour and changes the nature of the work. Naturally the impact becomes more dramatic as the rate of improvement is stepped up and if several stages of development are skipped at a time.

So far most metal-working plants embody a medley of mechanised, highly mechanised and automated processes. In recent years there has been a sharp increase in highly mechanised and automated production units. In addition there are a number of other factors making for increased efficiency such as changes in organisation, the use of new materials, or the mechanisation of offices—both business and technical.

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Technological changes are labour saving. Fundamentally this means no more than that a smaller number of workers can produce the same volume of goods. Whether or not dismissals result will depend on how the over-all production of an undertaking develops. At times of rising production dismissals can be avoided, either wholly or in part, by transferring redundant workers to other departments of the same undertaking. Even so, there are four different ways in which a worker can be affected by labour-saving innovations:

- (a) his former job may be retained but its content modified;
- (b) he may be allotted another job in the same department;
- (c) he may be transferred to another department or to another plant belonging to the same company; or
- (d) he may be dismissed.

All four of these possibilities oblige the workers affected to adapt themselves to new conditions, to say the least. Displaced workers should be entitled not merely to another job, but to a job that is equivalent to their former one. A job may be considered equivalent if it meets three tests:

(1) There should be no loss of income, either in the short run or in the long run.

(2) The salary or wage should be equitable in comparison to other jobs. Workers may accept allowances to make up for lower wages if they have to, but they will do so reluctantly.

(3) The new job should not entail a loss of social status.

It is anything but simple to meet all these requirements when technical and organisational changes are introduced, yet in most cases it should be possible to do so, if management can be induced to provide for the social effects of proposed technical changes well in advance.

The rights of the works council

As compared to conditions in other countries, the works council in the Federal Republic of Germany enjoys extensive rights under the Works Constitution Act, 1952, with regard to collaboration and co-management, for instance in the determination of hours of work, piece rates, principles of remuneration and the introduction of new remuneration methods (section 56) as well as in staff matters such as the engagement of new workers, regrading, notification of change, transfers and dismissals (sections 60 to 66).

In this context section 72 of the Act is probably the most interesting provision. Its first subsection lays down that—

In the event of any proposed alterations which may involve substantial disadvantages for the staff or a large section of the staff, the works council in undertakings normally having more than 20 employees with voting rights shall have a right of co-decision. . . .¹

Unfortunately this right is derogated from by clause (e) of the same subsection, where "alterations" are defined as "any introduction of completely new work methods *which are not clearly required in order to follow or promote technical progress*" (italics added).

In other words, technical changes are specifically excluded as matters for co-decision. The works council's right of participation or co-decision only extends to staff questions requiring immediate settlement. The date of such negotiations is generally fixed by management. There is no obligation for management to give early notice of proposed alterations or inform the workers or their representatives. If the management of an undertaking chooses to postpone negotiations on reallocations, transfers, notices of change or dismissals for as long as it can—which is what is attempted in most cases—there is nothing the works council can do, in spite of its right of co-decision. Where no alternative or equivalent jobs are available, the works council cannot prevent either dismissals or downgradings. It cannot contest the wage setting practices customary in the undertaking, even if the criteria applied bear no relation to modern job contents.

Co-decision in manpower planning

It is not intended to deal here with the maximum demand, i.e. the demand for the right of co-decision on the substance of rationalisation. What will be discussed is rather the minimum demand—that workers should be notified of technical changes well in advance and that they should be entitled to an effective right of co-decision in the settlement of personnel problems.

In our economic system machines are still treated better than men. They are bought and taken into service for the rest of their useful life, no matter whether they are put to work or not. Machines cannot be dismissed; nor can their rate of amortisation (i.e. the rate at which their services are paid for) be down-graded. Workers, on the other hand, can be given notice; even the cash value attributed to their services can be altered by notice of change. Although in the Federal Republic of Germany there are statutory and contractual provisions laying down the periods of notice and procedures that must be observed in case of dismissal, it is still much easier for an undertaking to terminate an employment relationship than to scrap a machine, which has to be paid for in full regardless of whether it is fully employed or not.

