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Editorial

The achievement of the 1992 objective, i.e. the establishment of a single common area of 320 million inhabitants free of the many remaining obstacles to trade and supported by greater cooperation between the 12 Member States, will provide Europe with the means for relaunching its economy and the instruments for controlling its own future.

Greater efficiency of the apparatus of production and a stronger scientific and technological base will make it possible to exploit the potential for growth in the internal market, which is a prerequisite for the improvement of living standards and working conditions.

The social dimension of the internal market is a fundamental component of this plan. It is not merely a matter of consolidating a free-trade area and increasing the external competitiveness of the European economy. As the European Council of Hanover emphasized, the internal market must be designed to profit all the citizens of the Community. In order to achieve this aim, the European Council of Hanover identified the need to improve living and working conditions, health and safety, access to vocational training and information, consultation and the dialogue between the two sides of industry.

In the light of these conclusions and the deliberations which the Commission has been conducting over the last year, on 14 September 1988 the Commission adopted a working document on the social dimension of the internal market presented by Vice-President Marin.1 The document serves two purposes. Firstly, it sets out the guiding principles for action in the social sphere, i.e. promotion of employment and strengthening of economic and social cohesion, and secondly, it serves as a programmatic document outlining the measures which, in line with the guiding principles for Community action, should be introduced in the short term.

It is worthwhile recalling the context in which the internal market is developing. At the very time when it is undertaking the completion of the single internal market, the Community is faced with a high level of unemployment unevenly distributed both among regions and among social groups. This is the most disturbing social and economic problem

Consequently, any social policy — whether Community or national — must aim first and foremost at reducing unemployment and the inequality of its effects. Furthermore, any measure in the employment field entailing a possible further deterioration in the overall levels of employment or in the distribution of unemployment must be subjected to careful examination.

As stated in the chairman's conclusions at the last meeting of the Standing Committee on Employment, it is important that the cooperative growth strategy for more employment is applied effectively in all Member States so as to exploit the full potential of the single internal market. More precisely, the completion of the internal market is a plan for growth which, through the dynamics which it generates, will enhance activity and competitiveness in such a way as to reduce unemployment. The introduction of a voluntarist policy of revival and job creation should help to boost the employment created by the completion of the internal market from about two million to some five million jobs.

However, in the early years, appropriate back-up measures will be needed in order to ensure that the positive effects do not lag behind the negative effects and that the gains to be made are evenly distributed.

Furthermore, firms will have to be able to adapt rapidly if they are to take full advantage of the positive effects of the single internal market. A large part of this adaptation effort will come from the workforce, notably in the form of better qualifications and greater occupational and geographical mobility. Moreover, the requirements relating to workers' health and safety will have to be strengthened so as to prevent the free movement of goods and services from progressing in a manner detrimental to living and working conditions.

The strengthening of economic and social cohesion, which is one of the new

objectives enshrined in the Single European Act, must be a central aim of social policy by the same token as the promotion of employment. Cohesion must be promoted both among regions and among social groups.

Two principles must be observed in the implementation of measures in the field of Community social policy: subsidiarity and respect for diversity. The Commission is convinced that the social dialogue is an imperative necessity for progress in the field of European integration.

Consequently, in order to underpin the completion and success of the internal market, a vast array of social policy measures of various types will have to be implemented:

(i) Social conditions in the single market

First and foremost, the right conditions must be established for the effective free movement of persons and for the creation of a genuine occupational mobility area.

(ii) Economic and social cohesion

The Community must strengthen its economic and social cohesion on the basis of convergence but whilst maintaining existing improvements. The Single Act has furnished a legal basis and the doubling of the resources of the structural funds has provided the Commission with the means to embark on the strengthening of economic and social cohesion.

Efforts will also have to be made to ensure the cohesion of social groups within the same region. The fight against unemployment and its uneven distribution will be a lengthy process and increased efforts at solidarity will have to be made in order to combat poverty, social deprivation and long-term and youth unemployment.

¹ See special edition of *Social Europe* The social dimension of the internal market 1988.

(iii) Priority measures to promote employment and training

In addition to measures to assist young people and the long-term unemployed, other steps will be necessary in order to promote employment and anticipate trends on the employment market. Training is also a factor of capital importance for the reduction of disparities. Equal training opportunities will therefore have to be made available to all.

(iv) Employment and working conditions

The completion of the internal market calls for a new approach to company

law and the establishment of a Community labour law covering both health and safety and other aspects of employment relationships or working conditions.

(v) Guaranteed basic social rights

Establishment of a Community charter of social rights.

The document on the social dimension of the internal market is important because, far from being a simple catalogue of ideas and intentions, it offers a systematic approach and the necessary impetus for the practical work that still

has to be done in the social field in readiness for 1992.

The document is intended to be realistic — realistic as regards the tasks and challenges which the Community will have to face and realistic as regards the opportunities and means currently available for implementing social policy at Community level.

It should give rise to a debate going beyond the Community institutions alone. The Commission wants all social and political circles to contribute to this debate in the firm conviction that consideration for the social dimension of the internal market is and must continue to be the concern of us all.

Part one

Actions and guidelines



The black economy in Europe

Real or suspected unofficial activities are the subject of sporadic investigations in the media and occasionally by the public authorities. Certain illicit activities are ocassionally uncovered such as the employment of children, traffic in illegal immigrants or social security fraud. Exposure of a part of underground activities tends to feed speculation concerning the scale of hidden activities as a whole. The interest and curiosity aroused by the underground economy are based on the fact that it is both an unknown quantity and yet very familiar to everyone.

1. Questions of definition

The recent nature of the interest shown in the phenomenon of the underground economy explains the relative paucity of theoretical investigations. The multiplicity of terms applied to the phenomenon serves only to add to the confusion. The black, parallel or underground economy, illegal, secret, phantom or clandestine work; so many different terms to cover so many different realities. The profusion of terms is matched only by the poverty of their content.

The attempt is to describe an ensemble of practices and patterns of behaviour whose very familiarity presents an obstacle to analysis. The distance an observer must take *vis-à-vis* the object of his study is at odds with the perception which every individual draws from his own experience of the black economy.

There is all the difference in the world between the autonomous economy, considered as cushioning the effects of the economic crisis, domestic work and the black economy. We can no longer continue to compare 'two different animals with a few vague similarities'.

To speak of the underground economy as a homogenous whole is to lump together patterns of behaviour and individuals whose functions and motivations are poles apart. It is, finally, to reduce the diagnosis and the treatment to a simple statement of the nature of the disease.

- (i) The underground economy, whether termed as secret, unofficial, immersed or parallel, calls into question the statistical perception of economic activity. It is the very validity of the assessment of economic activity and employment which is implicitly at stake in these notions.
- (ii) Fiscal fraud (non-declaration of income) calls into question the effectiveness of systems of taxation.
- (iii) The black economy (non-declaration of activity), whether it constitutes fiscal or social fraud, supposes both a rejection and an exceeding of official

forms of work or a refusal to remain inactive. A restrictive definition by the ILO runs:

'the black economy is defined as professional activity, whether as a sole or secondary occupation, exercised on the limits of or outside legal, regulatory or contractual obligations, for a financial reward and on a non-occasional basis.'

Defined as such, the black economy is confined to a relatively narrow field. It does none the less evoke contrasting situations.

- (i) Unauthorized street peddling is an example of the black economy at work in its purest form. It involves tax fraud (VAT, income tax, property tax and professional tax) and sociofiscal fraud
- (ii) The craftsman who effects a piece of work without giving an invoice and without entering the proceeds in his accounts is, from an accounting point of view, in a somewhat different situation. There is again fiscal and sociofiscal fraud but property tax and professional tax are, however, paid.
- (iii) The worker or employee who, in the evening or at the weekend, carries out undeclared work sometimes commits a fiscal fraud (if his income exceeds the taxable minimum) and in any event a sociofiscal fraud.

2. Figures for the black economy

Little is known about those who are actually involved in the black economy. The social reality in this field is particularly hard to discern as it concerns aspects of an individual's life which are not admitted to and which are usually sanctioned by law.

Involvement in illicit work presents a different profile depending on professional status, region, level of compulsory deductions from income and the level of income itself. The economic factors are involved in various ways:

¹ V. Tanzi: 'The underground economy in the United States and abroad. Lexington Books 1982.'

- (i) Self-employed workers with a skill on which it is easy to capitalize (craftsmen, doctors, accountants etc.) turn to unofficial work as a means of limiting their taxable income by carrying out work which is not declared. Unofficial work by craftsmen is not necessarily a permanent solution. It is practiced to a greater or lesser degree depending on the fortunes of their business, on whether they are on the verge of closure or prospering. The situation of the liberal professions fluctuates less as it is essentially linked to tax burdens.
- (ii) The 'Double-jobbers' who have a second or a third undeclared job are more numerous. They are the principal protagonists in the black economy. Their secret activity is a voluntary extension of their professional life using the same capital (taking materials from the place of work or use of the company's tools or equipment) and network of contacts developed during their declared working hours.
- (iii) For the 'phantom' workers whose status prohibits them from working, the black economy is their only recourse. These include illegal immigrants, the unemployed, students or the fully retired.

Although it is difficult to determine the precise level to which illegal immigrants are involved in economic activity it does appear as if those categories receiving State support are involved in clandestine activities in an inverse proportion to the level of benefit received.

A study carried out on the unemployed in the Lille region by the LAST¹—94 individuals questioned, all registered at the ANPE for more than three months, male, aged between 25 and 50—revealed the dubious link between unemployment and involvement in the black economy. In 25 of these cases the financial gain was low or insignificant, while it was 'essential', that is more than half of the 'SMIC', in just three cases.

Of those active in the black economy before registering unemployed, 11

increased their activity while 12 reduced it owing to the risk of losing their benefit.

The LAST study revealed clearly the importance of networks in obtaining undeclared work. In a study on the Isle of Sheppey in the United Kingdom, R. Pahl² draws a similar conclusion: the unemployed are too poor and isolated to develop clandestine activities. Investigations carried out both for other States and for the Commission³ corroborate this result.

(iv) At company level the black economy develops in two directions.

On one hand it occupies the least fruitful section of the market, the low profit sectors where little capital is built up. The black economy develops in small units; there is little improvement in productivity (the low cost of labour does not stimulate investment) and often it simply prolongs the life expectancy of industries which are in decline or having to fight off very menacing competition (as in the case of the textile and leather industry). Such practices serve only to delay the delocalization of traditional manufactures to new geographical areas with comparative advantages.

Larger units are, however, involved, relying on networks of sub-contractors allowing costs to be reduced and permitting a more flexible response to sudden changes in demand (the clothing industry).

Those involved in a clandestine activity are committed to varying degrees. Most of them only work occasionally, as a means of earning a little extra money. Their customers are individuals from the surrounding neighbourhood. Networks of this kind cover a limited social spectrum and are of little economic significance.

Others, however, are totally committed and develop plans for prospecting the markets, depending on the black economy for the greater part of their income.

Identifying the degree of involvement of the individual participant in the under-

ground economy permits not just a quantitative appraisal but also a qualitative judgement of the phenomenon. Between the odd jobs on a Sunday, fiscal fraud and work by illegal immigrants there lies a whole spectrum of situations ranging from a spare-time activity to a vital activity, from the acceptable to the reprehensible, from borderline activities to the black economy pure and simple.

The macroeconomic determinants of the black economy are very diverse. They usually relate to the three following factors:

- (i) Structural factors:
 - (a) development of new techniques:
 - (b) deficiences in and fragmentation of the goods and labour markets;
 - (c) structure of the local economy (SMEs/large companies).
- (ii) Economic factors:
 - (a) organization of the labour market (internal/external, flexibility/rigidity);
 - (b) level of unemployment and other benefits (if they are too high they are a disincentive for workers to find declared work; if they are too low they virtually oblige them to take on work on the side);
 - (c) degree of legislative control of the labour market;
 - (d) the tax burden on earnings;
 - (e) level of incomes.
- (iii) Sociological factors:
 - (a) importance attached to free time;
 - (b) influence of accepted practices;
 - (c) sense of civic responsibility.

¹ R. Foudi, F. Stankiewicz, N. Vaneecloo: 'Les chomeurs et l'economie informelle'. *Journées d'économie sociale de Dijon* September 1981.

² R. Pahl: 'Divisions of labour'. Blackwell, New York 1984. The study was based on 730 cases examined between 1980 and 1983.

³ Study 78/3: 'Chomage et recherche d'un emploi, attitude et opinions des publics europèens'. (The European Omnibus, 1978).

The importance of the role of each of these factors depends on the nature of the socioeconomic environment. Thus free time is only devoted to undeclared work if the organization of the labour market, demand or incomes permit it.

At the level of the individual, the motivations of those involved are easier to ascertain. In most cases they are economic. Those who supply the labour see it as an opportunity to earn a tax-free basic or supplementary income. Company heads are attracted by the greater flexibility (as regards hiring and firing), the chance of skirting round the labour laws and the low direct and indirect labour costs.

In such a context, the attempts at quantifying the black economy come up against a number of obstacles. Figures for the total sums of money involved represent an attempt to unify what is in fact fragmented and isolated.

Assessments of unofficial work usually relate to the phenomenon as a whole rather than to the nature of the individual jobs and people involved.

3. The extent of the black economy

As the very essence of these clandestine activities is that they are secret, providing a statistical representation is extremely complex. The difficulty is all the greater owing to the lack of conceptualization. Figures proposed for the underground economy owe more to chance than a scientific approach.

Numerous attempts at quantification have nevertheless been made, generally using indirect methods based on observing trends in the amplitude of notes in relation to the total amount of money in circulation and income tax rates.

Three lines of approach have been pursued.

(i) The use of data from the national accounts (Blades; M. O'Higgins).

The national accounts are ill-suited to determining clandestine transac-

tions. In fact, they concentrate solely on market transactions and base their estimates on information supplied by those directly involved. It is, therefore, only indirectly that they are able to provide a basis for assessing the informal sector. Two methods have been used for this purpose:

- (a) tax fraud: the overall level of tax losses is assessed by examining a representative sample of the total population;
- (b) the income/expenditure balance: declared incomes are compared with actual expenditure (the latter being determined by analysing the style of living of individuals).
- (ii) The use of monetary or fiscal aggregates (global methods).
 - (a) The Gutmann method: as unofficial work is remunerated in cash it proposes an estimation of the black economy on the basis of the notes/deposits ratio;
 - (b) The Feige method: using the Fischer equation, it determines a 'normal' ratio (r): price (P): transaction (T) (1939)/nominal GNP (1939). Also knowing the total amount of transactions (T) for 1976 and 1978, Feige applies the following rule:
 - Price of transaction (1976) = r. nominal GNP (1976 + X (1976) (official economy) ('irregular' economy).
 - (c) The Tanzi method: fundamentally an estimation of the underground economy by associating monetary and fiscal variables. It distinguishes four factors responsible for the existence of the unofficial labour market: taxation, legislation, prohibitions and the corruption of civil servants, but only uses the taxation variable in the model.

The diversity of the results obtained and the contestable nature of the hypotheses, as regards both the base period and the rate at which the money comes into circulation, does not lend them a great deal of credibility.

On the other hand, the contours of the phenomenon so considered also need to be called into question. Can they be simply lumped together as clandestine activities or is there in fact little real homogeneity involved?

- (iii) Direct evaluations (which only concern a few regions or sectors)
 - (a) the use of sectorial indicators (intermediate consumptions; the tool market etc.): interesting but imprecise methods.
 - (b) surveys: difficult in practice although it remains the only approach able to provide reliable information as to the structure of the black economy.

The figures obtained, whatever the method used, must be treated with the utmost circumspection. The extent to which the estimates vary relieve them of all credibility (for the United Kingdom the estimates range from 2.5 % to 15.0 % of GDP).

In a study based on an analysis of the national accounts, Blades estimated that undeclared production accounts for a relatively low proportion of GDP (between 2 and 5 %) in the European countries as a whole. Italy and Portugal are, however, an exception (almost 20 %).

Such figures, presented as a percentage of domestic product, give only a very approximate picture of the actual situation. They suppose that there is no significant qualitative difference between undeclared and declared activities. Also, the calculations are not always only based on the black economy as defined above but also on the underground economy as a whole.

It is very difficult to extrapolate percentages for the number of undeclared jobs from estimates of the percentage of undeclared production. It requires the formulation of highly dubious hypotheses regarding productivity in such a sector. A level of 1 % for the underground economy corresponds, if its productivity is x times less than that of the economy as a whole, to x % of the total number of hours worked.

4. The impact of the black economy on economic policy and the labour market in general

The persistence of the economic crisis which is reflected in problems of finding outlets for traditional manufactures and very high levels of unemployment is alerting the various economic protagonists, in particular the social partners, to the problem of the black economy. Work of this kind is regarded as reflecting a lack of solidarity with the unemployed on the part of the workers and unfair competition on the part of the companies involved.

The effects of clandestine activities on both economic policy and the labour market are of three kinds:

(i) The economic impact

- (a) The existence of underground production networks can create, in certain sectors, a certain displacement effect. In the light of the development of free production zones certain companies are forced to delocalize their production or to move over into the black economy (textiles, leather, cabinet making). Although the gains in competitiveness engendered by fiscal or social fraud should not be overestimated, it must be admitted that it may lead to a certain distortion of internal or international competition, at least for certain sectors. 'Social dumping' of this kind poses the more general problem of competition between countries producing under very different social conditions.
- (b) As soon as some activities evade statistical scrutiny and the rules of law, the effectiveness of macroeconomic policies is reduced (taxation and social welfare, the two essential mechanisms, do not affect workers in the black economy). Their non-payment of taxes and social security contributions aggravates the difficulties of financing the public debt and

of the social security systems. The equality of taxpayers as regards taxation and of individuals as regards social security cover is also called into question.

(ii) Sociological impact

- (a) The existence of a two-tier labour market renders certain regulations for the protection of labour null and void. A gulf is forged between the employees in the official sector, benefiting from high incomes, job security and social security cover, and those who depend totally on the underground economy. The black economy creates the conditions for the emergence of a dual society by widening the gap between well-qualified workers supplementing their official income by a little extra work 'on the side' and those without any qualifications for whom the 'odd jobs' constitute the sole activity. In the same way as there is an underground economy in the poor countries and another in the developed countries, undeclared work assumes an altogether different significance depending on who is involved.
- (b) The degree of uniformity in the penetration of clandestine activities throughout society depends on the participants. The 'odd jobs', which are often in fact cleaning jobs or clandestine workshops, reinforce the division of the labour market. These activities involve very specific categories (young people without qualifications, illegal immigrants) and are not in any way a means to obtaining declared employment. The very existence of these involuntary clandestine activities, turned to as a last resort, establishes a second labour market from which it is very difficult to break free.

This hermetic market is an archaism in our modern societies, a relic of the past, a little bit of the

Third World in the midst of industrialized Europe.

It is a totally different world to that of declared employees seeking to supplement their income; the extra undeclared hours do not have the same destructuring consequences and their effects are much more diffuse in that they involve protected social categories.

(iii) The ideological impact

(a) Widely circulated information shows a growth in undeclared work over the last decade. It remains, however, very difficult to provide a definitive response to this question. Depending on the methods of evaluation used (monetary aggregates or national accounting) the black economy is shown to be either expanding or contracting. It does appear, however, as if the impression that this unofficial labour market is expanding is partly due to the economic crisis which is making it less acceptable. III-conceived as it may be, the hypothesis of an expanding black economy is often presented as an argument in favour of free enterprise, less State intervention and deregulation to remove constraints considered as too rigid for the new rules based on the free negotiation of contracts. To conclude that the existence of a black economy is proof of the superiority of the laws of supply and demand over those passed by governments is questionable. For those involved undeclared work is often the only way of obtaining an income, 'The Sunday workers' neither reject nor relinquish their rights and benefits under the welfare State. Their behaviour is rather a response to inadequacies in protection or in incomes. Far from being the expression of an ideological stance, the black economy is the simple result of a perverse effect whereby each new regulation gives rise to a new category of frauds.

(b) In the same vein, tax losses caused by the presence of the black economy have often been considered as a reaction to inflated tax rates. Any increase in social security contributions or tax is supposedly reflected in a reduction in declared activities. Without going back over old arguments, such a point has often been made in the past (in 1945 Colin Clark put the maximum acceptable income tax rate at 25 %).

Behaviour designed to evade paying tax can be considered as being more the result of perceptions of the tax burden than actual tax levels.

5. Failure to combat the black economy

The measures taken by the Member States to combat the black economy vary considerably from one country to another depending on the supposed gravity of the situation, the population's sense of civic responsibility and the degree of State intervention in the economy.

Not all undeclared activities are susceptible to sanctions. The first characteristic of clandestine work is often that it is 'a-legal'. And when real fraud is involved it is often difficult to provide proof of the offence.

(i) Prevention and information are the key elements in any action aimed at increasing awareness of the problem of the black economy. The social partners play an active role in this area both in order to defend those sectors suffering from unfair competition and to warn workers of the risks of undeclared work.

Simple repressive measures against illegal activities can be in vain if they do not meet with a favourable response among the general population. Information campaigns on the undesirable effects of the black economy are an essential element of support for more readily enforceable legislation.

(ii) Trends in economic policy over recent years aimed at increasing the flexibility of factors regulating the employment. market (as regards prices, terms of employment and dismissal and working hours) and at halting the growth in social security

charges may contribute to making the black economy less attractive.

The increase in part-time work (generally atypical) may encourage companies to declare persons employed on this basis. The effect is, however, uncertain; as workers have more free time they have more scope for carrying out a secondary clandestine activity.

One could also argue that a less secure status prevents workers from becoming totally involved in their work and allows them to conceive of undeclared work as alternatives. The more secure a position the less the employee is prepared to jeopardize it for the sake of a few extra undeclared hours on the side.

(iii) Also, the many actions undertaken in order to promote local initiatives, particularly those of the Commission (LEI), allow certain clandestine activities to adopt a more acceptable face. The reduction of charges for the benefit of companies as well as the implementation of systems promoting the employment and training of the young unemployed have a similar effect.

Jackie Morin

Provisional conclusions on measures taken by the Member States in order to implement the resolution on actions to combat unemployment amongst women

I. Introduction

Since the rate of unemployment amongst women in the Member States of the Community is noticeably higher than male unemployment, and, furthermore, bears special characteristics calling for appropriate measures, the Council adopted a Resolution on 7 June 1984 concerning action to combat unemployment amongst women in which the governments committed themselves to taking measures leading the improvement of the situation of unemployed women.

The Council stresses the principles 'which must underlie the measures to be promoted namely:

- (i) the equal right of men and women to work and, by the same token, to acquire a personal income on equal terms and conditions, regardless of the economic situation;
- (ii) the extension of equal opportunities to men and women, in particular on the labour market, in the context of measures to stimulate economic recovery and to promote employment growth;
- (iii) the development of positive measures to correct de facto inequalities and thereby improve female employment prospects and promote the

employment of both men and women. 1

II. The development of unemployment amongst women

The statistics on the development of female unemployment in the Member States of the European Community show that the overall rate of unemployment (both women and men) did not change significantly between 1984 and 1986: from a level of 10,5 % in 1984, the rate rose to 10.7 % in 1985 and slightly again to 10.8 % in 1986.

However, when comparing the development of male and female unemployment, it becomes apparent that the latter is considerably more problematic:

	Unemploy	ment rate (%)			
Year	Men	Women	Difference Women — Men		
1984	9.3	12.5	+3.2		
1985	9.4	12.7	+3.3		
1986	9.3	13.2	+3.9		

In the course of the year 1987 to date, a slow but constant reduction of unemployment amongst men has been achieved (-3.0%) in September 1987, compared with the same month of the previous year), whilst unemployment amongst women continues to rise (+2.2%) in September 1987, compared with the same month of the previous year).

It is furthermore apparent that in those countries where the reduction in the overall unemployment rate was greatest from 1984 to 1986 (Denmark and the Netherlands), female unemployment declined considerably more slowly than male unemployment.

On the other hand, in those countries where unemployment increased most during the same period (Ireland and Spain), unemployment amongst women rose even faster than that amongst men.

If the figures are analysed by age group and sex, women once again fare worse than their male counterparts:

² Eurostat: Employment and unemployment 1987, Tab IV/1).

Year	Unemploymer Men under the age of 25 (1)	nt rate (%) Women under the age of 25 (2)	Difference (Column 1 minus Column 2		
1984	22.1	25.1	+3.0		
1985	21.5	24.6	+3.1		
1986	21.0	24.8	+3.8		

¹ OJ C 161, 21. 6. 1984, p. 4.



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As a result of these developments, women's share in total unemployment in the European Community increased from 41.8 % in 1984 to 42.5 % in 1985 and again 43.4 % in 1986.

III. Compilation of a full report on specific measures to combat unemployment amongst women

In its resolution on action to combat unemployment amongst women, the Council asked the Commission to report regularly on progress achieved.

In order to do this, the Commission asked the Member States for their contributions with the help of a questionnaire; the Member States' replies to this

questionnaire provided the basis for the Report to the Council.

In addition to the country reports, a meeting was called by the Commission in October 1987 in order to discuss the measures taken by the Member States to implement the Resolution. This discussion provided essential additional elements of a more general nature. The replies received from the Member States, in both written and oral form, have enabled the Commission now to present its initial conclusions on an interim basis. The full report will be published within the next few weeks.

IV. Conclusions

 Given the magnitude of unemployment in general, some Member States did not consider it appropriate to adopt measures to combat unemployment specifically amongst women (United Kingdom, Spain, Ireland, Belgium).

- In view of the concern felt in some Member States about the state of public finance, it was impossible for these to take specific measures to combat unemployment amongst women (Ireland, Belgium, Portugal)
- 3. All member States took measures in the field of training in order to reduce women's unemployment. Some of them laid particular emphasis on one or more of the following:
 - (a) youth training;
 - (b) reintegration of adults into employment;



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- (c) retraining of persons holding jobs;
- (d) training of the administrators and advisers managing programmes for the reintegration of women into employment, as well as of the instructors themselves.

In fields other than training, the measures taken varied from one Member State to another.

4. Some Member States indicated that they had perhaps concentrated more

- on the management of unemployment than on its prevention (France, Ireland, Belgium).
- Some Member States adopted legislation to combat unemployment (Federal Republic of Germany, France, Greece, Belgium); some feel that further legislation would not achieve the desired results (United Kingdom).
- Privileged access to training or employment for women was introduced

- in some countries (Netherlands, Ireland, United Kingdom, Greece, Belgium).
- France, Denmark and the United Kingdom underlined in particular the measures taken to assist certain categories of disadvantaged women.
- Several Member States stressed the measures taken to encourage women to set up their own businesses (United Kingdom, Italy, France, Greece, Federal Republic of Germany, Netherlands, Ireland).
- A number of Member States introduced the possibility of working parttime as one way of combating women's unemployment (Spain, Italy) or improved the conditions governing part-time working (Federal Republic of Germany).
- 10. The existence of some forms of protective legislation for women is regarded by several Member States as an obstacle to the fight against women's unemployment. France abolished the prohibition of night working by women for this reason.
- 11. Unequal treatment of men and women in the field of social security can cause special problems for unemployed women (United Kingdom, Ireland). Some social security legislation may also pose problems for women who interrupt their working lives (Federal Republic of Germany).
- 12. For this and other reasons, it is sometimes difficult to assess the total number of women out of work or in search of employment, as they cannot always be registered.
- 13. Legislation on parental leave could be an effective way of reducing women's unemployment, especially if this entitlement were opened up to men as well as to women (Federal Republic of Germany, Belgium).

As regards legislation on parental leave, the United Kingdom Government stated that, in view of the need to increase the competitiveness of British firms, this was not acceptable.¹

¹ This view is not shared by the Equal Opportunities Commission.

The analysis of measures taken by the Member States shows that, apart from vocational training measures (diversification of occupational choices), information and advice, and measures to improve the sharing of responsibilities (extension of parental leave in most Member States), comparatively little has been done specifically for women.

Furthermore, the scope of the measures adopted proved to be comparatively limited in most cases. Most of the measures, especially those designed to bring about structural improvements, are of a general nature and directed equally at

men and women or at certain groups (e.g., young people or the long-term unemployed).

Without a doubt, measures designed to increase the level of employment in general provide the necessary basis for combating unemployment amongst women.

However, the sharp increase in female unemployment compared with that amongst men shows that this is also a structural problem of sexual segregation and that specific measures are necessary to combat unemployment amongst women.

In its action programme on equality opportunities, the Commission adopted a series of measures to increase the level of employment for women and thus also to combat female unemployment. .

In its Resolution of 22 December 1986 on employment growth, the Council stressed the importance of implementing this action programme.

This is why an analysis of the measures adopted by the Member States to implement this action programme and this Resolution will now be appropriate.

Positive action for women taken by the Member States and the Commission to implement the Council Recommendation of 13 December 1984

Introduction

The Recommendation of the Council of the European Communities of 13 December 19841 on the promotion of positive action for women concludes that existing legal provisions on equal treatment of men and women, which are designed to afford rights to individuals, are inadequate for the elimination of all existing inequalities unless parallel - positive - actions are taken by governments, both sides of industry and other bodies concerned, to counteract the prejudicial effects on women in employment, which arise from social attitudes, behaviour and strucArticle 2, paragraph 4 of Directive 76/297/EEC (on equal treatment of men and women concerning access to employment, vocational training and career development, as well as with regard to working conditions), states that this Directive does not conflict with the action to promote equal opportunities for men and women, especially by eliminating the existing inequalities which impair the opportunities of women in the areas referred to in article 1, paragraph 1.

In the Community action programmes on the promotion of equal opportunities for women² as well, the promotion of equal opportunities is in practice endorsed by positive actions and the will is expressed to adopt appropriate measures to achieve this goal.

The Recommendation on the promotion of positive action also states that at a time of economic crisis, action at Community and individual State levels should not only be continued, but also intensified, in order to promote the implementation of equal opportunities in practice through positive actions, in particular with regard to equal pay and equal treatment concerning access to employment, vocational training and career development, as well as with regard to working conditions. The Recommendation also refers to the European Parliament, which has emphasized the importance of positive action.

The implementation of the Recommendation

The Council Recommendation of 13 December 1984 on the promotion of positive action for women requests the Commission:

- to promote and organize, in liaison with the Member States, the systematic exchange and assessment of information and experience on positive action within the Community;
- to submit a report to the Council, within three years of the adoption of this Recommendation, on progress achieved in its implementation, on the basis of information supplied to it by the Member States.

In order to prepare this report, the Commission drew up a questionnaire concerning the implementation of the Recommendation. The questionnaire was sent both to the members of the Advisory Committe on Equal Opportunities and to the governments.

Another basis of information concerning positive actions in the Member States are the activities, promoted by the Commission itself, which are set out in the Community programme on 'Equal opportunities for women'.³

On the basis of all this information, the Commission submitted a report to the Council on progress achieved in implementation.

Differences between the Member States

Three years after the adoption of the Recommendation, it can be concluded that in general the Member States have begun to introduce and promote positive actions. Several Member States had already adopted actions of this kind some time ago; for other Member States, positive action for women was fairly new.

The actions referred to in the Recommendation covered many fields, but the Member States seem to be implementing them in differing ways and are promoting positive actions in different fields. Some Member States concentrate on vocational training and/or employment measures, while others are also involved financially in the promotion of positive actions in public or private enterprises.

Neither is the framework for positive action always the same: some Member States have introduced or are preparing legislation, others have explicit policy statements and in some Member States, the measures in favour of women are taken as part of an overall equal oppor-

¹ OJ L 331, 19. 12. 1984.

² COM (81) 758 and COM (85) 801 final.

³ COM (85) 801 final — Equal opportunities for women, medium-term Community programme 1986—90. Supplement 3/86 — Bull EC point 23. p. 12.

tunities policy or a labour market policy. There are also differences in the involvement of the social partners and the equal opportunities bodies.

However, it can be concluded that progress has been made in this area in the last few years — albeit perhaps more appreciable in some cases than in others. Firstly the developments in the Member States are outlined article by article, during which it is emphasized that in several cases it is difficult and sometimes even impossible to evaluate the results of the implementation of positive actions. In some cases, there has been a lack of monitoring, but in nearly all cases the time has been too short to evaluate the results.

Finally, the activities of the Commission in this field are described, as well as the Commission proposal to continue the promotion of positive action for women.

Article 1: Adoption of a positive action policy

There were policy statements on the promotion of positive action for women and ensuing measures in France and Belgium, for example; in Italy and the Netherlands, explicit positive actions in the private and public sectors were prepared and several Member States (for example, the Federal Republic of Germany and Ireland) adopted compulsory guidelines for the promotion of positive actions in public sectors. However, this does not imply that Member States which did not make such a policy statement did not take any positive (action) measures in favour of women. Various Member States report that these actions form part of their equal opportunities policy and mentioned several specific positive (action) measures.

Article 2: A framework to promote and extend positive actions

In general, a distinction can be made between the legislative, administrative and financial aspects of this framework. Some Member States concentrate on a legislative framework. For example, France obliges enterprises to report yearly on the situation of female workers compared to that of male workers. In Belgium, the Royal Decree lays down detailed provisions for the implementation of equal opportunity schemes. In Italy, the (former) Government has placed a bill on positive actions before Parliament. The United Kingdom and Ireland have legislative provisions for certain forms of positive action in their acts concerning employment equality.

The Dutch Government proposed that Parliament amend the equal treatment act: *inter alia*, the possibility of preferential treatment will be restricted to women, to improve their relative position on the labour market. Amongst other things, the Danish equal treatment law opens the way for positive action and preferential treatment. In general, it can be concluded that in the European Community there are no rules which make positive actions compulsory.

Several Member States have national plans of action for equal treatment of men and women (such plans have recently been adopted in Denmark and Spain). In other Member States — for example in Greece — the national programme for economic and social development provides a considerable framework for positive action.

Financial incentives to promote equal opportunities, especially concerning the vocational training of women, exist in many Member States. Financial incentives for the development of positive actions plans inside firms exist or are under discussion in a few Member States.

Article 3: Positive action in the public and private sectors

In some Member States, government decisions or programmes have been or are being drawn up concerning positive actions in the public sector. The degree to which these decisions or programmes are mandatory varies considerably. These decisions and programmes often include actions concern-

ing training. There are a few specific recruitment and promotion measures. Child-care facilities, which can in fact be of importance to all parents, not only to mothers, are also presented in the framework of positive actions in some cases.

In some cases, measures are put into practice before a formal decision has been taken. In Belgium, for example, several positive measures have been taken in the public sector (training and awareness-raising), until such time as a full decision is taken. In the Netherlands, a number of experiments have been conducted with a view to determining the general outlines of a decision on general policy in the national public service.

In several Member States (e.g., France and the Federal Republic of Germany), regular reports made to monitor the developments are submitted to Parliament. In some cases, the need for positive actions and the need to decrease the number of civil servants gives rise to tension.

It should be noted that, in some Member States, positive action has been taken not only on a national, but also on a regional and local level by regional and local authorities. Moreover, some public services, especially the postal, telephone and telegraph services in several Member States, are implementing a positive action policy.

In a number of Member States, positive action in the private sector has so far received little encouragement.

Some Member States have introduced non-compulsory decisions or recommendations in order to promote positive action. For example, the government of the Federal Republic of Germany, together with 30 well-known firms in the private sector, has developed a number of practical vocational measures which are now implemented by these firms. As a result, a code of practice for the vocational promotion for women in firms has been published.

The Dutch Government tried to promote positive actions in the private sector by means of information; more direct

measures are now under discussion. As stated previously, direct practical measures to promote positive action inside firms are applied in France; the French Government provides financial support to approximately 15 enterprises which are implementing plans for vocational equality, devised after negotiations between the management and the trade unions containing training, working conditions, appointments, career development, etc. These are quite large firms; the involvement of smaller companies is now under discussion.

In the Member States, the equal opportunities bodies promote or advise on the encouragement of positive action. Most Member States have developed positive measures covering the vocational training of women, sometimes with accompanying incentives for employers. In Greece, for instance, employers receive a subsidy for the recruitment of women which is approximately 10 % higher than what they receive for recruiting men.

Article 4: Aspects of positive actions plans

In general it can be said that all Member States have been active in informing and increasing the awareness of both the general public and employers, trade unions, etc. of the need to promote equality of opportunities for working women. Some Member States (Greece, Portugal, Spain) emphasize the importance of these activities. The Danish report states that in Denmark a widespread awareness of equality problems has been achieved at organizational and administrative level. In some cases (Belgium, the Netherlands), explicit (information) campaigns are conducted concerning respect for the dignity of women at the workplace.

It would appear that qualitative and quantitative studies and analyses of the position of women on the labour market are often conducted in connection with the development of (positive action) policies. In all Member States the importance attached to the diversification of the vocational choice of women is in-

creasing. Some Member States report on measures concerning the education of girls and boys. Vocational training measures can be found in all Member States.

An interesting example of guidance and counselling services is to be found in Denmark, where equal treatment counsellors have been employed in 29 regional job placement offices, organizing projects together with industry and trade unions, individual firms, training institutions, local authorities and local women's groups.

In the Netherlands, 12 % (formerly 10 %) of the budget of every employment agency has been reserved for the re-entry of women to the labour market including financial support for independent women's groups helping women in this connection.

The connection between the vocational training and employment of women is not always clear. Positive actions, including the adaptation of working conditions, are in general voluntary throughout the Community. In France, the social partners are directly contacted concerning the vocational equality of men and women by means of regional meetings, etc. In Italy, an increasing number of collective agreements provide for a parity-commission to study the employment of female workers; the involvement of trade unions is quite considerable and a number of model projects are in progress. The Dutch Government defines positive action somewhat more narrowly as a coherent set of measures to improve the position of women in an organization, the management of which has assumed the responsibility for the implementation of measures within certain time-limits and for a regular evaluation of the concrete and as far as possible qualified targets. It will place a policy document before Parliament to explain how it will stimulate these positive actions in firms (including the use of instruments such as legislation and subsidies).

An interesting development concerning the active participation by women in decision-making bodies is the Danish law of April 1985 designed to improve the sex ratio on official committees, particularly those with social duties. The percentage of women represented on such committees has risen from 11 to 31 %.

Article 5: Information on positive actions and measures

In general, it can be concluded that the information provided concerning the Recommendation itself has been more limited. More information (brochures, publications in magazines, speeches) was supplied concerning the various aspects of positive actions. As different Member States highlighted different aspects of positive actions, the nature of the information differs somewhat from one Member State to another.

Article 6: The position of the national equal opportunities committees or organizations

Indeed, every Member State has one or more (different) national equal opportunities committees or organizations. But the legal status, composition and scope of the relevant national bodies are often different. Moreover, there have been some important changes in the status and size of these bodies in the last five years (e.g. in Belgium, the Federal Republic of Germany and France).

Some Member States, established by law independent/autonomous equal opportunities bodies, for example in Ireland, the UK, Spain and the Netherlands. Other Member States, for example the Federal Republic of Germany, do not have this type of independent equal opportunities body, but many tasks concerning equal opportunities are concentrated in a department of the ministry concerned.

Article 7: Encouragement to both sides of industry, auidelines

Likewise in this area, the measures introduced by governments, as well as the attitude of employers and trade un-

ions, vary somewhat and are at somewhat different stages of development.

In several Member States, there is a Code of Practice (e.g. that of the British Equal Opportunities Commission), whereas in others, these questions form part of the discussions between governments and the social partners; occasionally (in Greece, for example) employers are given financial incentives to employ women.

Danish firms seem to be increasingly aware of the need to appoint more women and recruit more widely. Efforts in this direction have been made both by the employers' association and by individual firms.

As mentioned above, an increasing number of collective agreements in Italy relate to the employment of women and positive action, and a bill concerning the promotion of positive action is under discussion.

In general, trade union awareness of the importance of positive measures also seems to be increasing.

Article 8: The public sector as an example, new information technologies

Several Member States are studying or involved in studies concerning the access of women and girls to new technologies. In the Federal Republic of Germany, research is being carried out into the implications of the new technologies for private life, the sharing of responsibilities and leisure time.

Some Member States report on the examples they set in their efforts to promote equal opportunities. For example, the Belgian Government wants to set an example by means of a pilot project in the public telephone and telegraph service; this project will be evaluated and the conclusions arrived at will serve as basic information for other initiatives of this kind. In Greece, research is being carried out in the public sector to establish the extent of women's participation on councils and committees and a conference has been organized for women in State education and public service in

order to identify and record the problems which they encounter in their career development.

Article 9: Gathering of information, follow-up and evaluation

It can be concluded that most Member States have developed or are developing statistics on the employment of women. In several countries, information is also gathered on positive measures (Belgium, France and the Netherlands).

The promotion of positive actions by the Commission of the European Communities

As mentioned in the introduction to this report, the Council of the European Communities requests the Commission to promote and organize, in liaison with the Member States, the systematic exchange and assessment of information and experience on positive action within the Community.

Furthermore, the medium-term Community programme on equal opportunities for women' stipulates that the Commission will support and encourage positive actions in various sectors with a view to the desegregation of employment and a better use of human resources.

The Commission has therefore launched projects for both the private and the public sector in nearly all Member States. As regards the public sector, the European Institute of Public Administration (EIPA) in Maastricht was instructed by the Commission to gather information concerning women in the higher levels of the public service in all Member States. This information was exchanged and discussed at a round table, organized by the EIPA on behalf of the Commission in March 19872 by officials from the Member States and the Commission itself, responsible for personnel and/or equality issues in their own administration. All those present considered the discussions to be very valuable and interesting enough to be followed up in a more structured and regular form. The Commission therefore requested the EIPA to organize another discussion in 1988.

As regards the promotion of positive action in the private sector, in 1980 the Commission initiated a pilot scheme in the banking sector. Developments in connection with this scheme are still going on in various banks in several Member States. The Commission is also supporting the efforts of several trade unions to promote positive action in this sector.