¹ I.L.O.: *Legislative Series*, 1952—Ger.F.R.6.

It has long been the normal practice for undertakings to prepare the ground for technical changes by establishing long-term investment plans. Accordingly it is only right and proper that they should be obliged, as a counterpart of the plans for the machines, to work out plans for the persons involved, and to do so at the same time and jointly with workers.

Experience has shown that it makes a great difference whether plans to meet the social consequences of technological change are drawn up in good time or are made at the last moment. Much time elapses between the planning of changes and their implementation. New machinery is not merely planned; it has to be ordered, and very often built or even designed and tried out before it can be installed. Even minor technical and organisational changes have to be considered from all angles and carefully prepared. The time for advance planning of social adjustment therefore exists; the essential point is to make good use of it.

Two arguments are often advanced by managements to explain their refusal to give workers advance notice of employment changes or allow them to participate in planning personnel matters. Firstly, they want to avoid creating unrest in the undertaking for as long as possible. Secondly, they are afraid competitors might learn of their plans and steal a march on them. Neither of these arguments will hold water.

As a rule competitors have much more information on the technical plans of an undertaking than the workers employed in it. Apart from that, not all workers would participate in the early planning of manpower adjustment measures; only a handful of employees' representatives would do so, and they are bound by professional secrecy.

As for workers' morale, far from preventing unrest the attempt to keep workers in the dark will have the very opposite effect. In our day and age many people are involved in planning processes; some information is bound to leak through, and rumours are much more disquieting than accurate information and open dealing.

Moreover, wide-awake members of the works council may encourage such rumours or even exaggerate them if they see an opportunity of obliging management in this way to provide information and to negotiate.

It is therefore both necessary and reasonable to include provisions in collective agreements compelling management to formulate long-term plans for the handling of personnel problems well in advance of actual changes, with workers' representatives participating on an equal footing.

The first step in establishing such a plan would be to ascertain the extent and skill structure of current and anticipated manpower requirements, both for the undertaking as a whole and for each of its departments. This implies that probable changes in the composition of the workforce, as well as in economic and technological conditions, would have to be assessed at least five years in advance. Obviously such advance planning of manpower requirements will only make sense if it is not

static but dynamic. All data must be reviewed at least twice a year and revised if necessary. These general manpower plans will then provide a basis for what may be termed social adjustment programmes designed to avoid social hardship caused by technological or organisational change.

Job security

The German trade unions have repeatedly made it clear, that they are not against technical progress but in favour of it. In doing so they have recognised the necessity, and indeed the inevitability, of reducing manpower. This, however, should by no means be taken to imply that unions will acquiesce in dismissals that can be avoided.

Every undertaking has what may be called a natural attrition rate resulting from retirements, deaths, disablement, changes in family status, changes of residence or voluntary separations. This natural attrition rate is particularly high at times of manpower shortages (for instance at the present time in the Federal Republic) and in undertakings which employ a large proportion of women workers. It is relatively low in periods when jobs are lacking and in undertakings where the work-force is predominantly male. Even in such circumstances, however, there is always a certain amount of natural attrition.

With an attrition rate of 8 per cent. an undertaking with 1,000 employees can reduce employment by 80 workers a year without dismissing a single worker, merely by not replacing those leaving its employ. Such a policy, to be sure, presupposes a long-term forecast of probable reductions in manpower requirements, a good estimate of probable market changes and, what is most important, the timely stoppage of recruitment on the basis of such estimates. Where major technical changes are to be introduced it is even possible to plan for many years ahead.

Whether such a situation arises at all will of course depend on the economic situation of an undertaking. If production is expanding such problems may not occur at all. If it is stagnating or on the downturn they will become very real, even at a time of full employment. In the last few years the rate of growth of quite a number of industries in the Federal Republic has not been sufficient to provide jobs for all displaced workers. Even if full employment continues there are many indications that sectors with contracting employment are on the increase rather than the contrary.