In the industrial sector, the Commission promoted positive actions with the help of industrial management consultants in nearly all Member States. In October 1987, a rather successful seminar was organized for personnel directors of industries interested in the implementation of positive action.

As it can be concluded that interest in positive action in industry is increasing, the Commission is planning to continue its promotion activities in this area in all Member States.

The Commission has also undertaken a specific positive action initiative in the area of television. Since 1985, funding has been made available for a Steering Committee on Women and Television involving high-level representation from the main television channels of the Member States. This committee has so far concentrated its attention on the employment position of women in the industry and its meetings have discussed mechanisms to promote equal opportunities, training and career opportunities for women and working conditions. In addition, specific positive action training courses have to date been organized by four television stations with direct financial assistance from the

COM (85) 801 final — Equal opportunities for women, medium-term Community programme 1986—90. Supplement 3/86 — Bull EC point 23. p. 12.

Working document Women in the higher public service — a European overview', EIPA, Maastricht, 1987.

Commission. Finally, the intention is to extend the Committee's remit to cover the position of women in radio from 1988 onwards.

Since 1983, the Commission has funded a specific network on the diversification of vocational choices for young women and women, which has organized specific positive action initiatives on this theme in the Member States. The initial positive actions are now coming to an end and members of the network have recently submitted proposals for new positive actions which will get under way in 1988.

A further network has been in operation since 1985 to oversee the implementation of an action programme on equal opportunities for girls and boys in education. Among the positive action initiatives taken by this network were the circulation of an action handbook on sex equality to teachers in the Member

States, the organization of a poster competition and the setting up of an action research project on the impact of the new technologies subjects on educational prospects for girls.

Conclusion

The Government representatives responsible for the implementation of the directive met in October 1987 and concluded that some years are needed before the results of any large-scale positive action project can be evaluated. They also concluded that the international exchange of information could be very useful for the development of further positive action.

The Commission therefore proposes to continue the exchange of information and to submit a report to the Council within four years on the progress achieved in the further implementation of the Recommendation on the basis of information supplied to it by the Member States.

As the number of positive actions in both the public and the private sector is increasing, interest in (the exchange of) information is also growing.

The Commission has therefore produced a Guide to good practice on positive action, which provides general information and will be published in all languages in 1988. It is addressed to all bodies interested in positive action.

The Commission is also preparing an inventory of the different positive actions in the Member States, which might be useful for both the public and private sector policy makers.

The Commission is also drawing up a positive action project in the context of its own personnel policy.

The Commission proposal on the burden of proof and the law of the Member States of the European Community

Part I: Indirect discrimination

Introduction

The European Community and its Member States have progressively laid down a floor of rights to enshrine the principle of equality between the sexes - Article 119 of the Treaty and the three Council Directives currently in force implementing that principle: equal pay,1 equal treatment2 and statutory social security schemes.3 Two more directives adopted in 1986 will enter into force in the future: occupational social security schemes4 and the self-employed. 5 Community law in force has all been transformed into Member States' national laws more or less adequately.

However, the problem of sex discrimination persists. Procedural problems have been encountered by complainants in all the Member States which have the effect of depriving the substantive rights provided by Community law of much of their force. The main such problem is that of the burden of proof, which is difficult and sometimes impossible in the normal course of events for an aggrieved complainant to establish. There are also closely related problems concerning the willingness of courts or tribunals to draw inferences from the evidence that is presented, and the obtaining of evidence by the courts and by the parties.

The general rule in civil cases is that complainants must prove their case on a balance of probabilities. This places an undue burden on the complainant in sex discrimination cases because there are special problems of proof in such cases, firstly because the relevant evidence is often in the hands of the respondent, and secondly because of the widespread but unvoiced and often unconscious prejudice which distorts acts or decisions affecting women and persons with family responsibilities.

These unconscious prejudices play an important role in placing women at a disadvantage in the segregated labour market. They give rise to practices which are apparently fair in form but are unequal in their impact on the sexes—the problem of indirect discrimination.

The concept of indirect discrimination is not easy to grasp. It has been embodied in legislation and case law in various jurisdictions, but the existence of standards has not necessarily meant that judges, advocates or litigants have understood or do presently understand it. Moreover, standards are often vague or imprecise, or do not exist at all.

Indirect discrimination is a problem for both employers and employees. Employees suffer from unlawful and often unintended discrimination: they may not even realize they have a complaint to be made to their employer or before a tribunal, and if they do, they may fail to have it remedied because judges or even the lawyers who advise them do not understand or apply the concept of indirect discrimination. Employers for their part may find themselves taken unnecessarily to court over a matter which they could easily have rectified, and they unwittingly lose out on the utilization of an important part of their human resources. Unnecessary litigation and the underutilization or loss of valuable trained staff does not make economic sense

The Commission first highlighted the problems of indirect discrimination and the burden of proof in its first Equal Opportunities Action Programme 1982-85: 'Particular problems exist regarding the application of the Directives in areas where the provisions are open to interpretation, as is the case of "indirect discrimination by reference in particular to marital or family status".6 The Commission recommended examination of the burden of proof at that time because it found that 'workers, and female workers in particular, made little use of the arrangements for redress provided for by national law ... [due to the]... inflexibility of the procedures on the one hand, and the difficulty of assembling evidence of discrimination on the other ...

A comparative analysis was carried out for the Commission in 1984. This found that 'the burden (of proof) placed on the complainant was a problem' and recommended 'that the burden of proof should be formally altered in each Member State, so that the complainant has to show only that she has been less favourably treated and that the person more favourably treated was of the opposite sex. The burden would then shift to the alleged discriminator to show that his reason for the treatment was not the complainant's sex.'

The European Parliament called for action in this area in its report of May 1984 on 'The situation of women in Europe', in which it specifically called upon the Commission 'to submit proposals... to reverse the rules on the burden of proof....'^B

The Commission's network of legal experts on the application of the equal-

¹ Council Directive 75/117/EEC of 10 February 1975 on the approximation of the laws of the Member States relating to the application of the principle of equal pay for men and women, OJ L 45, 19. 2. 1975, p. 19.

Council Directive 76/207/EEC of 9 February 1976 on the implementation of the principle of equal treatment for men and women as regards access to employment, vocational training and promotion, and working conditions, OJ L 39, 14, 2, 1976, p. 40.

³ Council Directive 79/7/EEC of 19 December 1978 on the progressive implementation of the principle of equal treatment for men and women in matters of social security, OJ L 6, 10, 1, 1979, p. 24.

⁴ Council Directive 86/378/EEC of 24 July 1986 on the implementation of the principle of equal treatment for men and women in occupational social security schemes and self-employed workers, OJ L 225, 12, 8, 1986, p. 40.

Council Directive 86/613/EEC of 11 December 1986 on the implementation of the principle of equal treatment between men and women engaged in an activity, including agriculture, in a self-employed capacity, and on the protection of self-employed women during pregnancy and motherhood, OJ L 359, 19, 12, 1986, p. 56.

Commission communication to the Council of 14 December 1981 on a new Community action programme on the promotion of equal opportunities for women 1982—85, EC Supplement 1/82—8ull, EC; Action 1, Monitoring of the application of the Directives.

Corcoran and Donnelly, 'Comparative analysis of the provisions for legal redress in Member States of the EEC', V/564/84, Recommendation No.5, p. 80.

Beport of inquiry No 1 on 'The implementation of the first two Directives', p. 43.

ity directives has warned that an urgent problem exists which has resulted in the failure by many applicants to establish legitimate claims notwithstanding strong circumstantial evidence of discrimination.¹ 'Problems with the burden of proof are, or may turn out to be, particularly serious where indirect discrimination is alleged... the absence of proper guidelines may prevent applicants from framing proper claims.¹²

The Commission therefore undertook in its current 1986-90 action programme to put forward 'a Community legal instrument on the principle of the reversal of the burden of proof applying to all equal opportunities measures' 3 to 'ensure that persons subject to discrimination will not be required to undertake a task which is often impossible.'4 Following the extensive research and consultation outlined above, the Commission adopted a proposal for a directive on the burden of proof,5 which provides for a change in the burden of proof, the provision to courts and tribunals of adequate powers of discovery of evidence, and a definition of indirect discrimination, including a standard of objective justification. These elements have been approved by the expert network and by the Advisory Committee on Equal Opportunities for Women and Men.6

Judges, lawyers, employers and employees, not to mention national governments, must now get to grips with the issues raised by the Commission. This article is the first of two designed to underpin the debate on the proposal with a detailed insight into the factual and legal background at Community and national level. In this issue, the question of indirect discrimination will be dealt with. The next issue will cover the problem of proof.

The definition of indirect discrimination

Community law

Community law covers all sectors — public, private, cooperative — and is

relevant to all statutory provisions based on the equality directives which enshrine the principle of equality in the areas of employment, vocational training and social security.

There is no mention of indirect discrimination in Article 119 or the Equal Pay Directive 75/117. However, the subsequent directives on equal treatment do refer to indirect discrimination, albeit rather generally:

'there shall be no discrimination on grounds of sex either directly or indirectly by reference in particular to marital or family status.' 7

The Commission first tried to formulate a definition of indirect discrimination in the social security area:

'indirect discrimination may be presumed where a measure which is apparently neutral in fact predominantly affects workers of one sex, without it being necessary to establish that discrimination was intended. On the contrary, it is for the person applying the measure presumed to be dicriminatory to provide proof that it was objectively justified and did not involve any intention to discriminate.' ⁸

It has now proposed the following definition of indirect discrimination in article 5 of the proposal on the burden of proof:

- '(i) ... indirect discrimination exists where an apparently neutral provision, criterion or practice disproportionately disadvantages the members of one sex, by reference in particular to marital or family status, and is not objectively justified by any necessary reason or condition unrelated to the sex of the person concerned.
- (ii) Member States shall ensure that the intentions of the respondent shall not be taken into account in determining whether the principle of equality has been infringed in any individual case.'

The elements of this definition are closely based on the case law of the Court of Justice interpreting Community law, discussed below. The definition is therefore designed to provide guidance and publicity on existing Community law rather than to lay down a new standard.

National legislation and guidelines

The concept of indirect discrimination is referred to in most national laws applying the equal treatment Directive 76/207, but much less frequently in national laws applying the equal pay Directive 75/117 or social security Directive 79/7.

Indirect discrimination in national equal pay legislation is specifically prohibited in three Member States (Belgium, Luxembourg and Portugal), whilst in three others (Ireland, the Netherlands and the United Kingdom) which have no express prohibition the national equal treatment legislation may be interpreted as applying to equal pay as well.

Only one Member State (Portugal) has explicitly prohibited indirect discrimination in social security, but there is no case law nor any evidence that this has had any effect in practice. In other Member States, there continue to be problems with indirectly discriminatory criteria applied to social security benefits, which has been reflected in the high

¹ F. von Prondzynski, 'Implementation of the equality directives', Document, Commission of the European Communities (Luxembourg, 1987), paragraph 7.25.

Network of experts on the application of the equality directives, Final Consolidated Report 1987, May 1988, paragraph 2.6.

³ Supplement 3/86 — Bull. EC., paragraph 19.c. ⁴ ibid., paragraph 18.b.4.

⁵ Proposal for a Council directive on the burden of proof in the area of equal pay and equal treatment for women and men, COM (88) 269, 13 May 1988.

⁶ Opinion of 15 May 1987.

⁷ Directive 76/207 article 2(1); Directive 79/7 article 4(1); Directive 86/378 articles 5 and 6; Directive 86/613 article 3.

Interim Report on the application of Directive 79/7/EEC of 19 December 1978 on the progressive implementation of the principle of equal treatment for men and women in matters of social security, COM(83) 793 final, p. 6. See also Commission response to Quest No 2295/80 by Mrs Lizin: 'hidden discrimination which might in practice affect workers of one sex as a result of marital or family status being taken into account in determining the rights being covered by the two directives.'

proportion of social security cases brought before the Court of Justice both by the Commission and on reference from national courts.

With regard to national legislation on equal treatment, a few Member States make little (France, Greece) or no (Federal Republic of Germany, Italy, Spain) mention of indirect discrimination; others refer to indirect discrimination in similar terms to the directive itself (Denmark, the Netherlands), some (Belgium and Luxembourg) going a little way towards explaining what the concept means. Specific definitions of indirect discrimination in national equal treatment legislation exist only in Ireland and the United Kingdom, and a draft definition has been proposed in a Bill submitted to the Italian Parliament in 1987.

Ireland — Employment Equality Act 1977, s. 2(c)

'For the purposes of this Act, discrimination shall be taken to occur... where because of his sex or marital status a person is obliged to comply with a requirement, relating to employment..., which is not an essential requirement for such employment... and in respect of which the proportion of persons of the other sex or (as the case may be) of a different marital status but of the same sex to comply is substantially higher.'

United Kingdom — Sex Discrimination Act 1975, s.1(1(b) (and equivalent provisions of Sex Discrimination (Northern Ireland) Order)

'A person discriminates against a woman in any circumstances relevant for the purposes of any provision of this Act, if... he applies to her a requirement or condition which he applies or would apply equally to a man, but — (i) which is such that the proportion of women who can comply with it is considerably smaller than the proportion of men who can comply with it, and (ii) which he cannot show to be justifiable irrespective of the sex of the person to whom it is applied, and (iii) which is to her detriment because she cannot comply with it.'

Italy — Positive Action Bill, Article 4, 1987

- (i) ... the prohibition of discrimination covers any act or behaviour, objectively detrimental, which directly or indirectly discriminates by reasons of sex.
- (ii) Indirect discrimination consists of any less favourable treatment concerning nonessential job requirements which results from the adoption of criteria which substantially and disproportionately disadvantage workers of one or other sex.'1

The crucial difference between the Irish Act and the Italian Bill on the one hand, and the British Act on the other, is the stricter standard of objective justification laid down by the former — 'essential' rather than 'justifiable'. The stricter test is closer to that required by Community law after the Bilka decision by the Court of Justice, discussed below.²

It should be noted in passing that marital status discrimination is specifically made a head of direct discrimination in Britain, Ireland and Italy, so that married and single persons of the same sex may be compared. Similarly, discrimination based on family status is expressed as direct discrimination in Greece, France and Italy.

Other official definitions exist or have been suggested in the Netherlands and Belgium which are helpful but still too imprecise.

There is a real need for a consistent definition of indirect discrimination. It appears that there is no consistency in cases, or even no case law at all, where there is no reference or a vague reference to indirect discrimination.³ The countries with the clearest definitions have the most effective application of the concept, and even there, where there is open texture to the wording, such as 'justifiable' in the United Kingdom, courts have strayed from the proper test of objective justification.

The Commission's expert network has therefore recommended that there should be, ideally, an express prohibition of indirect discrimination in each Member State and a clear, Communitywide definition. The following elements were proposed to form the major components of such a definition:

- (i) a requirement, a practice or a condition of employment;
- (ii) is not objectively justifiable as necessary; and
- (iii) has a disproportionate adverse impact on the members of one sex or of a particular marital or family status.⁴

These elements may be seen in Article 5 of the proposed Directive.

The difference between direct and indirect discrimination

In practice, a complaint may well involve both direct and indirect discrimination, in which case the question under Directive 76/207/EEC is whether unlawful sex discrimination, which may be direct or indirect, has taken place. However, it is important to understand the difference between the two concepts because the analysis and presentation of a case — pleading, burden of proof and type of evidence — may differ before national courts, depending which is involved.

Direct discrimination

Direct discrimination arises where a woman is treated less favourably than a man — whether an actual or hypothetical male comparator — on the grounds of sex. Stereotypical assumptions about the group to which an individual belongs may give rise to both direct and indirect discrimination.

Unofficial translation.

² The British EOC have recommended that the British legislation be changed along these lines: Formal Proposals, March 1988, paragraph 3.6

³ In Portugal there has been no case law on Decree 392/79.

^{4 1987} Consolidated Report, paragraph 3.4.3

Cases in Ireland and the United Kingdom, have stated that the lack of intention to discriminate or a benevolent motive is no defence for less favourable treatment. The question arises whether in principle it is proper to admit the concept of intentional indirect discrimination, which may well be a contradiction in terms. If an employer lays down a requirement which it knows will impact unfavourably upon women in particular, this may be in reality direct sex discrimination. In any event, the line between arguments on pretext and objective justification will be very blurred on this point.

With regard to the burden of proof, where a complainant has presented her case and shown *prima facie* evidence of discrimination, a rebuttable presumption of discrimination arises and the evidential burden shifts to the respondent, who must show that there has been no discrimination on grounds of sex.

Indirect discrimination

Indirect discrimination takes place where a requirement (whether flowing from statute, agreement or practice) applies equally to both sexes but is in practice more difficult for one sex to comply with than for the other. It will be unlawful if it cannot be objectively justified, i.e. if the respondent cannot show that it is necessary for the attainment of a legitimate aim.

The elements of a definition of indirect discrimination may be derived from the jurisprudence of the Court of Justice and from legislation in two Member States. Analysis of these elements shows that, in principle, existing equal opportunities legislation necessarily involves some shifting of the burden of proof between the parties.

The concept of indirect discrimination was discussed by the Court of Justice in Case 170/84, *Bilka Kaufhaus v Weber von Hartz*, particularly the requirement on the employer to show objective justification for a facially neutral but discriminatory rule or condition.¹ Following this decision, it may be observed that the concept of indirect discrimination necessarily implies a shifting

of the burden from the complainant to the employer according to the following three-part analysis:

- (i) the employee must show the existence of a requirement or condition;
- (ii) the employee must show that this has a disproportionate impact on the members of a particular sex or marital status;

At this stage, indirect discrimination is established. It will be unlawful unless:

(iii) the employer proves that the condition was 'objectively justified'.2

These three elements will be discussed in turn.

The elements of indirect discrimination

Requirement or condition

The formulation of a facially neutral requirement, condition, criterion, practice or policy by the applicant is the first part of an indirect discrimination case. It may be difficult to persuade a tribunal that there is such a criterion impacting unfavourably on the applicant. Also, where an employer's policies are fairly informal, there is evidence from the United Kingdom that the formulation of a condition or requirement may be a major stumbling-block for applicants.³

The Community definition therefore uses the broadest possible formulation, including the word 'practice', for the avoidance of doubt. The draft Directive would clearly ease the presentation of a case based on the existence of such practices.

Circumstances which commonly give rise to indirect discrimination in practice⁴

Part-time work (requirement of full-time work)

Women form the majority of all parttime workers, varying betwen about 60 % in Italy to 90 % in the United Kingdom. Whilst most economically active women do work full-time, up to twothirds of those in the middle age ranges, mainly married women with dependants, may be employed on a part-time basis. In contrast, male part-time workers are mainly teenagers or older men. Women workers are concentrated in relatively few occupations, frequently those with a high demand for part-time labour. These occupations include catering, cleaning, hairdressing and other personal services. The preference for part-time work is thus an inevitable consequence of women's family commitments, which have the effect that fewer women than men can comply with the requirement to work full-time.

Part-time workers are often excluded from certain bonuses and allowances, their working conditions and career prospects often suffer because of their part-time status, and they may be selected first for redundancy. However, part-time workers have successfully challenged such practices as unlawful indirect sex discrimination in pay or working conditions in Ireland,⁵ the Netherlands and the United Kingdom.⁷

Physical strength requirements

Physical strength is a principal area of prejudice about women's capacities. Managers generally believe that women lack the physical strength thought ne-

¹ See also Case 237/85, Rummler v Dato-Druck GmbH [1986] ECR 2101.

² Case 170/84, *Bilka Kaufhaus* v *Weber von Hartz* [1986] ECR 1607, paragraph 36.

³ The British EOC have recommended that the criteria should be enlarged to include any 'practice or policy.' Formal proposals, paragraph 3.3.

See generally, Angle Byre, 'Indirect discrimination,' British Equal Opportunities Commission, 1987.

⁵ Dunnes Stores v 2 female employees (EP 15/1982) and St Patrick's College, Maynooth v 19 female employees (EP 4/1984); Packard Electric Ireland Ltd v Employment Equality Agency (EE 14.1985).

⁶ Equal Treatment Committee 25-11-1985, GB-2982-85-19.

Jenkins v Kingsgate (Clothing Productions) Ltd [1981] ICR 725; Clarke v Eley (IMI) Kynoch Ltd [1982] IRLR 48; The Home Office v Holmes [1984] IRLR 299.

cessary for heavier work, even though in practice the women concerned are able to carry out the physical tasks concerned.

With regard to direct discrimination, national legislation may exclude the principle of equality on the basis of criteria based on physical strength, such as maximum load carrying weights for women. However, it is inadequate to talk in terms of a 'standard man' and a 'standard woman'. No two workers are the same and a particular woman may be stronger than a particular man; she may at the same time be weaker than a standard based upon the male average.1 The Commission has taken the position that such constraints on women's work may be contrary to the equal treatment Directive 76/207, and that there should be common standards that apply to everyone.2

An example of indirect discrimination arose in the Federal Republic of Germany, where legislation forbade women from working in jobs involving the lifting and carrying of weights above 10 kg and 15 kg respectively. One employer refused to organize a particular set of tasks so that they would involve lifting and carrying weights under these limits, though this was in fact possible, and thus tried to limit recruitment to men.³

Age bars

Maximum age limits are imposed to target recruitment on young people, but such criteria will inevitably exclude or disadvantage women, who tend to return to the workforce after a career break to care for their children at precisely the time that an age bar applies. Age bars often limit access to day release courses for employees to young people. Such age limits, backed where necessary by expert statistics, have been held to raise a presumption of discrimination in Britain and Ireland.⁴

Marriage, marital or family responsibilities

The practice of taking family commitments into account usually impacts against women, who are presumed unlike men, to be unreliable employees as a result. However, such assumptions have held to give rise to unlawful indirect discrimination in the Netherlands 5 and the United Kingdom.⁶ An employer should not apply a blanket exclusion to a whole class of persons (women or married persons or persons with familiy responsibilities) because some members of that class were unreliable, but should instead investigate each case on its merits. This need not be onerous, for example, an employer can easily check whether an applicant is reliable by taking up references.

The practice of taking family commitments into account may also give special protection to those presumed to be heads of households, usually men. This is particularly a problem with social security entitlements. Systems favouring persons with dependant families even if framed in terms of absolute equality of treatment between men and women - usually advantage men because healthy men who are not unemployed tend to have an occupation, whereas many women are obliged to stay at home and are thereby unable to claim that they have a dependant spouse and children. As a result, the linking of an increase in benefits to the existence of a dependent family generally results in indirect discrimination against women.7 The Court of Justice has ruled that there is a presumption of indirect discrimination contrary to Article 4 of Directive 79/7 if benefit rules provide for supplementary allowances for breadwinners, which can be claimed by a substantially lower percentage of women than men.8

Condition of geographical mobility

Women are generally regarded as less willing or able to move than men. More women have family responsibilities which make it difficult in practice to comply with such a requirement, so that the area they live in once married is likely to be determined by the husband's job. Indirect discrimination may also arise because a woman's lower

pay may make a job further away, with increased travel costs, not worthwhile for her.

A number of areas of work, notably the finance sector, link training and promotion to geographical mobility. Such a policy may consist of both direct and indirect sex discrimination. It is direct discrimination if an employer rejects female job applicants because of a general assumption that women will not be mobile, or if the employer presents the geographical mobility requirement in more onerous terms to female than male applicants. There is indirect discrimination where the employer cannot justify a mobility requirement, e.g., where training requirements are linked to mobility, the employer should be able to show that employees do not in practice remain in one place and cannot otherwise receive an adequate training.

Personal qualities or 'acceptability'

In practice, 'personal qualities' may be one of the most important criteria for selection. This is a problem, because it is so obviously subjective and may well include judgements on whether a candidate is 'pleasant' or 'acceptable' and

^{&#}x27; See Case 237/85, Rummler v Dato-Druck GmbH, supra paragraph 23 and 24.

² See Commission Communication on protective legislation for women, COM (87) 105 final, 13 March 1987.

³ Bertelsman and Rust, Equal Opportunity regulations for employed women and men in the Federal Republic of Germany, in 'Equality in law between men and women in the European Community', Louvain-la-Neuve 1987, ed. Michel Verwilchen, p. 93.

⁴ Price v Civil Service Commission. [1977] IRLR 291; Huppert v UGC and the University of Cambridge COIT 35260/84; North Western Health Board v Martyn (EE 14/1981, DEE 1/1982).

Equal Treatment Committee 25-9-1986, GB-3015-86-26, refusal to appoint a mother with three children because of family responsibilities.

⁵ Thorndyke v Bell Fruit (North Central) Ltd [1979] IRLR 1.

Opinion of A-G Mancini of 7, 10, 1986 in Case 30/85, Teuling-Worms v BCI.

⁸ Case 30/85; *Teuling-Worms* v *BCI*, affirmed and applied by the Raad van Beroep, decision of 29, 12, 1987, which held that the national rules did not satisfy the test of objective justification.

'will fit in with her colleagues'. Personality may be a pretext for direct discrimination, and where indirect discrimination is examined there should be particularly close scrutiny of whether it has been justified.

Pregnancy

Pregnancy discrimination may be analysed as both direct and indirect discrimination. With regard to direct discrimination, a pregnant woman may be treated less favourably than a man requiring time off for a medical condition. With regard to indirect discrimination, there is a requirement of non-pregnancy which may have a disproportionate and unjustified impact on women. Discrimination against pregnant women has been found to constitute indirect discrimination in Belgium,1 Ireland,2 the Netherlands3 and the United Kingdom.4 These are important decisions, because the general labour law protection against unlawful dismissal on grounds of pregnancy is ipso facto limited to discriminatory dismissals only.

Disproportionate impact

The need to show disproportionate impact will require some comparisons between different pools of labour. In Case 170/84 *Bilka Kaufhaus v Weber von Hartz*, the Court of Justice laid down that complainants must establish that a criterion 'affects a far greater number of women than men'.⁵ This means that complainants have to identify relevant pools and criteria to be employed for the purposes of comparison, a difficult and complex task.

The Commission's expert network has found that national courts have 'broadly two approaches to evidence in handling indirect discrimination claims. Some courts adopt a very flexible "common sense" approach (for example in the Netherlands); others appear to require the provision of very precise statistical data (for example in Ireland and the United Kingdom), data which no job applicant or employee could normally be expected to find. Courts in other

Member States appear to have adopted no rules or guidelines at all — or are given no guidelines or rules by legislation — so that indirect discrimination cases simply are not brought: this appears to be the case in France, Portugal, Belgium and Greece'.6

The complainant also has to show that inability to comply with the test causes some detriment or disadvantage, the aim being to exclude frivolous or vexatious cases. The need to show some 'disadvantage' has been suggested in the Netherlands, laid down by case law in the United Kingdom⁷ and proposed in the Italian Bill on Positive Action.

Objective justification

Indirect discrimination is not unlawful if it can be justified objectively. Once the complainant has satisfied the above tests, and has thereby established a presumption of discrimination, the evidential burden passes to the employer to provide an objective justification. However, the reasons for such requirements are often not justified by business need but merely by traditional assumptions.

There are two possible standards for objective justification, 'business necessity' and 'administrative convenience'. The latter is a looser standard which only requires an employer to show that a requirement was reasonably needed rather than necessary. The former is a strict standard first articulated in the leading US race discrimination decision of *Griggs* v *Duke Power Co.*⁸ and subsequently adopted by the Irish legislation and Dutch ⁹ and early United Kingdom case law:

'... a practice which would otherwise be discriminatory is not to be licensed unless it can be shown to be justifiable, and it cannot be justifiable unless its discriminatory effect is justified by the need, not the convenience, of the business or enterprise.' 10

This means, *inter alia*, that a requirement will not be necessary if there are other means by which the employer's aim could be met.¹¹

Objective justification was first discussed by the Court of Justice in Case 96/80 Jenkins v Kingsgate (Clothing Productions) Ltd. In this case, a female part-time employee received a lower hourly rate than a male full-timer employed on the same work, which the employer sought to justify by the need to discourage absenteeism, to ensure that expensive machinery was being used to its fullest extent, and to encourage productivity. Advocate-General Warner argued that the concept of indirect discrimination applied to Article 119: 'A requirement which had a disproportionate impact on women meant that there was prima facie discrimination which required some special justification from the employer.' However, the Court was less clear:

'a difference in pay between full-time workers and part-time workers does not amount to discrimination prohibited by Article 119 of the Treaty unless it is in reality merely an indirect way of reducing the pay of part-time workers on the grounds that the group of workers is

¹ Tribunal de Travail de Gand, 18 May 1981. ² An Foras Forbatha v A worker (DEE 4/1982)

³ Rechtbank Haarlem, 10 January 1984, Rolno 1289/1982.

^{*} Hayes v Malleable Working Men's Club and Institute and Maughan v North East London Magistrates' Court Committee [1985] ICR 703.

⁵ The Federal Labour Court, applying the opinion, decided that there is discrimination if 'considerably more women than men are affected to their disadvantage' and recommended the flexible use of statistics, 3 AZR 66/83, judgment of 14, 10, 1986.

Network of experts on the application of the equality directives, Final Consolidated Report 1987, May 1988, paragraph 2.6.

In direct discrimination, 'subjecting to any other detriment' need mean no more than 'putting under a disadvantage', Ministry of Defence v Jeremiah [1980] ICR 13 (Court of Appeal), per Brandon LJ at p. 26.

^{8 401} US 424 (1971).

⁹ Kantongericht Zaandem 19-7-1984 (NCJM-Bulletin 1985, p.40), there must be 'objective justification' where a neutral criterion has disadvantageous effects on women.

¹⁰ Steel v Union of Post Office Workers and General Post Office [1977] IRLR 288. The standard was subsequently weakened by case law to the administrative convenience standard.

¹¹ Price v Civil Service Commission (No 2) [1978] IRLR 3; Albemarle Paper Co. v Moody, 422 US 405 (1975).

composed exclusively or predominantly of women.¹

However, a clear standard of justification has now been clearly laid down by the Court of Justice in Case 170/84 Bilka Kaufhaus v Weber von Hartz a case where part-time workers were excluded from an occupational pension scheme. The complainant was employed as a sales assistant for 15 years, but worked part-time for the last few years. When her employers refused to pay her an occupational pension, she argued that the pension scheme was contrary to Article 119 because the minimum period of full-time work placed women at a disadvantage. Her employers replied that there were objectively justified grounds for excluding part-time workers from the pension scheme, for example, full-time workers permit lower ancillary costs, the use of staff throughout opening hours, etc.

The Court of Justice held that such an exclusion contravened Article 119 'unless the undertaking shows that the exclusion is based on objectively justified factors unrelated to any discrimination on grounds of sex.' The Court laid down a three-part test for objective justification whereby the means chosen to achieve the objective must:

- (i) correspond to a real need on the part of the undertaking;
- (ii) be appropriate with a view to achieving the objective in question; and
- (iii) be necessary to that end.2

The case is important, firstly, because it confirms and tightens up the indirect discrimination analysis in the earlier *Jenkins* decision — in particular, it does not refer to the employer's intention as an element of indirect discrimination. Secondly, it comes down firmly in favour of the strict 'business necessity' standard of objective justification.

Positive action

Before closing, it should be observed that legal action is neither the only nor the most effective of dealing with indirect discrimination. It may also be addressed by positive action carried out by employers or trade unions on a voluntary basis.

As has been noted above, indirect discrimination is a problem for both employers as well as employees. It causes employers to waste valuable human resources and lays them open to legal challenges of suspect practices. It must be in the interest of employers to stem such waste and to pre-empt such litigation by examining in advance their 'employment policies and practices which may appear to be neutral and which may be implemented impartially to see whether they 'in fact operate to exclude women for reasons which are not job-related or required for safe or efficient business operation',3 The Commission has published a Guide to positive action, in which Stage three: Action deals with several of the apparently neutral criteria discussed above.4

It was in this context that the Economic and Social Committee recommended that there be a flexible directive on the burden of proof to 'help to redress the continuing infringement of equal rights' and to 'encourage and stimulate good employment practices and modern personnel techniques'. In the long term, positive action, guided by the legal context in which it operates, may be the most effective means of dealing with indirect discrimination.

draft directive is designed to combat this non-application of the law by publicizing and defining the concept, Community-wide, for the first time. It is for this reason that Article 6 of the proposal specifically provides that its provisions should be given widespread publicity. Though it adds no new law, it is intended to lead to a better application of the law.

(iii) Lastly, the role of the law is secondary at best in this area, providing a set of ground rules that may or may not be used. The experience of the EC Member States shows that the mere existence of a legal norm is not enough. Indirect discrimination arises because of the provisions, terms and conditions in collective agreements and contracts of employment, and employment practices and understandings, that are based on traditional ideas on the role and capabilities of women and men, that serve to maintain the segregated labour market. Some of these have been discussed above. It is hoped that a better understanding of the concept of indirect discrimination as a result of the proposed directive will help employers and employee representatives to examine all such practices and conditions to see whether they are necessary, or whether they should be changed.

Christopher Docksey

Conclusions

- (i) Unjustified indirect sex discrimination is already unlawful in every Member State of the Community with regard to any provision of national law relating to the principle of equality, be it equal pay, equal treatment, social security, or the other areas to which it relates. It does not detract from its legal force that it is hardly defined in most Member States. In this sense, the proposed directive adds no new substantive law.
- (ii) However, the concept of indirect discrimination is not understood or applied in most Member States. The

¹ [1981] ECR 911, 926 paragraph 15. The decision also referred to the 'employer's intention' at paragraph 14.

Ruling 2.

³ Positive action — Equal Opportunities for women in employment, Office for Official Publications, Luxembourg, 1988. Reproduced in EOR No 17, January/February 1988, p. 34.

See also, e.g., Making changes for women at work — How to implement an equal opportunities programme, Equal Opportunities Commission for Northern Ireland, 1988.

Opinion of 24 April 1986 on Equal Opportunities for women — Medium-term Community programme — 1986—90, paragraph 3.1.2.

onomic Reform 78, Equality of nent, Article 118 s-reference rinciple of ty of treatment hall imply the ce of discrimi- based on sex, directly or in- ty by reference, hia, to marital hilly status.' e also Article tions or criteria mission or se- n should not ements which, absence of an it reference to	- Equal Treatment Act 1978, s.1(1) - Yes-reference 'For the purposes of this Act, equality of treatment as between men and women means that no discrimination occurs on grounds of sex. The foregoing applies to both direct and indirect discrimination, especially in connection with pregnancy or marital or family status.'	- Civil Code, Art. 611a - No - None	- Employment equality act 1984, No 1414, Article 3(2) - Yes-reference 'it shall not be lawful in advertisements to make reference to the sex of the persons concerned, or to employ criteria or elements which would lead even indirectly to discrimination based on sex'	Workers Statute 1981 Art. 17 Constitution, Art. 14 No	Article L. 123-1 of the Labour code - No - None
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Igian Commis- n Women's 1983:'there rect discrimi- where a ure, arrange- or practice, is directed ds an appar- non-discrimin- and impartially sistered end, s in fact in dif- treatment of ns on account ir sex.'	— No	- No	— None	- No	- No species (s) services (s) s
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Italy	Ireland	Luxembourg	Netherlands	Portugal	United Kingdom
— Equal Treatment Act 1977 No 903, Art. 1(1)	- Employment Equality Act 1977, s.2(c)	Equal Treatment Act 1981, article 2(1)	 Men and Women (Equal Treatment) Act 1980, Art. 1 	— Decree No 392/79, Article 3(1)	- Sex Discrimination Act 1975, s. 1(1)(b)
- No	 Yes-definition 	— Yes-reference	— Yes-reference	- Yes-reference	 Yes-definition
— None	' discrimination shall be taken to occur where because of his sex a person is obliged to comply with a requirement, relating to employment, which is not an essential requirement for such employment and in respect of which the proportion of persons of the other sex able to comply is substantially higher.'	' the principle of equal treatment means the absence of discrimination on grounds of sex, whether direct or indirect, and in particular by reference to marital or family status.'	'An employer shall not make any distinction between men and women, either directly or indirectly (for instance by referring to their marital status or family situation)' — See also §2 conditions or criteria for admission or selection should not use elements which, 'although lacking any explicit reference to the worker's sex, result in discrimination'	Right to work with- out 'any discrimination based on sex, either direct or indirect', parti- cularly with reference to 'civil status or family si- tuation'	'A person discriminates against a woman if he applies to her a requirement or condition which he applies or would apply equally to a man, but — (i) which is such that the proportion of women who can comply with it is considerably smaller than the proportion of men who can comply with it, and (ii) which he cannot show to be justifiable irrespective of the sex of the person to whom it is applied, and (iii) which is to her detriment because she cannot comply with it.'
Marital status Family circumstances Pregnancy	Marital status	— None	— None	— None	Marital status
- No	- Yes	— None	- Yes	— None	- Yes
— Positive Action Bill, Article 4, 1987 1 the prohibition of discrimination covers any act or behaviour, objectively detrimental, which directly or indirectly discriminates by reasons of sex. 2. Indirect discrimination consists of any less favourable treatment concerning non-essential job requirements which results from the adoption of criteria which substantially and disproportionately disadvantage workers of one or other sex.	- No	- No	— Dutch Equal Treatment Committee, 1985 — indirect discrimination exists where there is a 'reference to a quality' which, while not confined to a given sex, results in a disadvantage for persons of that sex and which cannot be shown to have an 'objective justification'	— None	British Equal Opportunities Commission, 1988 enlarge definition to include any 'practice or policy'

School-industry links: Progress in the European Community

The following is an edited version of the speech of Mr Hywel C. Jones at the opening session of the conference 'School & Industry: Partners for education' organized by the Department of Education and Science of the Government of the Netherlands, in cooperation with the Commission of the European Communities, at the Leeuwenhorst Congress Centre, Noordwijkerhout, on 16-18 March 1988. The conference brought together senior officials and other representatives from all Member States of the Community, to review the conclusions of the Community's second action programme for the transition of young people from education to adult and working life, especially as regards school-industry links. The conference also included representation from the Nordic Council and contributions from pilot projets in some Nordic countries.



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This is a good moment to take stock of where we are, in the Community and in the Nordic countries, on the development of a closer relationship between the education world — especially that of the schools — and the world of the economy at large. The theme of linking schools with the world of the economy

was not included, as such, among the priority points singled out as objectives in the 1982 Council Resolution which set up the second action programme concerning the transition of young people from school to adult and working life. It is only recently that it has emerged so strongly, as a pervasive policy goal, at

all levels of education and training, rather than solely as part of good vocational training arrangements where of course such collaboration has existed in most countries for many years.

This change of emphasis should be recognized as a milestone in the evolution of compulsory education systems because it reflects an understanding of the importance, for effective education, of schools looking outwards. It implies, in effect, a determined move away from the historic 'cloister' tradition of schools-behind-walls, excluding the outside world, and apart from it.

I make no claim to be an expert on the history of schools as institutions. But I venture the proposition that the 1980s will be seen an important stage in their adaptation. Schools were set up, in most parts of Europe, along the lines of mediaeval places of learning. But what we see now is their development towards institutions which are formally or informally recognized as partners, and recognize themselves as partners, with all the other social and economic institutions in their local community, whatever sector they are in — productive, services, industrial, welfare, learning, training, cultural, or a mixture of any or all of them.

The idea of partnership at local level has become a new force for change for schools. The Community action programme has done much to help clarify what partnership can mean in terms of the role of the school — what the education gain is from linking with firms.

Two points stand out quite clearly. First, it has helped to put into circulation at European level the idea of educating young people 'for enterprise'. This was a phrase virtually unknown a few years ago outside one or two of our countries. But now, from Reggio Calabria to Jutland, educators are talking about it. The values of 'Imprenditorialità' — or entrepreneurship — are seen as a very acceptable addition to the personal and social education of young people.

Enterprise education, like any new concept in the education world, has its critics. It sometimes tends to get oversold. Nevertheless, its importance for shifting traditional values in directions relevant to the vocational needs of young people and the world they are



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going to enter, is surely of profound long-term significance.

A second form of successful linking has also been put under the spotlight by the programme. I refer to the much older and already highly developed system of 'Arbeitslehre' in the Federal Republic -'Introduction to the world of work'. Who was aware, outside the Federal Republic, that there are as many as 350 working groups at local level bringing teachers and industrialists together, to back up young people's acquisition of industrial and economic ideas, and their participation in periods of work experience both of which are required in 'Arbeitslehre', as part of compulsory schooling? Like many excellent innovations, this is scarcely known outside the country of origin. The Community action programme has provided a frame, and the resources, to analyse this highly instructive approach to putting education and economic worlds in touch with each

The added value of the Community's work here has been not just to point out the relevance, and sophistication, of this development to others who may be planning school-industry partnerships, but to help them by putting it in the right policy framework, and interpreting its significance in terms which are 'European', that is to say, intelligible to practitioners in other countries, with different administrative and political frameworks.

Those who are interested may refer to the profile on 'Arbeitslehre' in the Commission's series of 'Innovations'. This series of four-page pamphlets covers significant new developments on school-industry and other aspects of transition education and was published as part of the European dimension of the programme. It is available now in all the nine official languages of the Community.

It is important to show that there is a 'pay-off' for education in investing time and effort in building bridges to link with the outside world. We have seen, in the transition programme, good examples of how pilot projects successfully interpreted the partnership philosophy in this field in their locality.

Nevertheless, it strikes me as odd, and perhaps a bit old-fashioned, that, apart from the Nordic countries, even in those systems which have gone furthest in providing an introduction to the world of work as part of the compulsory school curriculum, such as the Federal Republic of Germany, it is not actually part of the compulsory school curriculum for everybody, and the ones who are left out are the so-called academic, or high-flying, pupils. I think that it is true that only in Denmark is work experience an obligatory part of the curriculum, in fact part of guidance for all students.

The general pattern is to put the world of work into the curriculum as a way of enhancing its relevance for the less able, as if it was not relevant for all pupils. The evidence of the Community pilot projects strongly suggests that this assumption is wrong.

No doubt there are problems. The more pupils are to be offered work experience, in a planned way, the more varied types of placements are needed, and the greater the load on firms, and on the administration or brokerage system between school and industry. It will be essential to review the status which school-industry linking is to be given in the future, in our compulsory school systems.

To listen to some of our colleagues, in some (not all) parts of the European Community, one might be tempted to think that there was at least a substantial part of the school population who could be 'let off' an introduction to the world of work as part of their compulsory schooling — namely the girls. The fact is that, in their heart of hearts, there are a good number of people in important positions, in many countries, who still do not take seriously the issue of equality of opportunity for girls in compulsory schooling.

The fact that girls do so well, on academic courses at upper-secondary level, reflects a deep-seated defensive strategy, in many parts of our school systems, to ensure that girls, if they must be educated, shall be educated to enter traditionally female sectors of the economy, and not be encouraged to en-

ter, for instance, the new technologies, or technical fields more generally.

And yet, to see how different all this ought to be, we need only look as far as Sweden, where I understand that as part of work experience in the national curriculum, known as PRAO, all pupils are required to go on non-traditional work placements, that is to say in workplaces. which are not traditionally associated with their sex. Apparently girls often go to placements in pairs, for reasons which can be easily understood.

The intriguing question is how negative attitudes have been altered in Sweden, so that they can accept a policy of this kind, which is so far in advance of practice elsewhere? And the next question has to be how long can we afford to go on with our various compromise, or 'laissez faire', policies here? What are we doing now about injecting gender equality into this field?

From different countries, we hear about 'twinning', 'adoption', 'partnership', between schools and firms, and these have more or less precise meanings in different contexts. We also hear a great deal about devolution, and decentralization, of different kinds of responsibility, some financial, some to match vocational training more closely to local needs, some to build up collaboration with other kinds of school.

This prompts discussion of how far schools should become more like firms, and whether the role of headteacher should not be thought of more in terms of the managing director, less in terms of the kindly (or is it austere) father-figure or mother-figure.

If we are to regard school-industry linking and the partnership philosophy as a development that has come to stay, and not just one of those educational fashions, what are the implications for the school as an institution? Might it make more sense to recognize the link which schools have with their economic neighbours, and vocational training partners, in some more deliberate, and formal way, in the school's literature, in its description of itself, and hence the image which it carries in its locality?

If a school's association with a selection of firms, and its support by the local Chamber of Commerce, is a matter of importance, and pride, then is that being reflected properly in the way that the school projects itself to the world outside — or is it something about which you keep quiet, for one reason or another? Many technical and vocational schools answered this question themselves long ago, and my question now is whether the time has not arrived when compulsory schools need to think about it too, and to see what answer they come up with.

Let us now turn to the question of parents, and their role in all this. Parents are possibly the greatest resource of expertise and goodwill which the school can tap. Do we not need to look more carefully into how such a resource can be used to our greatest advantage? One of the papers published this year from the transition programme deals with the need to find more imaginative ways of associating parents with secondary schools; it seeks to respond to the question whether parents cannot be drawn more fully into the school's role in introducing young people to the world of work. The idea of schools drawing up their own lists of 'resource persons' has been used already in a number of contexts, varying from the now quite wellknown 'talent bank' which one of the transition projects in Shannon (Ireland) developed, to the production of local directories of women working in non-traditional fields, who can provide helpful models for girls considering going into

Finally, we must keep in mind that partnership implies a certain equality in the relationship between the partners. It implies a mutual willingness to learn from the special expertise of the other partner. That, in turn, implies that those concerned with firms, large or small, take the time and trouble to listen to what the schools are saying, and find out what they are doing, before they start delivering judgments about their success or failure. In practice, this readiness is usually very manifest. Partnership seems to work best where schools have approached firms with specific re-

quests, and where this has led to a genuine cooperation, in depth, on part of the school's work, touching its curriculum, its responsibilities in guidance, and its staff development.

But the discussion too often implies that change is much more urgent and necessary in the school system than it is in the world of the firm. It is healthy, and necessary, to challenge that assumption, and to ask whether the processes of training within firms, and the use of human resources in the way that firms are organized, are not, in many cases, as archaic, and inefficient, as many of the practices we are concerned about in schools.

It is to be hoped that, when experienced teachers and representatives from industry sit down together around a table, they do so in a spirit in which it is possible for criticisms to be made across the table in either direction, and that those from industry are looking just as much for help, and constructive criticism, from their partners in the school system, as the other way round.

I have no illusions that that is actually the case, in 90 % of such partnerships. But I ask, for the future, whether, that is not the kind of agenda which we should be working towards, if partnership is to mean the kind of equality which we need.

These are some of the questions which it seems to me are still on the agenda for the future. I have no doubt that, as I said earlier, this conference reflects a very long-term and fundamental change which is coming about in our compulsory education systems, and I entirely welcome it. I am glad that the Commission's work, in supporting the traffic of ideas in education and training in the transition field over the past 10 years has provided insights, and opportunities for the reinforcement, development and dissemination of many important ideas, in this area.

Finally, at the end of the Comunity's action programme on transition, what further work will be undertaken in this area at Community level?

First, it is no coincidence that the Council of Social Affairs Ministers last December adopted a Decision for an action programme with almost exactly the same title as the transition programme itself - namely the 'vocational training of young people and their preparation for adult and working life'. The objective of the new action programme. as set out in the Decision, is related to the vocational training policies of Member States, and to ensuring 'that all young people in the Community wishing to do so receive one year's, or if possible two or more years', vocational training in addition to their full-time compulsory education'. In the context of extending participation in vocational training and improving its quality in all the Member States, the programme takes up the main central themes from the transition programme itself, especially the importance of partnership between education, training and the economic world and the need for the development and spread of enterprise education.

Secondly, the Commission is undertaking a small study of innovation in the uses being made of school-industry links, to prepare the ground for further development work in this area. It is hoped this will lead to a publication, illustrating selected models of cooperation of transnational value stimulating new activity and interchange of ideas. The study will draw on experience in all Community Member States and should be completed this year.

Lastly, the question of following up the conclusions of the Community action programme on transition was considered by the Council of Education Ministers who met in Brussels on May 25. They called for further action at Community level to support and complement national developments in a range of transition policy fields, particularly that of establishing closer links and new forms of cooperation between school systems and the world of the economy. The Commission will be responding fully and quickly to this proposal, in the course of the coming months.

Hywell Ceri Jones

The role of education and training in the completion of the internal market

By the end of 1992, The European Community is to be a single market. With the elimination of technical and administrative barriers to trade, not only should firms in the Member States be able to take advantage of wider markets, but the Community itself should reinforce its own competitivity in the world. Alongside the many proposals required to complete the internal market, two other main policy goals are particularly important in this context:

- (1) The development of a Technological Europe, essential for European industry in terms of cooperation in research and development and technological transfer, an arm both of its interdependance and independance, and indispensable to its competitivity, growth and employment.
- (2) The reinforcement of the Community's economic and social cohesion. The Commission has outlined the main objectives it considers should have priority in the reform of the structural Funds: the development of the least-favoured regions, assistance to areas in structural decline, action to combat long-term unemployment, action to improve the employment position of young people and the development of rural areas.

Whether the Community is aiming to increase the competitivity of its firms, improve its technological base, develop the regions in need or assist groups of people in particular difficulty, the education and training dimension is crucial.

Europe is poor in raw materials — its most important resource is its people, and on their ability to perform, adapt and develop their entrepreneurial skills will depend the success of the 1992 venture.

The single market is now just over four years away. The children now entering secondary education will leave school to face a different employment market, but will they be prepared to take advantage of it? Will they be prepared during their school years to understand the European dimension — not the Europe of butter mountains and wine lakes, but the Europe of 320 million people, whose governments have been working together across many fields of interest, in some cases for over 30 years.

What kinship will they feel with young people in other areas of the Community, what experience will they have had of visiting another Member State and how well will they communicate with each other?

The effort has to be made now to ensure that young people are aware and informed of what the internal market will mean to them. Obviously, information is only one element in the preparation of young people. The most important issue is the quality of the education they receive and their access to qualifying training. The job market of 1988 contains fewer employment possibilities than ever before for the unskilled — the job market of 1992 is likely to contain even less.

The Council has recently confirmed the commitment of the Community to ensuring that all young people have access to at least one year's and if possible two year's vocational training following their full-time compulsory education.

While some of the Member States have already met this commitment in

terms of length of training provision, all Member States face the challenge of ensuring that training leads to recognized qualifications, and that all young people, however disadvantaged, can be enabled to develop their skills.

The five-year Community programme, set up by this Council Decision, should be invaluable in reinforcing the Community dimension within initial training, by establishing contacts and developing cooperation between the Member States in this field.

For those young people entering higher education, two major Community programmes already exist which aim to give students experience of other Member States of the Community: under the Comett programme (university/industry cooperation in new technologies) they may benefit from a trainee period in a firm in another Member State, and under the Erasmus programme students may obtain grants to spend a period of their university studies in another Member State.

These two programmes in particular have caught the imagination of Europeans and unleashed a demand that the current scale of programmes cannot possibly fulfil. With plans to expand higher education in many Member States, and the growing recognition of the need for skilled manpower, coupled with the demographic changes in the Community, the ability of the higher education sector to cooperate across the diminishing frontiers of the Community will become increasingly important in the internal market framework.

Education and training do not however end at the job market. The industrial, technological and social changes, particularly of the 1980s have laid an ever-growing emphasis on the need for a Community strategy of continuing education and training. Whether the aim is to equip the unemployed to re-enter the labour force, to help workers adapt to industrial re-structuring or technological change or to ensure a continuing upgrading of the skills of the workforce,

^{&#}x27; See Eurobarometer survey of young people.

both public authorities and private firms are faced with the challenge of ensuring the necessary investment in training for the future.

Clearly, with 1992 rapidly approaching, Community firms in particular will need to invest in training and information on the further changes induced by the internal market, in new Community rules and regulations, changes in fiscal or administrative requirements and assessment of new business opportunities.

The internal market will require increased knowledge and understanding between firms in the different Member States. Cooperation in the training field, as a precursor of cooperation in product development or joint projects, and as an accompanying strategy for industrial cooperation, meets an enormous demand, amply demonstrated in the Comett and Eurotecnet programmes.

The Commission communication in 1987 on adult training in firms outlined the main issues in this field, and was followed by a series of consultations of all parties concerned both at national and Community level. The need and desire for concerted action in this field is clear, and the Commission has announced its intention of presenting appropriate proposals in this field.

The emphasis placed now on the economic and social cohesion of the Community stems, together with the target date of 1992 for the completion of the internal market, from the provisions of the Single European Act. Additional assistance for regions in difficulty, apart from being an aim in itself, is needed to ensure that the completion of the internal market does not increase the current disparity between the regions of the Community, a disparity that has never been greater. The least-favoured regions of the Community require fundamental support in strengthening the education and training infrastructures and systems and look to the Community for this support.

In the training field specific programmes already exist providing technical assistance to Greece and Portugal, recently enlarged by the programme for the development of Portuguese industry (Pedip) which contains a strong training dimension. For many of the least-favoured regions, their problems are aggravated by their dependance on agriculture, and the need for diversification and investment to ensure that the rural areas of the Community are not deserted by their population. The maintaining of rural schools and training centres will be a major vehicle to prevent depopulation.

The completion of the internal market is unlikely to result in another period of important migration within the Community. The indications are that an increase in mobility will largely affect the qualified, likely to be involved in periods of employment in different Member States. While the free movement of workers was one of the cornerstones of the original Treaty of Rome, and the equality of treatment of Community workers was already the subject of Community Regulations in the 1960s, a major problem remains, that of the recognition of qualifications.

The target date of 1992 carries with it the hopes of many citizens of the Community currently facing the problem of the non-recognition of qualifications acquired in another Member State. The Community will need to face its responsibilities in this area, which touch on its very credibility, if the internal market is to be seen as a reality for individuals as well as firms.

For certain professions Council directives exist governing the mutual recognition of diplomas (dentists, doctors, nurses, architects, etc...). A major new initiative was presented by the Commission in 1985, with the draft directive on a general system for the recognition of higher education diplomas for professional purposes, based on the principle of mutual respect for the quality and content of the higher education diplomas of other Member States. This draft directive is, however, still in discussion within the Council of Ministers, with adoption expected in 1988.

In the field of vocational training qualifications, the Council adopted a

Decision in 1985 to establish the comparability of vocational training qualifications between the Member States. This approach, working by sector at the skilled-worker level of vocational training qualifications, has achieved some results, and given the strong involvement of the social partners in the process, should lead to a form of *de facto*, although not legal recognition of a worker's qualifications.

While progress is clearly being made, a further effort will be required if the Community is not to disappoint many citizens who are assuming that the abolition of frontiers will have meaning to them, in enabling them not only to seek employment in another Member State, but to seek it without barriers to the recognition of their qualifications, simply because they were not acquired in the host country.

The other general area brought to the forefront by the internal market's stimulation is that of languages. The Community's nine official languages, and variety of regional languages are a very strong part of its heritage and its cultural strength. They also represent a barrier to trade and understanding, unless the education and training systems can meet the challenge of wider foreign language teaching.

While many of the Community's official languages are hardly taught outside their own country (Danish, Modern Greek, Dutch, Portuguese, Italian and Spanish — except in France) and even German is only widely taught in the Benelux, Denmark and France, the Community has a major challenge to face.

The Commission has already announced its intention of presenting proposals in this field later this year, to develop foreign language teaching, including the exchanges of teachers and pupils, but their success will depend on the willingness of Member States to implement changes, which will in turn depend on their understanding of the role of foreign language preparation in the internal market framework.

Education and training therefore have their role to play both in removing other barriers to the completion of the internal market and in contributing to its success for business and its value to

the individual. Once completed, the Single Market Community will depend no less on the investment it has made and will continue to make in its human resources, particularly its young people.

They are the ultimate resource to ensure Europe's future, both in guaranteeing its cohesion and competitivity and in ensuring that Europe after 1992 belongs to its citizens.

Community support of youth information

Commission support of youth information is part of a global strategy to assist the transition of young people from school to adult and working life. It aims to create a sense of responsibility on the part of young people and a desire to be both better informed and better equipped for their future lives.

While such an action is especially important during a period marked by high youth unemployment, it is also essential to the training of the adult population of tomorrow.

The context

The Commission's support was developed initially within the second programme concerning the transition of young people from school to adult and working life and more specifically, following the 'Info Action '85' conference held in Luxembourg, in November 1985. This event was organized in cooperation with the Luxembourg Government as part of the Commission's contribution to International Youth Year. The theme of the conference was the involvement of young people in the organization and presentation of information which they need as they move from school to adult life and many young people came to present their experiences.

At the end of this meeting and taking account of the discussions, the Commission expressed a willingness to develop its policy of support for initiatives organized by young people, particularly in the field of information. Three initiatives had already been supported which were: Young Scot in the United Kingdom, Viaggio in Italy and Ung ABZ in Denmark. This support resulted in the production of three practical information booklets compiled by and for young people.

The financing of youth initiatives projects began in 1986 and over 260 projects were financed in 1986 and 1987. More than one third of these concerned information. This experience was continued in the framework of the Decision of the Council of Ministers of 1 December 1987, which adopted an action programme for the vocational training of young people and their preparation for adult and professional life. Article 3.1 b and c of this Decision states that the Commission will offer specific assistance to innovative information projects on the transition from school to vocational training and to working life, and to projects encouraging entrepreneurial skills, creativity and a sense of responsibility amongst young people.

Support for diversifying youth information

In this framework, Commission support of youth information attempts to ex-

tend its range and impact in relation to the place where the information is available, the information topics and the target groups. The way in which this is achieved is by funding projects which are innovative.

The innovation may lie in the fact that the region concerned previously lacked any information structures, as was the case in Waterford, in Ireland, where now young people run the Waterford Youth Information and Advice Centre which works in close cooperation with the local schools.

The innovation may also lie in the fact that the project complements or develops existing information which is inaccessible or incomplete or which has little to do with the real concerns and interests of young people. A lot of projects have tried to improve the content of information by taking into account young people's views on what they would like to know, and feel they need to know in their day-to-day life. This approach has been applied to all topics of information e.g. training, unemployment, leisure, right to work etc.

There are also innovative projects dealing with specific areas of information. The Scout Tourist Service in Portugal and the Centro Turistico in Italy provide information to young people from other countries who are visiting their region. The Gateway Clubs' project in the United Kingdom has produced an information video to show young people that helping other young disabled people can be a rewarding leisure time activity.

Innovation is also evident in the way in which the information is collated, distributed or presented. To reach its target audience, information must be accessible and attractively presented. A group of young people involved in a French project created a computerized youth information database containing information on a wide range of topics. The concept of this project was that young people would choose for themselves the topics for inclusion, gather the information which seemed the most significant and present it in a way in which it would be readily understandable and usable by 15-25 year olds. In Belgium, a group working within the organization 'Jeunesses Ouvrières Chrétiennes' developed a kind of 'snakes and ladders' game called 'La jungle après l'école' (The jungle after school) which provides an entertaining way of discovering the opportunities, institutions and structures which you need to know about when you leave school and are looking for further training, education or a job. So in all of these projects, the methods used in order to get the information across are often many and varied.

In addition to the relatively traditional systems, such as information offices, resource centres and information points in schools or other public places, Commission support has also taken into account audiovisual and artistic techniques. In order to get young people interested in information and to help them get an idea of its importance even before they leave school or find themselves out of work, the YAC of Louvain produced a video film. This film which was made by young people from the town, is now being shown to stimulate discussion and to start young people thinking about information. Several similar productions have been successful in putting information across to young people.

Improving the dissemination of information

The diversification of information goes hand in hand with an improved dissemination of information. The Commission's experience of funding youth projects shows that the dissemination and use of information is more effective if the nature of the information is determined by young people themselves and the topics and the issues within these topics, really do correspond to their needs.

In this case, the presentation of the information is better adapted to the language, concerns and interests of young people and areas which are, a priori, covered by the traditional information systems are adopted by young people, and reformulated in their own style. Two projects from Federal Republic of Germany are good examples: The Selbsthilfe Berufswahl formed youth workshops to develop and to distribute information within schools on educational and vocational guidance; the JIWA project involves young people in renovating disused houses and also provides an information service on accommodation to young homeless people.

The benefits resulting from the support of youth information

Young people themselves have been involved in the information projects aided by the Commission and that is the most distinctive feature of these projects. Young people participate in preparing information at various levels, contributing ideas, organizing the project, collecting and presenting information. In all cases, the benefits to these young people have been considerable.

For example, the involvement of young people has helped them to gain new knowledge and skills. It is interesting to note that the active involvement of young people in producing for example, an information film, has assisted their social integration by presenting them with new kinds of perspectives.

Youth information projects have enabled many young people to acquire skills in communication, promotion and documentary research by being introduced to various oral, written or public relations techniques, and by learning to

organize themselves and others to provide an effective service.

It is also important to stress that this action by the Commission not only has repercussions at national level but also at European level as these initiative and information projects are helped to find out about one another, to meet one another and to exchange ideas and experiences at Community level, in a way which has laid the foundation of a European network.

Conclusion

Finally, Commission support of youth information tries to secure concrete results through the direct funding of brochures, films or information offices: it seeks to be diverse both in the methods and subjects which it supports; and above all, it seeks to extend the existing provision by integrating information into a dynamic process of training, preparation and integration into working life. In this process, young people are, at one and the same time, protagonists and beneficiaries and it is hoped that the benefits of projects funded in this way can be replicated to encourage greater involvement of young people in the existing information structures for young people.

As the funding of youth information projects is included in the new youth training programme, adopted by the decision of 1 December 1987, it is possible to envisage that the movement will grow. This is also a reason to hope that this type of action will be adopted at national level by each Member State so that the impact of the youth information initiatives becomes clearly visible in its effects on youth information policy and practices and to hope that this process will be informed and inspired by the action of the Commission.

Comett – Community programme for education and training for technology

Stimulating higher education initiatives in new technology training. That is both the vision and reality of Comett - Community programme for education and training for technology. Approval for the Comett programme was given by the European Council in July 1986 with an initial budget of ECU 45 million for 1987-89. In 1987 alone, over 1 000 applications proposing 2600 projects were submitted to the European Council with requests for over ECU 200 million for funding! Over 1000 enterprises, 900 unversities and 750 other organizations expressed their interest in participating in the Comett programme. A similar response was given to the 1988 call for applications, with nearly 700 applications containing over 1700 new project proposals. Such is the interest being generated by this exciting and successful programme.

Comett objectives

The main objective of Comett is to give a European dimension to cooperation between universities and enterprises in training relating to innovation and the development and application of new technologies and related social adjustment.

Comett focuses on five inter-related areas of action, each of which constitutes a section within the programme as a whole:

Section A: the development of a European network of universityenterprise training partnerships (UETPs);

Section B: schemes for the transnational exchange of students and personnel between universities and enterprises;

Section C: the development and testing of joint university-enterprise projects in the field of continuing training;

Section D: multilateral initiatives for the development of multi-media training systems;

Section E: complementary information and evaluation measures designed to support and monitor developments of relevance to the Comett programme.

The term 'university' is taken to comprise all types of post-secondary education and training establishments which offer, where appropriate within the framework of advanced training, qualifications or diplomas of that level, whatever such establishments may be called in the Member States.

In 1987 there were two calls for applications for 31 March and 1 July 1987, both for project activities in year 1 September 1987 to 31 August 1988. In 1988 there was one call for applications for project activities in the year 1 September 1988 to 31 August 1989. The results of these calls were:

OJ L 222 8.8.1986 p. 17 (Council Decision 86/365/EEC).

	Section A	Section B Ba	Bb	Section C	Section D
1987					
1 st round 484 applications	198	341	154	312	128
1 133 projects	17 %	30 %	14%	28 %	11%
2 nd round 550 applications	199	367	269	380	196
1 411 projects	14%	26%	19%	27 %	14%
1987 Subtotal 1 034 applications	397	708	423	692	324
2 544 projects	15%	28%	17%	27%	13%
1988 693 applications	141	630*	336	421	174
1 702 projects	8%	37 %	20%	25 %	10%
1987 + 1988 Totals 1 727 applications	538	1 338	759	1 113	498
4 246 projects	13%	31%	18%	26%	12%
* including 68 BA pool ap	pplications.				

As a result of these applications the following number of projects were accepted:

Section A: 125 UETPs were established, including
64 regional UETPs
47 sectoral UETPs
14 mixed consortia

Section B: 2 303 transnational student placements in enterprises 143 transnational fellowships

Section C: 210 joint training programmes between universities and enterprises

Section D: 92 multilateral initiatives for the development of multimedia training materials.

All the 1987 projects having a multiannual character were granted additional funding for a further year. Also, UETPs supported in 1987 could apply for a 'pool' of section Ba studentships for allocation under the responsibility of the individual UETP. This gives the UETP a much greater involvement in the management and implementation of student placements.

Thus, under the advice of the Comett Committee, a total of ECU 33 million was allocated by the Commission to these projects. This represented only a proportion of the total funding requested. Moreover it is a measure of the success of Comett that nearly all the projects still proceeded; often using the EC Comett endorsement to persuade other enterprises and agencies to supply additional funding. The echo met by Comett in the Member States is also relevant to the active role played by the Comett Committee established by the Decision Council and the Comett Information Centres which now exist in all the Member States. More precise information about achievements to date are given in the 1987 annual report published last February by the Commission!

Section A — The UETP Network

The establishment of university enterprise training partnerships (UETPs) have been a particularly successful initiative under Comett. The characteristic of UETPs include:

- (i) the creation of consortia of enterprises, professional organizations and universities at local, regional, national or transnational level to cooperate in the identification of training needs for highly qualified manpower;
- (ii) the provision of training over a diverse range of technological subjects through activities such as short courses, exchanges of staff, student placements and development of multimedia training;
- (iii) geographical organization on local or regional basis; or sectorially based on one or more technological fields.

In many regions UETPs are providing, for the first time, an effective mechanism for the closer linking of enterprises and universities in the development of continuing education provision in the domain of new technologies. They are also proving effective in establishing links for the transfer of technology training from advanced to less advanced regions.

One example is the Sussex Central South East advanced training UETP involving United Kingdom, the Netherlands and Ireland.

Sussex Central South East advanced training (United Kingdom) — UETP

This UETP is a consortium of over 20 enterprises, universities and other professional organizations concerned with the contribution that higher education and training in new technology can make to economic development. The consortium covers a region in the South East of the United Kingdom which is experiencing rapid change in the technology of its products and manufacturing methods. This poses major education

and training requirements on companies and people. The enterprises within the consortium range in size from just five employees to over 2 000, reflecting the diversity of enterprises in the region.

The consortium has also developed strong links with Twente University of Technology in the Netherlands and the National Institute of Higher Education (NIHE), Limerick in Ireland. This joint working has developed a synergy which enables an enhanced provision of services for the participating specific training programmes at an advanced technological level — either for specific incompany delivery or for more general participation.

So far three specific programmes have been developed:

- (i) Instrumentation, sensors and controls — led by the Sussex region.
- (ii) Polymers and rubber technology led by Twente University of Technology.
- (iii) CAD/CAM led by NIHE Limerick.

Each programme is modular in nature to ensure maximum flexibility and efficiency towards industrial partners.

Future plans include the proposed development of programmes in local area networks, occupational environmental health, molecular optoelectronics and mechatronics. Also planned is the development of a distance learning programme concerned with management development and business skills in SMEs undergoing growth.

Section B — Student/fellow exchanges

The chance to work in an enterprise of another Member State is a valuable development opportunity for both students and experienced workers alike. In the area of new technology it provides a chance to find out, and understand, how the benefits of new technology can be harnessed at a European level.

¹ COM (88) 36 final.

For some regions of Europe, the Comett programme is creating the mechanism for establishing study placements in enterprises for the first time. The experience gained from organizing a Comett placement is stimulating identification of possible placement activity in other areas.

Section B also provides an opportunity for people from less advanced regions to work in technologically more advanced regions — and vice versa. The links created can then be utilized for a much wider exchange of knowledge and expertise.

One example of the activities undertaken in Section B projects is the Fachhochschule Osnabrück in Germany.

Fachhochschule Osnabrück

The Fachhochschule Osnabrück in Germany has 4 000 students — mainly in engineering and business studies. Links for student placements were first developed under the Commission's joint study programme scheme (now Erasmus). Through the Comett programme, links have been established with a variety of UETP and others including:

- (i) Target (United Kingdom)
- (ii) Twente University of Technology, Emmen and Haarlem the Netherlands
- (iii) ESCAE Clerment Ferrand and Le Havre (France)
- (iv) University of Bologna (Italy)
- (v) Sonderborg (Denmark)
- (vi) Universidad de San Sebastian (Spain)

These links mean students can now work in either SMEs or large companies — such as VAG, Siemens, Lucas, Bayer, and ICL. It also means that the experience of Osnabrück in operating secondment arrangements is being cascaded into a wide range of organizations. For countries such as Denmark which has little tradition of student placements, this is of great importance. Other organizations in Germany are also

seeking to draw upon Osnabrück's expertise.

Thus the Comett programme is acting as a catalyst across a number of organizations not directly involved in the Comett programme.

Sections C and D

Section C - the provision of occasional short course based training and Section D - the development of multimedia training materials - provide the stimulus for creating a range of transnational training solutions to meet identified training needs. Many of the projects have close links with the UETP networks. Others have developed from existing enterprise/university relationships. The common factor is the recognition that the development of advanced technology training on a European scale offers tremendous benefits, from the better identification of skill needs, the collaborative working of leading experts on a European level to the economies of scale possible by development of European-wide training programmes.

The range of programmes is as different as the range of organizations involved. Subjects range from advanced robotics to microelectronics familiarization courses, from biotechnology to advanced aeronautics, from creation of SMEs to the use of computers in architecture

Two projects illustrate the diverse range of Section C and D projects. The Euro-Pace project provides training for leading edge experts via the use of satellite technology to transmit training programmes. The Systemi e Telematica Porto di Genova is developing a computerized container terminal management course which involves both traditional courses and the use of computer simulation.

Euro-Pace — European programme of advanced continuing education

Euro-Pace is a consortium formed by some of the largest and most technologically advanced companies in Europe. The aim is to utilize satellite communications for advanced training of experts working at the leading edge of technology. The use of satellite means rapid dissemination of presentations by experts located in the centres of expertise across Europe.

The consortium was formed in autumn 1986 by companies (including British Telecom, Philips, Thomson, Hewlett Packard and IBM Europe) and higher education partners (European Rectors Conference, European Society for Engineering Education (SEFI)). The first pilot broadcasts were successfully transmitted in spring 1988. These showed that programmes developed in specific centres of expertise in Europe could be successfully transmitted to a wide range of company locations. The range of programmes being developed include:

- (i) Expert systems
- (ii) Software engineering
- (iii) Telecommunications
- (iv) Advanced manufacturing technologies

Although PACE was conceived in the context of advanced higher education needs of large companies, the programmes will be made available to SMEs via the Comett UETP network. In this way a synergy between large company and SME training is being created.

Computerized terminal management

Computers have a key role to play in the management of modern container terminals. With the advent of 1992 and the internal market, efficient transport operations will be of direct relevance for all enterprises. Systemi e Telematica Porto di Genova in Italy have linked with other ports in Spain, Greece and the United Kingdom to develop a range of training programmes.

Modules have been developed in three areas:



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- (i) evaluation of trends in container transport technolog;
- (ii) optimization of the logistic chain, integrated organization of the different phases of container transport;
- (iii) programming and control of the port system.

The third module in particular makes use of a computer simulation to enable learners to develop their ability to increase efficiency in terminal operations. By basing the training on systems similar to those used in real ports, the training becomes closely related to the actual job of work.

Conclusion

The Comett programme has been successful in stimulating European-wide interest in the development of higher education initiatives in the field of new technology training. The request for funding far outweighed the limited resources available. However the more than 700 projects that have received support in 1987 and 1988 have made an excellent start.

The implementation of Comett has been organized on a three year basis until 31 December 1989. On the basis of Article 6 of the Council Decision, the Commission has recently put forward a proposal for the launch of a Comett II programme (COM (88) 429 final) follow-

ing the end of the original Comett programme. After approval of the Council and with the advice of the European Parliament and the Economic and Social Committee, this second phase of the programme (1990—94) will be able to draw on a wealth of experience, expertise and goodwill. More importantly, it will be able to reap the benefits arising from the creation of better mechanisms for the interface between higher education and enterprises. In this way Comett is contributing towards the overall strength of the European Community.

Further details about the Comett programme are available from the Comett Technical Assistance Unit, 71 avenue de Cortenbergh, B - 1040 Brussels, Belgium.

Part two

Analyses, debates, studies



Employment creation in small firms —

Trends and new developments

Brussels, 24-25 March 1988

Small firms — those employing under 100 people — account for a significant proportion of jobs in all European Community countries. They play, moreover, an important dynamic role in the process of economic change and development on which future employment depends.

DG V organized a conference in Brussels to look more closely at issues related to employment in small firms. Participants included policymakers and organizations from Community, national, regional and local levels with a particular interest in employment issues. The conference aimed to give an overview of what is currently happening to employment growth in small firms and provide a briefing on new policy developments. The first day concentrated on structural trends. Are small firms continuing to create more jobs? How does the Community compare with the United States and Japan? What do the new jobs look like? What are the differences between European countries? How much have non-traditional types of firm contributed?

The second day highlighted what is being done to improve the environment for small firms, ranging from the local level — concentrating, in particular, on the place of small firms within local economic development strategies — to national and Community support measures.

Paul Ramadier from the Cabinet of Vice-President Marin opened the conference by placing the European Community's social policy in perspective with respect to the business environment. The Commission should ensure that social aspects are given adequate weight in preparation for the opening up of the internal market in 1992. Areas where the Commission has a role to play include: freedom of movement, notably as regards professional mobility, and cross-frontier recognition of qualifications; standards for health and hygiene; the status of companies and employees; and social security protection.

John Morley from the Employment and Labour Market Policy division stressed that the Commission had always had a balanced view of the importance of small and medium-sized businesses in creating employment. It has seen the very worthwhile contribution that they can make but does not see them as a panacea for unemployment. This approach was reflected in the structure of the conference, which would take an objective look whether small firms were creating more jobs now than in the past, what types of job were being created and how they related to structural evolution as a whole.

Session I: Quantitative trends

David Storey (University of Warwick, United Kingdom) talked about some of the trends in and explanations for employment creation in small firms. Small firms and self-employment have provided an increasing proportion of total employment since the mid-1970s. The relative growth of small firms is a result both of the growth of small firms and the decline of large firms. Nevertheless, the importance of the shift should not be overexaggerated. In no EC country for which data are available has there been a change of more than 3% over a decade in the share of employment in the smallest size group'. The real significance of these changes is that they reflect a break with past trends. For many decades it was thought that small firms would become progressively less important, perhaps virtually disappearing, but recent developments have shown that this trend has been reversed. No single explanation can be given. Instead a range of explanations which apply in varying degress across the spectrum may be given:

- (i) Technological changes, especially computers and their applications have enabled small firms to compete effectively with big firms.
- (ii) Structural changes from heavy manufacturing to services 'If the average size of firm in services is smaller than in manufacturing, and services increase at a time when manufacturing is in decline, then small firms will become relatively more important in the economy as a whole'.
- (iii) Small firms are more able to satisfy the increasing demands for highly specialized, one-off products which have resulted from increasing incomes.
- (iv) People prefer to work in smaller, more flexible organizations rather than large bureaucratic ones where initiative may be stifled.
- (v) World-wide recession and competition from newly industrialized countries in areas dominated by large firms e. g. motor vehicles, electrical goods, shipbuilding, textiles and metal manufacture has led to shedding of labour by large firms and an increase in contracting out of services to small firms. For many of the redundant workers enterprise creation has been the only alternative to unemployment.
- (vi) A number of governments are committed to restoring a spirit of enterprise in their own economies and have embarked on a programme of support for the small firm sector.

Research has shown that the performance of small firms is extremely diverse. On average, 30% of new start-ups cease operations after two or three years. The vast majority will soldier on exhibiting very little growth in employment. Only a tiny proportion will act as a motor for the sector. 'After 15 years, 4% of the start-up firms will have provided 50% of the jobs'.

After three years, these 'high-flyers' will show four to five times the median employment level and their assets will be five times higher than the typical three-year old firm.

Dr Storey suggested that this implied that a targeted policy rather than one promoting start-ups might be more appropriate for improving employment creation in small firms.

Zoltan Acs (Wissenschaftszentrum Berlin) described recent experience in the United States. Whereas in Europe employment growth has been close to zero in recent years, in the United States it has topped 2.5 million per annum. An active entrepreneurial sector has meant that the bulk of growth in the United States economy has emanated from small firms operating in a wide range of sectors. In 1950, 100 000 new corporations were created in the United States. By 1987, this figure had risen to 700 000. In 1981, the United States researcher David Birch found that the bulk of new jobs were to be found in small firms. About 66% of new jobs created between 1969 and 1976 were in firms with 20 or less employees and 80% were in firms with 100 or less employees. Birch concluded that the American economy was moving 'from manufacturing to services, from hardware to thoughtware, from large-scale capital-intensive companies to smaller-scale labour-intensive companies, and from a dependence on physical capital to a dependence on human capital'.

Was Birch right? He was mistaken in his belief that the economy was moving away from manufacturing to services domination. The value added by the manufacturing sector as a proportion of GDP has not changed in the last 50 years although the proportion of the labour force employed in manufacturing industries has fallen. However, he was correct in assuming that there was a shift in input from materials to information and recently released figures from the US small Business Administration support

his contention that the largest share of new jobs do emanate from small firms.

Of the new jobs generated between 1976 and 1982, just over 40 % came from firms with less than 100 employees and almost 66% from firms with less than 500 employees (the dividing line for 'small firms' in United States terms). Surprisingly, small firms contributed a greater share of new jobs in manufacturing than they did in services. In the manufacturing sector, firms of up to 500 people are responsible for 95% of job creation compared with just over 56% for newly generated employment in the services sector. Small firms are at their most successful in the finance sector, where they have accounted for 98% of additional employment.

Because the overall growth of the service sector has been greater than in manufacturing, the impact of small firm concentration in the services sector appears to be greater. The share of employment for the entire economy accounted for by large firms has fallen from 56.5% in 1976 to 52.2% in 1982. Overall, there has been a 5% shift from large concerns to small and mediumsized firms. Broken down by sector, this represents 2% in manufacturing, 3% in the services sector and 10% in the finance sector. Mr Acs concluded that small firms should be seen in a dynamic context: they are the seeds of the large firms of the future. The United States experience had not been government-led. Government had simply moved with the tide and perhaps facilitated its path by removing obstacles along the way.

lan Gow (Stirling University/Scotland) provided an overview of the situation in Japan. The Japanese business culture is rather different from its United States and European counterparts. Bottom-up decisionmaking and worker participation are unheard of concepts. The Japanese economic perception of small business is that it should act as a cushion for workers who have been 'sloughed off' by larger concerns and SMEs are usually of a vertically-integrated nature.

Data from the Japanese Small and Medium-sized Enterprise Agency de-

scribes small businesses as those having up to 300 employees and financial assets of up to 100 million yen. A 'very small business' is defined as having up to 20 employees in the manufacturing sector or up to five in the services sector. In the 1950s and 1960s the Japanese Government began to get alarmed at the number of small firms going bankrupt so created a safety net in the form of loan and advisory institutions offering social protection for SMEs. The smallfirm sector was viewed as part of the strategy for large-firm ascendancy on the international stage. After 1973 there was a shift towards small production lots with small firms heavily reliant on contract work from their larger parent companies.

In the early 1980s, the Japanese Government realized that small firms could play a pioneer role, offering a pole of creativity which could be decisive for preserving industry's cutting edge. Support for venture businesses was therefore developed. SMEs are now viewed as a fundamental part of economic policy and are in a better financial and staff choice position. However, the growth of small firms has been hit hard by the high ven and the Japanese Government has now adopted financial and accompanying structural measures to help SMEs adapt to the international situation. Highly trained counsellors provide university-level training for those involved in SMEs and Chambers of Commerce are centres of high quality training - an idea which could usefully be developed elsewhere.

In summing up the session, Werner Sengenberger (International Institute for Labour Studies, Geneva) asked why a shift towards employment in smaller units had taken place. He suggested that job creation in small firms was an austerity phenomenon or an 'escape route' for the unemployed, some indication of which is given in the swelling ranks of the self-employed. He thought much of the so-called job 'creation' measured respresented an increasing tendency on the part of large firms to sub-contract to small firms where labour costs are lower and job security more precarious.

Mr Sengenberger said that the problem of the small firm 'is not being small but being lonely'. Small firms lack the resources of large firms and need a support system. Small firms could either draw on the resources of large firms, relationships which must be balanced against the problem of dependency, or small firms could form tight cooperation networks between them to help them achieve the same economic results as large firms. Politics will be largely responsible for which type of cooperation surfaces. Organizational forms are much more important than size and the clue to successfully achieving transition in developed economics lies in striking the right balance between competition, guaranteeing a degree of dynamism, and cooperation.

Session II: Qualitative trends

In this session, participants were asked to look more closely at the nature and quality of jobs being created. Do jobs in small businesses tend to be of poor quality or, on the contrary, do they offer bonuses not available in large units?

Henri Nadel (University of Paris VII, France) described how an overall trend of jobs losses combined with a relatively rapid expansion of the working population had led to high levels of unemployment in France. The form taken by employment has tended to change and stable jobs have been replaced by more volatile, precarious types of employment.

The economic crisis and technological developments had led to an increase in the number of smaller firms. These small firms can be divided into 'job-creators' and 'job-recuperators'. The latter group consists mainly of the sub-contractors; who mop up market niches left over for them by larger companies. However, within this group, two distinct forms can be identified: 'exteriorization' and 'partnership'. Exteriorization is basically the idea of contracting out less profitable activities. It represents a shift of jobs, which often slide

down the quality scale in the process. Partnership, on the other hand represents a complementarity between the activities of the large and small firm which can generate good-quality, value-added jobs. Partnership should therefore be encouraged. Job creators are more reflective of the underlying trend away from the large company unit. They have sought out new forms of business and developed progressive work arrangements. Industrial policy should also support this group.

It would be a mistake to turn a blind eye to the poor quality jobs created in some small businesses. Government policy should move away from the idea of small firms as a 'sponge' for unemployment and Member States of the European Community must study how best to promote cooperation between SMEs and large firms and between SMEs in general. In order to provide efficient support, industrial and economic policy must take both the positive and negative factors affecting SME dynamics into account. The most crucial negative factor concerns lack of access to administrative and financial information and to technology. On the positive side, SMEs are much more flexible, rendering them more efficient in times of intense international competition.

Thus governments must manage the labour force and promote innovation to ensure that the trend towards improving the quality of jobs and modes of production is strengthened.

Michel Laine (DG V, Commission) tackled the question of training in and around small business. With new technological developments, continuous training has come to represent an important investment in a company's competitiveness.

However, small companies experience a high staff turnover and have a much greater tendency to turn to the external market when new qualificational requirements arise.

Although somewhat simplistic, it is largely true to say that small firms overestimate their recruitment needs and underestimate their continuous training needs. It may be difficult to provide the latter in small firms who may have to recruit from the external market when they come up against qualificational deadlock. SMEs may also not change their organizational structure when they invest in production information technology nor invest in appropriate training.

SMEs are thus in a paradoxical position. Their extreme openness *vis à vis* the labour market makes them dependent on the skills on offer, yet their requirements are often very specific and tend not to correspond with typical marketplace profiles.