Restricting new hiring is not the only way to avoid dismissals. In the first place an undertaking can itself execute, in whole or in part, the orders that would normally be farmed out to subcontractors. A second expedient is to consign redundant workers to temporary reserve teams which are given construction, painting and repair jobs, etc., that would usually be carried out by independent undertakings. Such procedures can be used to enhance the natural attrition effect.

All of these methods—stopping recruitment, performing the jobs normally given out to subcontractors and forming reserve teams—merely serve to maintain the incomes and acquired rights of the company's own employees. In a period of full employment this provides a workable approach for sparing individual workers social hardship. However, in a recession or depression such a policy will only shift the burden of hardship onto the workers of other undertakings. The maintenance of jobs in one undertaking may then give rise to dismissals in others.

Experience indicates that dismissals cannot always be avoided, even where social adjustment plans are drawn up at an early date. Since trade unions favour technical progress, they cannot very well insist that an undertaking must keep workers on its pay roll even though as far as can be seen there is no possibility of employing them. In such instances appropriate dismissal procedures may be negotiated.

In the Federal Republic of Germany dismissals on extremely short notice are not allowed. But the compulsory observance of periods of notice and other dismissal procedures does not constitute a satisfactory solution for the workers affected.

When an undertaking rationalises its operations, the individual worker has no influence on the decision; nor is he responsible for its consequences. The undertaking not only brings about dismissals as a result of the technical changes it introduces but also benefits from them in the form of lower costs and increased profits. This being so, it is intolerable that the workers should suffer the consequences.

Even in the best of circumstances, i.e. under conditions of general manpower shortage, the inconveniences to the worker arising out of having to change jobs need no elaboration. Though new jobs may be available, they are often less desirable in the following ways:

(1) The worker cannot make use of his skill and experience. Accordingly the new job pays less.

(2) The worker must spend a long time on retraining and acquiring practical experience on his new job before he can earn as much as he did.

(3) The new job may be farther away from his home, so that more time and money must be spent on travel.

(4) In the new undertaking his seniority drops to zero. A displaced worker loses the rights he had gradually acquired in his previous job and must start again from scratch. If the new undertaking rationalises, it is he who will have to go on the criterion "last in, first out".

Involuntary job changes involve hardships which, though at best they may only be transitional, are none the less real. In most cases the level of old-age pensions are also affected. For all these reasons workers dismissed on grounds not connected with job performance should get

dismissal indemnities; for executives this type of "golden handshake" has in fact been the practice for many years. The amount of these indemnities should be fixed by the collective agreement; in no event should they be less than six months' pay and they should be proportional to both age and seniority. Specific rights acquired by virtue of seniority, such as bonuses, shares of profits, company pensions, etc., should be capitalised and paid in addition. The same consideration would apply where the worker has to vacate housing provided by the employer. Management should realise that rapid technological development makes it imperative to provide for smooth and prompt changes of employment. Employer-financed fringe benefits without clearly vested rights hamper vitally important labour mobility, for workers hesitate to change jobs when they can and should do so. On the other hand, the right to claim various termination indemnities acts as an incentive for workers to give notice when they see the opportunity to make a voluntary change of job.

These indemnities should not, however, be looked upon merely as compensation for the hardship suffered by workers who lose their jobs through no fault of their own. They are, first and foremost, a penalty for bad management and an incentive to plan ahead. A responsible employer who sets up a long-term manpower plan in collaboration with workers' representatives, and works out social adjustment plans in good time, will very often not have to pay such contractual penalties.

Undertakings that take a last-minute plunge into unplanned rationalisation in order to cope with market changes deserve nothing better, even if they have had to scrape the bottom of the barrel to purchase the new equipment. The potentials for further rationalisation in companies of the same branch are generally surprisingly large. Only the pressure of high indemnities will induce sloppy and improvident managements to rationalise in time and smoothly. Trade unions cannot and must not make allowances for laggards, for it is not the incompetent employer but his employees who bear the brunt of haphazard planning.