SME-oriented training should concentrate on identifying needs and training packages should be accessible to SMEs and adapted to their specific requirements. In particular, managers in SMEs should be made more aware of the importance of training and the possibilities of using new technology to bring training to the workplace.

José Mora (Mondragon, Spain) described how the Mondragon cooperative movement was launched by a young priest in the early 1940s in a Spain which was still torn by the bitter experience of civil war.

The priest, recognizing that the key to any successful economic venture lay in education, set up a democratically run professional school in 1940 which provided training in technical-professional subjects in order to respond to the basic needs of the region's industry and a social education based on Christian social doctrine. Students from the school went on to set up the first self-managing labour communities in the Leniz Valley.

Other cooperative ventures followed and today the 'Mondragon experience' comprises 161 cooperatives involved in all sectors of industry, of whom 46 are involved in education and training.

Like many current initiatives, the early cooperatives rapidly came up against a number of problems, especially a lack of funding, insufficient social security coverage and a lack of coordination and technical and economic assistance in the smaller cooperatives. In response, the cooperatives set up

'cooperatives' cooperatives' to provide finance and financial advice; a mutual insurance association; a technological research centre; an export advisory centre; and, most recently, a business training centre.

The cooperatives have set up regional groups among themselves. These networks facilitate economies of scale, the pooling of services and the organization of joint activities. They also act as an intermediate structure between individual cooperatives and the 'coverage' entities. Regional groupings also facilitate movement of staff so that, for example, Mondragon was one of the few employers not forced to declare redundancies in the early 1980s and even managed to expand.

Mondragon's superstructure comprises a cooperative congress, which meets every two years to approve policy direction; and an executive, coordination and inter-cooperative arbitration body, the 'Consejo de Grupos'.

As a pioneer of the cooperative movement, the 'Mondragon experience' demonstrates its potential as an important economic driving force.

William Roe (Centre for Employment Initiatives, United Kingdom) argued that a successful economy must be like a forest with some giant trees, some medium-sized bushes and a healthy undergrowth.

Local employment initiatives are a vital part of the undergrowth. In certain urban and island areas of Scotland, the most common form of LEI is the 'Community business'.

Community businesses provide a mechanism for public investment in poor communities and create a support structure for enterprise creation. They enable local people to get involved in the local economy to create jobs, money and services.

Combining both economic and social aims, Community businesses act as local development agencies which aim to: stimulate business enterprise; promote businesses supplying local services which are not always profitable; save jobs, services and amenities in the Community; provide facilities; sponsor projects; and to supply grant-aided Community services.

Community businesses stimulate 'bottom-up motivation' and provide many people with stepping stones on the way to new economic activity.

The scale of the Community business movement should not be exaggerated but nevertheless they can make significant contributions in their local areas and merit more support from governments who have traditionally been wary of such 'third-sector' developments.

Enzo Mingione (Consultant, Italy) discussed employment in the informal economy, saying that it was a mistake to draw a mechanical correlation between self-employment/small-scale employment and the informal economy. Only a part of self-employment and small-scale employment consists of irregular employment. Nor is informal employment always synonymous with bad employment — the situation varies considerably from one country to another.

Nevertheless, the informal economy is in evidence in family firms; in socioeconomic innovation and informal self-employment; in casual jobs held by the unemployed and inactive population; and in sideline jobs held by regular workers.

On the positive side, flexible employment can give a competitive edge to small new firms. Generally speaking, as they consolidate, the degree of irregularity diminishes.

On the negative side, the mass unemployment of the beginning of the 1980s has opened up vast opportunities for poor quality informal employment. Casual self-employment does not fill the employment gap adequately and, in particular, discriminates against large social groups who are weak on the labour market, such as the young, old, women and ethnic minorities.

Deteriorating employment conditions among regular workers can also force them into becoming multiple job holders. These people are in a much

stronger position to engage in irregular part-time self-employment, as they are protected by the income and social security provisions of their first job.

The employment structure of industrialized countries is becoming increasingly heterogeneous and fragmented. Governments must either stick the pieces back together or face the growing instability which goes hand in hand with casual and second-jobholding.

Discussants for the day's proceedings highlighted the heterogeneous nature of the experiences in different countries. Some SMEs are active on the international market and require very specific, highly trained staff and support. SMEs on the local market may have lower qualificational requirements but higher flexibility demands. Many of the jobs created are of a precarious nature.

It is important these small firms consolidate their position by increasing interaction and networking between them. SMEs should also grasp the important role technology has to play and the associated question of appropriate training.

Session III: Small firms, local economic development strategies and support structures

William Schweke (Corporation for Enterprise Development, USA) described how, with a federal government which adopted a *laissez-faire* attitude to business, the political impetus for development has come essentially from state and local level. Attention has been focused on rendering the local economy a compact, self-reliant unit. Small firms, in particular, were targeted for support because there were grounds for believing that they held the keys to profitability, job creation and innovation.

Although the entrepreneurial economy is developing in the United States, innovation potential continues to be constrained by a number of factors. There has been a move of resources towards local development but many

continue to be drained by 'smokestack' type developments. A widespread (and erroneous) belief that tax privileges and low wages are the key to attracting jobs, coupled with confusion about what an entrepreneurial policy should comprise means that there is no tangible support for entrepreneurial policies at federal level

Mr Schweke argued that local economic strategies should involve policies which encourage general development at local level as well as those which are targeted on high-fliers. A targeted policy involves the danger that entrepreneurship becomes a middle-class trend.

Local economic strategies should not be considered as the new panacea. Issues such as manufacturing renewal and 'bread and butter' services such as education, training and infrastructure should not be neglected. Programmes should match local reality and encourage teamwork and networking to form a supportive culture for the entrepreneurial economy of tomorrow.

Jean-Pierre Pellegrin (OECD) demonstrated the importance of the local climate and job creation factors for a healthy local economy. Research conducted by Birch in a number of US metropolitan areas between 1969 and 1976 showed that, regardless of the region, existing jobs contract at a rate of about 8% per year. The difference in employment performance was caused by the rate of job creation which was found to vary to an astonishing extent from 5% in Detroit to 80% in Houston. On average, two thirds of new jobs came from the creation of new firms, 20% from the expansion of existing firms and 10% from plant relocation, underlining the essential contribution made by business creation, itself dependent on the local business climate.

Mr Pellegrin described the findings of the EC's local employment development action programme which has looked at areas where the local population has successfully responded to the challenge posed by high unemployment.

Three types of response were identified. The first consisted chiefly of stop-

gap solutions, with employment as the immediate objective. The second was characterized by structural activities, revolving around the re-qualification of workers, accelerated reconversion of industry and financial aid for the development of SMEs and services. Diversification of the local economy is the prime aim and the employment aim is pushed back. The final response is a much more integrated view of local development where interaction between local authorities, local employers, trade unions, educational authorities and banks, together with the creation of local development agencies and networks, are crucial. A successful local development strategy must be able to mobilize local resources, promote entrepreneurial values and promote cooperation and partnership between local actors.

Donal Dineen (NIHE — Ireland) described small firm policy in the Shannon region of Ireland, a peripheral region where agriculture still accounts for 20% of jobs and unemployment is 15%.

Small firms have played a vibrant role in local economic development in recent years. The net number of small establishments more than doubled between 1977 and 1986 and employment increased by 75%. Nevertheless, their growth is constrained by their remoteness from target export markets and the cost of entry into them. An interventionist industrial policy has been crucial in helping small firms. The Shannon Free Airport Development Corporation, a longstanding local development agency, although government funded, has regional autonomy. It plays a key role in the strategy to develop small firms in the region, providing advice, training and 'nursery' facilities along with other enterprise promotion activities. It also liaises closely with regional branches of national agencies such as the export board, industrial training authority and the industrial credit company.

The new firms are highly volatile with both start-ups and closure rates increasing in recent years. Nevertheless, the net creation rate has remained positive at just over 5% and employment has grown.

Despite the apparent success of the small firms policy, 'the scale of the unemployment problem in this peripheral region is much greater than the employment generating capacity of the small firm manufacturing sector'. Mr Dineen felt that small firms' policies should in future be more specifically targeted on high-growth firms and that efforts should be made to improve survival rates. An accommodating macroeconomic environment at both national and international level is a prerequisite of successfully tackling the unemployment problem.

Michel Berard from the Union Nationale des Mission Rurales, France spoke about rural development. The population drift from rural to urban areas has now virtually ground to a halt. Young people, unable to find jobs, return to their native villages. However, the countryside can no longer offer a viable number of jobs and unemployment has soared, often to levels higher than in towns. The rural potential is underexploited but the creation of new jobs in these areas cannot be spontaneous a number of conditions must be fulfilled. the most important of which is cultural. Any project suggested by an outside person or agency must be agreed by the local people and authorities and fit in with local characteristics. The second important point is that job creation is not possible without the existence of local infrastructure, in the form of housing and leisure facilities for example, and without a successful local development chain reaction. Local dynamism, expressed through inter-SME cooperation, is vital if the creation of other businesses is to be eased. Local structures must pull together and national and European finance should be available as part of a changed strategy for rural development which is more geared to local needs.

Michel Jallas (ANCE, France) talked about the role national agencies and large companies play in small firm start-up and development. The Agence Nationale pour la Création d'Emploi is a mixed public/private organization. Set up in 1979, it aims to stimulate the spirit of enterprise, encourage more people to become entrepreneurs and to keep

more fledgling small businesses afloat. The importance of small businesses in the French economy is highlighted by the fact that in 1987 three out of 10 companies were less than six years old and small firms played a predominant role in new employment creation, providing half the new jobs.

Job creation in SMEs takes place essentially at local level and SMEs often suffer from isolation. Networking can help and this is where national development agencies are useful. Development agencies can inform SMEs of relevant developments; experiment with and distribute new training tools; relay information to decision-makers and other economic actors; improve the legislative environment for SMEs; and act as catalysts for the vital links between local and government officials, chambers of commerce, financial institutions, large companies and SMEs.

Large firms have begun to encourage business creation by their own employees. In some cases, they have begun to train them in the politics of company creation, provide financial and legal advice and also commercial support in the initial stages. This trend is a reflection of growing Western awareness of the Japanese sub-contracting model. As a consequence, technical and commercial partnerships between large and small firms have become more frequent. Other imaginative large companies have made available their R&D services or vast overseas distribution networks to SMEs. Large firms are also becoming more 'socially' involved, participating, for example, in local and regional economic development bodies or inviting would-be entrepreneurs to bring their plans for critical viability assessment. Concerned with the economic climate surrounding their plant, they may also offer sites or start-up finance for employment projects which promise to draw upon local labour.

Mr Jallas stressed that stimulating initiative through training and promoting cooperation and networking would enable small firms to meet the challenge of the single, frontier-free market planned for 1992.

Ernst Becher (OECD) reviewed the types of finance available to small firms, with particular emphasis on the role of banks and the public sector. Venture capital is an important transmission belt for technological advance. However, unless a would-be entrepreneur can raise capital from family and friends, most are forced to turn to more 'official' sources of capital. Banks are often accused of being too conservative, traditionally wanting to see equity accounting for half of total fixed assets for new firms. In addition, they tend to find consumption credit more attractive than investment credit. On the positive side, banks may oblige, and often help, potential entrepreneurs to actually sit down and assess the financial viability of their project and identify long-term investment requirements.

Nevertheless, there are gaps and there is scope for action to encourage financial flows into job creation and enterprise. Government's role is 'to facilitate employment creation, to foster technical progress and innovation for firms to stay competitive and to help the socially handicapped by specific action'. In the financial sphere, this means reducing obstacles to capital access and 'building bridges to the funds, acumen and dynamics of the existing enterprise and banking sector'. Possible measures include equity participation; grants in cash; grants in kind (advisory, services, information, training); subsidies, e.g. of bank interest; preferential loans; tax relief; and guarantees or insurance funds.

Regional and local governments can also help in the process. United States experience has shown that government can form alliances with the commercial and financial sector with the shared goal of fostering economic revival. 'What counts is the assembly of driving forces to ensure that sound developmental and business proposals get funded.'

Chris Webb described how information technology has been used for employment and small firm creation within the UK ITEC (Information Technology Centre) programme.

Many people have an irrational fear that information technology will replace

man by machine in a society characterized by the collapse of work and centralized control. Others, particularly politicians, see IT as offering a bright future epitomized by the growth of service industries and the media. Obviously, the truth lies between the two. IT must be harnessed and moulded to become as 'user friendly' as possible and training should be more closely matched to the requirements.

The ITEC programme, begun in 1981, has grown to 175 information technology centres based on partnerships between central and local government and private companies. The organization is an animating organization rather than a research based one. In the first few years the centres concentrated on provision of training and access to IT for the local community. Training for 10-12 000 young people and 70-88 000 adults is now provided every year. More recently, diversification into business development has led to the creation of about 100 small satellite companies with a turnover in the first year of about UKL 10 million. Within this programme, the predictable small business developments embrace bureau-services; specialist training; customized software; electronics production; consultancy; desk-top publishing and so on. In addition, responses to more specific local or social needs have harnessed information technology, for example in developing technology for the disabled.

Information technology is clearly challenging old structures, at a time when they are already weakened by economic and financial crisis.

It is important to ensure that society does not simply let IT push people out of the traditional employment structure into unemployment or low paid, poorquality jobs but that it grasps the possibilities offered by IT in developing new skills, providing new products and services and helping small businesses to innovate and compete successfully.

Discussants for the session emphasized the importance of entrepreneurship and innovation, of education and training, especially in developing leadership qualities, and of communication and partnership.

Session IV: National and Community level policies

Alan Mayhew, Director of the European Commission's Task Force for Small and Medium-sized Enterprises explained that the Commission has a positive attitude to SMEs, considering that they make a useful contribution to economic and employment growth and that they will benefit most from the creation of the internal market. In addition to ensuring that Community legislation and national Community laws do not impinge too heavily on SMEs, the Task Force is also looking at how SMEs can be helped to take advantage of the internal market. Information is a vital ingredient in creating the right business environment and the Commission has worked alongside development agencies, Chambers of Commerce, banks and business centres to create a network of 'Euro-Info Centres'. Thirty-nine such centres provide information, including computerized databases, and training. It is hoped to expand the number to between 150 and 200 in the second phase.

The Commmission has also set up a Business Cooperation Network (BC-Net) to promote cooperation between firms throughout the European Community. BC-Net is essentially a databank which SMEs, who are often tuned exclusively to the local market, can use to find prospective partners and broaden their horizons.

In the field of financing SMEs, the Community has developed loan and venture capital instruments and is currently studying a seed capital scheme. The volume of Community loans to SMEs has considerably increased in recent years. In addition, the New Community Instrument will give priority to funding innovative small firms in its fourth phase.

Cathèrine Leroy from the Fondation Rurale de Wallonie described the problems experienced by local employment initiatives. Many of these are set up by people without previous business experience who have to cope with an administrative, governmental, economic and financial maze. Support structures, with the generic name 'local development agencies', have developed to meet their need for aid, advice and coordination. They provide a kind of 'advisory link-up' between creative but untrained businessmen and women and various levels of government, financial organizations and the public in general.

Local development agencies vary widely in nature and size. They may operate in the private sector or may work hand in glove with local authorities, they may be local or regional or national. Some may concentrate on developing certain regional economic features, whereas others seek to provide advice to a highly targeted public such as cooperatives or women. One of the underlying aims tends to be to help local people gain control over the local economy.

To find out more about local development agencies and to encourage the flow of information between them, the Commission has organized local consultations in Member States and set up a programme of exchange visits between development agents operating in different Member States.

Mr Siletti (DG V) spoke about the training activities conducted by the Community. He drew a distinction between the training programmes supported by the European Social Fund and training activities under programmes such as Comett, YES and Erasmus which are liaison activities and not programmes in themselves.

The Community has emphasized training for young people and between 1988 and 1992 will run a programme to prepare young people for working life which will complement national policies.

Comett, the training for technology programme is a good example of the importance attached by the Community to partnership. University-industry training alliances are one of its main spheres of activity. Another is the use of multimedia systems which are well suited to SMEs.

Eurotechnet is a demonstration network pooling projects and vocational training opportunities, giving priority to small businesses, training young people and integrating them into the workforce

Jean Lemaitre from Elise said that local employment initiatives were no different from any other SME in so far as they aim to become economically viable in the long term. However, they often suffer much more from isolation because they start with a financial and training handicap and often face difficulties in gaining access to information.

Elise, a European information exchange network for local employment initiatives was set up in 1984 with funding from the European Community. Elise aims to provide broad access to information and has created a flexible and decentralized network for the collection and diffusion of information. It also analyses and tailors information for the specific needs of diverse groups including local development agencies, universities and research institutes and various levels of government.

Another Community-sponsored information exchange mechanism was described by Tony Hubert. The Mutual information system on employment policies (Misep) regularly produces information reports on labour market policies at European and Member State level. A network of national 'correspondents' meets regularly to exchange information on employment policy developments. The information gathered by Misep can also be accessed on the EC's computer host 'Echo'.

The Commission is also investigating the possibility of setting up an informal network between large companies to exchange experience on innovative employment and social programmes which have been developed in or by large companies.

Peter Blackie (Directorate-General for Economic Affairs) gave a run-down on Community funding and financial instruments. Most of the money available is in the form of European Investment Bank loans. There are no restrictions on

who can borrow, interest rates are market related and terms are spread over the life of the assets. Loans are generally paid in one or more foreign currency. Projects must be financially viable with 50% of the fixed asset costs financed.

The Commission has now decided to broaden the instruments on offer and adapt the financial system more to needs. However, the central criteria for deciding whether to grant money continues to be that of a self-sustaining sys-

tem for neither the European Community nor national budgets can be a permanent finance source. The Commission is also trying to promote venture capital and seed capital, i. e. financing at a very early stage for high-technology firms.

Conclusion

Participants concluded that to get the right mix between general policy geared towards a sound economic, fiscal and labour market environment and a selective, targeted policy for SMEs, there is a need for more evaluation of current needs and solutions. In particular, governments should look at effective ways of supporting R&D, training and creativeness rather than capital deepening. All were agreed that there is still much to learn and more and better information flows are crucial.

Adaptability of employment in medium-sized enterprises in several Community Member States

A field study entrusted to the Study centre for the management of human resources and employment (Critere, Paris) - based on 50 medium-sized enterprises operating in various sectors in France, Belgium, the Federal Republic of Germany, Italy, Spain, the United Kingdom and the Netherlands - informs us of the different measures for work adaptability decided upon and implemented in enterprises and the role of the unions and management in this respect, even if the limited nature of the sample does not allow it to be considered as representative of enterprises as a whole.

The study first of all identifies the difficulties facing the enterprises and then provides details of the measures adopted.

The difficulties are categorized as follows, the percentage of enterprises affected in each instance also being given:

- (i) Adaptation to trends in demand: 56% of the enterprises report an irregular or cyclical demand while 10 enterprises are experiencing falling demand.
- (ii) Improvement of price competitiveness by reducing costs through capital savings, increased productivity, a fall in the reject rate: 44% of the enterprises need to increase the service life of equipment and 36% need to increase their productivity.
- (iii) Improvement of quality competitiveness: quality improvement is an important objective for 59% of the enterprises.
- (iv) Changes in the range or the product: 38% of the enterprises have had to reorganize their range.
- (v) Introduction of new technologies: this applies to 71% of the enterprises studied.

The adaptability measures observed can be categorized as follows:

Adjustment of working hours

- (i) Annual adjustment with overtime where appropriate: 56% of the enterprises apply different methods of varying working hours according to the time of year.
- (ii) Weekly adjustment by operating a variety of shifts: 68% of the enterprises practise such a weekly adjustment, often by combining various methods.
- (iii) In certain cases the introduction of shift work is combined with a reduction in the number of hours worked. This applies to 9 enterprises in the sample.

Job restructuring

- (i) Internal occupational mobility: 52% of the sample.
- (ii) Development of versatility (or multiskilling): 50% of the enterprises studied.
- (iii) Training: 68% are making a particular effort to improve training; three enterprises insist on training in economics in order to promote a sense of responsibility among the staff.
- (iv) Quality groups: these exist in only 7 of the enterprises included in the sample. But in certain others there are similar systems for involving the staff in improving quality.

Differentiated status

- (i) Short-time working (or similar legal forms): 9 enterprises in the sample.
- (ii) Part-time work: 26% of the enterprises in the sample.
- (iii) Fixed-period and temporary employment contracts: 26% of the enterprises.

Staff cuts

- (i) Early retirement: 22% of the enterprises.
- (ii) Mass redundancies: 2 enterprises.
- (iii) Resignations: 5 enterprises where it is basically a question of special financial incentives to leave.

Adaptation of wages

- (i) Bonuses linked to productivity, quality or results: 71 % of the sample.
- (ii) Bonuses linked to shift work: at least three enterprises.
- (iii) Individual annual wage increases, without objective bases and generally based on merit: 3 enterprises.

After defining the above categories, the study analyses how the adaptability

measures have made it easier to adapt to the market.

In this respect, five kinds of economic problem are apparent from the sample, corresponding to a variety of situations:

Adaptation to fluctuations in demand

This can generally be considered as taking four different forms:

(i) a substantial growth in demand

The adjustment of working time, accompanied by new recruitments and possibly overtime, allows the production capacity to be increased more rapidly than through investments. This enables a company to respond very quickly to an upsurge in orders, for example, while waiting for new equipment to be installed.

(ii) a persistent fall in demand

Reductions in staff have to be made, the question being initially to apply solutions which are rather less abrupt than redundancies, such as financial incentives to leave voluntarily, part-time work and early retirement.

(iii) a cyclical demand

This usually involves adjustments to working time on an annual basis, using a wide variety of formulas, and the employment of seasonal workers

(iv) an irregular and unpredictable demand

This likewise involves adjustments to working time, together with the use of flexible working hours, determined in principle on an individual basis but in practice giving preference to the needs of the enterprise.

Increased period of service for equipment

Although the increase in this period sometimes coincides with an increase in demand, the main economic reason for it is to reduce fixed-capital expenses and obtain a maximum return on equipment which is already in place.

Improvements in quality and productivity

Improvements in quality and productivity have a common aim (to reduce cost prices) and a common vector (the motivation and skills of the employee).

Action to improve quality

Quality problems are technical by nature and employees therefore need to be closely involved if such problems are to be resolved. Consequently, staff policies are introduced to ensure that employees are both adequately skilled and motivated in this respect.

The necessary skills are acquired through training programmes aimed at achieving a higher standard of occupational performance familiarizing staff with quality tools and providing economic information on costs.

Motivation is stimulated at two levels:

- (i) financial: bonuses and other benefits linking quality with rewards;
- (ii) psychological: developing a policy of social relations, organizing the work so as to provide scope for initiative and involvement, defining the company goals and, in all cases, measures to increase awareness of the economic importance of quality to the company.

Efforts to increase productivity

Increased productivity is absolutely vital to several companies included in the sample if they are to remain competitive. This is reflected in investments in new technology.

The traditional methods are used: bonuses, improved communication, training initiatives and policies for participatory management.

Among the enterprises studied attempts at improving quality and achieving greater productivity are often interconnected.

Introduction of new technology and job restructuring

The introuduction of new technology leads to changes in the conditions of employment: changes in the content of the work, a broadening or narrowing of the skills of each employee, changes in the structure of qualifications etc.

According to the managers of the enterprises studied, the direction in which these factors develop is essentially determined by the policy on work organization and the management of human resources adopted by the companies, which may entail either the downgrading of employees using old equipment or their upgrading on the basis of retraining and a wider range of job functions.

It is the latter solution which is generally adopted by the enterprises in the sample, this resulting in a considerable training drive.

Adaptation of wages to individual and/or collective results

Many of the enterprises studied are seeking to link wages to company results, whether this be the earnings of a particular group of employees or of each employee. This can result in the introduction of several parameters determining the earnings of employees.

The other reason for adapting salaries is the contribution this can make to employee motivation.

In the enterprises observed, the link between results and earnings is based on various parameters: quantities produced, turnover, profits, lower reject rate etc.

The final section of the study offers useful information regarding the social procedures by which the enterprise introduces the adaptability measures.

On the basis of the sample, which included only enterprises with binding employment contracts, it is possible to identify two categories: those enterprises where adaptability is introduced in the context of a permanent system of participatory management introduced by the head of the enterprise with the agreement of the unions, and those where each adaptability measure is basically introduced after negotiations with the unions.

The analysis of the experiences studied shows that in most of the French and Belgian enterprises considered only certain (and not all) measures to adjust working time are negotiated while the other adaptability measures are often not negotiated. However, as the employer attempts to take into account the existence of the unions and current contractual commitments, there are likely to be informal discussions on these measures leading to consensus without formal negotiation and agreement, so that it is fair to say that all categories of adaptability measures will probably come to be subject to some kind of negotiation in Belgian and French enterprises.

In the German, Italian and British enterprises studied the adaptability measures are subject to more specific negotiation.

Generally speaking, whether they are negotiated or not and whether formally or otherwise, the adaptability measures do not appear to encounter opposition from the employees' representatives in the enterprises studied.

Finally, the study attempts to assess the benefits and the concessions, for both the employees and employers, which result from the adoption of flexibility measures.

For the employees, the positive elements fall into three categories:

- (i) the protection and/or creation of jobs;
- (ii) better working conditions (shorter working times, higher earnings, vocational training, more interesting work);
- (iii) more power (wider field of influence for the union, better command of the job by the employee).

As regards the concessions, the adaptability brings with it certain additional constraints for the employees, relating in particular to night or weekend work.

For the employers, the benefits as a whole consist of a better management of production, and therefore increased profits, while the concessions consist of a certain loss of discretionary power, that is, a *de facto* obligation to discuss (or negotiate) certain aspects of management and work organization with the unions.

The negotiated introduction of adaptability measures yields the best results.

In the study sample, the adjustment of working time is the most common subject of an enterprise agreement (42%). Wages and wage components (bonuses, profit-sharing) come next (33%).

The agreements containing provisions concerning work organization, the introduction of new technology and the definition of job profiles are quite numerous: approximately one quarter of the sample. Finally, three enterprises concluded an agreement on part-time work.

Among the various adaptability measures possible, it appears that those which are generally the most negotiable are those which provide for greater job

security for the employees. It is therefore logical for union representatives to give preference to internal adaptability measures.

Among the *conclusions* drawn by the authors of the study, particular reference should be made to the inference (based on the cases observed) that adaptability does not necessarily mean deregulation but that the legal regulations provide support for the unions when negotiating and that this support helps ensure balanced negotiations.

In order to prevent enterprises from adopting social dumping practices, the authors believe that internal adaptability must be based on certain social rules which should be harmonized at European level.

As to whether there is a European model for the practices of enterprises as regards adaptability, the study goes no further than to say that a certain homogeneity is to be seen in the enterprises observed. Five principal characteristics can in fact be discerned:

- (i) the increasing importance of internal adaptability;
- (ii) the variety of possible adaptability measures which are applied according to the different objective situations encountered by the enterprises;
- (iii) three adaptability measures are most common: the adjustment of working time, adaptation of earnings, occupational mobility;
- (iv) the existence of effective contractual obligations in cases where internal adaptability measures are implemented;
- (v) the existence of protective social rules which prevent adaptability from being mainly external, and which provide a certain support for the union negotiators.

Gaetano Zingone

Outlets and training opportunities for unemployed young people in the fields of urban renewal and the rehabilitation of housing conditions

Bremen Conference, 18-21 April 1988

The Bremen conference, attended by some 80 people, provided the opportunity to assess the situation of the employment of young people and of insertion projects in the field of housing conditions as developed in 11 Community countries.

The choice of the construction sector is particularly illuminating as in the majority of the Member States it is experiencing a serious crisis linked to the increasing rarity of new building programmes and the modification of the organization of production. There is a distinct trend towards smaller sites and the diversification of tasks.

On the other hand, urban adjustment plays an essential role as a cultural and social vector extending far beyond the purely economic. The run-down nature of certain urban areas accelerates the process of desocialization. The concentration of aggravating factors tends to produce real ghettos in certain particularly disadvantaged areas (high levels of unemployment, dilapidated housing, low level of education and training).

The analyses and projects presented at the conference revealed a deep concern for youth employment. Most of the participants insisted on the need to act at the macroeconomic level in order to support growth, the essential element for the creation of wealth and jobs; and at local level by encouraging initiatives and helping bring projects to fruition. The large number of experiences presented in the field of urban renovation and their very positive impact in terms of insertion and way of life highlighted the benefits of the local approach.

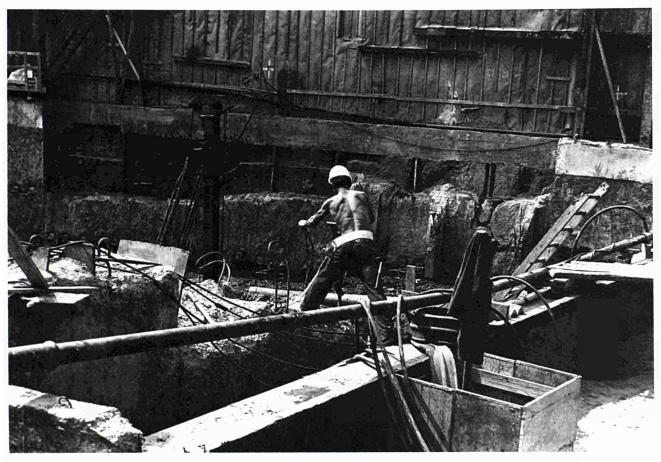
The conference was organized by the IfS, Institut für Stadtforschung und Strukturpolitik GmbH, Berlin, with the cooperation of the European Centre for the Promotion of Vocational Training (Cedefop), the Förderwerks eV, Bremen and the Planungswerkstatt, Bremen and supported by the EC Commission, the Federal Ministry for Youth, Family, Women and Health as well as the Federal State of Bremen. The projects presented at the conference concerned two main approaches:

- (a) One category concerns sectors experiencing an economic decline, enjoying little capital investment and abandoned by traditional companies. These experiences show sectors of the population leaving the employment market, either voluntarily or due to specific handicaps (failure at school; delinquency etc.).
- (b) Other projects are based on the reappraisal of the building trades and propose adapted training. It is a question of breathing new life into neglected activities for which new markets are opening up.

The adaptation of training to the needs of the trainees and the receiving environment plays an essential role. In addition to the technical know-how, the experiences developed at local level generally seek to provide the young people with 'transversal' skills, social and cultural qualifications allowing them to find a place for themselves in a particular environment, assess projects and regain self-confidence.

The high level of unemployment fuels conflict between generations. The older workers, trained on the job, fear competition from young people with an in-depth theoretical knowledge. Cooperation between different age groups by including older workers in the training process yields very encouraging results: it allows young people who failed at school to obtain a recognized professional qualification and stimulates the teachers to allow others to benefit from their knowledge. Experiences conducted to date show considerable progress as regards motivation, team spirit and, finally, productivity.

It became evident at the conference that the local level was the most appropriate context for the insertion of young people. It is at this level that cooperation between the educational, industrial and financial sectors is organized. Setting up networks and meeting and animation centres plays an essential role in the dynamics of development at local level.



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In the light of less intervention by the central government there is an increasingly strong municipal policy for employment, training and social assistance. This trend underlines the increasing need for solidarity between the wealthy regions and those less developed.

A 'Declaration of Bremen' was adopted by all the participants.

'The declaration of Bremen'

Training and jobs for young people through urban renewal

1. All the contributions to this conference established very clearly that

the permanent mass unemployment in the various countries is a social, economic and political problem of the utmost urgency. The employment crisis which was initially prompted by a number of fundamental structural changes in the mid-1970s (rising oil prices, changed conditions of competition on world markets, shifts in production technology, the consequences of the baby boom of the 1960s, more women working etc.) has persisted and dramatically worsened over the years throughout the Community. In 1975 the average level of unemployment for the European Community as a whole was 5%. Today this figure has doubled and reached, in 1986 for example, 20.7% in Spain, 18% in Ireland, 11.9% in the Netherlands and

8% in the Federal Republic of Germany. Young people (15-24) have been particularly affected by the problem. In 1986 the rate of unemployed young people as a percentage of the total unemployed was 44.4% in Spain, 33.4% in Italy and 25.6% in France. Young people without proper vocational training or who have failed to complete their schooling are at particular risk of being permanently unemployed.

The contours of a deeply divided society are becoming increasingly apparent, a society where the unemployed and especially the young unemployed are becoming ever more isolated from mainstream society.

The political decision-makers at all levels (European Community, national and municipal) are therefore requested to redouble their efforts to fight the unemployment crisis.

2. The contributions to the conference provided an impressive illustration of the long-term need in all the European Community countries for the conservation and renewal of the city at a building, ecological, economic, cultural and social level and that this has to be considered as an on-going political obligation of the utmost seriousness for society and the economy as a whole.

This means:

- (i) at a building level, modernizing housing and improving the environment through 'prudent' urban renewal in order to strengthen the housing function of cities, and especially of inner cities;
- (ii) at an ecological level, paying more attention to the protection of the environment in urban renewal with the main objective of improving living and working conditions in the inner cities (for example, through noise control, reduction of air pollution, making 'sealed' surfaces and water courses more natural etc.), saving energy and protecting the ground and underground water (the importance of which has recently come to be realized to an increasing extent) against contamination (avoidance or elimination of so-called 'Old Loads');
- (iii) at an economic level, securing the establishment of (mostly smalland medium-sized) enterprises in the inner cities where they are intermingled with housing and where, given the frequently conflicting interests of businesses and housing, it is necessary to find the difficult middle road of 'site securing which is compatible with the environment', and securing the 'economic' function of inner cities

which is also to accommodate handicrafts and trades;

- (iv) at a cultural level, preserving the 'cultural heritage' (historical buildings, historical aspect of the town) and improving conditions for 'urban culture';
- (v) at a social level, securing urban living space for socially and economically-disadvantaged groups (unemployed young people, the elderly, immigrant worker families etc.).

On this basis the political decision-makers at all levels (EC, national and municipal) are requested to draw fully upon the employment and labour market policy potential inherent in this field of action and to use it for the strategy and instruments of an active employment and labour market policy, especially as the politico-economic impulse effect of public means of promotion together with their 'multiplier effect' on the investment decisions of private enterprise and households are pronounced in this area.

In this context the political guideline must be that in social, economic and political terms it definitely makes more sense to use taxpayers' money to create jobs and training places and to promote institutions, goods and performances which are socially useful rather than spending this money on unemployment benefit which sustains forced inactivity.

3. The examples of all the European Community countries illustrate how the field of urban conservation and renewal is particularly well-suited to benefit from employment and labour market policy as it offers scope for combining employment and training in a way which is positive for the future. While new building projects are essentially undertaken by the construction industry (construction as principal activity) adopting an industrial means of production, 'small-scale' craft activities and requirements are at the basis

of projects for urban conservation and renewal (construction complementary activity).

This is why training in this area concentrates primarily on craft professions and activities. Various contributions to the conference mentioned the new professional and activity profile of the 'advisor for urban renewal of rehabilitation' which combines the traditional skills of the craftsman with new knowledge, regarding, for example, environment-friendly materials and energy-saving technologies. Unlike the so-called qualification offensives, which very often lead to a dead end for the trainees or, if they are lucky, to a succession of employment measures and employment projects ('an artificial career') this offers the prospect of their training culminating in an activity with a sure future.

- 4. For unemployed young people who are socially disadvantaged owing to their particular circumstances (drugs, dropping out of school, broken families, children of immigrants) and for whom access to the labour market is becoming increasingly difficult, projects for urban conservation and renewal offer a particularly valuable opportunity of combining employment and training with a familiar and self-determined world in which they are the principal protagonists. Such compound projects which combine training, work and housing and which are funded by promotional institutions for vocational training, youth projects and urban renewal offer young people the opportunity to acquire or reacquire not only skills in craft industries but also the self-confidence and sense of direction in life ('social competency') which are essential if they are to succeed in making the transition to the world of work.
- 5. The contributions from all the European Community countries provided examples of how the opportunities for action against employment at a political level which are inherent in cur-

rent concepts for action and funding at European Community, national and municipal level are often not exploited to the full because their goal-oriented and compound potential is impeded if not actually thwarted by rigid, sectoral means of financing, regulations concerning areas of responsibility and the self-interest of the various departments of the administrative offices involved at the various levels. This constitutes a loss of important 'synergetic' effects of a combining of resources which would otherwise be possible.

That is why the demand must be made at all levels (EC, federation, State and commune) that such 'homegrown' obstacles to action be eliminated from the administration. In particular, it is necessary to change the means of financial support, the regulations apportioning responsibility and the patterns for action in order to extend and improve the scope for action and organization. Rather than central government 'control from above' which still predominates and which has proved to be of little effect if not actually counter-productive in these fields of action, preference should be given to 'control and coordination from below'

The contributions to the conference demonstrate that in all the European Community countries the local level plays a decisive if not the decision.

sive role by initiating and realizing employment effective projects and investment plans in the field of urban conservation and renewal. The local willingness for action and involvement can, however, only be used to best effect if the essential decisions concerning the projects and plans are themselves prepared and taken at the local, grassroots level.

This is particularly true as regards obtaining the necessary financial support. Examples from all the European Community countries show that the provision of adequate aid by European Community and national authorities is absolutely essential, whether this be in the form of public investment incentives or the funding of vocational training, work procurement or other measures of an active employment and labour market policy. The municipalities in all the European Community countries lack financial resources and would be totally overburdened if they attempted to act alone. The examples of all the countries concerned also show, on the other hand, that the success of employment-effective projects and investment plans also depends essentially on the mobilization of additional 'supporting' local resources, whether through local social initiatives (e.g. churches, promotion associations, self-help groups) or through investors from the private sector (e.g. local construction companies).

A similar situation applies to the responsible body and the realization of such projects and investment plans in themselves. The contributions to the conference reported a large number of organizational variations ranging from the creation of local employment associations to models for cooperation with the local trades. In each case their success appears to depend on whether it is possible to reach a consensus between the relevant local interest groups (especially the representatives of industry, trades and the unions). It is especially important in this context to dispel the mistrust of the local craftsmen who fear competition through such employment initiatives. As some of the contributions to the conference demonstrated, this has been done successfully in many places resulting in numerous established craft industries participating in the projects and assuming responsibility for training young people for employment and often continuing to employ them themselves on completion of the project.

7. The Bremen conference made clear how necessary and useful such an exchange of experiences is in order to initiate a mutual learning process from 'project to project' across national borders and to firmly establish such a process. The conference showed in an encouraging way the soundness and fertility of such an international exchange of experiences.

Employment in the banking sector today and some prospects for 1992

In its work programme for 1988, the Commission states that it intends to spare no effort in encouraging the social partners to enter into meaningful social negotiation by making progress, in particular, in controlling and managing qualitative changes and social transformations.

This desire to support a social dialogue between social partners is nothing new at Community level where the most interesting and recent progress has been made in interprofessional and horizontal developments in dialogues between representative organizations.

Within Community social policy balanced discussions have assumed a certain vitality in the sectoral domaine over recent years, to the point where they now constitute an inherent part of this policy.

Social dialogue was first entered into on an informal basis in the banking sector in 1982 and immediately showed evidence of its dynamism with the setting up of a working party which exists to this day and which has, furthermore, with its well-considered advice, lent support and encouragement to the initiatives of DG V for conducting studies on this sector.

In this way the Commission has been able to alert both itself and the members of the profession as to the social consequences for the banking sector of the introduction of new technology (report by Emil Kirchner, 1983) and of employment trends in the banking sector in the European Community countries (report by René Eksl, September 1987).

The official submission and circulation of the latter important report led to a seminar on 26 and 27 September 1987. For the time being, it was considered useful to give an account of the major developments in employment in the banking sector. This account obviously remains very close to the conclusions of the report itself.

Major trends in employment in the banking sector

The banking sector employs almost 2.3 million people in the 12 countries of the European Community. In relation to the total active population of the European Community, estimated to be 110 million, it represents 2% of total employment or 4% of employment in the services sector.

1. These figures alone speak eloquently of the quantitative importance of employment in this sector. This importance stems from recent developments which are continuing to have a strong effect on the various branches of activity which comprise the banking sector.

The experts and members of the profession agree that employment in banking increased sharply between 1975 and 1985. During this decade the sector as a whole created 420 000 new jobs representing an overall growth rate of 22.5% in the Community as a whole. This growth rate was, however, more pronounced at the beginning of the period, slowing down after 1982/83 to give a figure of between 1 and 2% after 1984.

The point to remember is therefore that between 1975 and 1985 employment in the banking sector experienced a strong growth in all the countries, growing at a faster rate than employment as a whole.

A global approach does, however, have its limitations. These must be overcome by means of a more thorough and qualitative examination of national data which serves to reveal certain irregularities within the sector's overall growth pattern.

By virtue of the very fact of being aggregates, the global figures for the sector conceal quite a wide variation as regards the situation in the individual countries.

In the Federal Republic of Germany, for example, the banking sector grew by 26% between 1975 and 1985. The average annual growth rate was 2.3% and, despite certain difficulties, there was no decrease during the last two or three years of the period.

Spain on the other hand has seen a marked decrease in employment in the banking sector since 1980, falling from 180 000 to 163 000 employees in 1985, representing an average decrease of 1.8%. The United Kingdom, the Netherlands and Belgium are in line with general trends for the sector but experienced a degree of stagnation after 1983.

 National diversities should, however, be considered in relation to developments in types of bank as there are marked differences between types of bank in the same country.

The network analysis for the Federal Republic of Germany shows a growth slightly below the national average for private banks (+1.7% per annum), average for the savings banks (+2.6%) and much sharper for the cooperative banks (3.8% per annum for the last 10 years).

The atypical overall fall in employment in Spain (as indicated above) is reflected in all types of bank (except the foreign banks) and affects the less qualified staff most seriously.

In Belgium, although the network of banks affiliated to the ABB showed a classic growth pattern, the savings banks experienced a rapid expansion between 1978 and 1985 with an annual growth of approximately 6 %.

As for Italy, the network breakdown shows very strong growth rates for the popular and cooperative banks and the lowest rate for the national banks.

In France, the analysis by network highlights the increasing share of networks other than the AFB (Crédit Agricole, Crédit Mutuel and Caisses d'Epargne). There was a weak growth rate on the part of the AFB network and the big national banks while the other networks experienced strong growth between 1975 and 1978, this subsequently falling off in the case of the Crédit Agricole and the popular banks but being maintained by the Crédit Mutuel and Caisses d'Epargne until 1983.

Synthesising the information apparently serves to conceal the difficulties of interpretation. But although it is relatively easy to distinguish major trends in the

past, it is more difficult to propose prospects for the future. The extrapolations proposed can, however, be considered as reasonably reliable owing to the number of serious studies available in this field.

Employment prospects in the banking sector

1. A number of limited extrapolations have been attempted on the basis of information obtained by the working party. One example is that of Mr Amin Rajan who submitted an extrapolation for the United Kingdom (with an average overall situation) which was treated seriously by the country's banking experts. He predicted a continued growth in the region of 2% per annum in the United Kingdom, on the basis of a linear extrapolation of trends over the final three years of the reference period. Nevertheless, certain trade union representatives in the United Kingdom expressed reserve regarding such forecasts. They believe the country has broken with the mould of the past and that the average growth conceals important instances of staff cutbacks in the branch networks and certain administrative offices, plus downgradings owing to the hiring of more part-time staff and women.

As regards overall prospects for the banking sector as a whole, there should be a weak growth, in the order of 1 % per annum, in keeping with recent trends.

Yet, overall, it appears that there is a stronger tendency for growth in the savings and cooperative networks than in the commercial banks. It seems in effect, on analysing their respective situation in France, Belgium and the United Kingdom that the small- or mediumsized banks generate many more jobs than the commercial banks. In this respect the banking sector is perhaps prone to a phenomenon similar to that of industry where small- and mediumsized enterprises create more jobs than the larger companies. This view is nevertheless contested by those who feel the future will bring a greater concentration of business in the hands of the larger banks, a trend which is invariably accompanied by staff reductions, particularly in the functional departments and the administrative and computing centres.

Finally, the reasons for the growth of banks and employment in banks appear to owe more to the dynamism of the banks' internal policy than to the influence of the more general economic situation. René Eksl considers that this hypothesis is a lesson of his own statistical study. Unlike Emil Kirchner who, in 1983, in his report on 'the introduction of new technology = social consequences in the banking sector' saw close relationships between employment in banks and the economic situation, René Eksl believes that levels of employment in the banking sector have little to do with the general economic climate. The very regular growth in the rate of employment in the banking sector compared with employment levels as a whole is, in his opinion, one of many indicators of this.

The growth in business activity would therefore appear to be the most reliable factor influencing the growth of employment in the banking sector. Yet despite the dynamism particular to each bank and its ability to generate business and increase its clientele, all banks are developing in a way likely to affect the relative importance of the various categories of personnel.

2. Trends regarding employment in the banking sector affect the banking staff in different ways.

There are certain tasks which are decreasing in importance, mainly relating to general administrative work, the post, the cash register and simple counter operations. The employees affected are therefore administrative staff, typists, cashiers and counter clerks. Whereas changes are introduced very gradually in the branches and without causing serious difficulties, in the administrative centres the increasingly commercial or managerial nature of the professional activities is more problematic. In general, this poses a threat to all jobs requiring no or few qualifications.

The growth areas are commercial activity, customer advice, the handling of

relatively complex files, activities involving the study and development of computing projects and 'advanced' activities such as share management, financial engineering, venture capital etc.

The skills required to perform these tasks are only partially available within the banks (training opportunities for the branch employees in advisory activities and commercial matters) and, whether it concerns computing experts or executives responsible for developing new services, the external recruitment of better qualified persons will, in future years, become the main way of meeting needs in human resources.

A modification of the structure of employment in the banking sector is therefore already under way. In fact, developments in the classification structures in certain countries already point very clearly to an increase in the proportion of executives and a decrease in unqualified administrative staff. The analysis by coefficient over the 1981-85 period shows the rise in France of coefficients above 420 and a fall in coefficients below 365. This reflects an overall phenomenon of increased qualifications. The introduction and development of dataprocessing technology can be cited as being at the origin of this trend.

The influence of data-processing technology

Technological developments have a definite effect on employment although it is difficult to assess to what extent. Although there are many studies on this subject they are often highly controversial. This is why René Eksl warns us to treat the methods with circumspection, indicating that the effect of each innovation must be studied by examining how it interacts with the market, the effects of the sector social policy, the methods of organization and trends in the qualifications required and available.

On the basis of these preliminary observations, concrete information and well-founded assessments relating to the influence of the different categories of equipment on employment can be formulated.

Banking automata and their development

A lot of networks anticipate the development of self-service facilities thanks, initially, to automatic guichets (automatic tellers, self-service printing guichets). The consequence for employment is a reduction in the number of counter clerks and cashiers required. The potential replacement rate is in the order of 0.5 to 1 person per automaton.

Mass computing applications

When the applications have already been in existence for a number of years the impact on employment in the branches is low. There is simply a growth in the consulting aids and an increasing transfer of data acquisition to branches. Within the larger branches this data recording work is distributed on the basis of source recording and incorporated in the counter work for example, hence the decrease or disappearance of these jobs. There is in any event a factor at work which encourages polyvalence and a decrease in purely administrative work in the branches (in the order of 0.2 to 0.5% of jobs per terminal, according to some estimates).

When the degree of computerization is less advanced, the expected staffing economies are higher as a reduction in administrative staff and a reduced workload for the staff as a whole is expected. This phenomenon is even more marked in the case of a major branch with a wide range of services and which handles a part of the files processing.

In the administrative centres the new information processing systems all lead to savings on operational staff (filling, registering of data, simple administrative processing) and in the older centres the job losses are sometimes quite consid-

erable (as much as 20 to 30% of the total workforce).

Office automation

By this we mean the introduction of aids such as word processing, microcomputers, delivery services. The impact varies depending on the level of equipment already in use.

Word processing should lead to a reduction of between 0.5 and 2 typists in the principal branches; as for the micros with their peripheral aids, certain predictions estimate that they should reduce the work involved in the examination of files. But the potential savings will be largely absorbed by new products and a policy of decentralization with the branches undertaking activities previously concentrated in the regional or national centres. The various delivery services reduce staff requirements in the large branches (category: messenger or clerk).

The computing and telematics networks

The situation varies considerably from one country to another (growth of home banking in France, for example, and of POS terminals in Denmark). Overall, the effects on jobs should not be felt until after 1990 and even 1995 in certain cases. Furthermore, the inexorable mechanism of staff reductions could be offset by the provision of additional services such as managing the accounts of SMEs or simulating tax calculations.

The creation of an interbank network reducing the use of cheques is, it is generally agreed, the event which is likely to have the most serious consequences for jobs. It is improbable, however, that it will be achieved before 1990 or even 1995.

Overall, the technological factor interacts very strongly with the growth in activities as a considerable number of new services rely on new technology such as the automata, terminals in the home or at points of sale and telematics services. Indirectly, information technology is, by offering diversification and an ever increasing number of services through the network, a factor which creates business if not jobs.

Conclusion

The banking sector as a whole employs 2% of the active population in Europe and all the major networks expect to see considerable changes to their structure with the growth of automatic tellers and a diversification of their points of sale (limited service offices, specialized agencies depending on the needs of a particular clientele, back-up services for complex services). However, the effect of future reorganization or restructuring on employment is uncertain, even if the trade unions express grave concern. Statistically speaking. the predicted growth in employment in the banking sector of the order of 1% can be considered as weak.

The development of commercial activity will be the dominant factor affecting the development of the sector as a whole. Banks expecting to increase their business will increase staff as increased productivity due to information technology applies to a lesser degree to the specialized services and the supervision of the commercial affairs of customers.

In this sense, all the banks are very careful to protect their volume of commercial activity by offering additional services which are traditionally the preserve of insurance companies or non-banking financial services.

Work organization and industrial relations in data-processing departments in the United Kingdom, Denmark and the Netherlands

A comparative study

The work of computer specialists is probably the one that best typifies the emerging occupations in the labour market. The occupational group has been growing rapidly for some years and shortages of supply are complained of in virtually all countries. The work of computer analysts and related professions presents a number of positive features: it is brain-intensive, skilled, creative and not subject to strict rules of work. However, when looked at in greater detail, it appears that a number of changes are continuously taking place in the occupational group: while some skills are increasingly in demand, others are becoming obsolete, due to changes in technology and in the configuration of computing centres and networks. Work organization, while still presenting a range of different patterns, has become over time more structured. Some theories put forward in the second half of the 1970s argued that growing division of labour in computing, together with the adoption of a more structured work organization and of tools such as structured programming methods were inducing a process of deskilling for a part of computer staff and were introducing a number of tayloristic features in a hitherto rather individualist and creative type of work.

A study carried out for the Commission by three teams of researchers, in the United Kingdom, the Netherlands and Denmark respectively throws some light on these issues, and particularly on the changing pattern of employment, on work organization and industrial relations, and on the relations between data-processing departments and their environment. It is based on surveys and case studies data-processing departments belonging to firms in both industrial and services sectors, including central and local public administration.

The labour market for EDP staff

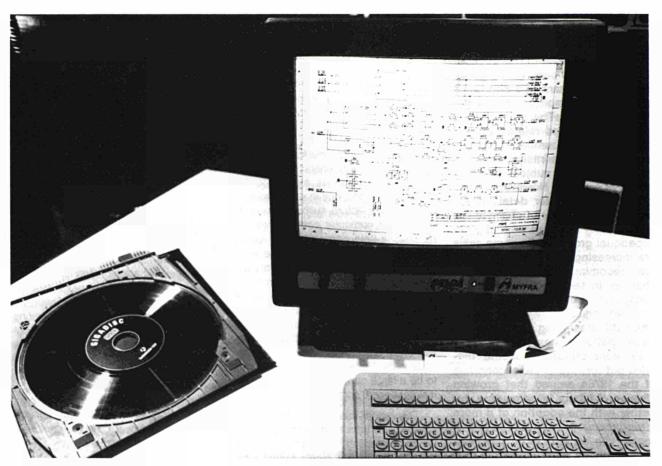
Data and information on labour market characteristics of EDP staff, as provided by the study, cannot be generalized, since they refer to limited samples in each country. They provide, however, some indications on how the labour market is changing and on the differences between countries. First, it appears that the labour market for DP professionals, though characterized by a long-term shortage, is subject to frequent fluctuations, due in some cases to demand-side factors, such as periods of collapse of computer services firms or recessions (this occurred in the UK in the early 1970s and again in the early 1980s), in other cases to temporary adaptations of supply (e.g. in Denmark in the early 1980s, when the output of newly created educational qualifications made itself felt on the market). At the time of the survey, the labour market was again tight in the UK and Denmark, while in the Netherlands there appeared to be a large supply of educated, albeit inexperienced, staff.

The labour market for DP staff is, however, far from being homogeneous. Broadly speaking, it comprises a segment of skilled and highly skilled jobs, which can be classified under the heading of system developers (analysts, programmer/analysts and programmers); at the other end of the spectrum, there are the relative unskilled and routine jobs of operators and data-preparation staff. The proportion of system developers is similar across countries (between 45 and 49%) and their numbers are still growing rapidly, though with some internal redistribution between job titles. Data-preparation staff are declining rapidly everywhere, although they still account for a much higher share in the UK than in the other countries: the authors argue that this may be due to a more readily available and cheaper source of labour for these jobs in Britain, since these are predominantly women's jobs. The decrease in numbers of data-preparation staff is related to the spread of on-line systems and the direct entry of data from the users. Similarly, operators, who used to be those who ran the computers, are declining in importance and, in some countries, also in numbers, mainly due to the fact that batch systems are being phased out by real-time processing. Moreover, what remains of their job is monitoring, changing data tapes and loading paper, i. e. rather low-skilled and routine tasks. Thus there is an overall upgrading of the structure of qualifications, as lower-level tasks are either transferred to other parts of the organization or automated out of existence.

The change in the structure of qualifications is facilitated by the relatively high turnover of DP staff: turnover for all occupational groups, except administrative staff, is higher than 10% per year, while new staff are recruited mostly from outside the organization, particularly as concerns analysts and programmers. Turnover is higher in small installations and is above average in the Danish public sector, due to its lower salaries when compared with private firms, and in the Dutch public sector for system analysts; on the other hand, in the UK, turnover is lower in the public sector, possibly indicating that training and career prospects overcome the disadvantages due to lower salaries.

What are the characteristics of the employees in DP departments? First, they are predominantly men, at least in the more qualified jobs: there are virtually no women among DP managers (3% in the UK, 1% in the Netherlands; data by gender on Denmark are not availabler); the share of women increases as the grade decreases (women account for between 11% and 15% of systems analysts, and between 21% and 26% in the programmer category); while at the lowest level, i.e. datapreparation staff, women make up 100% of the workforce. As far as education is concerned, in all countries only a very low proportion was found to have a

Work organization and industrial relations in data-processing departments. A comparative study of the United Kingdom, Denmark and the Netherlands, by A. Friedman, J. Horlück, H. Regtering, B. Riesewijk, Luxembourg, Office for Official Publications of the European Communities, forthcoming, 1988.



Copyright: Lespinasse/REA

computer science degree (ranging from 2 to 8% for analysts). This can be partly attributed to the fact that in the past many entered the computer field by accident, rather than by design. However, even DP managers do not strictly expect their staff to have specific training in computer science: many require analysts and analysts/programmers to have had a university degree but not necessarily in the specific subject. In this respect, Dutch firms are more strict about formal requirements and the general education level is also higher among Dutch DP professionals (e.g. only 21% of analysts have no degree), while in the UK half of analysts have no degree and are not even expected to have one. Programmers are mostly not expected to have a degree, although in the Netherlands they are required to have a lower level computer science qualification, and operators have in general a much lower education level, although, surprisingly, a not insignificant proportion in the UK have computer science degrees. All in all, the gap between required and actual education is not very wide: only in the Netherlands do managers require more analysts with computer science degrees than they can find, while in the UK the actual level of education in some job categories is somewhat higher than that expected. System analysts and system programmers appear to be the two categories with the highest attachment to their job: most were found to have more than five years' experience. At the other extreme, programmers were found to have generally short experience,

probably indicating that the job of programmer is a common entry-level position, leading to 'higher' jobs as the career develops. There are significant national differences in this respect, as in the Netherlands DP staff have on average much lower length of service in the job than in the other countries.

Work organization

The second aspect of DP work analysed by the study is work organization and industrial relations. Two criteria are used to examine changes in work organization: one is the degree of division of labour in DP departments, the other is the degree and type of management control over the work of the department.

Growing division of labour in DP departments has been considered by some authors as an indicator of the progressive deskilling of certain DP occupations: this would apply particularly to the division between analysis and programming. According to these arguments, whereas in the early years computing analysis and programming were not separate functions, programmers have become over time mere program coders executing instructions and translating them mechanically into specialized terminology. Now the authors of the present study did not find much evidence in support of the deskilling hypothesis: analysts and programmers are most often separate roles, except in Denmark where a frequent career path for programmers is to become programmers/ analysts or analysts without totally changing functions, but the organization structure rarely separates analysts from programmers. Work is mostly organized in teams and there is no clearcut division between the conceptual work of analysts and the execution work of programmers. This is particularly true in Denmark and is becoming increasingly true in the UK, while the Netherlands presents a much stricter official separation of tasks, leading the authors to argue that this may be the only country among those examined where the deskilling hypothesis receives some support. Similarly the Netherlands is the only country where development and maintenance tasks are often carried out separately, while the opposite was found in Denmark and the UK. On the other hand, a clearcut division which emerges in all countries is that between systems and applications programming: this is deemed to be related to the general deepening of the division between technical and user-oriented tasks, with applications programming becoming more and more part of the latter activities.

The other dimension of work organization is the form and degree of management control. Three 'models' of management control are put forward as hypotheses to be tested in the study, i. e. task-instructive direct control, personal supervision, and restrictions by stand-

ards. The first, namely task-instructive direct control, consists in giving detailed instructions, broken down into short tasks, and controlling the product or following up on written records, such as worksheets. This method is widely used in the UK and in the Netherlands but much less in Denmark, However, worksheets are not only used for controlling performance, but also for accounting purposes and for charging users for the actual time spent on each project. The latter utilization emerged as being the dominant purpose in the majority of cases, in so far as this monitoring method was not used in formal employee evaluation. The second method is personal supervision, i. e. personalized monitoring of the work being performed through clearance with senior staff, walkthroughs or reviews, or inspections using formalized checklists. This method is also widely used, again less in Denmark than in the other two countries, with much more reliance on personal contacts than on formal inspections. Finally, the supposedly most constraining form of control is restrictions by standards. This implies the use of standards, methods and techniques developed throughout the 1970s as a means for increasing productivity. Structured programming has been seen by some authors also as a means for deskilling, as it creates the possibility for a strict division of work and for making programs not dependent on any particular person's knowledge or skills. The use of structured methodologies became increasingly popular in the 1970s, but results were often disappointing and they appear to be losing ground in the 1980s. In the national surveys, these methods were found to be widely used, although in the UK, where several surveys were carried out over time, their use is rapidly declining. However, what was most often found to be in use was a selected set of tools, rather than structured techniques covering all activities in the analyses and design phases. In other words, a number of programming tools and standards have come into use as 'good practice', but they do not necessarily imply the full adoption of recognized methodologies. Also in this case, national differences are apparent, with Dutch DP departments more strictly using and enforcing formalized methodologies, while in Denmark such techniques are used rather selectively and are most often not treated as compulsory. Overall, the authors conclude that there is no clear evidence supporting the hypothesis of growing divisions of labour, progressive deskilling and stricter control over the work of DP professionals. The only country where such features are more apparent is the Netherlands, while Denmark appears to be the country where DP professionals have by far the highest degree of freedom in organizing their work.

The degree of unionization of DP staff emerged as not very high, but probably higher than might have been expected: precise quantitative data were obtained only for the United Kingdom, showing that some 50% of staff are union members, the percentages being the highest for lower-grade staff (operators and data-preparation staff), in large installations and in the public sector. In general, unionization level among computer staff reflects the level of unionization in the rest of the firm. National differences in the pattern of industrial relations are noticeable also in this sector: as an example, in the Netherlands, where the degree of unionization of DP staff is estimated to be rather low, computer professionals are nevertheless tied to company-wide wage grade or classification scales. In any event, the authors conclude that, even where unionization is relatively high, there is a reluctance of computer people to use trade unions as a means to achieve their ends. Other means, such as faster careers through internal labour markets, mobility, professional associations and even setting up their own companies may be considered more effective in achieving these ends.

DP departments and their environment

The third aspect of DP work examined in the study concerns the relations with top managers and users, i. e. the external environment and the degree

of autonomy of DP departments. In general, the degree of autonomy of DP departments in organizing their work and dealing with their staff appeared to be rather high. A significantly large proportion of DP managers report only to finance directors and most personnel decisions are taken entirely or predominantly within the department, except for decisions concerning lay-offs and staffing levels. DP departments are also relatively insulated from conditions on the product market: there has been a tendency for DP departments to expand and occasionally to contract - independent of product market conditions facing the organization. However, there is a kind of internal market for the services of these departments. The relations between them and user departments in the same organization can be made to operate more or less like market relations. In the 1980s the power relations between DP and user departments has moved in favour of the users. First, users have become more involved in the systems development process.

This was found to occur in all three countries, at least as regards identifying opportunities, specifying payoffs and participating in project steering committees. Much less user involvement was found in detailed project management. Secondly, market-like relations have been created by charging users for services and treating DP departments as profit centres. In the surveys, about half of DP departments charged users for services, the percentages being higher in the Netherlands and, for all countries, in larger installations. Likewise, just over half of the data-processing managers reported that users employed outside computer services firms in the UK and Denmark, but only around a third did so in the Netherlands. This recourse to external suppliers largely applies to specialized services which could not be rendered by internal DP, but also long delivery dates and lower cost of boughtin solutions were mentioned as reasons. The market-like relation operates also the other way around, in so far as DP departments sell services to external customers. However, this generally accounts for a tiny proportion of the budget of the departments. These factors, together with the trend towards distributed systems development, mean that a greater number of central DP staff become involved in the provision of consultancy and technical support to users, and that users' needs become an increasingly important factor in the environment in which DP departments operate. The authors conclude that these changes in the environment are of importance in influencing the way in which DP work is organized. In a way, DP managers find themselves facing problems of continuing labour shortages while, at the same time, the environment in which they operate is becoming more demanding. This would account for the rather high degree of flexibility and the wide range of work organization and managerial practices found in the different countries.

A. S. Piergrossi

Machine-tool industry and vocational training

In the framework of the Eurotecnet programme, launched by the Commission of European Communities in 1985, which is related to new information technologies and vocational training, a Specialized Working Party concerning the training dimensions of technological penetration in robotics and CNC machines was held in Maastricht on 11 and 12 September 1987. As a presentation of this working party, here is an extract of the final report.

Development of new information technologies in the metalworking industry

This section deals with a number of developments and facts regarding the metalworking sector in general and the machine-tool industry in particular.

At the beginning of the 1980s Europe still faced an economic recession. In numerous companies in the metalworking sector dismissals were often unavoidable and in many cases the recession caused the downfall of companies. However, the current economic revival is accompanied by a rapid renewal of production processes. The introduction of new technologies in metalworking industries is of vital importance for a number of reasons:

- (1) The competition with technological and economic superpowers such as the USA and Japan requires the supply of high-grade products at a low price.
- (2) The labour-intensive production processes in Europe can only be competitive with low-wage countries by means of new information technologies and the supply of high-grade products.
- (3) This enables flexible production. The current market demands a rapid switch to new products.
- (4) It leads to a reduction of the production costs and time. The introduction of new information technologies implies a further reduction of labour costs in the product's cost price.

What are exactly these new technologies?

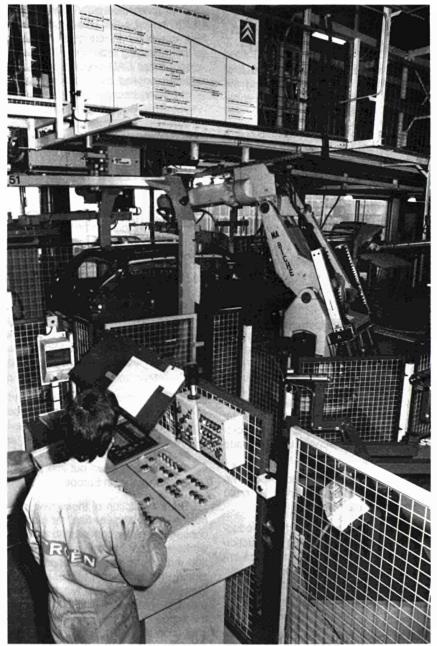
(i) CNC (computer numerically controlled) machines. CNC means the control of a machine-tool by a computer. CNC-controls in metal-removing machines have already been applied on a large scale in big industries as well as in the small and medium-sized companies. CNC is also increasingly used in other than metal-removing production equipment.

- (ii) CAD (computer aided design/drafting) systems. CAD means the use of a computer in creating, modifying and reflecting a design. After a slow start these CAD-systems are increasingly applied by industries; on the one hand because of the increased possibilities of software and on the other hand because of lower prices of more powerful hardware.
- (iii) CAD/CAM-linkages. This applies to the integration of computers in the total cycle from design to manufacture of a product. CAD/CAM-linkages are applied on a modest scale. Products can be manufactured quickly and efficiently with the help of CAD.
- (iv) Robotics. This stands for the use of computer-controlled operating instruments (manipulators) or arms to automate a variety of production operations. These production operations mostly apply to welding, materials processing, spraying and assembling.
- (v) FMS (flexible manufacturing systems). With these systems it is possible to meet the requirement of flexible and efficient production in an optimal way. FMS in its optimum version has only been put into practice in a few places in Europe.

The introduction of these new information technologies has far-reaching consequences for both organization and workers. According to various reports and indications in the European Community, the application of these new information technologies will be widespread in the period 1986-90. However, the introduction of complex technologies such as FMS has up to now been restricted to a number of demonstration projects, financed by large industries and/or the government.

Investment in, for example, FMS will rise from USD 60-70 million in 1984 to approximately USD 500-750 million at the beginning of the 1990s.

It is particularly interesting to compare how the development of new information technologies is spread between the categories small, medium-sized and



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large industries in the metalworking sector in Europe.

Generally in large companies automation is often imposed and introduced from the top. In many cases automation experts have been found to determine

how automation has to be approached. These people are often external experts who are not acquainted with the company's specific knowledge and culture.

Others involved in processes of automation and alteration are recruited

from existing staff, in which case usually the younger workers are in the majority. Older workers often feel threatened by the pace at which automation penetrates their working environment. The middle management often consists for a large part of older workers who became head of a department in the traditional situation, from turner through to, for example, foreman. The situation in which the heads of department have more knowledge and often also more skills than their workers has changed drastically. They are confronted with new technologies which are often picked up much faster by younger workers. The way in which leadership is handled has to change; the head has to manage the department, learn to delegate responsibilities, etc. This is one of the reasons why large (multinational) companies make use of implementation plans, in which in-house, internal training plays an essential role.

The introduction of new information technologies in small and mediumsized enterprises is often essentially different. In this case the introduction of new information technologies is often restricted to the purchase of advanced equipment, such as a CNC-machine. Actually there is no time for proper training so a worker is sent to attend the standard course which is always supplied with the equipment and which takes two to three days. And this seems to solve all problems. After a lot of 'trial and error' an acceptable working method will be created. In short, in the introduction strategies the social/organization aspects often do not get the attention which they should get.

Generally in the metalworking industry there seems to be a great variety in the introduction of new information technologies. Various introduction strategies are applied. Industries are often forced to fit in the introduction very quickly with their company policy in order to survive. This is often accompanied by implementation problems and great pressure of time. In this context training increasingly assumes a more important function.

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	Small company 100 empl.	Medium-sized company 100—150 empl.	Large company 500 empl.	
application CAD/CAM now: 1989-94:	2% 15%	8 % 35 %	50 % 90 %	
application robotica now: 1989-94:	5 %	12 %	45 %	
	20 %	35 %	83 %	
application FMS now: 1989-94:	0 %	4 %	65 %	
	10 %	25 %	96 %	

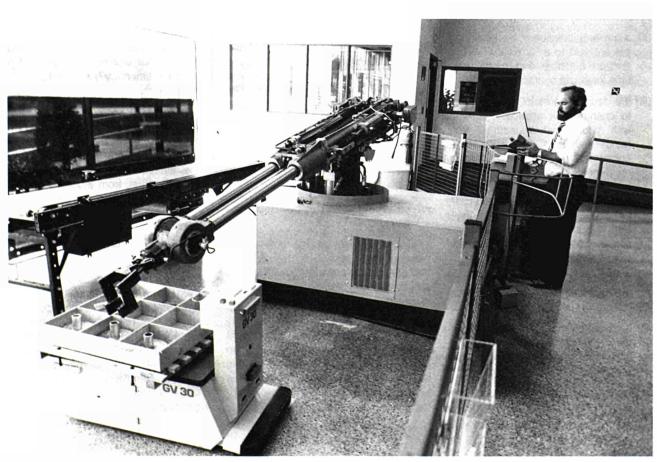
¹ From the report 'Recent trends in flexible manufacturing' of the Economic Commission for Europe of the United Nations.

These figures give an idea of the application of the abovementioned new information technologies now and within 5 to 10 years.

Especially in the large European industries the introduction will take place very quickly, whereas the smaller and medium-sized companies cannot quite measure up to this pace.

Some problems involved in the introduction

This section constitutes a synthesis of the information extracted from the workshop sessions held in Maastricht in September 1987. Problems involved in the introduction of new information tech-



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nologies were exhaustively discussed, problems which hamper the rapid and widespread penetration of technologies in the metalworking industries.

First of all there are the technical problems which in many cases cannot be ignored and in fact achieve a great deal of attention. There still are enormous interface problems; how to gear various hard- and software components to one another in a 100% automated production environment. At present, this is often not feasible. For the time being completely unmanned, flexible production is still in the realms of future prospects. FIAT in Italy, however, has already achieved the completely automated production of car engines.

Furthermore there are social and organizational problems. The work situation for people involved can change in a number of ways:

- (i) the intensity of the job increases;
- (ii) a growing isolation of workers; people are tied to a terminal or a production machine and hardly have time for social contacts;
- (iii) the decreasing mobility forces them to change their attitude. You work with your head instead of your hands! Workers find themselves confronted with expensive equipment for which they are responsible, but which at the same time involves such a quick process and little room for interference that in the longer term this situation is likely to cause stress. Consequently an increased risk of damage is inevitable;
- (iv) traditional methods disappear and are replaced by a more processoriented approach of production;
- (v) (manual) skills become less important whereas abstract thinking, knowledge and understanding the process become more important;
- (vi) recognizing bottlenecks in the production process and anticipating

and preventing them becomes increasingly important;

(vii) in many cases investment in equipment is so high that an optimal capacity utilization is a condition for the justification of the investment. A widely used solution to this problem in the metalworking industry in various European countries is to work shifts and create combined parttime jobs.

In a number of cases alterations in the work situation will be so radical that automatically new sets of tasks will be created. There are various new occupations in the European metalworking sector, e. g. 'computermechanic'.

All the above implies that workers will have to meet other requirements. These are known as process-dependent and process-independent occupational qualifications. Examples of process-dependent qualifications:

- (i) CNC-ISO programming knowledge;
- (ii) ISO sign norms;
- (iii) quality standards.

Examples of process-independent qualifications:

- (i) ability to think logically;
- (ii) solving problems;
- (iii) planning;
- (iv) flexibility;
- (v) basic knowledge of new technologies.

Those present at the 'specialized working party' agreed on the fact that the process-independent qualifications are increasingly of vital importance.

During the workshop industrial experts indicated that a lack of thoroughly trained people at all levels is the most important barrier for further introduction of new information technologies at this moment. Suppliers often recognize this and offer all sorts of expensive equipment at very favorable conditions to ed-

ucational institutes in their eagerness to familiarize students with new technologies. The discussion shows that a lack of knowledge can be distinguished at four levels;

- Managers who have too little knowledge of the implication which new information technologies can have for their company. This could lead to a bad automation policy.
- (ii) Production engineers still have inadequate knowledge of the technical possibilities of new information technologies and this is the reason why they do not make the most of all sorts of high-tech solutions.
- (iii) The maintenance operator should have knowledge of conventional as well as of modern techniques. At the moment this proves to be insufficiently present within the industries.
- (iv) There is also a great shortage of well-trained operators.

Metalworking industries in all Community Member States have an increasing need for workers with different or new (supplementary?) knowledge, skills and attitudes.

There are shortages of skills at all levels in the metalworking industries. Upgrading is necessary. This means an enormous challenge to the entire educational system; from youth education to adult education, from technical and vocational training, retraining to higher education.

It is through programmes such as Eurotecnet that operators and decision-makers in Member States can be made aware of innovative ideas and practices elsewhere in the Community. The constant comparison and exchange of experience on training and human resource issues in key sectors such as the metalworking industry is an important element in the Commission's approach to stimulating improvement and change in training of people and reskilling industry.

Network on the implementation of the Equality Directives

Summary of consolidated report for 1987

At a meeting in December 1986 it was agreed that the network should draw up a report in 1987 on certain issues relevant to the implementation of the Equality Directives, particularly indirect discrimination, equal value, collective agreements, positive action and the problem of the burden of proof. It was further agreed that priority should be given to work on the issues raised by the burden of proof.

The burden of proof

Following the call by the European Parliament in May 1984 to reverse 'the rules on the burden of proof' and the Medium-term Community programme on equal opportunities for women (1986-90) the network considered the current position on the burden of proof in the laws of Member States, both in the context of discrimination law and in the context of the law generally.

It was found that in at least three Member States the position had already developed whereby the employer would have to discharge some or all of the burden of proof in discrimination cases. Furthermore, in other areas of the law of most Member States there were examples of cases in which the respondent or defendant would have to discharge some evidential burden.

The network therefore recommended a two-stage procedure, under which the applicant would first have to establish a presumption of discrimination (or a *prima facie* case), and the employer would then have the onus of disproving the alleged discrimination or justifying it under the terms of the Equality Directives. There should also be a legal obligation on employers and third parties to disclose relevant information to employees who are taking legal actions.

Indirect discrimination

The network found that there was no definition of indirect discrimination in any Member State except the United Kingdom and Ireland. It was further discovered that in some Member States the concept of indirect discrimination was not explicitly applied in laws implementing the Equality Directives.

It was therefore recommended that a Community-wide definition of indirect discrimination should be made available, which might include the following elements:

- (a) there is a requirement, practice or condition of employment;
- (b) this is not necessary or objectively justifiable; and

(c) it has a disproportionate adverse impact on the members of one sex or of a particular marital or family status. It was also recommended that the Commission ensure that all Member States have fully applied the concept of indirect discrimination to all relevant areas.

Equal value

Although all Member States have some provision for the right to equal pay for work of equal value, there are still problems. Some of these are evidenced by the fact that, in many Member States no or virtually no cases are brought in the courts in which equal value is raised.

The network recommended that:
(a) there should be a re-examination of the concept of 'equal value' to ascertain whether courts and tribunals have sufficient guidance as to how job value should be measured or jobs compared for these purposes, and to ensure that job classification is not used so as to discriminate, directly or indirectly; and (b) equal pay claim procedures should be reviewed to ensure that they do not amount to an impediment to the principle of equal pay for work of equal value.

Collective agreements

The researches of the network revealed that in a number of Member States discriminatory collective agreements and arbitration awards, or collective agreements or awards with an adverse impact on women, cannot easily be challenged by affected persons. This may not necessarily be in breach of the Directives, but it makes the full implementation of their policy difficult.

The network recommended that, in each Member State, a system of challenging discriminatory collective agreements should exist which permits both individual and collective challenge — i. e. by individuals affected and by trade unions and other representative groups. It is also recommended that the institution to which challenges/claims are brought should have the power to amend or adjust collective agreements which are found to be discriminatory.

Positive action

From the reports of members of the network, it appeared that there is much more legal scope for positive action

measures under Community and domestic law than would seem to be indicated by existing schemes. Also, there are far fewer impediments to positive action under constitutional or basic law than is sometimes supposed. The Commission is already urgently promoting positive action programmes, and these initiatives are strongly supported by the network.

Inter-university cooperation programmes in the second year of Erasmus

'Si je devais recommencer, je le ferais par l'éducation.' This adage of Jean Monnet, one of the founding fathers of the task of European unification after the Second World War, has been readily quoted in recent years to express the idea that the success of all the endeavours towards unification does not depend on economic integration alone, but that education too must make an important contribution to this

In this connection, the conviction has grown that in order to maintain and enhance the competitiveness of the European Community on world markets and to create a people's Europe, great efforts must be made to put the available intellectual potential to better use and, in particular, to produce more graduates with first-hand experience of living and working in other countries of the Community.

Basic conditions of the Erasmus programme

In view of these requirements, the Council decided in June 1987 to launch the Erasmus programme (action scheme for the mobility of university students). The goals of this programme, as stated in the Council Decision 1 are the following:

- (i) to increase substantially the number of university students² undertaking an integrated period of study in another Member State, in order that the Community may draw on an adequate supply of manpower with direct experience of the economic and social life of other Member States;
- (ii) to promote wide-ranging and intensive cooperation between the universities of all the Member States;
- (iii) to harness the intellectual potential of the universities in the Community by means of increased mobility of teaching staff, thereby improving the quality of the education and training provided by the universities with a view to securing the competitiveness of the Community in the world market:
- (iv) to strengthen the interaction between citizens in different Member States with a view to consolidating the concept of a people's Europe;
- (v) to ensure the development of a pool of graduates with direct experience of inter-Community cooperation, thereby creating the basis upon which intensified cooperation in the economic and social sectors can develop at Community level.

The Erasmus programme cannot be regarded as a separate entity, but is to be considered in the context of and as an extension to a series of Community initiatives in the field of education, which include, *inter alia*, the Community action programme on cooperation between universities and enterprises in the field of technology (Comett), the Science programme designed to stimulate cooperation and exchange in the field of science, in particular by making grants available for research, as well as the var-

ious programmes which the Community is currently implementing or developing in fields such as, for example, the mobility of young people, the improvement of language teaching or the introduction of an increased Community dimension into the curricula. In addition, the various other measures which are currently being implemented with regard to the creation of a people's Europe must be considered in this context.

Owing to their transnational dimension, the Erasmus and Comett programmes, and the specific projects carried out in the context of these programmes, represent an important step towards the achievement of the internal market. Erasmus will on the one hand contribute to increasing the competitiveness of enterprises by placing the emphasis on the promotion of a larger number of students having had firsthand experience of other Member States in the course of their studies and who are better qualified thanks to their knowledge of languages and other cultures and on the other hand consolidate the provisions in favour of the free movement of persons through measures designed to facilitate academic recognition of diplomas.

The Council allocated a budget of ECU 85 million for the first three-year phase of the Erasmus programme (1987/88: ECU 10 million, 1988/89: ECU 30 million, 1989/90: ECU 45 million).

The inter-university cooperation programmes

The so-called inter-university cooperation programmes hold a central position within the Erasmus programme. The Commission grants subsidies to universities in various Member States wish-

¹ 87/327/EEC Decision of 15 June 1987 (OJ L 166, 25 June 1987, p. 20-24).

In the context of the Erasmus programme, the term 'university' shall be used to cover all types of post-secondary education and training establishments which offer, where appropriate within the framework of advanced training, qualifications or diplomas of that level, whatever such establishments may be called in the Member States.



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ing to set up university cooperation programmes with one another involving one or more of the following types of cooperation:

- (i) student mobility programmes;
- (ii) teaching staff mobility programmes;
- (iii) joint development of new curricula;(iv) intensive programmes.

Inter-university cooperation programmes should comprise cooperation organized with a long-term perspective during which the cooperation activities should be engaged in on a regular basis. Without underestimating the importance of the initiatives taken by individual university lecturers in organizing interuniversity cooperation programmes, this involves a form of organized cooperation under the responsibility of the participating universities. In general, accords or partnership agreements are concluded between departments, faculties or universities. Generally speaking it is true to say that the Commission gives preference to the programmes where the cooperation is reciprocal, which does not, however, necessarily mean exact symmetry in the cooperation activities.

Support is, in principle, not provided for cooperation in research, or adult and further education, not because these areas are considered less important, but because they are covered by other Commission programmes.

Before the adoption of the Erasmus programme, the Commission granted subsidies from 1976 to 1986 for the development of joint study programmes in the context of a pilot project and in so doing has already gained important experience in the field of cooperation between universities.

The bulk of the funds earmarked for the inter-university cooperation programmes is intended for student mobility programmes and for teaching staff mobility programmes. All the student and teaching staff mobility programmes receiving financial support from the Commission form part of the European university network (Action 1 of the Erasmus programme).

The student mobility programme grants are earmarked for universities which introduce programmes giving the students of a particular university the opportunity of studying for a period at a university of another Member State, which is fully recognized by the home university when granting the diploma or in the final examinations of the students concerned, irrespective of which field of study and which level of study (up to the final examination for a doctorate) is involved. The study period spent in another Member State must be of a sub-

stantial duration (as a rule, a minimum of a term or semester, under no circumstances however less than three months).

The students involved in inter-university cooperation programmes receiving support take priority in the allocation of student mobility grants (Action 2 of the Erasmus programme). The student grants are divided between the Member States according to a distribution key and are in general granted by national award authorities taking into account the priority for students involved in the interuniversity cooperation programmes.' In addition, in most Member States, there are limited possibilities for individual students outside the inter-university cooperation programmes.

The subsidies for teaching staff mobility programmes are earmarked for universities which introduce programmes in the context of which teaching staff of one university are given the opportunity of teaching at a partner university in another Member State. Priority is given to those programmes in the context of which the guest lecturers make a substantial contribution to the regular teaching programme of the host university and the teaching should in general last for a minimum of one month

In the context of Actions 3 (measures to improve academic recognition) and 4 (complementary measures), the universities have at their disposal, in addition to the other components of the programmes provided for under these actions, limited possibilities for the promotion of the joint development of new curricula and intensive programmes:

(i) The grants are on the one hand intended for universities in different Member States which intend to develop new curricula jointly. The goal must always consist in introducing the jointly developed curricula in all the participating universities. Projects which relate to the joint development of complete courses of study are given preferential treatment by the Commission.

(ii) In addition, assistance may be provided for universities in different Member States which implement common short intensive teaching programmes at which students and teaching staff from different Member States of the European Community meet. This type of programme must be carried out as a full-time programme, lasting between one week and one month. In assessing the applications for support for intensive programmes, the Commission attributes particular importance to both the number of students participating and the contribution which the programme can make to the intensification of closer cooperation between the participating universities. In this respect, preference is given to programmes which are really 'multinational' as regards the students and teaching staff involved, as well as to programmes which have a specific theme which is not normally taught by any of the participating universi-

In addition to the subsidies for inter-university, cooperation programmes and the mobility grants for students, there is, in the context of Erasmus, a comprehensive programme of travel grants for university staff as well as a few other types of subsidies, which, however, will not be dealt with here. (Table 1 gives a survey of the most important subsidies in the context of the Erasmus programme).