When provisions designed to protect workers against the adverse consequences of technological change are being drafted for inclusion in collective agreements, certain undeniable difficulties of definition are bound to arise. It is not always possible to make a clear-cut distinction between cause and effect. Retrenchment may be due to technological development, to changed market conditions, or to a combination of both. But even marketing difficulties do not just arrive out of the blue. If management takes the trouble to make a detailed analysis of the market and keeps a close watch on the order book, they can be foreseen in good time. There is no reason therefore to make a distinction between effects of technical and other changes. As long as it is the exclusive task of management to steer the enterprise through the reefs and shoals of economic and technological change it is management that must shoulder the primary responsibility for the job security of its employees.

Placing workers in equivalent jobs

Technological change does not only eliminate jobs; its principal effect lies in altering their nature. At a time of full employment this qualitative effect assumes an even greater importance than the risk of dismissal. In highly mechanised jobs, automated jobs and jobs otherwise affected by technological change, requirements and characteristics differ radically from traditional jobs. Physical strain decreases and a more favourable environment is created; on the other hand there is a marked rise in mental and nervous stress. Frequently much of the knowledge, skill and experience acquired on the old job becomes useless; in addition some of the new jobs require other types of qualifications. With increasing automation the influence of the worker over processes and output tends to diminish. In the metal trades of the Federal Republic there is a marked drop in the proportion of skilled workers—at least in the current phase of industrial technology. Many undertakings already have a surplus of skilled labour.

Whether the effects of these changes in job requirements will be good or bad will depend—at least in part—on the criteria for wage determination. Down-grading of wages can often be avoided by adjusting job evaluation methods. One of the fundamental needs in implementing social adjustment plans is therefore to revise conventional job evaluation systems in the light of their applicability to modern jobs.

Let us not deceive ourselves, however. The more differentiation is introduced into a job evaluation system, the more difficult it becomes to safeguard the wage levels that have already been achieved. Even in the best system it is often difficult for an undertaking to see why a high wage should continue to be paid for objectively simplified jobs. In highly automated plants it is relatively easy to solve this problem since it can be assumed that the differences between individual jobs are not so great. The dominant factor in such a case is the average wage; the grading of the individual job is of much less importance. In the metal trades, however, it is typical for a plant to comprise both conventional and modern jobs. Under such circumstances workers will inevitably compare the nature and qualifications of their jobs, and the wages they get. Gradings that are considered unrealistic and unjust will cause grumbling and resentment on all sides, i.e. on the part of the workers concerned, the works council and management. It makes no sense to employ a worker at a job where he and others are under the impression that his wage is entirely inequitable in comparison to other jobs. Workers whose jobs undergo extreme simplification should therefore be transferred to jobs where their previous wage level is fully justified. When redundant workers are transferred or assigned new jobs within the undertaking, they do not merely want another job but, much more important, an equivalent job.

The German trade unions realise that in a period of rapid technological change they cannot provide a lifetime guarantee in their jobs for turners, welders, toolmakers, toolsetters, or accountants. Every member of a trade union, however, expects that his union will safeguard his social status and guarantee him an equivalent job.

These claims clash with the hard realities of life in the undertaking. In cases of technological change it is often difficult to find a job that the worker will accept. Nevertheless an imaginative approach to manpower planning and the early establishment of social adjustment plans offer great possibilities. Admittedly such planning presupposes a precise estimate of the number and qualifications of displaced workers and of the attrition to be expected in other departments of the undertaking in the coming years. Only then can appropriate vacancies be reserved for those who are entitled to equivalent jobs. Incidentally such a procedure will also save precious time which can be used for further training and retraining, i.e. for preparing workers for their new jobs.

There can be no compromise on the principle that an equivalent job at equal pay should be made available whenever a worker is transferred within the undertaking through no fault of his own. This will make it unavoidable for most undertakings to pay a wage for some time which is out of line with the wage structure of other jobs. Where, however, plans are made early enough, every undertaking can make available a large number of equivalent jobs. This will of course imply that a much larger number of workers will have to be transferred and reassigned than are directly affected by technical change.

For the same reasons it is of great importance to provide opportunities for promotion for the undertaking's own employees. This can be done by singling out the gifted workers who can be found in all undertakings. Not every person whose employment is threatened by technical progress will be suitable for a more qualified job, but after some preparation inside and outside the undertaking many workers whose jobs are secure could very well be promoted to better jobs, if they were given a chance, thus making suitable jobs available.

Often management will choose a different approach. If three suitable employees apply for promotion to a vacant job, management may be afraid of causing resentment among the two unsuccessful candidates and prefer to fill the job by recruiting an outsider. In fact this policy will neither inspire confidence nor facilitate the provision of equivalent jobs for redundant workers. "Inbreeding" may have its drawbacks and new blood may be wanted on occasions, but why not pay for a few months of advanced training outside the undertaking for selected candidates? Such a procedure would hardly be costlier than hiring workers away from other undertakings, often by offering them considerable bonuses and privileges, although their actual performance hardly ever exceeds that of the undertaking's own employees.

The principle that there must be no loss in wages regardless of the nature of the new job must be laid down by collective agreement. Such a provision will both compel and encourage undertakings to find or create equivalent jobs. Actually there are some companies in the Federal Republic that apply these or similar rules in practice yet fight shy of entrenching this right in collective agreements. They need workers but not their skills. In view of the difficulties of recruiting workers under present German employment market conditions such companies may be ready to pay for qualifications, even if they cannot use them. From experience we know, however, that this generous attitude is shortlived. As soon as economic or technological changes tip the scales in favour of management, employers feel strong enough to reduce wages. On a conducted tour through his plant an employer recently complained that he had to pay 200 of his 300 workers skilled wages, although he actually did not need more than 100 skilled workers. He then added that this problem—his problem, as he regarded it—would automatically be solved as soon as unemployment rose a few per cent. as in the United States. Unfortunately he is right as the following examples prove.

Job evaluation in a fully rationalised appliance factory

Of some 2,000 industrial employees 41.8 per cent. were originally treated and paid as skilled workers. The effects of technical and organisational changes on working conditions and job difficulties were assessed by means of analytical job evaluation. As a result the proportion of skilled workers fell to 15 per cent.

Wage category	Wage index (skilled worker reference wage = 100)	Numbers employed as a percentage of all operatives	
		Until 1963	From 1964
10	133	0.2	0.2
9	120	6.5	5.8
8	110	14.2	1.5
7	100	20.9 <i>41.8</i>	7.5 <i>15.0</i>
6	95	14.2	20.1
5	90	13.7	15.0
4	86	2.2	10.0
3	82	0.2	16.3
2	78	24.9	20.1
1	75	3.0 <i>58.2</i>	3.5 <i>85.0</i>
	—	<i>100.0</i>	<i>100.0</i>

The works council managed to obtain a works agreement guaranteeing that, until the end of 1965 at least, the down-graded workers would continue to receive their wages according to the rates for the old wage

categories. On 1 October 1964, when a general wage increase of 6 per cent. was introduced, there was nothing that could be done to prevent the undertaking from calculating it on the basis of the new (lower) wage categories only. The difference between a worker's old and new wage category was treated as a voluntary social benefit payable by the undertaking.

The percentage of employees of this undertaking in each of the ten wage categories changed in the manner shown in the table opposite (it was mainly women who benefited from improvements in the lowest wage categories).

A rolling mill

An obsolete rolling mill was shut down and replaced by a modern mill. In the old mill the work was done in three shifts. Output amounted to 18 tons per hour, and a total of 153 workers per day were needed. The new mill produces 36 tons per hour, operates under a two-shift system, and needs 104 workers a day.