Results of the 1988/89 selection procedure for inter-university cooperation programmes

1988/89 is the second year in which the Erasmus programme has been running. Of the total budget of ECU 30 million provided for this year, about 10 million was reserved for inter-university cooperation programmes, ECU 9 million for the student and teaching staff mobility programmes within the European university network alone. The total demand of all applicants for subsidies for inter-university cooperation pro-

Table 1

Survey of the most important subsidies in the context of the Erasmus programme

- Subsidies to universities for inter-university cooperation programmes.
 - (i) student mobility programmes;
 - (ii) teaching staff mobility programmes;
 - (iii) joint development of new curricula;
 - (iv) intensve programmes.
- (2) Mobility grants for students.
- (3) Travel grants for university staff.
 - (i) study visits;
 - (ii) preparation of an inter-university cooperation programme;
 - (iii) improvement in the organization of studies;
 - (iv) study of university systems;
 - (v) short-term lecturing assignments as short-term lectureship or course of specialized lectures.

grammes amounted to more than five times the funds available under the budget. The surplus demand proved to be particularly dramatic in the field of the joint development of curricula and that of intensive programmes, where applications were made for 15 times and 17 times the funds available respectively. It should however be noted that many applicants failed to realize that the central areas of the inter-university cooperation programmes are the student and teaching staff mobility programmes.

Of the 2 041 applications received, 1 579 involve a student mobility programme, 745 a teaching staff mobility programme, 575 a programme for the joint development of curricula and 521 an intensive programme.

The Commission decided to distribute the support available among 1 091 inter-university cooperation programmes. Of these, 948 include a student mobility programme, 214 a teach-

In accordance with the Council Decision, the distribution key takes account of the following two parameters: the number of young people of between 18 and 25 years of age and the number of university students in each Member State.

ing staff mobility programme, 79 a programme for the joint development of curricula and 72 an intensive programme. This corresponds to a success rate of 53% overall, although the success rates for the individual components of the programme differ considerably (60% for student mobility programmes, 29% for teaching staff mobility programmes, 14% for programmes for the joint development of curricula and 14% for intensive programmes).

Table 2 provides a survey of the participation of universities from the various Member States in all 2 041 applications and in the 1 091 projects accepted for inter-university cooperation programmes.

Table 3 shows the distribution of the applications and programmes over the various subject areas. In this context, attention should be drawn to the problem that the number and quality of the applications in the various subject areas differed considerably. In certain subject areas, good quality applications accumulate, so that care must be taken to ensure that the Erasmus programme is not flooded by individual subjects (in particular languages and business management could be mentioned here). Within closely drawn limits, the selection must set stricter standards for some subjects than for others.

77.4% of all applications for interuniversity cooperation programmes involve a student mobility programme. The students of the 948 student mobility programmes accepted have priority in the allocation of the Erasmus student grants which — as mentioned above are generally given to the students through national grant authorities. With the budget allocated to student grants of ECU 13 million, about 6 500 student grants of an average amount of ECU 2 000 for one academic year can be financed, with the amount of the grant varying in individual cases between ECU 500 and 5 000

These student grants are to pay the additional costs incurred from the stay abroad, as well as travelling costs and, where appropriate, the linguistic preparation of the students, whilst the universi-

Table 2: General overview of inter-university cooperation programmes 1988/89 by Member State

Member State	Coordinat	ting inst	itutions1		Total number of involvements ²				
er to the Mark to have	All applica	ations	Accepted	ICP	All applica	ations	Accepted ICP		
	Number	%	Number	%	Number	%	Number	%	
В	173	8.5	89	8.2	347	17.0	191	17.5	
D	293	14.4	144	13.2	830	40.7	449	41.1	
DK	44	2.2	25	2.3	120	5.9	73	6.7	
E	180	8.8	103	9.4	532	26.1	314	28.8	
F	444	21.8	225	20.6	1 044	51.1	578	53.0	
GR	51	2.5	20	1.8	137	6.7	74	6.8	
1	211	10.3	124	11.4	489	24.0	291	26.7	
IRL	57	2.8	26	2.4	160	7.8	95	8.8	
LUX	2	0.1	0	0	8	0.4	4	0.4	
NL	169	8.3	96	8.8	418	20.5	260	23.8	
Р	50	2.5	29	2.7	160	7.8	101	9.0	
UK	367	18.0	210	19.2	1 030	50.5	571	52.3	
Total	2 041	100	1 091	100	3 338		Call Ta	1218	

¹ Each ICP has one coordinating institution. This institution is in many cases the main driving force behind the ICP.

Table 3: General overview of inter-university cooperation programmes by subject area

Subject area	All applica	ations		Accepted ICPs		
	Number	980	%	Number	%	
Agriculture	65	50	3.2	39	3.6	
Architecture	71	is a	3.5	39	3.6	
Fine Arts/Music	61	197	3.0	31	2.8	
Business	222	Ro	10.9	102	9.3	
Education	63	. 03	3.1	23	2.1	
Engineering	281		13.8	158	14.5	
Geography/Geology	62	11.	3.0	26	2.3	
Humanities	108	100	5.3	61	5.5	
Languages	371	STO	18.2	208	18.9	
Law hit the second selection	119	-64	5.8	72	6.9	
Mathematics/Informatics	68	100	3.3	39	3.6	
Medical Sciences/Psychology	139	40	6.8	63	5.8	
Natural Sciences	172	316	8.4	103	9.4	
Social Sciences	187	49)	9.2	100	9.2	
Miscellaneous	52	do:	2.5	28	2.6	
Total	2 041	kryn	100	1 091	100	

² The figures mean that, for example, Belgian universities are *involved* in 191 (17.5%) of the 1091 accepted ICPs. Each country is counted only once in each accepted ICP in which it is involved, even if several universities from that country are participating in the ICP concerned.

ties can finance the costs of the development and implementation of the programme with the subsidy intended for them. These include, for example, the travelling costs of the members of the university's staff who attend meetings, costs for the preparation and translation of course material for use in student mobility programmes or costs which arise for the universities from the preparation (in particular the linguistic preparation) of the students.

Table 4 shows the distribution of the grants among the individual Member States. A problem arises however from the discrepancy in real movements of students between the Member States and the respective national quotas provided for the Member States. Some Member States are involved in considerably more applications and accepted inter-university cooperation programmes than corresponds to their quota for student grants. This leads, under certain

circumstances, to a situation whereby only some of the students participating in the corresponding programmes are able to receive a mobility grant. This imbalance can also only be corrected to a limited extent in the selection of the programmes. It is certainly one of the tasks of the assessment of the Erasmus programme under consideration to reflect on this kind of problem with regard to the future organization of the Erasmus programme.

Table 4: Erasmus — academic year 1988-	1989. Distribution of the budget for student	grants between Member States.
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	В	DK	D	GR	E	F	IRL	ŀ	LUX '	NL	Р	UK	EC
Young people 18-25 years													
in thousands % EC	1 253 2.97	630 1.49	8 352 19.81	1 179 2.80	5 127 12.16	6 873 16.30	472 1.12	7 408 17.57	47 0.11	2 013 4.78	1 354 3.21	7 445 17.66	42 153 100
Students													
in thousands % EC	219 3.11	127 1.81	1 550 22.05	168 2.39	935 13.30	1 279 18.19	55 0.78	1 182 16.81	1 0.01	390 5.55	118 1.68	1 007 14.32	7 031 100
Each Member State's share of the budget (based on the 2 parameters mentioned above, taking into consideration that LUX = 0.75 %	3.02	1.64	20.79	2.58	12.64	17.13	0.94	17.07	0.75	5.13	2.43	15.88	100
Number of annual grants (based on a total budget of 13 mil- lion ECU)	196	107	1 351	168	822	1 113	61	1 110	49	333	158	1 032	6 500

A pilot experience in training and exchanges between Lyons and Genoa

Pilot project for training of French and Italian executive staff

A meeting at the end of 1983 during a colloquium of the Cedefop between the representatives of the Federindustria Liguria and the Lyons Chamber of Commerce and Industry was the occasion for determining common concerns regarding development and training in SMEs.

A wider ranging examination of the situation made it possible to analyse the economic and institutional context in the two regions, to appreciate both points in common and the complementary nature of the two organizations (Federindustria Liguria and the Lyons Chamber of Commerce and Industry), in particular in the matter of assistance to enterprises:

- (i) advice to the SMEs, that is, advice on training;
- (ii) setting up of new companies thanks to the role played by the Alderly in Lyons and the Filse, a financial body, in Genoa;
- (iii) transfer of technology;
- (iv) promotion of enterprises and study missions abroad.

The Federindustria and the Lyons Chamber of Commerce and Industry submitted a joint training project to the European Social Fund in 1985 which focused on three principal themes:

- (i) computerizing and management of SMEs;
- (ii) strengthening the structure of small firms by bringing in new skills (experienced executives);
- (iii) founding new, especially innovative, enterprises.

Objectives and results of the three training actions

1 — Computerizing the SMEs

This involved responding to the needs of enterprises which wanted to install a substantial information processing system such as would have to be undertaken either by a services company or a competent person who would assist the head of the company in developing the project.

The Lyons Chamber of Commerce and Industry and the Federindustria opted to promote the latter alternative based on job creation and professional insertion through alternating periods of training and employment. The enterprises are offered a training and assistance package covering:

- (i) the recruitment of young computer management assistants of Bac + 2 to Bac + 5 level with or without previous professional experience;
- (ii) 800 hours of training, on an alternating basis, and the development of the computing project within the enterprise itself. A full training programme is provided in information technology, organization and management. The training is given by the Ecole Supérieure de Commerce in Lyons and by the Enfapi in Genoa.

In France the trainees are paid by the company and employed on the basis of a provisional contract. An informatics advisor is sent to the head of each company to supervise each stage in the project's development. This advisor is in contact with both the person responsible inside the company and the training team in order to participate in assessing the professional objectives of the young employee.

In November 1987, the Lyons Chamber of Commerce and Industry embarked upon the third session of this programme with 11 companies. The results have proved positive as 21 firms have already created a job since 1985 while simultaneously computerizing

their business. The majority of the young people involved are in a job to-day.

This programme has benefited from exchanges between the teams from Lyons and Genoa both at the level of the direct approach to firms practised in Genoa and at the pedagogical level with the Italians adapting the selection tests and certain aspects of the system of alternating periods of training in order to achieve a better balance between employment and training. It should be noted that in Genoa 40% of the candidates find employment in computer services companies.

2 — Strengthening the structure of SMEs by recruiting an experienced executive

The objective is to allow firms to be better equipped to adapt and to organize in the light of often rapid changes in society by recruiting an executive who, by virtue of both his training and experience, is able to provide valuable assistance to someone running a small firm.

The action is aimed mainly at executives seeking employment or likely to be doing so in the near future. These are given the opportunity, following tests and interviews, of attending a training course of 440 hours consisting of the following:

- a professional appraisal of two to three weeks allowing the executive to determine a sense of direction by defining his field of action within a company,
- (ii) three months' training designed to supplement or up-date his knowhow while he also seeks paid employment and insertion in his position. This approach, where the emphasis is placed on securing employment on the basis of experience and specific supplementary training, excludes any prolonged training.

Two sessions have been completed since 1985 and a third is now starting. The first session, which provided employment for seven executives, adopted a somewhat different approach as the

Lyons Chamber of Commerce and Industry, first of all selected the enterprises and then the executives. But as the situation in Lyons displayed a marked imbalance between the availability of experienced executives and the unprompted need on the part of the enterprises it was considered appropriate to establish a system by which the executive seeks employment with a certain amount of assistance but on the basis of his own initiative. Experience has shown that this is the best procedure for promoting the signing of long-term employment contracts resulting from decisions taken with the minimum intervention of intermediaries between the company head and the executive. The second session, which adopted the latter approach, resulted in jobs for 10 executives over a six-month period.

3 — Setting up new companies

This revolves around assisting those interested in setting up a company in realizing their ambitions. The projects must be innovative, that is, aimed at exploiting new fields, in technology, for example, or in more traditional areas which have a high potential for growth. The Lyons Chamber of Commerce and Industry is well-placed to coordinate requests of this kind thanks to the synergy between its Innovexpert service and the Ecole Supérieure de Commerce de Lyon.

The programme offered, comprising 720 hours after the selection procedures based on objective criteria of feasibility, again includes a system of supervision with 240 hours of management training and 300 hours of individual work by the future entrepreneur backed up by 180 hours of individual assistance by consultants.

In the course of the exchanges with Genoa, the Enfapi organizers adopted assessment criteria implemented by the Ecole Supérieure de Commerce de Lyon. In Lyons 24 entrepreneurs realized their ambitions and an additional cycle for 8 to 10 candidates was launched in association with the FSE to satisfy a more sustained demand in this area than in Genoa.

4 — Widening the scope of cooperation

In addition to the convincing results of these actions which correspond well to the needs expressed by small- and medium-sized enterprises and the regular pedagogic exchanges on the subject of the three programmes, fruitful relationships have been fostered between the Lyons Chamber of Commerce and Industry, the Enfapi in Genoa and certain partners, enterprises and institutions who cooperate with these two organizations.

In the field of training there are the exchanges of French and Italian pedagogic material, visits to the Enfapi in Genoa by lecturers at the Ecole Supérieure de Commerce de Lyon in the framework of advanced instruction in management, agreements between the Institut d'Administration d'Entreprises of the University of Lyon 111 and the Enfapi and contacts between the INSA and the Genoa Faculty of Engineering for arranging in-company training for students. Finally, a meeting between a delegation of representatives from Rhônes-Alpes region and their opposite numbers from the Ligure region in Genoa in May 1987 provided the opportunity to exchange policies and compare the regional training practices in the two regions.

The exchanges arising out of this cooperation between Lyons and Genoa in the field of training also involve wider fields of interest in economic, commercial and technological matters. Without seeking to list them all, the following are of particular note:

- (i) contacts between the Innovexpert service of the Lyons Chamber of Commerce and Industry and the TEAM company, the main interlocutor of Federindustria Liguria in the field of transfers of technology, which led to the sale of licences and joint research in sectors of advanced technology, such as composite materials for example,
- (ii) relations entered into between the Aderly, which is responsible for promoting Lyons and the Federindustria

Liguria which led to five Italian companies setting up in Lyons,

(iii) the commercial mission with which the Foreign Trade Department of the Chamber of Commerce and Industry charged the aforementioned TEAM company in order to ensure the promotion of our companies in Northern Italy, thereby proving that, as far as relations with other countries are concerned, even the most effective actions need the basis of a familiar starting point, as is the case between Lyon and Genoa, and that this avoids the difficulties inherent in making direct approaches to centres of attraction which are much in demand, such as Milan.

Other consequences of the Lyons-Genoa programme include the establishing of contacts with other regions of Italy and in particular Emilia Romagna. This has long been considered as a model of the economic development of the SME and it is where the Lyons Chamber of Commerce and Industry presented a paper with the Enfapi in the framework of a colloquium in Bologna organized at the instigation of the Italian Chambers of Commerce and with the support of the European Social Fund.

This report would not be complete if we did not mention in conclusion two initiatives, one of which may be considered as rounding off three years of experience and the other as constituting a transitional stage for the immediate future. The former is the organization of the colloquium in December 1987 in Lyons on the theme 'preparing the men of the SMEs for the prospect of 1992'. This subject, which was treated before an assembly of 400 heads of companies and decision-makers and organized jointly by the Lyons Chamber of Commerce and Industry and the Federindustria Liguria with substantial support from the European Social Fund, the SME Task Force, the Cedefop, the APCCI and the Etablissement public regional, was prepared in both Lyons and Genoa with the heads of companies. The event concluded with the proposal by the President of the Lyons Chamber of Commerce and Industry, Mr Carrot, the Vice-President of the Federindustria Liguria and the SME-PMI President, Mr Massiglia, to follow-up on the contacts already established by organizing regular meetings between SMEs in the run up to 1992 in order to reflect upon the situation and the specific strategies of the SMEs faced with this new challenge. In this way, the effective cooperation which

has been initiated between the men from these two regions after three years of working together augurs well for the future.

In the near future the Lyons Chamber of Commerce and Industry and Federindustria Liguria are also anxious to set up a fully-fledged inter-regional training network as a vehicle for economic

exchanges and relations in the service of our local companies. An initial step in realizing this ambition is the proposal for a new pilot programme presented to the European Social Fund in association with Saragossa in Spain. This project brings together other partners in close association within the Lyons Chamber of Commerce and Industry and should begin at the end of 1988.

Individual adaptation to technological and social change

In 1987 a team from the Technological Institute of Copenhagen and the University of Sheffield came forward with the idea of working on the problems of individuals when it comes to change. They were then asked by the Commission to carry out a study on 'Measures to facilitate adaptation to technological and social change'.1

This study examined how individuals react to change, feel threatened or challenged by it and how they cope with it, whether they stagnate or whether they grow personally as a consequence of the transition process.

To date, change has been looked at mainly in the context of its economic, technological and occasionally demographic aspects. Mass behaviour has been studied rather than individual psychological motives and dynamics.

The interrelationship between the forces for change in the environment and the dynamics of the reactions of individuals to change is a central issue. The pressure exerted on the individual to perform new tasks, acquire new skills, and adapt to new roles and conditions on the one hand and the capacity to satisfy the individual's need for change on the other must be assessed. The faster the pace of technological change becomes now and in the foreseeable future, the more urgent this process also becomes. There will be increasing pressure on individuals to adapt, people will have to adjust faster and more frequently to new tasks, roles, and working and living conditions and may be required to move more rapidly from one occupation, field of education or geographical location to another.

The growing pressure for social change might exceed the capacity or readiness of the individual to respond appropriately and effectively. The effects that this could have on health and well-being could create barriers to social and technological developments.

To appreciate the complexity of social change, it is helpful to consider how different elements and forces are systemically interconnected. Changes in one area, for example new technology, can be just as much a cause as they can be an effect of change in another area, for example political decision-making.

To outline certain problems it is important to determine what changes have taken place in the recent past and how these changes are likely to continue in the future. Here again, we are faced with the question of whether the future can be predicted from the past. Are current trends likely to continue or will there be new aspects of which we are not yet aware such as international conflicts, movements on the stock and money markets or major decisions by cartels such as OPEC etc.

Thanks to the dramatic advances made in the field of information technology, we are now able not only to describe current trends but also to develop models for the future, but there will always remain a high degree of uncertainty.

All the predictions which emerged from this study are therefore highly tentative and provisional.

The study is based on three activities:

- survey of literature on social and individual change;
- (2) interviews with experts from various scientific disciplines such as applied psychology, labour economics, sociology, technology and industrial relations:
- (3) interviews with 'changees', people who have recently or are currently experiencing transition, who are adapting to new demands, roles and conditions.

The main findings of the study can be summarized as follows:

It has not been confirmed that the much debated role of technology is the main and overwhelming cause of change stress and adaptation demand. Technology is so clearly interrelated with other elements and developments in society that it appears difficult to single it out as a prime factor.

As regards the individual, only relatively few people seem to be aware of technological change as an important factor in their own work or life experiences. However those who do indicate a connection just as often find it as beneficial as they find it threatening. Changes in society, which often also include technological changes, may occur at an increasing pace in the future but the conclusion will not necessarily be an increase in stress or ill-being for individuals in general: the pace of change and the adaptational stress which a person experiences throughout his life are caused by a variety of factors of which macro changes in society only account for a minor part. It can therefore not be concluded that new technology as well as an accelerated rate of change will have detrimental effects on people in general, but there are always changes which inevitably will be harmful to some individuals or groups. If one takes for instance the situation of older workers in obsolete industries who lack the resources to learn new trades or to adapt to new life conditions, the situation becomes rather evident.

Another group which is highly affected by current and future societal changes and which deserves special attention are the unemployed. Unemployment emerged as the main problem affecting individuals.

There is also a trend to be seen towards segregation between people in fulltime well paid employment close to the centres of wealth and production and

Individual adaptation to technological and social change — Report on the study; 'Measures to facilitate adaptation to technological and social change', Gert Graverson, Nigel Nicholson, January 1988.

those on the periphery. This development has far-reaching consequences requiring attention and action.

Do individuals need change for their well-being?

In general it can be stated that the need for change is as important to people as is the need for stability. The absence of change-satisfaction can be just as harmful to well-being and health as changes which are too many or too rapid. This means that environments which restrict changes are as undesirable as those which demand them.

Individuals differ greatly as regards their ability to cope with change. How well a person responds and functions in situations of change depends on many personal as well as contextual factors. It is important to note that people can learn to be 'good change copers'. They therefore must be given social support especially in stressful situations of change.

In general it was found that more guidance and advice were needed to help people to cope with the stresses of change, clarify personal goals and take advantage of opportunities.

Individual change behaviour

The purpose of the study was to throw light on the interaction between environmental and personal change and to discuss the question of the extent to which environmental change implies stress for the individual. The term 'individual change behaviour' refers to all the perceptions, actions and reactions an individual exhibits towards change. The perception of change is closely linked with experiences of change, evaluation and appraisal as well as attitudes to change of the individual.

Active change refers more to self-initiated changes and the motivation underlying them. Reaction to change emphasizes the person's response to pressure for change in the environment

and encompasses both health and wellbeing, as well as the ability to cope and adapt.

What is it that makes experienced changes important and significant for the individual? Or more precisely: why, when interviewed, did people select specific changes but fail to mention others?

The most obvious and also the most frequent answer was the magnitude of changes, the personal impact of the changes or the number of different spheres of the person's life which were affected by the changes.

The most frequently mentioned criterion was the importance of change in terms of how it helped the person to change, learn and grow. Those interviewed reported that they became more independent, more confident and more mature through the experience. They saw themselves in a different way, broadening their attitudes to life and their values, or changing their roles and their identities. This personal change and development which takes place as a consequence of life changes was seen in a positive light. However, change in self-perceptions and selfesteem can also be negative or involve mixed feelings.

Another criterion for the significance of change is the extent to which the environment or living conditions change.

This change may affect either the physical surroundings in terms of housing, e.g. moving from the city to the countryside or vice versa, or other aspects of physical living space.

The results of the interviews show that the question of higher or lower living standards is of lesser importance although it is by no means irrelevant.

Another major dimension is change in the social environment: meeting new people, acquiring new friends and missing old friends are frequently reported as primary reasons for experiencing a change as central and important.

As further key elements changes in life satisfaction and the quality of life were mentioned quite frequently: the extent to which the person becomes significantly more or less contented and whether the quality of life in general has been enhanced or impaired by the changes.

A very important factor is the emotional impact the change had on the person at the time and in the immediate subsequent period. In addition to these more general criteria, the connection with work, employment and career was the common denominator in the most important changes people had experienced.

What is the relevance of social change to personal change experiences?

One of the central areas of interest of this study was the relationship between societal changes, pressure for change and experience of change.

Important considerations in this context are therefore the extent to which societal change processes influence the experience of personal change, and the relative impact of societal pressure compared with other impetus for change, for example routine life transitions or interpersonal changes. And in consequence of that: Are societal changes perceived to be the cause of stresses and adaptation demands, and consequently a major factor in the life of the individual, or are they of lesser significance compared with the totality of change and adaption demands in a person's lifespan? Or in other words: how are the minor changes in a person's life connected with macro changes in society?

Clearly, there is also the matter of whether the impact of change is immediate and direct or remote and indirect and the fact that over time there will always be a connection between the two levels. In the context of this study the analysis is limited to the more immediate short-term effects of change so as to explore how technological and other societal changes, now and in the near future, will give rise to change demands, constraints and opportunities for the individual.

Another issue is the distinction between objective and subjective linkages. The interest of the study lay in how changes are experienced by individuals themselves because their reaction is influenced by their individual perception of the situation.

The study describes a number of cases where linkages were perceived between technological and personal changes. They include examples of new technology being harmful as well as beneficial. New technology was seen as a threat as well as an opportunity and in some cases both threat and challenge were felt to be present at the same time.

With regard to how the societal pressure for change manifests itself in individual change and adaptation, the interview data suggest that it is not merely the actual events, such as for example being made redundant, that can be traced to societal influence, but also how the individual appraises the situation. Whether pressure is perceived as a constraint or an opportunity influences the choice of action made by the individual.

People were also asked to discuss the extent to which personal changes were self-determined or caused by external forces beyond their control.

It is worth noting that the numerical distribution of answers indicated that the majority of changes were seen as self-determined. Only one quarter of all the changes were perceived to be events over which the persons themselves had no control. Unemployment was the only factor felt to provoke a larger proportion of involuntary than voluntary changes, and it should also be noted that work and job changes are almost universally described as self-determined.

When analysing these answers it seems relevant to consider whether they reflect the 'real' situation in an objective sense or merely reflect self-serving and hence retrospectively biased perceptions.

Psychologists call this 'cognitive dissonance', which explains how people, consciously or unconsciously, tend to emphasize the self-controlled aspects of changes which lead to benefical outcomes and to attribute negative outcomes to circumstances outside their control. The central point of interest in this context is the very high percentage of changes reported as voluntary and self-determined.

Further analysis of the interviews however shows that the experience of self-determination also depends on the characteristics of the person.

In looking at the psychological mechanisms of change appraisal it must be underlined that people clearly have a need as well as an ability to make sense of their life experiences. It emerged very clearly from the interviews that the inclination to turn negative or stressful events into positive experiences is a healthy coping mechanism.

These mechanisms are used as a conscious strategy by individuals who are mostly characterized as 'good copers', or as people who are skilled at finding new ways of increasing their satisfaction in life.

However, this does not mean that positively assessed changes are in any objective sense good or desirable. For example one of the interviewees described the fact that he broke his leg as a positive event because it gave him time to think. Breaking legs however cannot be recommended.

One of the very general and central questions to this study was whether changes were good or bad and why. Should changes be avoided as far as possible or should people seek changes? Is there such a thing as an optimal level of change for the individual, so that too much as well as too little change can cause stress or have other detrimental effects for the person?

It emerged very clearly from the study that change experiences were central to people's view of their life histories. People's attitudes to change were very much reflected in the way they appraised past experiences of change. It therefore also indicates their readiness to seek or avoid future changes as

well as their ability to cope with and make sense of changes.

Resistance to change, which in much of the management literature is regarded as one of the main obstacles to organizational innovation must be seen in the context of the linkage between self-determination and appraisal of change. It is usually involuntary, imposed changes, over which the individuals feel they have no control, that are resisted.

Effective coping seems to be positively correlated with health and well-being and contains almost invariably an element of personal adaptation and learning.

What is necessary to make change an effective event?

The availability and use of social support emerges as an important factor in the process of change and in coping with the stresses of change. It is very important to note that not only the availability of social support is important but also the individual's readiness to use it. The use of social support in itself can be regarded as a coping strategy, and effective coping includes the ability to ask for and make use of social support where appropriate.

Sources of social support can be found in interpersonal relations, social networks and institutions. Social support means practical support (direct help in solving problems such as borrowing money, having a letter typed, etc.), information (supply of information which help the person to solve a problem, to make decisions and choices) and emotional support (the provision of psychological resources like sympathetic understanding, encouragement, comfort and well-being, etc.)

All these forms of support can be provided by all three sources, but in practice there is a division of function, so that emotional support is linked primarily to interpersonal support.

Different forms of social support were usually called for at different

stages of the transition process. The general impression was that the full potential offered by social support was far from optimally developed from the point of view of both interpersonal and institutional support.

Sometimes there are barriers to the use of social support which appear to be connected with cultural norms.

What are the outcomes of change?

In evaluating outcomes it is important to bear in mind that change is a process which occurs over a period of time, thus implying that the achievements and difficulties people continually experience throughout periods of change are themselves important outcomes, which may have important longer term significance for people, organizations and society.

For example, negative short-term outcomes of unemployment and divorce do not prevent poeple from later re-appraising the event as beneficial in its long-term consequences, typically because the event signified a turning point in life, often impelling the person to take advantage of new opportunities and arrive at new realizations.

This however does not mean that change may not be emotionally upsetting at the time, lead to poorer living conditions, cause lengthy distress, etc.

Another issue besides the aspect of time is the kind of positive and negative

outcomes that can be expected fo follow from change experiences and what influences them.

The outcomes must be considered from the point of view of society as well as from that of the individual. The main areas in which one may expect to find important consequences, either positive or negative are the following:

For society:

efficiency, innovation, mobility, economy and employment, social values and divisions.

For individuals:

health and well-being, lifestyle and living conditions, relationships, personal development, effectiveness.

There is not necessarily a correlation between the positive or negative value



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that may be attached to the outcomes for the individual and society. This means: what is good for society is not necessarily good for the individual and vice versa. And here the time-factor comes into play: out of events with immediate negative as well as positive outcomes, people reflecting on the event at a distance often find deeper satisfaction at how the experience has benefited them

This is true for example of personal development and effectiveness. Both outcomes — individual and societal — can be negative as well as positive. People may feel personally diminished or less effective as a result of a change, but this is less common than positive development. Personal development as an outcome of change has implications for the development of the wider culture and provides for example a link between individual and societal outcomes.

The negative consequences of change are not inevitable, but the result of choices and adaptational strategies implemented by individuals and institutions.

Usually little thought is given to the challenge this represents. More attention is typically given to decisions to initiate change than to managing its consequences.

At all levels of society from policy-makers to private individuals, people should ask themselves if they are initiating too much change of the kinds whose outcomes are potentially damaging to society's members or too little change compared with what is needed for their well-being and effectiveness.

If changes with risk of damaging consequences are unavoidable, it should then be asked what measures can be undertaken to facilitate successful adaptation.

What are the measures to facilitate individual change and adaptation?

In the last part of their study the researchers suggest some possible measures to stimulate pressure for positive change, minimize stressful demands and help individuals to cope effectively with processes of social change.

Among the change agents that are involved here (including the European Community), employers, private as well as public, occupy a central position in helping individuals to adapt as most changes occur in and around working life

The central role played by the employers in society and in the life of individuals makes it reasonable to expect them to assume broad social responsibilities.

The main areas in which organizations are seen as having the potential to facilitate constructive change processes are: avoiding destructive change demands e.g. lay-offs, removing change constraints, creating change opportunities e.g. new jobs, adjusting work structures through organization and job development, providing training and education and — one of the most important factors — having employees actively participating in change processes.

Another important agent in the process of change is the unions which continue to represent the interests of many employees in a changing society, protecting them from excessive or unjust change demands.

Yet, on the other hand the unions are often seen as barriers to change, not only for the enterprise but also for the individual. In many cases the traditional structures and policies of unions seem poorly organized to meet the challenge of current and future changes in technology, business and workforce structure. Thus, when pointing in their recommendations to the unions as agents playing a central role in removing change constraints and barriers, creating change opportunities and restructuring social systems, the researchers refer to changes within the unions themselves as much as to their role as in facilitating change in work organizations.

Another important role is played by the various kinds of counselling institutions, especially from the point of view of those parts of their counselling functions which relate to change. It is recommended that counselling institutions and especially those whose services are needed in cases of unemployment or career breakdown should be more prepared to take on the task of providing guidance and support of this kind, which seems to be much in demand.

The measures that are suggested in this study can be divided into four categories:

- (1) information assembly and distribution,
- (2) control over pressure for change,
- (3) control over contextual conditions,
- (4) the stimulation of individual change behaviour.

This means an increase of activities in research, involving the evaluation of current and future pressure for change and how they affect the individual.

Another important measure is the dissemination of information and the provision of communication channels. These factors emphasize the role of individuals and groups in society. In principle all possible agents are involved.

Changes which are predicted to have inevitable detrimental effects on individuals or groups should be approached in a manner avoiding destructive change and adaptation demands.

The main problem here is dismissals and redundancies which lead to unemployment. When these seem to be unavoidable, menas of providing alternative choices for the people involved should be sought.

Measures in the field of *removing* change constraints and barriers would include assessing and possibly changing any legislation which restrains mobility such as for example tax systems and governmental regulations.

Creating change opportunities is another important measure. It could include job creation within and between the public and the private sectors, flexible career patterns and opportunities within and between organizations, pro-

viding experimental temporary job and career opportunities, for example job exchanges between organizations and geographical relocations, sabatical leave and travel opportunities as well as the provision of educational opportunities

In another area measures should be introduced as regards the *restructuring* of social systems, abandoning structures and systems that restrict change, and replacing them with structures which facilitate change. These measures would include for example the following: restructuring work organizations so they offer greater scope and support for individual change and adaptation, restructuring trade union practices to deal more effectively with changing patterns of work, employment, organizations and labour market structures as well as work

across the boundaries of different trades and sectors of employment and unemployment.

Geographical mobility has become another important issue over the last few years. Measures to encourage greater mobility might be: governmental and organizational economic support towards the costs of work-oriented relocation, housing facilities for individuals or families, work opportunities or training in job-seeking skills for spouses, educational and social activities for children.

Security and social support must be mentioned as an element which would include economic and other measures aimed at reducing the risk or fear of change.

In the area of training and education one can distinguish between education

aimed at specific skills and training focusing on mastering the change process by stimulating people's alertness to change and strengthening their coping and adaptational skills. Both are highly relevant when it comes to facilitating change.

As regards individual counselling and guidance information should be available for people within their immediate institutional network.

Finally, involvement and participation in decision-making is a very important factor for facilitating change. In work organizations as well as in society, attitudes towards change and the ability to cope with the stresses of change is highly dependent on the degree to which the person encountering the changes has been involved in the decision-making processes.

Part three

Recent developments



Employment policy in the Member States

In response to the wish expressed by Member States' delegations in the Council to receive information on developments in national employment policies, the Commission set up a mutual information system called MISEP. The system operates on the basis of contributions from correspondents in public administrations or organizations and a Commission representative.

It provides the relevant authorities in each Member State with regular quarterly information on measures and trends in the employment policies conducted in the other Member States.

Social Europe presents a selection of the information exchanged through MISEP in each issue. The Commission accepts no responsibility for the use of this information, which comes from official national sources. It is presented as a summary, on a regular basis, to enlighten the reader on the evolution of various aspects linked to national employment policies.

Developments at a g	glance
Overall developmen	
☐ Italy	Labour market regulations
□ United Kingdom	Employment service restructured
Aid to the unemploy	ed
☐ Belgium	'Job-clubs'
Training	
	Transborder apprenticeships
☐ Spain	Plan FIP
☐ Netherlands	Training leave
☐ United Kingdom	New training programme
Job creation	
☐ Greece	Various projects
Special categories	of workers
☐ Spain	Equality of opportunity
Placement	
☐ Germany	Radio and television
Miscellaneous	
☐ Greece	Free movement of workers
Centrefold Promoting the entrep unemployed	reneurial capacities of the

Overall developments

Italy: Labour market regulations

Under this heading the Government has recently introduced a new and broader Bill to parliament (senate No 585) containing both measures which had already been the subject of a previous Bill and new regulations aimed at employment maintenance and growth.

In the first place the institution of a Fund for reducing unemployment has been provided for. Its aim is to foster employment creation particularly in the *Mezzogiorno* regions. The Fund would finance or co-finance public investment plans or projects which are highly newemployment-intensive with priority being given to those which can be carried out immediately.

Furthermore, a special scheme for the employment of young people in community programmes for the years 1988, 1989 and 1990 has been provided for. The scheme will be financed by the Ministry of Labour. The scheme is intended for young people between the age of 18 and 25 who are unemployed and registered in class I on the placement lists. They have to be employed part-time, for a maximum period of 12 months, in activities in the public interest at the local level.

The sum paid for each working hour actually worked amounts to LIT 6 000. For the days for which it is paid it replaces the unemployment benefit which might be due. This kind of intervention falls under the concept of 'active unemployment'.

Moreover, the regulations on the Wage Compensation Fund (CIG) and on surplus personnel as well as the regulations on unemployment compensation have been put forward again with some additions.

The Bill sets out in a different way the reliefs in social security contributions which are foreseen for companies making use of training-cum-work contracts. Such reductions shall henceforth only apply to workers hired in the *Mezzogiorno* regions.

The Bill also extends by a year the special youth employment scheme (L. 113/86) eliminating at the same time the requirement as to the duration for which the young people had to be registered on the placement lists before they could be hired.

Finally, a reform of the access to employment is foreseen. Selecting new recruits by name (chiamata nominativa) is to be generalized; however, a certain amount of protection is to be maintained for the most disadvantaged persons on the labour market for whom it will be possible to reserve a certain quota of the hirings by ministerial decree.

United Kingdom: Employment services reorganization

On 26 October 1987, there was a redistribution of functions between the Manpower Services Commission (MSC) and the Department of Employment. The resultant organization, the Employment Service (ES), is part of the Department of Employment Group. It brings together the job placement and related functions of Jobcentres, previously administered by the MSC, and the benefit payment system of the Unemployment Benefit Service.

Previous organization

The launch of the ES was the first major organizational change in the Department since 1973, when the benefit payment and vacancy filling functions of the existing Labour Exchange network were separated. The arguments for separation of the services provided were strong. At the time, unemployment was low, and the labour market was suffering from a skills shortage, which the Labour Exchanges, predominantly concerned with benefit payments, were unable to influence effectively. Moreover, the Labour Exchanges suffered from a downmarket image which discouraged both employers and jobseekers from using their services. The separation of job placements and benefits payments also reflected a changing emphasis towards management by objectives within the Civil Service: it was thought that this rationalization of work would result in a more efficient and effective provision of services appropriate to the requirements of the early 1970s labour market.

The organizational changes which resulted from the 1973 Employment and Training Act established the MSC to administer Jobcentres, as part of its wider employment and training remit. Benefit payment remained the responsibility of the Department of Employment (DE).

The creation of Jobcentres allowed greater coordination and specialization of services and prevented benefit work from displacing equally important vacancy placement work. The more professional image of the new Jobcentre placement service was marketed to attract both employers and jobseekers.

Throughout the 1970s, a high profile, 'High Street' image was maintained, and Jobcentres focused mainly on providing a service which suited the needs of employers, in practice mainly those whose vacancies fell into the lower end of the job market.

Changing environment

By the beginning of the 1980s, the United Kingdom labour market had changed dramatically: in a period of economic recession, unemployment was high and rising, and the number of people experiencing long-term unemployment was increasing. As unemployment moved towards its peak in 1986, the growing isolation of certain sections of the labour market and the inability of the existing employment service structure to deal with certain problems, became apparent. Jobcentres and Unemployment Benefit Offices had developed their activities separately since 1973. Jobcentres tended to focus on numbers of placements, while Benefit Offices concentrated solely on benefit payment. Contact between the two was limited, and had been further reduced in 1981 by the removal of the compulsory requirement for all benefit claimants to register at a Jobcentre. Long-term unemployed people in particular were becoming increasingly cut off from the jobs market as a result, since they often missed out on the special help they required to get back to work.

The reorganization

The reorganization fulfilled a manifesto commitment of the recently reelected Conservative government to consult MSC about the return to the Department of Employment of its placement work and related functions. The context of these changes was the increasing common ground between the two networks. Both were providing services primarily for unemployed people; for example, in 1986, 1.6 million of the total 1.9 million Jobcentre placings were of unemployed people. Both had developed programmes of personal counselling and advice for the unemployed, via claimant advisers in the unemployment benefit service and the Restart interview programme operated through the Jobcentre network. The success of these two initiatives highlighted the importance of ensuring that unemployed people, particularly the long-term unemployed, should not be allowed to remain unassisted because of the gap between the two organizations or because they did not know enough about the help available to them. Equally, it was important that the two organizations should pool their knowledge of unemployed people's needs in order to ensure the new ways of helping the unemployed were presented in the most helpful way possible.

The main objective of the Employment Service is, therefore, to provide a more coherent and effective service for unemployed people, particularly the long-term unemployed, by offering them a range of opportunities to help them back into work as soon as possible. Other priority groups are those potentially at a disadvantage in the labour market in other ways, for example people with a disability or those from ethnic minorities. An important part of the service to clients while they are unemployed is to pay them the benefit they are entitled to, accurately and promptly.

An important responsibility of the ES is to ensure that payments are made only to those who are actively seeking and available for work.

Linking placement and benefit work will allow staff to offer even more constructive help towards unemployed people. It will involve counselling and guidance, initially throughout the period of unemployment, and in the progression into work, training, or government employment programme. It will also help the unemployed person to be aware of his/her responsibilities in the process of getting back into work and as a claimant. ES services must be relevant and accessible; for example, particular attention is being paid to how service is delivered in inner city centres.

ES programmes include: Restart, Restart courses, Jobclubs, Jobstart, Enterprise Allowance Scheme, Travel to Interview Scheme, and Sheltered Employment and other services to people with a disability (other than the Employment Rehabilitation Centres, which remain with the MSC).

Management structure

The ES has the status of an organization within the Department of Employment, which sets the framework for its activities and agrees with the provision of its resources. The ES is responsible through senior DE officials to Ministers. It is headed by a Chief Executive at Grade 3 (Under Secretary) level who chairs an Executive Board of senior officials

There are two Head Offices, in London and Sheffield, and a regional structure based on nine regions with 12 directors (London and South-East Region is divided into three divisions). The directors are the line managers of the service and the representatives in their region of the Secretary of State for Employment; they have appropriate responsibility for the Department's involvement in cross-departmental government initiatives in inner cities and City Action Teams, and they have line management responsibilities for Small Firms Centres. There are 78 area offices

of the ES and 2 000 local offices and, in all, over 40 000 staff.

Pilot approaches

A current managerial focus is to carry through the process of integration begun by the merger of the Unemployment Benefit Service and Jobcentres. A range of models for integration of local offices has been developed and ministers have approved pilot projects to take place during 1988.

The models are variants of two basic schemes: an integrated stand-alone office providing the full range of ES services; or partially integrated offices which individually offer a limited range of services but which together provide a full range of services in a locality. They will be tested in as wide a variety of locations and labour markets as possible to determine their advantages and limitations. It may be that no single model is applicable to all locations. Flexibility of approach will be a keynote of the evaluation exercise, from which initial conclusions should be drawn before the end of the year. The need is to create a network which can accommodate policy developments and changes in the number of clients, while maintaining an easily recognizable corporate identity for those who come into contact with the service, and the capacity for providing relevant and accessible services.