The jobs in the new plant were re-evaluated. Some of the repair personnel were given wage increases, but in the case of the other workers the wages were down-graded, in extreme cases by as much as 1.20 marks an hour. The only concession the firm was prepared to make was to limit the monthly reduction in wages to 20 pfennigs an hour. Accordingly, a worker whose wage had been reduced by 1.20 marks descended to the lower final wage only after six months. The wages of workers transferred to other parts of the undertaking were also considerably reduced. A total of 65 persons received notice of wage changes. Following this, 45 workers, including some who had 15 years' service with the undertaking, left their employment of their own accord. They managed to find new jobs in other undertakings, but none of these undertakings paid the old wages. No-one was interested in the industrial knowledge and experience of these workers.

The altered structure of earnings of shift workers in the rolling mill, including maintenance and adjustment personnel, was, as follows:

Range of earnings (marks per hour)	Number of workers per shift	
	Old mill	New mill
6.30	1	0
5.60	0	1
4.95-5.30	9	3
4.50-4.85	9	6
4.15-4.40	13	11
3.90-4.10	16	10
3.75-3.85	2	10
3.50-3.70	1	11
	<hr/> 51	<hr/> 52

By these means the undertaking achieved two things:

(1) No worker was dismissed because of automation. The redundant workers left their employment of their own accord.

(2) It not only economised on the wages of the redundant workers but also, despite a substantial increase in output, reduced the wages of the workers who were still needed. The direct labour costs per ton decreased by 47.6 per cent (from 11.59 to 5.52 marks).

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Contractual guarantees of social status place two obligations on the workers. First, a claim should be raised only after a worker has exercised the higher-grade job for a minimum of, say, three months. Second, a claim should lose its validity where a worker persists in refusing jobs which in the view of the works council he could reasonably be expected to accept.

Cases do, however, occur where technical changes bring about such a drastic simplification of jobs that the discrepancy between the wage paid on the basis of the former job and the current wage structure in the undertaking can no longer be justified. This will be particularly true where physical strain, bad working conditions, vocational knowledge and skill played such a decisive part in determining the wages paid for the former job that it is simply impossible to find or create jobs that pay equivalent wages. This is what may happen, for example, where conventional foundries or steel mills are mechanised or automated. Under these circumstances wage differentials between equivalent jobs and performances reach absurd proportions. For the same kind of jobs new workers get much lower wages than established workers. Similar discrepancies occur where well-paid workers are transferred to groups that get much lower pay.

It then makes no difference which solution is chosen; the fact remains that such wage differences are incompatible with the principle of equality. Nobody is happy about this state of affairs, not even the privileged workers, who feel the resentment of their colleagues. A topsy-turvy wage structure develops in the undertaking. The works council is subjected to pressure by the lower-paid workers and brings pressure to bear on management in its turn, until management scraps the unrealistic wage structure at the expense of the workers who had been displaced as a result of technological change.

Consequently where wage differences for equal jobs and equal performances become too big and if there is no possibility—either present or future—of providing genuinely equivalent jobs, adjustment of the wage structure should be allowed. Neither workers nor their representatives in the company nor management have an interest in wage

structures that are felt to be arbitrary or unjustified. In extreme cases of this kind, where neither manpower planning nor social adjustment programmes nor efforts to retrain redundant workers provide a satisfactory solution, it should be possible to down-grade wages—provided that the workers affected are paid an appropriate lump-sum indemnity.

The rules for calculating the amount of these indemnities must be incorporated in collective agreements. They could be determined on the basis of the capitalisation of the anticipated loss in income and in old-age pensions during the rest of the worker's active life.

Such arrangements have the additional advantage that the social cost of technological or similar changes is brought home to companies that proceed with rationalisation. Under the spur of calculable costs they will make every effort to find or create equivalent jobs for workers who, in their view, are classified in too high a wage category.

Social planning in undertakings and collective bargaining

Social planning in undertakings is no panacea. It can replace neither the employment market policy of the government and its general economic and full employment policy, nor the general collective bargaining policy pursued by the trade unions. Within its own limitations it is a workable instrument that can protect individual workers against the immediate effects of technological change and against bad planning on the part of management. It places the burden on the real agents, so far as they can be identified. In a period of full employment it is much more effective than during a recession, no matter whether it covers the entire economy or is limited to certain industries.