The creation of the ES enables the MSC to focus its resources on training. The Employment Bill, which is currently at Committee stage in the House of Commons, renames the MSC as the Training Commission. This new title reflects the increased emphasis on training under the Commission's responsibilities. The Bill also enables the Secretary of State to increase employer representation on the Commission by allowing him to appoint six additional members. This change is being made in recognition of the important role of employers in ensuring that the UK has a properly trained workforce.

The ES represents a further development in United Kingdom employment policy. It will provide for more effective help to be focused on the long-term unemployed and others who are at a disadvantage in the labour market. It will allow more vigorous administration of assistance to those seeking work, while ensuring that only those entitled to financial help receive it. It is thus addressing current needs and establishing the basis for further developments into the 1990s.

Aid to the unemployed

Belgium: Job-clubs

Job-clubs originated in the United States of America in 1979. Their purpose was to help jobseekers hunt for jobs in the most effective way possible. To this end, unemployed people were brought together in 'job-clubs' where, by means of intensive training, they developed a more dynamic and effective attitude so as to enhance their chances of finding a job. The results were conclusive: more than 60% of the participants found a job.

In the light of this success, the approach was adopted elsewhere including the UK and the Netherlands. Since the same positive results were obtained, the minister in charge of the Flemish Community of Belgium also took the decision to set up a job-clubs' structure in Flanders. *RWA*, the national employment office, was entrusted with the practical design of this scheme and in October 1987 the first Flemish job-clubs were launched.

Functioning of job-clubs

Job-club participants have a single goal: to find a job in the shortest time possible. Each participant has to determine for him/herself what this really means.

The job-club teaches members how better to explore the employment market. This requires first of all the development of a series of techniques. To this end, six different sessions are organized. After this learning or development phase in job search techniques, participants are assisted and advised until they have found suitable employment.

The characteristics of the help and assistance provided by the job-club are as follows:

(1) Equipment unit

Jobseekers have a range of possibilities enabling them to acquire the techniques for successfully applying for employment.

However, one of the characteristics of job-clubs consists in their offering participants the opportunity for implementing the techniques they have learnt during the theory sessions. To this end, each job-club has an equipment unit which enables participants to uncover more quickly job vacancies and to better follow the procedure for applying for them. Participants are provided with the following in particular: photocopy machines, telephone, writing paper, stamps, typewriters, newspapers and addresses' databases.

(2) Self-help

The fact that members must learn to find employment which is suitable for them constitutes one of the main principles of the job-club. The task of the person in charge of the job-club is not to find a job for the participants, but to advise them and accompany them in their search. It is up to the unemployed themselves to make the necessary approaches for finding a job.

(3) Intensifying job-hunting

Many studies bring out that active and intensive job-search diminishes with the lengthening of unemployment. This is the reason for job-clubs trying to reactivate participants' efforts to apply for jobs: each member must apply for at least 10 vacancies per day.

(4) Scope for action

A considerable number of vacancies remains unknown if only the classical channels are tapped (advertisements in the newspapers, vacancies sent to the RWA, etc.). A great number of these 'hidden' jobs can be found out by contacting the employers spontaneously. The extent to which these vacancies are uncovered is an indicator of the success of the job-club.

(5) Group support

is a key factor for developing and stimulating the motivation and confidence of participants. Mutual aid is essential for the success of a job-club. Developing a good team spirit can only be insured by having a group which is neither too large nor too small.

(6) Commitment

On entering a club, each participant signs a contract establishing the commitments made by the two parties. The club's animator undertakes to provide the necessary equipment and appropriate aid and advice until such time as the new member finds a job. On his side, the participant undertakes to participate regularly in club meetings, to plan his/her job-search interviews so that they do not interfere with the activities of the club, and to search for the agreed number of vacancies.

Conditions

Anybody having been registered as a jobseeker for at least one year can become a member of a job-club. Members have to participate in all meetings of the club (at least four half-days per week).

Every member continues, as a rule, to participate in the club and remains a club member until a job has been found.

Organization

The first cycle of activities of a jobclub lasts three weeks. During the first two weeks, participants take a training programme of six sessions. During these sessions participants learn to draft their curriculum vitae, to spot hidden vacancies, to react more effectively to job openings, to practise interview techniques, etc. During the third week, job-club members have the opportunity of discussing with the animator their individual problems met with during job search.

The programme seeks to ensure that, during the second cycle of activities, every participant can continue job search on his/her own. Although participants can draw on the help of the animator during this second cycle, that person's involvement should be kept to the strict minimum.

Since group dynamics are important, strict rules have been laid down as regards the presence of participants in job-club activities.

Preliminary assessment

It is obvious that a detailed evaluation cannot be made after only a few months of the operation of the programme. But on the basis of the first results, the success of the job-clubs has been ensured. Some 55% of the participants in the first clubs (which started in October and November 1987) have already found jobs. Job-clubs recruit most of their participants from the unemployed who are less than 30 years of age and have a secondary school leaving diploma. Participation of women is higher than of men.

Training

Federal Republic of Germany: Transborder apprenticeships

Within the framework of Franco-German transborder cooperation, the employment services in Baden-Württemberg and Alsace have published a brochure showing French youths the opportunities they have for taking part in the dual training system (which is similar to the French apprentissage sous contrat) in the Federal Republic of Germany.

Baden-Württemberg has some 310 000 apprentices in 80 000 enterprises and 330 vocational schools providing training in 400 recognized occupations. Since the 1977 Franco-German Convention, agreement on the equivalence of diplomas has been achieved in 15 trades:

- tilers, pavers
- carpenters
- hairdressers
- bricklayers as well as concrete and reinforced concrete builders
- cooks
- motor-vehicle electricians
- equipment electricians
- hotel employees
- restaurant employees
- adjustment fitters
- maintenance fitters
- motor-vehicle mechanics
- joiners
- plasterers
- stonemasons

French youths who learn one of these trades in the Federal Republic of Germany automatically have their training recognized in France.

The brochure provides indications of the relationships between supply and demand for places in the three German frontier towns of Karlsruhe, Offenburg and Rastatt.

As regards entry conditions, the brochure points out that apprenticeship places in large companies are generally filled months in advance, that remuneration differs considerably between trades (DM 660 per month for first year in carpentry to DM 265 in hairdressing, the figures for third year apprentices being respectively DM 1 300 and DM 380), that bi-lateral agreements exist on social security (health care is provided in both countries) and that parents continue to receive family allowances.

Nine 'Lower Rhine Information and Guidance Centres' in France can provide potential apprentices with additional information.

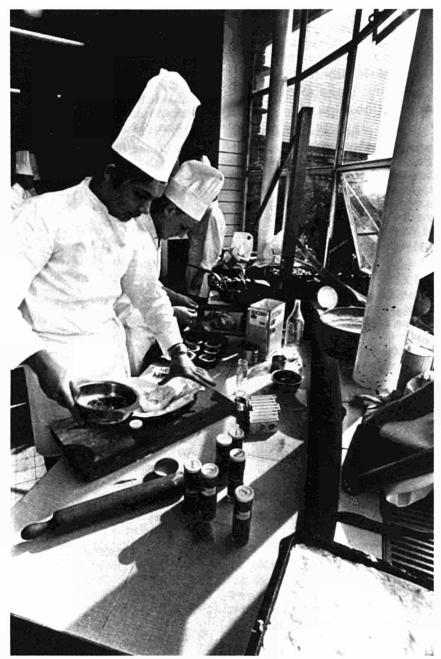
Spain: Plan FIP: Changes in 1988

The new decree of the Ministry of Labour and Social Security regulating *Plan FIP*, the national plan for training and vocational integration, for 1988 was approved on 22 January 1988. This ministerial decree replaced that of 9 February 1987. It brings in some important changes aiming at:

- (i) improving the management of *Plan FIP*,
- (ii) raising the quality of the training provided,
- (iii) adapting the rules governing Plan FIP to the new thrusts in managing the European Social Fund for 1988, and
- (iv) enabling the social partners to participate in the management of *Plan FIP*.

The new ministerial decree was unanimously approved by the social partners within the *Consejo General de Formación Profesional (CGFP* — the general council for vocational training). The most important changes concern the following aspects:

- (1) Enlarging and strengthening programmes which foster to a larger extent the integration of trainees into working life, in particular of young people and the long-term unemployed. To these ends, the following actions are being undertaken:
 - (i) The support programme for the training of young people with a training contract is being improved. In order to benefit from



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- grants which allow it to carry out training on its own, the enterprise must submit a training plan to *INEM* (the national employment institute) as well as to the legal representatives of the workers.
- (ii) For the young unemployed aged less than 18 years a new vocational training programme is being set up with an in-company vocational practice (rather than working) period.

- (iii) The programme of in-company vocational practice is being enlarged to include, in addition to second level vocational trainees, students in their last year of university studies.
- (iv) A special vocational training programme is being set up for women in occupations where they are under-represented.
- (v) As regards training programmes for the long-term unemployed, the condition that participants are required to be over 25 years of age is being scrapped.
- (vi) Programmes of vocational integration by means of contratos en praticas (practical work contracts) are being altered. They are now intended for the unemployed who have been registered for at least two years, irrespective of whether they are looking for their first job or hold a second level vocational training certificate or its equivalent.
- (2) Especially encouraging recurrent training activities for persons working within enterprises or sectors which are being restructured or which have to adapt to technological change. To do this:
 - (i) investments are being promoted which seek to build and fit out centres which are jointly used by several enterprises, employers associations and trade unions;
 - (ii) incentives are being given for training activities during working hours which partially compensate for the costs of the time;
 - (iii) priority is being given to courses jointly decided upon by the most representative employers association and trade unions.
- (3) Generally increasing the minimum length of courses which hence rise from 100 to 200 hours, 40 hours of which will be devoted to training in new technologies.
- (4) Increasing financial support to course participants.

- (5) Strengthening the participation of the social partners in Plan FIP. To this end the necessary arrangements are being made for the executive committees — at the national as well as provincial levels — of INEM and CGFP to be informed of the development of the Plan with the aim of facilitating their participation in its management and follow-up actions.
- (6) Setting up information networks by enterprises for the legal representatives of the workers before training or vocational integration activities are undertaken. This information deals in particular with training contracts, practical work contracts, sandwich (alternance) teaching and recurrent training for the workers of the enterprises being restructured or in the process of bringing in new technologies or new management techniques.

The Netherlands: Training leave experiment

After in-depth preparations local business has, with the support of the provincial administration and the Minister for Social Affairs and Employment, agreed to carry out an experiment whereby unemployed jobseekers temporarily replace workers who are going on training leave.

Six large organizations in the business service sector (banks, insurance companies and sickness insurance funds) with a total of 8 000 employees are taking part in the experiment. As a consequence of technological development, social renewal and changes in the market conditions, these organizations need to intensify training efforts. The demands on workers are constantly being raised. The present plan, worked out at the request of the provincial administration, deals with job related training for those workers who are confronted in their everyday work with all sorts of new developments and thus with changes in their jobs. The intention is to train, over the coming four years, at least 100 persons per year for an average of 10 working weeks. They receive training leave and retain their legal status.

Unemployed jobseekers should be taken on as temporary replacements of those taking training leave. They receive an employment contract for a limited period of time. In this way they are again provided with work experience and can improve their position on the labour market. There is also the possibility of the jobseeker being first trained for taking on the temporary job.

The financial costs are spread over the various participants. At the same time, use can be made of the existing schemes of the *GAB*, the regional employment office (such as *KRS*, the framework regulation for training). The Ministry of Social Affairs and Employment contributes towards the training costs of the workers, paying HFL 100 for a day's training up to a maximum of HFL 5 000 in each case provided that the worker is temporarily replaced by an unemployed jobseeker. Similarly, the Ministry of Economics is considering contributing towards the overhead costs.

United Kingdom: New training programme

All of the Government's existing training programmes for unemployed people over 18 are to be brought together into a single new training programme. The new programme will embrace two of the major existing schemes — the community programme and the job training scheme. It will involve a substantial reform of the community programme including a major enhancement of its training element.

It will have an annual budget of just under UKL 1.5 billion, the same as the total for the schemes it will replace. When fully operational, it will provide training for about 600 000 people a year.

Long-term unemployed people are the programme's priority target. The emphasis will be switched away from providing temporary jobs as an alternative to unemployment and towards providing training to help unemployed people to get into permanent jobs. The existing programmes will combine to form one simple and flexible programme, responsive to the needs of the individual and to the changing labour market.

The programme will provide up to 12 months training for anyone who has been out of work for more than six months. Persons will enter the scheme through Restart interviews and jobcentres. Training agents will assess the needs and aptitudes of individuals, draw up a personal training plan for each and place them with a suitable training provider.

Training providers will include employers, chambers of commerce and voluntary and training bodies. Managing agents now in the community programme and job training scheme will play a full part. The new programme will provide training and practical experience with employers and on projects. The emphasis will be on practical learning to help people get back into jobs.

All trainees will be paid an allowance (UKL 10-12 weekly) which gives a lead over their previous benefit entitlement. This will change the current payment system of the community programme. It has been found that the community programme does not, at present, attract unemployed people with dependents. It has become increasingly a programme for single people rather than the family man with children, and a part-time programme with very little opportunity for training. The new payment system aims to remedy this situation and make it clear to potential applicants that they will be better off on the scheme than on benefit.

Details of the new programme were published in a White Paper on 16 February 1988.

Job creation

Greece: Projects for job creation

Decision No 33227/13. 1. 1988 of the Minister for Labour extends the funding of employers for the creation of new jobs. Under this decision private enterprises, local authorities, public utility services, cooperatives, etc. are grantaided in cases of hiring a new employee without dismissing existing personnel.

This programme aims to create 16 000 new jobs for persons up to 25 years of age and 26 000 new jobs for persons over 25.

The amount of the funding varies from DRA 1 000 to 1 700 per day per person, depending on the category of the individual (i. e. university graduate, repatriate, etc.).

Special funding of DRA 1 700 per day is provided for enterprises which hire women completing courses at OAED vocational training centres so that they can acquire the job experience required for obtaining a licence to exercise a profession.

The duration of the funding is one year. However, the employer is required to keep the worker employed for at least a further six months.

Decision No 33198/18. 1. 1988 of the Minister for Labour extends the programme which gives grants to employers for hiring persons with special needs. It provides for 450 new jobs for disabled persons up to 25 years of age and 950 jobs for those over 25. The grant-in-aid can amount to DRA 1 700 per day for a 12-month duration. The employer is required to keep the employee for at least a further six months.

Decision No 33205/13. 1. 1988 of the Minister for Labour provides for the creation of two new programmes for funding individuals about to become self-employed for the first time. The one provides finance for 3 500 18-25 year olds and the other for 9 000 persons over 25.

The total amount available for each person is DRA 350 000 for the manufacturing sector and DRA 250 000 for services and commerce. This sum is paid in instalments.

These programmes exclude the following:

- (a) persons for whom suitable work could be found relatively easily;
- (b) the creation of businesses relative to professions' specialization, such as doctors, pharmacists, lawyers, engineers, notaries, etc.;
- (c) the creation of businesses having no permanent establishment, being seasonal in character or being connected with gambling or politics;

In cases of the creation of a company, it is possible to fund up to three persons.

Special categories of workers

Spain: Plan for women's equality of opportunity (1988-90)

Over the last months of 1987, the Council of Ministers adopted the action plan for the equality of opportunity of women (1988-90).

This plan is based on the ideas of the United Nations expressed both in the Convention on the banning of all forms of discrimination towards women and the Nairobi Strategies for the promotion of women. Furthermore, by joining the European Communities, Spain accepted various directives concerning the principle of equality in work and in social security and approved the medium-term action programme (1986-90) for women's equality of opportunity.

The plan for women's equality of opportunity (1988-90) was drafted by the

CRIM, the managing board of the women's institute (a body attached to the Ministry of Culture), on which 12 ministerial departments are represented. This plan includes a series of measures linked to legal regulations, the family, health, education, culture, vocational training, employment, social protection, international cooperation and asociacionismo; all these measures aim at correcting inequalities currently existing in these areas.

The objective of the plan is not only to further develop legislation on the principle of equality but also to modify the different attitudes of Spanish society which impede women's access to a real situation of equality.

Responsibility for actions needed to carry out the plan rests not just with the Ministry of Culture but also with the other ministries involved in the discussion of specific subjects which make up the action programme.

As regards the Ministry of Labour and Social Security, actions must be taken aiming at:

- (i) improving knowledge of the social condition of women, in particular as regards work. This is to be done by adapting official statistics, studies and research to be carried out on changes in the situation of women and in particular in their situation on the labour market;
- (ii) promoting women's vocational training and employment by intensifying vocational guidance services; satisfying the special skills' requirements of specific categories of working women (in rural environments, service for the family, home-working); and retraining those who want to return to working life after having left it for family reasons;
- (iii) setting up a vocational training programme for women in agriculture and in rural zones, the aim being to enhance their opportunities in working life and not be subject to discrimination in all areas of rural life;
- (iv) promoting equality of women in different high level positions in public administration:

- (v) fostering access of women to positions of responsibility, particularly in sectors which are traditionally considered to be 'male' and in those linked with new technologies in public and private sector enterprises;
- (vi) preventing discrimination on the grounds of sex during access to employment and in industrial relations;
- (vii) making employment compatible with maternity and paternity through the amendment of the corresponding legislation.

These actions seek, among other things, to foster women's integration in the labour market, in spite of their current low participation rates. However, there has of late been a growth in women's employment as well as in their employment prospects. The female activity rate has hence grown and is currently 31.9%.

Placement

Federal Republic of Germany: Vacancies on radio and TV

Since 1 January 1988 radio and television are also allowed to publicize job vacancies and situations wanted. This was previously restricted to the printed word. The new ruling comes in the wake of the eighth amendment to the Labour Promotion Act (AFG). It is intended to improve the chances of finding employment.

The Federal Minister for Labour and Social Affairs and the President of *BA*, the Federal Employment Institute, have called upon radio and television to help those workers who are affected by unemployment by making use of the new opening. Thus, they should provide in the context of their programmes additional broadcasting time for job vacancies and situations wanted as well as for general labour market topics. The idea would be to have programmes at specific times on topics related to work and careers which would include job vacancies and conceivably situations wanted.

As inquiries to the headquarters of *BA* show, it is above all private broadcasting stations which want to use this opportunity. The contribution of the *BA* can, because of its tight budget, only be non-material. The *BA* offices cannot at present pay for the broadcasting of vacancies on radio and television.

The private broadcasting stations have first to produce proof that it is worthwhile to offer vacancies by electronic media. Potential contractors, above all firms and administrations, must moreover get used to the fact that there is now this new channel for filling vacancies. Jobseekers will also have to

get used to the existence of the new media

Miscellaneous

Greece: Free movement of workers between EEC and Greece

The transitional period for the free movement of workers between other EEC Member States and Greece ended on 31 December 1987.

Since January 1988 citizens of other Member States have the freedom to work in Greece under the same conditions as Greeks. Likewise, Greeks have the same rights to work in other Community countries.

By presidential decree 499/77 the Directive 68/360/EEC has been incorporated into Greek legislation. According to this Act, Community citizens are entitled to a 'residence permit' allowing them to stay and work in Greece. No other changes in the Greek legislation were needed since it does not provide any discrimination or different treatment between nationals and non-nationals as far as the labour relations are concerned

Promoting the entrepreneurial capacities of the unemployed

	Measures launch year and numbers	Beneficiaries	Start-up capital	Management training/ guidance	Required conditions
Belgium	Prêt subordonné chômeur (1983) 1984: 3 092 participants 1985: 3 697 participants	Unemployed receiving full ben- efit, creating their own enterprise or becoming self-employed while working with others.	Loan in form of a credit line of maximum BFR 500 000 (ECU 11 600) for minimum 10 and maximum 15 years, at an advantageous interest rate	Facilities for training in management.	Viability: The projects have to be economically viable.
Denmark	Allowance to entrepreneurs (1985)	For long-term unemployed older than 25 having already been through one job offer.	Allowance corresponding to 50% of maximum rate of unemployment benefit (DKR 54 000 i.e. ECU 6 800 per year). Payable for up to 3½ years after completion of the job offer.		
Federal Republic of Germany	AFG — 8. Novelle (1988)	For persons registered as unemployed since at least four weeks.	Bridging Allowance amounting to the last benefit/assistance received. Paid for 26 weeks.		Viability: The future occupation has to be likely to provide adequate basic income. Working time: Working week of at least 18 hours.
Greece .	Self-employment initiatives (1986) Sept. 1986-Sept. 1987: 4 000 participants	Unemployed in receipt of benefit. Up to 7 young unemployed can put their grants together provided they create a common enterprise or cooperative.	Grants of maximum DRA 300 000 (1 250 ECU).		1. Working time: New activity has to be the main activity. 2. Nature of enterprise: New activity has to be new, employ less than 10 persons and be a permanent establishment. 3. Nature of activities: Not for professions.
Spain 1	Capitalización de las presta- ciones por desempleo (1985) 1985/86: 71 901 participants	For unemployed entitled to benefit if they set up an own business, become member of a cooperative or of a workerowned company.	Capitalization of the benefit 50 or 100% exemption of employers contributions to social security depending if they set up on their own or if they become member of cooperative.		
2	Promoción del empleo en coop- erativas, ILEs o autoempleo.	For unemployed on the live register who start working in a cooperative, an LEI or become self-employed	Financial subsidy of up to PTA 500 000 (ECU 3 600) Subsidy of up to PTA 500 000 (ECU 3 600) for members of cooperatives less than 25 or for LTUs more than 25. In case of self-employment, the subsidy is given only if there has been capitalization of benefit or entitlement to other financial aid. Extra subsidies for 25 years old if they create a worker or a teaching cooperative.	Technical assistance provided through FIP- plan	Viability: Projects must be viable.
France	Aide aux chômeurs créateurs d'entreprises (1980) 1986: 71 577 participants 1987: 63 159 participants	For unemployed in receipt of benefit or entitled to it.	Grant amounting between FF 10 000 and 40 000 (ECU 1 400 and 5 700) depending on previous work references and length of enrolment in employment office.		
Ireland 1	Enterprise scheme (1983) 1984: 5 087 participants 1985: 5 254 participants 1986: 5 281 participants	For unemployed on the live re- gister for 13 weeks and for unem- ployed who have just finished a training course.	Possibility to capitalize up to 26 weeks of the PRB (pay-re- lated benefit). Weekly allowance of IRL 30 or IRL 50 instead of unemployment payments for 52 weeks (ECU 39 or 65). In some cases the allowance may be paid as a lump sum.		Own capital: Own capital of IRL 500 (ECU 650) Nature of enterprise: The business must be new and independent and not linked with an existing enterprise.
2	Community enterprise programme (1983) 1985: 140 participants 1986: 251 participants	For community organizations creating employment or raising the general level of enterprise and self-help among young people (especially unemployed)	Following maximum grants (in IRLs) are available: Business development (1 000); hiring of enterprise worker (17 000); Workshop (36 000); managers salary (10 000); financial and administration costs (2 000); wage subsidies (5 000); marketing development (2 000)	Courses in community enterprise and commu- nity development are available	
3	Start your own business programme (1981) 1985: 2 062 participants 1986: 1 804 participants	People (also unemployed) who have a good idea for a product or service and wish to set up their own business	Weekly training allowance based on social welfare entitlements		Viability: Identification of a business idea plus demonstration of capacity and commitment to starting own business.

Italy 1	Imprenditorialită giovanile nel Mezzogiorno L.44/86 (1984)	Unemployed youth (18-29) living in Mezzogiorno.	The new entrepreneurs are entitled to: (a) Up to 60% of initial equipment and instalment costs with a maximum of LIT 5 milliard (ECU 3 million). (b) Loan for first investment at advantageous lending rate. Up to a ceiling of 30% of the total initial investment. (c) Contribution to the management fees, degressive during the first 3 years.	Technical support training and professional guidance.	Nature of activities: Cooperatives and societies have to produce goods in agriculture, in crafts, in industry or in services to the productive sector. Nature of enterprise: The majority of the staff of the cooperatives and societies has to be between 18 and 29 years old, in order to receive the aid. For a period of 5 years after start up, their shares cannot be transferred to persons being older.
2	Credito alla cooperiazione L.49/85 (1985)	Redundant unemployed workers who create a new cooperative or take over all or part of a declining enterprise and make it into a cooperative.	Non-repayable grants the amount of which depends on the CIG-benefits received earlier by each member. As a whole they cannot exceed three times the capital subscribed by each cooperative. A special fund has been created for this purpose.		Own capital: Own capital of LIT 4 million (ECU 2 700). Nature of enterprise: The new cooperative have both to produce and to employ (di produzione e lavoro). They need at least 9 members in order to be founded, all of them being older than 25.
Luxembourg	Aide à la création d'entreprises (1983)	Unemployed receiving full benefit and difficult to place.	Capitalization of the benefit during the first 6 months following the taking up of the activity.		
The Netherlands	Start-up assistance (1984/85)	Unemployed in receipt of benefit and persons threatened with unemployment.	(a) Allowance in replacement of unemployment benefit or social assistance and as income supplement (to the income from the business) up to the level of social assistance. Paid for an initial period of months which can be extended. (b) Loan of up to HFL 25 000 (ECU 10 780).		Viability: Six months after start-up, the municipality will assess whether the business is developing according to expectations.
Portugal 1	Criação de actividades indepen- dentes (1987)	Youths between 18 and 25 years, seeking for first employment and LTUs.	Non-repayable grant of ESC 5 192 (ECU 32) a week (1987), paid all at once for a maximum period of 12 months which cannot cover more than one calendar year.		
3	ILE (1986)	Priority given to projects with most youths (18-25) looking for first job and LTUs (1 year or more).	Non-repayable grants and/or loans without interest.	Technical help	Viability: The initiatives have to be socially and economically viable.
4	Criação do propio emprego (1987)	Youths under 25 or LTUs who have completed a vocational training course of the IEFP during the 2nd half of 1986. In Madeira, for every trainee finishing after the 1 July.	Non-repayable grant amounting to: (a) on the continent, 12 times the national minimum income (b) in Madeira, 12 times the minimum income valid there.		
5	Artesanato (1987)	Craftsmen under 25 or LTUs	Non-repayable grant equal to the national minimum income.		Working time: Average working week of 40 hours is required.
United Kingdom 1	Enterprise allowance scheme (1982) Oct. 1986: 68 000 part. Since begin: 185 000 part.	Unemployed for at least 8 weeks and receiving unemployment or supplementary benefit.	Flat-rate taxable allowance of UKL 40 a week (ECU 58) for 52 weeks.	Councelling and guid- ance by the Department of Employment	Own capital: Own capital of UKL 1 000 (ECU 1 450) Working time: Working for at least 36 hours a week Nature of activity: New business has to be the whole investment
2	City action teams (1985)	Unemployed amongst ethnic minorities (not exclusive)	Venture capital fund.		

New technology and social change:

Overview of recent events in the Community countries 1

Introduction

I. Government policies

- 1. R&D and industrial policies
- 2. Labour legislation
- 3. Data protection

II. The attitudes of the two sides of industry towards new technologies

- 1. Employers
- 2. Trade unions
- Collective agreements and labour disputes

III. Studies and research on social effects of new technologies

- Diffusion of information technology
- 2. Employment
- 3. Skills and qualifications
- Work organization and working conditions, health and safety

Introduction

In the first few months of 1988 the governments of several Member States have re-defined their priorities as regards technological policies and have stated their intention to continue supporting the information technology sector. A number of relatively new orientations underlying these statements can be identified: first, a number of governments stress the importance of research programmes of more immediate applicability at industrial level and of collaborative programmes, involving the participation of different partners, namely public institutions, university and industry. Secondly, the European dimension becomes increasingly important, implying a greater effort of coordination between national and European programmes. Finally, several countries declare that priority shall move in favour of small and medium-sized enterprises, thus redressing the lack of balance which has occurred till now, whereby large-scale firms have often obtained the lion's share of public research funds.

The protection of individuals from illicit storage and use of personal data and information is a matter of concern in all countries. Some countries did not have until now - and some still do not have - legislation on this issue; in other countries data-protection laws have been in force for several years, but this type of legislation needs to be modified and updated frequently, as changes in information technology may rapidly make provisions inadequate. A section in the chapter on government policies reviews new legislation and amendments to existing laws which have been approved or proposed in the last period in some countries. Provisions are often similar, the main problem being to avoid illegitimate exchanges of information between computerized databases, which would disclose sensitive data collected for specific uses to other unauthorized institutions. However, it is not always easy to reconcile the aims of protecting

privacy and of avoiding too binding constraints which eventually make the law too complex to be smoothly implemented. Moreover, public institutions are often the holders of the largest databases, and they are sometimes reluctant to accept constraints to their freedom of use of information.

Several issues of debate were at the core of the attention of employers and trade unions in this period, sometimes going beyond new technology stricto sensu to cover broader issues such as working time and how to obtain greater competitiveness for national industry. In the Federal Republic of Germany, it is precisely the electronics firms that are making pressures for an extension of working time, arguing that this is necessary to maintain competitiveness on the world market. The unions reject the employers' arguments, but Sunday work is being all the same negotiated in some firms. In Denmark, the trade unions make proposals to improve competitiveness of Danish industry through a more effective strategy combining new technology, product innovation and quality improvements, rather than by conventional means such as lower wages. In several countries trade unions are also concerned about the need to adopt a less defensive and more active strategy towards new technologies and to pay greater attention to occupational groups which have been until now at the margin of union activity. Thus, mergers between unions are taking place in the countries where the union movement is traditionally broken down into different occupational groups with a view to being stronger in technologically advanced sectors. In other countries, greater attention is being paid to white-collar workers and to the workers of the services sector, both groups being traditionally

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less organized but increasingly important in the changing employment pattern.

Collective agreements and industrial disputes which occurred in this period concerned in general broader issues than new technologies. There were renewals of sectoral collective agreements in some countries, disputes on wage issues and on proposed changes in labour market legislation in others. On technological issues, agreements were reached more easily in local negotiations and on specific problems, such as working time and changes in qualifications, while assessment studies carried out on comprehensive technological agreements and on legislation concern-

ing information rights of works councils pointed to a number of shortcomings and provisions which cannot be satisfactorily implemented.

Studies and surveys on the diffusion of information technology continue to show high rates of introduction of automated manufacturing equipment in companies, and even higher in office work. In all countries, a significant difference is found between large and small firms, which means, looking at it the other way around, that there is still much scope for market growth. The only 'sector' where obstacles and reluctance have been found is households, despite a declared

growing acceptance of the benefits of computers by the general public.

Studies on employment and qualifications keep on providing a rather mixed picture. Jobs are being created in some technologically advanced activities, but sometimes less than originally planned or expected. However, jobs may also be created almost exclusively in traditional activities, as a Portuguese document examining trends over the past year points out. Skill shortages continue to be reported for information technology professionals and other technology-related jobs; the need for a generally higher level of qualifications keeps on emerging from studies, but

other studies point out that the new work organization made possible by the introduction of computers does not necessarily make jobs more skilled.

Working conditions and health problems continue to draw the attention of the two sides of industry. Studies on legislation regulating working conditions point out that also this set of rules needs to be continuously adapted to technological change, although employers are not always convinced that these matters should be regulated by law. As regards health and safety, the hazards linked to work with screens and robots continue to be investigated, but also Xeroxing equipment is getting attention. Moreover, computers may produce psychological problems when used at an early age, as was revealed at a medical conference in the Federal Republic of Germany.

I. Government policies

1. R&D and industrial policies

In the Federal Republic of Germany, the Minister for Research and Technology stated the Government's intention to carry on with the promotion of high technology, particularly information technology, microelectronics, new materials and biotechnology. In 1987 financial support to R&D coming from Federal Government, Länder and local governments amounted to 3.3% of public budget, a share which did not change substantially since the mid-1970s.1 The decision to keep on promoting information technology was supported by the results of the study 'Informationstechnik 2000', prepared for the Ministry of Research and Technology by experts from industry, universities and research institutes. The study puts forward an annual

financial requirement of DM 8 000 million for R&D in different fields of information technology, which should come largely from the private sector, but still implies an important engagement by the public sector. Many groups, and particularly the trade unions, argue against this engagement, as far as it leads to a further increase in subsidies to large-scale enterprises in the electronics sector. The coordinator of the study defended the industrial policy proposals by arguing that the study does not demand more subsidies but rather more investment in view of future developments and that national support to R&D is a traditional infrastructural task of the public sector in all industrialized countries.2 Another study, by the Ifo-Institute, gave a rather optimistic view of the competitiveness of the German high-tech industry, at least relative to other countries. It came to the conclusion that German industry can escape the competition from low-wage countries in South-East Asia better than Japan and the USA. Japanese and American industries find themselves competing on prices with the NICs on the same products, while German industry is much more specialized in applications of information technology in industrial engineering, where competition is not so strong. However, this kind of specialization makes German industry particularly sensitive to economic cycles in the world economy.3

Not only the Federal Government. but also Länder and local governments continue in their efforts to promote hightech industrial development particularly in regions of declining industry through the establishment of technology parks. Though evaluation studies could not yet confirm the positive impact of such policies, new initiatives are being launched: e.g. the State government of Baden-Württemberg initiated a large-scale technology park called 'Technopolis Ulm', which includes the foundation of six new R&D institutes at Ulm University. The first institute, specialized in artificial intelligence, has been set up in cooperation with large-scale enterprises, among which Daimler Benz.

However, not all federal programmes continue with the same degree of sup-

port. The long running programme on the 'humanization of the workplace' ('Humanisierung des Arbeitslebens') was severely cut in the parliamentary debate on the 1988 budget. The programme will suffer a shortage of DM 11 million in 1988. Experts from the opposition criticized this budgetary decision which means that the government will not be able to support new projects and that the programme may possibly come to an end in the next few years. Nevertheless, the programme received positive assessments from many sides, in so far as it gave an opportunity to scientists to come in contact with the real world within the firms, and to shop stewards and managers to receive intellectual stimuli and incentives to explore alternatives. Though this was under many aspects a very difficult process, it can be considered an essential part of a democratic process to determine working conditions.4

Finally, still in the Federal Republic of Germany, the Committee on Research and Technology of the Bundestag agreed on the recommendation to install a new Commission of Inquiry on Technology Assessment, after a long debate. This should continue the work of the previous Commission; it should also analyse the objections raised against the institutionalization of a standing office of technology assessment and inquire into other fields of technology which might require political consideration in the future. The new commission is made up of nine members of parliament and eight independent experts.5

In the *United Kingdom*, the reorganization of the Department of Trade and Industry, following a White Paper published by the Government in January 1988, involved a reorientation of government policy towards information technology research. The White Paper brought to an end speculation as to the

¹ Frankfurter Rundschau, 24 March 1988.

GMD-Spiegel, No 4/1987.

Wirtschaft und Produktivität, No 3/1988.

^{*} Frankfurter Rundschau, 13 November 1987.

⁵ Deutscher Bundestag, 11. Wahlperiode, Drucksache 11/1979.

Government's response to the Bide Committee IT'86 report, which recommended the establishment of a five-year follow-up programme to the Alvey research programme. The White Paper makes it clear that the government has rejected the main recommendations in particular, it has decided against funding a specific support programme for IT applications. Many of the existing IT support programmes have been scrapped, including the microelectronics support programme (MISP).1 Among the changes in the orientation of the Department of Trade and Industry is a shift towards only supporting R&D which involves collaboration, either between firms in consortia or between firms, government departments and academia. In February, under the umbrella of the Link programme, it was announced that UKL 83 million worth of grants were available for high-technology collaborative research; research areas were revealed. although no specific programmes have so far been settled. Grants are 50% with industry having to find the other half of the research funding.2 Another strand to the reorganization of R&D outlined in the White Paper was the emphasis on supporting Europeen Community programmes rather than strictly domestic ones. Finally, in the reorganization of the Department of Trade and Industry emphasis has shifted towards support of small firms especially in the regions.

In Italy, where disagreement and long delays in the approval of the 1988 State Budget implied a virtual stagnation of all other legislative activities including the bill providing for the creation of the Ministry of Scientific and Technological Research, taking over all competence presently shared with the Education Ministry, the main orientations of the research policy have nevertheless been presented by the Research Minister. Main objectives are the growth and better qualification of human resources; filling the gap between basic and applied research, between sectors and between North and South; and a better coordination between national and international programmes. As regards the second objective, the investment programmes of the three main public research bodies plan a significant increase of the share going to the South, which should also bring about an increase in the share of research staff in southern research centres. As regards concrete policy measures, the only initiative approved in the first few months of 1988 is a bill providing low-interest credit to industrial research in small and medium-sized enterprises. The programme is expected to run for 12 years. Notwithstanding the engagements of the government, the results of the annual survey of scientific and technological research carried out by the National Statistical Institute show that public expenditure on research increased by only 3.2% in 1987, much less than research expenditure of the private sector (which increased by 14%). As a result, the ratio of research expenditure to GDP kept constant at 1.2%, the same as in 1986.

The Spanish national plan for scientific research and technological development has been approved, bringing to completion the process of establishing a technological policy initiated by the Law for the Promotion and General Coordination of Scientific and Technological Research. Research priorities have been assigned to microelectronics, advanced automation and robotics, information technology and communications. According to some estimates presented by the National Secretary for the plan, expenditure on R&D amounted to 0.8% of GNP in 1987, shared in equal parts by private and public companies on the one side, and the public administration and higher education on the other side. Engineering and technology make up 57% of the total. The estimated number of research workers (in full-time equivalents) is 19000, 55% of whom are in higher education and 26% in companies.

Besides the national government, regional governments in the Autonomous Communities have also developed technological policies. That of the Autonomous Community of Madrid focuses specifically on information technologies. Its aims are to favour technological development, paying special attention to small and medium-sized enterprises, and to promote those economic activi-

ties which are of the greatest strategic importance for the region. Some implementations can already be mentioned: the establishment of an inventory of technological resources available in universities and public research centres; a centre for the diffusion of new technologies, which is expected to deal not only with technical aspects, but also with the social diffusion and with training; the creation of the Madrid Technology Park. The latter is becoming a favourite location for electronics firms, thus strengthening the role of the Madrid area, which even before the creation of the Park used to be the region where more than half of the electronics sector was concentrated. The Park is open to research centres, industry and specialized services, upon condition that they create highly qualified jobs and they respect a number of limitations concerning pollution, noise, radiation, waste disposal. Firms locating in the Park are entitled to subsidies, preferential treatment in obtaining credit and fiscal benefits.

Likewise in Spain two major measures of industrial policy were adopted in December 1987. The first is the second national electronics and informatics plan (PEIN II), which covers the period 1988/90 and puts forward the following strategic lines: to take measures to provide companies with the necessary conditions for generating technology, in consideration of the relative backwardness of Spanish industry; to establish closer international links, through the participation in European programmes and the setting up of multinational companies in Spain; to exploit the large institutional markets in order to favour the development of new products; to develop the infrastructure for the electronics sector, including coordination of R&D, technological diffusion, market analysis and training. Moreover, a number of sectoral measures are specifically planned for components, telecommunications, electronics for defence and civil navigation, industrial electronics, elec-

DTI — The Department for Enterprise, Command 278, HMSO, 1988.

² Guardian, 4 February 1988.

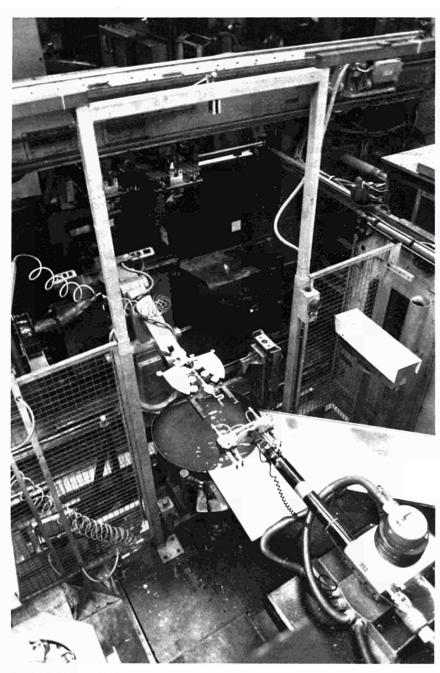
tromedicine, software and computer equipment.1

The second piece of legislation approved in December 1987 is the Law on the Regulation of Telecommunications

(LOT). The basic orientation of the original government proposal² has not been changed. The law opens up the supply of telecommunications services to free competition, with the exception of final or bearer services which will still be pro-

vided by the State monopoly. Moreover, the acquisition of terminals is liberalized, putting an end to the monopoly of the Compania Telefonica Nacional de Espana in this field. The law is still to be complemented by technical regulations and by the national telecommunications plan, which shall define a number of aspects such as the range of public services, the programmes for the introduction of new services, the introduction of digital techniques, etc. as well as investment to be made and timing.³

In the first few months of 1988 the French Government adopted some measures to favour research and training in firms through fiscal incentives. These measures concern all firms, but they are specifically aimed at small and medium-sized enterprises. As regards training, tax credits are granted automatically to firms increasing year by year their training expenses, in the framework of a three-year plan. The Government expects a 50 % increase in training expenses over five years. As regards research, the problem is, as the Minister for Research stated in February, that public support is far too concentrated in few industrial sectors. As an example, electrical, electronics and aerospace industries receive 83% of public support, while they carry out only 42% of R&D expenditure. The measures concern a change in the criteria for allocating fiscal credits to research, which is expected to favour small and medium-sized enterprises. The share of SMEs in these credits increased from 15% in 1986 to 25% in 1987; the aim is to attain 35% by 1989. Other measures were proposed by Anvar (the National Agency for the valorization of Research) which, on the one hand, invited financial institutions to provide more credit to innovation programmes of SMEs; on the other hand, it stressed the need for firms to present commercialization programmes for their innovative products in order to obtain fi-



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Miner, Direccion General de Electronica e Informatica, *Plan Electronico e Informatico Nacional*— // (PE/N-II), Madrid, 1988.