If the social programmes established by undertakings are to be truly effective they must be supplemented and supported by a governmental employment market policy. The claim for the provision of equivalent jobs in case of technological changes or others with similar effects can best be met where a national employment market policy provides additional means and instruments, such as—

- (a) an increase in the grossly inadequate unemployment insurance benefits;
- (b) the establishment and financing of advanced training and retraining facilities outside undertakings;
- (c) special programmes for the retraining and resettlement of older workers, who virtually never find equivalent jobs after displacement;
- (d) earlier retirement for elderly workers without reduction of pensions where their jobs are down-graded and no equivalent jobs can be found or created for them;

- (e) the compilation of data on probable trends in employment, job requirements, production, demand and—what is most important—technological advances, in order to make it easier for undertakings to adapt themselves to changed conditions in due time.

Social planning at the level of the undertaking cannot compensate all of the adverse effects of technological or similar changes. However, where such planning is stipulated in collective agreements, undertakings are compelled to plan ahead to cope with their manpower problems and to establish social adjustment plans in due time, thus making full use of the long period which generally elapses between the planning and implementation of changes. In many cases it will be sufficient to protect workers against all adverse effects.

It is relatively simple to lay down a procedure for the establishment of plant-level social programmes in collective agreements, provided no distinction is made between technological changes and other changes producing the same effect. The most important points to be considered are these:

(1) The company should undertake to elaborate long-term plans on manpower needs; the workers should have the right of co-decision in the establishment of these plans.

(2) The company should undertake to draw up social adjustment plans, the workers having the right of co-decision in their preparation, as soon as changes are planned.

(3) No displaced worker should suffer a loss of pay regardless of the nature of his new job. Pay down-gradings should not be permitted except with the agreement of workers' representatives and provided that the displaced workers are indemnified by the payment of a capitalised lump sum for all the adverse effects that can be expected.

(4) Where dismissals cannot be avoided, the workers concerned should receive a termination indemnity equivalent to at least six months' pay in addition to a capitalised lump sum equivalent to the loss of acquired rights.

Collective agreements of this kind, or similar ones laying down the procedure to be applied where companies rationalise their operations, can be negotiated both regionally and at the level of the undertaking. Although they are quite independent of the technological and other conditions obtaining in individual plants, supplementary detailed arrangements must be laid down for individual undertakings.

The incorporation of social planning clauses into collective agreements would have many advantages. Workers would at least enjoy more or less comprehensive protection against unforeseeable adverse effects of change that are beyond their control. At the same time manage-

ment would be given the possibility to make an accurate assessment of the social cost involved, and thus be provided with a genuine incentive to draw up plans well ahead of time to avoid such cost. Such a procedure would put a premium on providence and penalise negligence. Furthermore if such rules were embodied in collective agreements, employers would certainly have a stake in urging government to take certain employment measures that are long overdue, and could relieve undertakings of at least part of their obligations. Incidentally, employers can be assured that trade unions will support their efforts in this direction.

The demand for the formulation of long-term manpower programmes and social adjustment programmes before the introduction of changes is not a new idea. The basic guidelines for such programmes can be found in most handbooks and primers for modern management techniques. It is rather odd, however, that it is the trade unions which, by introducing contractual penalties, should have to compel employers to take the steps management experts have been advocating for quite some time.

Trade unions certainly do not want to block technical progress. It is, however, their legitimate right to insist on their demand that technical innovations are carried out in a way that imposes no undue hardship on workers. Employers in the Federal Republic of Germany have reached a point where they must make a significant decision: either they realise the necessity of a long-term approach to manpower planning, which would imply the sacrifice of some of their vested rights, or they will force trade unions to pursue a restrictive policy toward technological change. As long as employers persist in proclaiming that modern technology creates no serious problems and yet refuse to provide adequate safeguards by collective agreement, they justify trade union suspicions.