² See Social Europe, No 3/1987

³ The text of the LOT is published in the *Boletin Oficial del Estado*, No 303, 19 December 1987.

nancing. As a matter of fact, 30% of the projects fail when they reach the phase of industrialization and commercialization, since investment required is much higher than in the research phase. Moreover, Anvar itself is planning to provide grants to small and medium-sized enterprises which recruit researchers.

While most governments are still planning to increase their research budgets, in the Netherlands budgetary constraints are being given priority, with the result of reducing the scope for some technology programmes. The proposals put forward by the Dekker Commission for a comprehensive technology policy are being only partly implemented, since the budget proposed by Dekker has been cut by 50%;1 later on, in February, the Government decided to withdraw the investment subsidies, granted under the Investment Regulation Law (WIR). The reason for this measure is to obtain budgetary savings; a part of these savings will be used for tax reductions, particularly on company tax. A smaller part will be used for vocational training of adult workers. However, if the large investment stimulation which was expected from the WIR no longer materializes, there may be negative effects on employment.

The *Danish* Ministry of Industry and the Technological Council established in 1987 a four-year programme aimed at supporting companies which send employees abroad to learn and bring home new knowledge useful for production and for the competitiveness of the company. The company pays at least 20% of the employee's salary, the remainder and travel expenses being covered by the programme.²

Likewise in *Denmark*, in the April 1988 issue of the newsletter of the Parliamentary Council of Technology Assessment, the project manager of one of the publicly supported projects for the assessment of the social impact of information technology (the Ravnsborg Bredbansnet Fejo project) draws some conclusions from his experience, pointing out the enormous difference between the amount granted to projects concerning the assessment of the social

impact of information technology and the amount granted to the technology development programme (the former being 2% of the latter). He believes, consequently, that the present 'social' technology assessment can not be expected to have any significant impact on the development and implementation of technology. He calls on researchers to cooperate with local technology assessment projects in order for these to gain influence on technological innovation and for researchers to take into account the experiences and attitudes of local assessment groups.³

The Greek Government Council on Informatics defined, in its meeting in January 1988, the long-term objectives of the government in the area of information technology. The more immediate objectives are the following: the creation of databanks for the public sector; the submission to the Parliament of the final law draft on the protection of citizens from the storage and processing of personal information; the establishment and development on an IT industry based on the know-how of Greek scientists and technologists: the submission of the three-year plan (1988-90) for the introduction and development of informatics in the public sector.

In Ireland a new Science and Technology Agency, Eolas, was created in November 1987 through the amalgamation of the Institute for Industrial Research and Standards which dealt with the day-to-day technological problems of industry, and the National Board for Science and Technology, which looked after the research and policy areas. The new agency will select key areas of technology and come up with strategic goals. These will have to be industrydriven, i.e. the agency will have to identify the kinds of products most suitable to Irish industry that will be manufactured in three to five years time. Eolas will also have an input to R&D work that is ongoing in industry and which is funded by the Industrial Development Authority. Finally, it will supervise the implementation of State-supported R&D programmes in industry and decide whether or not goals have been achieved.4

Finally, in Portugal a report published by the Science and Technology Association for Development ACTD shows that almost all (95%) R&D activities carried out in universities are financed by the State. The participation of firms is almost non-existent, accounting for 0.5% of the total amount spent in R&D. Nevertheless, there has been a slight increase in the financial participation of Portuguese enterprises since 1984. Moreover, from 1982 onwards university research has shown a trend to concentrate on fields and activities of a more practical applicability, such as engineering sciences.

2. Labour legislation

In the Federal Republic of Germany, the Federal Minister for Labour drew up proposals for an amendment of the codetermination act which aims particularly at the definition of middle management and their co-determination rights. The proposals also contain a number of provisions to improve the consultation rights of the shop stewards regarding the design of workplaces and work environment. Among these we can mention: the right to be informed in time, at the beginning of the planning stage; the right to summon an expert; consultation rights referring to impacts on the social, personal, economic status, to the physical and socio-technical conditions of the intended change as well as to the quality of work and changes in qualifications. Shop stewards will have also the right to be informed about production plans, investment and rationalization measures having an impact on manpower planning; finally, individual workers will have the right to be informed before technological or organizational changes affect their workplaces, and will have to be given the opportunity to retrain and adapt their qualifications.5

¹ AG, 10 February 1988 and 17 February 1988; see also *Social Europe*, No 1/1988.

² Dansk Industri, No 1, 1988.

³ T/T, April 1988.

⁴ 'New Agency', *Technology Ireland*, December 1987; A. Cahill, 'A man of influence', *Technology Ireland*, February 1988.

⁵ Handelsblatt, 24 March 1988

Another amendment to labour legislation, already approved, concerns the placement system. Following this amendment, job vacancies can be announced by radio and TV. Hitherto the Bundesanstalt für Arbeit had the monopoly on the job market and individual ads could only be passed in the newspaper. The amendment was introduced with the argument that the present imbalance on the labour market requires all means to improve job chances, including electronic media.'

3. Data protection

Danish legislation on the protection of privacy, first introduced in 1978, was modified in 1987 and went into effect in April 1988. Two laws on the protection of privacy exist in Denmark, namely the Public Data Files Act and the Private Data Files Act. Both have been modified, though to a different extent. Major changes concern the Private Data Files Act, since the original 1978 legislation could not foresee the many and diverse types of use and misuse to which the development of information technology could give origin. According to the new legislation, all private computerized files containing sensitive data (race, religion, colour of skin, information about political, sexual, criminal, illnesses, social problems, drug abuse issues) are not permitted unless they follow explicitly from other legislation. All data files containing sensitive data must be reported to the Board of Registers (Registertilsynet). A second major change in the legislation is that everybody, upon inquiry, has the right to be informed about information kept by private companies or institutions on computer files. Registration and dissemination of personal identification numbers has also been restricted. Denmark was one of the first countries to introduce a unique personal identification number, which has increasingly been used in private and public computerized files. New legislation restricts the use of the personal ID number in order to avoid the risk of merging files: thus the integration of files will be allowed only to update names and addresses, the only exception being elec-

tronic information files of the press, as long as they rely on information which has already been published. Other safeguards introduced in the Private Data Files Act concern, for example, the fact that private companies are not allowed to record automatically the telephone numbers called by their employees; other provisions concern credit-rating companies, which are bound to inform individuals about all information kept on them, computer service bureaus and transborder data flows. Smaller changes have been introduced as regards the Public Data Files Act. The problem in this case was not so much the breaches to individuals' privacy by public agencies, but rather that the security and privacy requirements in the past have been so extensive that the efficiency of the public sector was hampered. Thus the changes which have been introduced are aimed at making such requirements less bureaucratic and simpler. Meanwhile, public authorities are circulating brochures and publishing articles in professional magazines in order to increase awareness, particularly of private companies, about the content of the legislation and its repercussions for the use of personal identification numbers

The Irish Data Protection Bill was presented to the Dail in October 1987. It regulates the way in which data about individuals are gathered, processed, retained and disclosed by computer users in business, government agencies and other bodies. The main rights given to individuals by the legislation are the following: the right to establish the existence of data held by any person, the right to obtain a copy of such data, the right to have it rectified or erased if inaccurate, the right to obtain compensation for any damage suffered. Correspondingly, obligations are introduced with respect to businessmen and agencies using computers. The most significant provisions are that data must be obtained fairly and must be accurate; they must be kept for specified purposes only and cannot be used or disclosed for any other purpose; they must not be kept for longer than necessary; and they must be protected by appropriate security measures. Penalties for offences may apply personally to directors, managers and others in addition to their organizations. A Data Protection Commissioner will be appointed by the government to supervise the operation of the legislation. Criticisms to the Bill have been made by some commentators; they concern, on the one hand, the fact that the legislation does not go far enough, since it does not apply for example to manual data; on the other hand, the Bill is considered far too onerous and thus difficult to implement.²

The German Federal Privacy Act is 10 years old and is considered no longer adequate from many sides. For example, the International Conference of Data Protection Officers held in Berlin put forward its concern about the dramatic increase in the storage of personal data in mass media and telecommunications services, which cannot be properly controlled in a way that excludes misuse.3 On his part, the Federal Minister for the Interior prepared a draft to amend the Act. According to the draft, privacy protection officers will have to report every second year instead of annually, the object of control is more specifically defined, data protection officers shall be obliged to control the storage and use of personal data in official documents only if there is 'sufficient' ground for the suspicion of data misuse, individuals will be able to demand information on personal data stored by the Federal administration, but a number of offices will be allowed to refuse such information.4 Several objections have already been raised to these proposals: even within the Government, the Minister for Justice expressed different positions, while acknowledging that present legislation reflects the 1975/76 information technology and is consequently inadequate to take into account the tremen-

¹ Medienspiegel, No 5/1988.

B. Semple, 'Opening the databanks to the man in the street', *Irish Times*, 8 December 1987; J. McAleese, 'Data protection — Irish Bill less severe than British', *Business and Finance*, 14 January 1988.

³ Computer uns Recht, No 10, 1987.

^{*} Frankfurter Rundschau, 21 January 1988.

dous developments which occurred since then.1

In the countries where no legislation on data protection yet exists, the issue is nevertheless debated and proposals of regulation are put forward. In Spain the right to privacy of individuals and families implying restrictions in the use of computers is stated in the 1978 Constitution; however, the Constitution left the specific matter to be regulated by a law and the government has not taken any initiative so far to draw up legislation on this issue. The main databases likely to be affected by data-protection legislation are public: the largest ones are the database of the National Institute of Statistics, which is bound to keep personal data secret; several databases of the police, which are in the process of being connected to each other through a centralized data-processing centre; the database of the Ministry of Economy and Taxation; and some other databases managed by public administration.2 Both the Home Office and the Ministry of Economy and Taxation are reluctant towards a legislation which would put constraints on their storage and use of information. A case of misuse was revealed by one of the main Spanish newspapers in April 1988. It involved the exchange of information on the bearers of the national identy card between the National Institute of Statistics and the State Secretariat of the Treasury. It was reported that the exchange of data, officially aimed at updating the electoral roll, was in fact demanded by the Treasury with a purpose of tax control.3 As the Government does not take any initiative on this issue, some citizens' organizations are discussing and presenting proposals. The Human Rights Association presented a proposal for a Bill at a congress on 'Computers and Freedom' in November 1987. The proposal would extend data protection to computerized files, manual files and to the use of the image and identity of individuals in telecommunications; it provides for the right for individuals to access databases in order to know the content and use of information; it proposes the creation of a national committee for data protection; finally it provides for the right of individuals to refuse cooperation with the public administration when data refer to sensitive issues.

II. The attitudes of the two sides of industry towards new technologies

1. Employers

The *Danish* Employers' Association DA commented on the proposals for a reform of the job security system put forward by the trade unions in November 1987.⁴ It denies the union's claim that such a reform could be seen as a means to create greater competitiveness for Danish companies. The association states, on the contrary, that the proposals would limit the rights of the employers to hire the best qualified workers, to change work tasks according to technological change, and to adjust the workforce to market conditions.⁵

German employers stressed the importance of changes in working time in relation to technological development. The president of the employers' association BDA declared that in some fields new technology makes continuous work a necessary condition, both from a technical point of view and because it is the only way to guarantee the payoff of very expensive equipment. Consequently the employers demand the introduction of Sunday work, as it occurs in several European countries, arguing that it will not only help to preserve existing jobs but also create new jobs in future.6 Similar claims were put forward by the German Association of the Mechanical Engineering Industry VDMA, which argued that the low expectations on the growth of the computer industry can be largely attributed to short working time, high taxes and high non-wage labour costs. Nixdorf will negotiate with shop stewards the introduction of Saturday work.7 New technology brings forward also the need for organizational changes. This is one of the conclusions of a study about technological development in the automobile industry, carried out by the employer-linked 'Institut der Deutschen Wirtschaft'. The study pointed out that, as a consequence of information technology, workers have much more time for planning, control and organization activities. Routine work is taken over by computers and robots. This calls for organizational changes including different concepts of management and cooperation. It also requires improved training for the workers.8

A number of employers' organizations in the United Kingdom made comments about the shift in the policy of the Department of Trade and Industry and the reorientation of government research policy.9 The ECIF, the body representing the UK's electronic chip manufacturers, accused the Government of not understanding the scale of commitment needed from the UK Government to develop a national chip industry. This contrasted with other governments who strategically supported their chip industries. The Computer Services Association's Director-General claimed the CSA was displeased with the abolition of software grants and the rejection of a second stage for the Alvey research programme. On a different issue, ISTA (the Information Technology Skills Agency) has established a special working party to review changes in information technology and the consequences for manpower. The working party, which will be made up of representatives of industry, will produce annual reports predicting changes over a

¹ Recht, Eine Information des Bundesministers der Justiz, No 11/1988, 21 March 1988.

² El Pais, 26 November 1987; El Globo, 1 November 1987.

³ El Pais, 3 April 1988.

See Social Europe, No 2/1988.

⁵ Arbejdsgiveren, No 4/1988.

⁶ Der Gewerkschafter, No 3/1988.

² Frankfurter Rundschau, 19 February 1988. ⁸ Frankfurter Rundschau, 15 September 1987.

⁹ See above, ch. 1.

two and five-year span. The initial study is partly financed by the Department of Trade and Industry; in future, IPSA hopes the Manpower Services Commission will pay for the annual review of the working party.

Recent dismissals and new recruitments in some large-scale firms in France were commented upon by the Deputy-General Director of Saint Gobain, Mr Bidegain, by stating that industrial restructuring is moving from a quantitative to a qualitative phase. The firms concerned are Dassault, which dismissed 1 261 workers in October 1987 and announced 347 new recruitments in March 1988, and Peugeot, which recruited 1 242 between workers and technicians in 1987 to announce in February 1988 the planned loss of 3 112 jobs. These shifts in employment are interpreted as being due to the fact that 10% to 20% of workers have a level of knowledge and know-how which is far too weak to enable them to accede to the new posts and responsibilities resulting from the introduction of new technologies. Unskilled workers used to a tayloristic type of work cannot be retrained to become operators of automated equipment; they can be transferred to small and medium-sized enterprises and in this case, according to Mr Bidegain, the firms of origin should take care of their transfer to other more appropriate jobs. Besides the problem of skills, largescale firms are faced with the problem of an ageing workforce, and consequently they need to recruit younger workers. All this, however, should be done in the framework of a policy of manpower planning.1

The *Belgian* professional association of computer services firms Insea put forward, in its annual report published in March 1988, the difficulties that the sector is facing and the lack of support from the public authorities. Turnover of computer services firms increased by 12% in 1987, a low record when compared with other countries (e.g. France, where it was 21%). According to the report, the reasons for this relatively poor performance are due to the lack of public contracts to the software industry for innovative projects and to

the low speed of computerization of public services. Also private firms have little recourse to the services of software houses, as they very often prefer to develop their own software applications inhouse.

2. Trade unions

In Denmark, the economists of the Labour Movement put forward, in January 1988, a number of proposals to enhance the competitiveness of Danish companies on foreign markets. They suggest that such proposals be launched by committees made up of representatives of employers, employees and public organizations. The background to the proposals is the remark that Danish industry has structural technological problems, in so far as it imports high-technology products and exports low-technology products. The proponents suggest that resources should be used more effectively though planning, organizing, marketing, use of new technology, employees' influence and vocational training. Competitiveness, they argue, is not just a matter of low wages; on the contrary, efforts should be made to improve productivity, R&D, quality and design, marketing, education of managers and workers, working conditions and work environment, employees' participation and the functioning of the public sector.2

Training continues to be one of the main concerns of Danish trade unions and of the workers themselves. A survey reported in the newspaper of the Federation of Danish Trade Unions shows that four out of five employed Danes think that paid leave for education and vocational training is a good idea and more than half state that they would be ready to use such an opportunity. Those most interested are the younger and those with higher education level. However, three out of five employees have not received any in-service training in the past two years. In-service training appears to be more common among salaried employees than among workers. One out of four respondents feel that their educational background is not sufficient for the future demands of the

labour market.³ The Danish Employers' Association DA dismissed the results of the survey, stating that the proposal of paid educational leave is just a way of reducing working time and thus interferes with the provisions of existing collective agreements.⁴

Concern about education, though general education in this case, has also been expressed by the Dutch Protestant Christian Union Federation CNV in a memorandum. The union deplored that general education is lagging behind vocational schools in the availability of computer equipment. The NIVO programme for introducing computers in education relies for the major part of its budget on sponsors from the business sector, whose participation is far from certain; and even if the entire budget were obtained it would not be sufficient for adequate training. CNV fears that children from well-off families will become privileged also in this respect and that a computer élite will emerge.5

Another preoccupation expressed by a *Dutch* union, namely the civil servants union Abva Kabo, concerns some 10 000 job losses in customs administration following the abolition of intra-EC customs control in 1993 and even earlier through the computerization of income tax administration. The union demands an agreement with the Minister for Finance in order to draw a joint employment plan. It also demands to put aside a percentage of the wage bill to finance the costs of reorganization.⁶

In *Spain*, where the process of collective bargaining is still blocked by the lack of agreement between employers and trade unions on wage increases, the new General Secretary of the Comisiones Obreras made, at the IV Conference of the union in November 1987, the proposal to move on to negotiations between employers and unions in which technological innovation would be one of the central topics. He pointed out that

^{1&#}x27;Les Chassés-Croisés de l'Emploi', L'Usine Nouvelle, 24 March 1988.

² LO-Bladet, 14 January 1988.

³ LO-Bladet, 11 February and 18 February 1988.

⁴ Arbejdsgiveren, No 7/1988.

⁵ AG, 3 February 1988.

⁶ NRC Handelsblad, 15 March 1988.

there is a need to move from negotiations focusing mostly on wage issues to more complex negotiations focusing on those factors which are becoming more and more important in determining the total value of work, such as technological innovation and work organization. This implies taking a less defensive attitude and intervening more actively in the process of industrial restructuring, from the initial stage of design to the final stages of the full incorporation of new technologies in the production process. He stressed that a change in organization will be necessary for the union to be able to face this challenge; this change would enable the union to reach new sectors of production and new groups of workers, like those employed in the services sector, who have been left out of union action until now.1

The congress of the Belgian union of employees, technicians and 'cadres' (SETCa, member of the Federation FGTB) held in March 1988, discussed, in the framework of a broader debate on the 'willingness to change while remaining faithful to its basic principles', the issues of new technologies and new forms of work organization. As regards new technologies, the union deems that they are introduced too frequently without taking into account workers' interests and without proper consultation. It proposes a number of changes to Collective Agreement No 39 which contains provisions for information and consultation on the introduction of new technologies. These changes concern the extension of the agreement to small and medium-sized enterprises (presently only firms over 100 employees are bound by the agreement); the provision of information and consultation before decisions are made; more coordination with other collective agreements; better definition of the information procedures; stricter sanctions against firms breaking the agreement, which would no longer be entitled to State aid. As regards work organization, the union demands to negotiate new forms of organization, in order to avoid the misuse of precarious forms of employment and part-time.2 Provisions concerning new technologies were also contained in the interprofessional agreement of November 1986, which was primarily aimed at measures for employment promotion. In an evaluation of the results of this agreement, the Federation FGTB observes that the government has not kept its engagements, namely that of devoting a share of public R&D funds to research on the economic and social aspects of the diffusion of new technology.3

German trade unions took position on several issues concerning new technologies and employers' and government proposals. First, IG Metall has been discussing how to include whitecollar workers in its strategies. Whitecollars have a more positive attitude towards new technologies, as they feel less threatened by uncontrolled technological developments. A closer integration of white-collars would be part of a broader strategy to develop more positive attitudes towards the technological challenge. This attitude is shared by only a part of shop stewards, while many others keep on having an attitude of refusal and conflict against new tech-

The trade union confederation DGB set up a solidarity group against unemployment, as a response to the consequences of new technologies, mass unemployment, tightening of the social security system and environmental pollution. Scientific and cultural organizations, churches and political parties participate in this solidarity group, aimed at better exchange of information and at finding new ideas in the fight against unemployment.5 Employers' proposals about weekend work are being opposed by the trade unions. The labour union magazine 'der Gewerkschafter' published an article giving details of the strategies followed by employers in the information technology industry to erode the legal ban on Sunday work. Several of the largest IT producers in the country are trying to expand working time in this direction. Trade union experts reject all arguments put forward by management about the existence of a technological requirement for continuous production over the weekend. Another argument of the employers, i.e. that weekend work would permit 20 to 30% more production of chips and that

otherwise the production of megachips could be displaced towards foreign countries, is equally rejected by the article, warning that the end result would be massive overproduction and consequently greater unemployment. 6 Despite these positions, a majority of shop stewards at IBM voted in favour of the introduction of the seven-day work week for a part of the staff. This follows similar agreements at Siemens and Philips.7

Other statements of German unions concern government proposals and decisions. The DGB vehemently protested against the budgetary cuts regarding the programme 'Humanization of the workplace'8 arguing that the Government is only interested in research proving the harmlessness of new technologies.9 The union of the employees of the Bundespost (Deutsche Postgewerkschaft) rejected, in the so-called 'Dortmund declaration', the proposal of the Government Commission on telecommunications to divide the Bundespost into two or three different enterprises. The implementation of these proposals would have a dramatic impact on the working and living conditions of 550 000 employees of the Bundespost and the union reckons that several thousands of jobs could be lost, in addition to other negative consequences, such as the deterioration of the service, a sharp increase in tariffs, and the loss of jobs in economically weak regions.10 The union position was later supported by 130 university professors who appealed to the Federal Government not to implement the proposals of the Commission. They argue against universal telecommunications networks like ISDN which may

^{&#}x27;A. Guitierrez, 'Una nueva etapa de CCOO', Nuestra Bandera, No 143, February 1988.

^{2&#}x27;Volonté de changement et fidélité aux principes', Syndicats, 26 March 1988.

³FGTB, 'Un bilan de l'accord interprofessionnel', Syndicats, 16 January 1988.

^{*}Frankfurter Rundschau, 30 November 1987.

⁵Frankfurter Rundschau, 26 February 1988.

Der Gewerkschafter, No 1/1988.

Frankfurter Rundschau, 18 January, 21 January, 27 January and 4 February 1988.

See above, ch. 1

³ WSI Informationsdienst Arbeit, No 1/1988

¹⁰ Nachrichten zur Wirtschafts- und Sozialpolitik, October 1987

have negative social impacts paricularly in the field of privacy.¹

In the United Kingdom the merger between the white-collar unions TASS and ASTMS² took effect in February 1988 with the launching of Manufacturing Science Finance (MSF), the industry and services union as it will be known. The combined membership of MSF is over 600 000 making it the sixth largest trade union in the United Kingdom. The union will have negotiating rights in about 8 000 companies and is aiming to raise membership to 1 million over the next few years via mergers with TUC affiliated unions and independent staff associations plus the recruitment of new members. The union expects to appeal to managers, skilled technician level workers, finance, chemicals and energy workers, and other in the voluntary sec-

The same move took place in *Ireland* with the merger of the two 'sister' organizations, the Association of Scientific and Managerial Staff (ASTMS) and the Technical and Supervisory Section of the Amalgamated Engineering Union (TASS) to create the Manufacturing. Scientific and Finance union (MSF). In Ireland, the new union will have a membership of about 30 000, which will make it one of the most prominent in the country. It will be present in banking and insurance, in electronics computing and manufacturing, in the semi-State bodies and in the wider public sector, in the National Institutes for Higher Education and the universities. MSF believes that this occupational and industrial coverage will give it a great deal of influence over the development of economic, industrial and technological policy both in national and local negotiations. The merger is also a reflection of the changes in both working environment and technology over the past 20 years. What were once clear differences and distinctions between industries and types of work have diminished and, in some cases, entirely disappeared. Despite this merger, the process of rationalization of the Irish trade union movement is rather slow. At present there are still over 60 unions catering for less than half a million workers.3

3. Collective agreements and labour disputes

Consultation and negotiation on the introduction of new technologies in firms have been the subject of a seminar organized in Belgium in February 1988 by the 'Stichting Technologie-Vlaanderen' (STV, the Foundation for Technology of the Flemish region). The Foundation is an issue of the Flemish Economic and Social Council, its task being to advise the two sides of industry and the regional government on technology assessment in the framework of regional policy. The seminar was based on a research report which examined the process of information and consultation in a sample of Flemish enterprises. Three aspects have been taken into account by the study: the technology, the organizational changes which accompanied the technological innovation and the information supplied to the workers either through formal structures or informally. Where information is provided through formal structures such as Works Councils, the study found that limited and superficial information is given on technology and on the economic situation of the firm; information on social aspects, such as employment, training and qualifications, is supplied later on, while organizational change is being implemented. Trade unions are mostly demanding information on social consequences and often judge the information they receive as being insufficient or incomplete. Where information is provided through informal structures, such as working parties, it was found to be more diversified, while shop stewards felt in general more involved and active and found it easier to acquire the technical expertise necessary to assess the information they received. As regards collective agreement No 39, those who negotiate in the firms find it rather difficult to use, because its text is not precise on many issues, leaving scope to divergent interpretations, and because it overlaps with the provisions of other and more binding collective agreements. As a matter of fact, in the firms where information practices are good, the agreement is not used. As a conclusion, the study remarks that the collective agreement did not play an important role in the processes of innovation examined; it merely creates a framework in which information practices develop. Other factors appear more important, such as the culture of industrial relations in the firm, the sectoral environment and the structure of the firm, its negotiation and consultation practices. On the basis of the research report, the STV has published two booklets aimed at the two sides of industry, with the purpose of helping them to improve information and consultation procedures.⁴

In Denmark, the negotiation of the collective agreement between the trade unions and the new public broadcasting company TV-2, scheduled to start broadcasting in October 1988, brought to the surface a number of problems related to the need of changing structures in the media industry and to demarcation problems between unions. In January 1988 the company and the journalist union announced a collective agreement covering all work functions. This was followed by protests from 14 trade unions members of the Federation LO, all having traditionally collective agreements in connection with TV broadcasting; they threatened strikes and boycott. After a while, the journalist union, which is not member of LO, agreed that its collective agreement would not cover the non-creative parts of production like technical services and that it would not sign until TV-2 had started negotiations with the other unions. In February, collective agreements were signed with the National Union of Clerical Workers HK and the Danish Metalworkers' Federation, and a draft agreement was reached with the semi-skilled workers union. In the course of the dispute, all parties agreed that new technologies demand

Frankfurter Rundschau, 15 January 1988.

² See Social Europe, No 2/1988.

³ 'Major union merger shows the way', Business and Finance, 11 February 1988.

^{*} Overleg in de onderneming bei invoering van nieuwe technologieën: de rol van CAO 39, STV/ SERV, Antwerp. 1988; Informatie en overleg in de onderneming bij invoering van nieuwe technologieën: variaties op een thema, STV/SERV, Antwerp. 1988.

changing structures in the media industry. However, opinions differ as to how this should occur. Some unions think that there should be two media cartels — one for creative work and one for the other jobs. Some believe that one union covering the entire media industry should be created. The employers themselves, notably the association of the printed press, are considering the opportunity to restructure into a media employers' association.'

In the Federal Republic of Germany, an agreement between the State government of Hessen and the union of public services and transport workers ÖTV fixed a number of clauses concerning the introduction and use of new technologies. The employees have the right to receive early information on the planning of technological change and the right to participate in the planning. Workers who are more than 55 years old must not be urged to work at a computer; the other workers affected by technological change have to be retrained during working time. All employees working at a terminal are entitled to a 10-minute break every hour and pregnant women can be dispensed, on demand, from work at terminals. Finally, the use of technical devices for the control of worker behaviour is not permitted.2

Likewise in the FRG a number of court decisions ruled on some controversial issues concerning the introduction of new technologies. The Federal Labour Court decided that hidden video cameras which are primarily installed to reduce theft but can also be used for controlling workers must not be installed in retail stores. Many large stores had already introduced this equipment; they will have to dismantle it. unless an agreement with the shop stewards is found.3 Another case, ruled by the Labour Court in Oldenburg, addressed the issue of who should be dismissed in case of restructuring and introduction of new technology. It was, in itself, a marginal case concerning a small repair station which introduced a computer and reduced employment by dismissing the oldest worker on the ground that he was the least flexible to

learn how to handle the computer. On the matter of principle, however, the court decided that social criteria should be applied, as prescribed by the law, in choosing the workers to be dismissed and rejected the employer's argument by stating that the dismissed worker should have been offered a training course before deciding whether he was willing and able to work with the new equipment.⁴

An agreement negotiated in January 1988 at the French firm Framatone, operating in the nuclear equipment sector and having a rather high composition of employment (2 240 engineers and 'cadres' out of a total workforce of 6 730), defines manpower planning and training needs made necessary by the evolution of technology and of the market. Aim of the agreement is to master changes in jobs and occupations and to retrain workers presently in declining jobs towards new occupations. The implementation of the agreement will imply a survey of all technical and non-technical jobs in the firm; the identification of the means to recycle workers from obsolete skills to skills which will be in demand in future; the definition of training modules. In principle, retrained workers should be offered a new job. Retrained workers take the engagement not to quit the firm for a period of between one and two years after completion of training; wages are kept unchanged, except for a reduction on Christmas bonus. The agreement was signed by four unions, with the exception of CGT. The latter objected that the agreement gives scope to compulsory geographical mobility, while the firm is not bound to guarantee a new job to workers being retrained.5 The agreement signed at Framatone is one of the relatively few cases of agreements negotiated in France on new technologies and classifications. Most of the agreements negotiated in 1987 concerned, in fact, wage issues and working time. This emerged from a survey carried out by the employers' association CNPF, which counted, at sectoral level, only some 10 agreements on new technology and/or classifications, while 40 were on wage issues and 25 on working time. In that occasion, the

CNPF put forward the proposal to transfer to sectoral bargaining a number of issues that are presently negotiated at inter-professional level.6 The two sides of industry are not always available to focus negotiations on technological issues. An example is provided by the collective bargaining in the chemicals industry. The union CFDT asked for an agreement on changes in employment resulting from technological change and changes in work organization, while the employers' association UIC only accepted to include a chapter on these issues in an agreement on job security. The negotiations will be resumed end

In the Netherlands a number of collective agreements were signed in the early months of 1988, including some large sectors such as metal industry and banking. They focused on wage issues, with the unions obtaining very marginal wage increases (of the order of magnitude of 0.5% per year) while employers were orginally offering no increase at all, working time and early retirement. Working time was made more flexible, though less than orginally proposed by the employers, particularly in banks, and early retirement schemes were extended. These agreements did not deal specifically with new technologies. On the other hand, regarding information rights for Works Councils, a seminar organized in Utrecht in February 1988 examined the effectiveness of existing provisions. At this meeting, the Minister for Social Affairs and Employment presented a critical evaluation and some proposals for changes to the Law on Works Councils. According to the Minister, the law should give better guarantees for earlier and more com-

¹ LO-Bladet, 4 February 1988; Metal, No 4/1988; Arbejdsgiveren, No 4/1988; Berlingske Tidende, 2 February 1988.

² Frankfurter Rundschau, 1 December 1987

³ Arbeitsrecht und Betrieb, November 1987.

⁴ Arbeit- und Sozialrecht, November 1987

Liaisons sociales, Collection Législation sociale, No 6080, 13 March 1988; L'Usine Nouvelle, 4 February 1988.

⁶ 'Negotiations, le printemps des branches', *L'Usine Nouvelle*, 11 February 1988; *Le Monde*, 16 February 1988.

L'Usine Nouvelle, 11 February 1988.

plete disclosure of important management plans, e.g. those on automation and related reorganizations, and give room to prepare Works Councils' recommendations. The present law prescribes early information to enable the works councils to influence decisions, as well as a complete assessment of the consequences of the proposed decisions on a number of issues. In practice, the provisions of the law cannot be implemented in the short delay that would make the information timely, so that eventually decisions are often taken before request for advice reaches the works council. These conclusions are based on a report prepared for the Ministry by the Institute for Applied Social Research in Nijmegen, which pointed out that timely disclosure of company information is one of the greatest problems for works councils and frustrates any impact on company management.1 The proposals of the Minister for legislative changes aim at a clearer description of the topics on which the works councils have the right to give advice or even binding recommendations, like the introduction of new technologies in production and the development of information systems having an impact on privacy. The final objective is to improve cooperation between management and worker representatives, so that the latter can effectively report the opinions of the workforce.2

Still in the Netherlands, discussions continue at Philips both on the overdue renewal of the collective agreement and on the company's plans of restructuring and employment reduction. Latest in time, 151 job losses out of a workforce of 446 were announced at the Philips USFA plant in Eindhoven, most to be implemented through natural wastage, some through dismissals. The personnel director has stated earlier on that the workforce of Philips has to be reduced faster than had been planned at the end of 1987.3 Jobs to be shed are now estimated at 3 500 in total.4 Meanwhile, the Industrial Union FNV carried out an inquiry among the workers at 30 plants throughout the country. The answers showed a widespread uncertainty about the future of work at Philips, 30% of the

respondents expressed doubts about the chance of being still in work in two years time.

A local agreement concerning computer operating staff at the National and Provincial Building Society in the United Kingdom fixed an unusual working time pattern. Computer staff at the two main computer centres have been given the opportunity to choose their own shift pattern. At one centre, they voted for 8hour shifts from Monday to Friday and 12-hour shifts at weekends. At the other centre, they chose 12-hour shifts throughout the week. Senior operators and shift controllers at both sites opted for 12-hour shifts - three in one week, four the next. They will all receive a shift premium ranging between 32% and 35%. Any that had previously earned high overtime payments would gain compensation over the next two years.4 Likewise in the UK, a pendulum arbitration at Sanyo in Lowestoft, the Japanese-owned TV manufacturing plant, has come down in favour of the unions. Under pendulum arbitration, the arbitor has to back either the final claim from the union or the final offer from the company. In this instance, the arbitor opted for the 8.5% claim of the union rather than the 6% offered by the company. Both sides had started from more distant positions and went to arbitration when there was no agreement. This is the third example of this kind of settlement in the UK, and the second in favour of the union claim.6

The first few months of 1988 were marked by several strikes in Portugal, caused by the proposed changes in labour legislation and the negotiation of collective agreements. The new labour legislation aimed at liberalizing dismissals was approved and subsequently suspended by the Constitutional Court. The government had presented a revised version in February 1988, taking into account part of the suggestions and objections formulated notably by the union UGT. The opposition of the trade unions to the bill manifested itself in strikes affecting several sectors which culminated in a general strike at the end of March. Transports were particularly affected.

III. Studies and research on social effects of new technologies

1. Diffusion of information technology

A Belgian study by Kredietbank looks at the economic performance of the software industry in Belgium and compares it with the other European countries. First, it appears that software and computer services firms have a limited market, since 60% of Belgian firms develop their own applications inhouse and even the public sector does not rely much on the services of specialized firms. Employment is about 10 000 people, of which 2 000 are employed in local subsidiaries of foreign hardware producers. Besides market size, the main problems which software firms have to face, according to the study, are of financial origin: first, depreciation due to the high level of investment and the speed of technical change; secondly, financial charges since software houses rely heavily on borrowed capital as most of their throughput is development of software which customers will pay later on. In this respect, the study suggests that productivity should be increased and production time reduced, through standardization and software engineering. Moreover, personnel costs, which presently account for three quarters of value added, should be checked. Finally, the study forecasts that a process of concentration will take place in Eu-

¹J. C. Looise and F.G.M. de Lange, *Onderne-mingsraden*, *bestuurders en besluitvorming: eindrapport onderzoek ondernemingsrade*, Nijmegen, Instituut voor Toegepaste Sociale Wetenschappen.

² De Volkskrant, 3 February 1988; NRC-Handelsblad, 2 February 1988.

³ See Social Europe, No 1/1988 and No 2/1988.

De Volkskrant, 23 April 1988.

⁵ Financial Times, 14 January 1988.

⁶ Financial Times, 31 March 1988.

rope, following the trend which already manifested itself in the American software sector.

In Italy a survey of the software market was carried out by Nomos Sistema for the Association of software and computer services firms Anasin. The turnover of computer services firms increased by 26% in 1987 and employment is also growing: one quarter of the interviewed firms increased employment by a rate ranging between 11% and 30%. In total, the survey estimated that there are some 3 500 firms with 50 000 employees. Firms are expanding the number of their clients, their geographical coverage, although almost half still operate on a local or regional market, and their product and service mix. More than half of the firms depend on clients' demand to determine their product innovation strategies: only a minority carries out independent marketing activities and 62% does not have any marketing staff. The most structured firms in computer services are controlled by largerscale firms or groups, mostly belonging to other industrial sectors.

Another Italian survey of the diffusion of computer integrated manufacturing (CIM) was carried out by Arthur Andersen Management Consultants in a sample of firms in the engineering-electrical-electronics sector. The main reasons for introducing CIM are found to be more flexibility in production volumes and mix, better compliance with delivery dates, and shorter throughput time. Among the surveyed firms, 80% have projects to introduce manufacturing automation and 85% envisage the introduction of production management systems. Investment in manufacturing automation is planned to account for 4.7% of turnover over the next five years, with higher percentages in smaller firms. One of the crucial aspects in the introduction of manufacturing automation is the need to modify tasks and retrain the workers. Resources required to retrain workers, particularly in production and in product and process planning, are significant. The survey forecasts a sizeable reduction in employment (of the order of magnitude of some tens of thousands of workers) in production departments, particularly in the transition phase. Subsequently, i.e. after 1992, employment may start growing again. As regards the utilization of workers made redundant, the survey expects that about one quarter will be left unemployed, another quarter will move to self-employment and only about half will be absorbed by other technologically less advanced firms.

The German Marplan Institut published a survey on the spread of information technology in different industries. The greatest diffusion was found in the electrical industry, where 67% of the employees make some use of computers or IT tools. The use is less important in mechanical engineering (38% of the employees) and even less in car assembling (26% of the employees). In all sectors larger firms make more use of electronics equipment than smaller ones. In firms with less than 100 employees only 38% use electronics tools, as compared with 57% in firms with more than 2000 employees.2 Another survey, carried out by Diebold, comes to the conclusion that there are some 20 000 CAD work stations installed, half of which are based on microcomputers. According to the authors, the choice of CAD systems does not take sufficiently into account their capacity of integration into the technological context of the firms concerned.3 Finally, an opinion survey of the Sample Institut confirms that people's attitudes are becoming more favourable to computers, 75% of the interviewees believe that computers are fundamental for progress, as compared with 60% in 1983, 50% think that computers present more advantages than disadvantages, while there were only 33% in 1983 to believe so.4

The French journal Liaisons sociales carried out a survey on the diffusion of new technologies, including office and manufacturing automation, as well as computer-assisted design and production management, in firms. Overall, one employee out of four uses more or less regularly a computer in his/her work. Like in other countries, there is a wide difference between large and small enterprises. As an example, there were less than 5 000 robots installed in 1987,

of which 72% in firms with more than 1 000 employees and highly concentrated in the automobile sector (40% of the total). Office automation is more advanced than manufacturing automation: thus, all firms over 200 employees and almost 50% of those between 6 and 200 employees have one or more computers. The average is 2.5 computers per firm. The survey concludes that, in future, offices will look increasingly like production units and vice versa. ⁵

A recent piece of research analysed the diffusion of advanced automation systems in the Basque country, one of the most industrialized areas in Spain. The study found that the degree of diffusion is associated with firms' size, so that 98% of firms with more than 500 workers have some automatic manufacturing process, while only 21 % of those with less than 20 have. Automation is more advanced in sectors like electronics and electrical machinery, household appliances and tools. The most common uses of automation are manufacturing control, machining parts and sending orders and the equipment most frequently used is computerized process control systems. However, the degree of integration of different systems and equipment is low. The main economic advantages linked to automation are found to be the following: reduction in production time, greater flexibility, improvement in quality, standardization, greater reliability of equipment, reduction in stocks and in the consumption of raw materials. The main limitation on the diffusion of automation was found to be the availability of qualified staff. Moreover, the workers need to be retrained; firms prefer to train existing staff rather than recruiting new workers, so that there is neither generation nor reduction of employment. What occurs is a redistribution of the workforce between different functions and departments. This sta-

¹ 'Plein feux sur l'industrie du logiciel', Bulletin Hebdomadaire de la Kredietbank, No 18, 29 April 1988.

Informationsdienst des Instituts der deutschen Wirtschaft. No 51, 17 December 1987.

³ Wirtschaft und Produktivität, December 1987.

Medienspiegel, No 49, 7 December 1987.

⁵ Liaisons sociales, No 28, April 1988.

bility of employment is possible because the process of diffusion is sufficiently slow to allow surplus staff to be allocated to non-automated jobs. If the process were speeded up, it would probably result in greater unemployment!

A number of surveys in the United Kingdom pointed to a consistently high rate of diffusion of information technology for professional use. A study by Romtec, a specialist market research company, has found a 32% increase in numbers of business personal computers over the last year although the value of sales has only risen by about 4%. Amstrad (with 26% of the total sales) sold more machines than even IBM, although in value terms IBM had still the highest market share. Several PC producers had revenue growths in excess of 70%.2 The British Facsimile Industry Consultative Committee (BFICC) has released figures showing that, in 1987, the number of machines in use in the United Kingdom doubled from 86 000 to 173 000. It forecasts even higher sales in 1988.3 Finally, a survey for the Association for Information Management has revealed an increasing use of on-line databases linked to the growth in desktop personal computer sales. Three quarters of the organizations surveyed reported using such services compared to 4% in a similar survey in 1982. The report also concludes that over 90% of the respondents used some form of IT in library and information management.

As regards the diffusion of personal computers in households, a recent piece of research carried out in Denmark shows that their acceptance is rather more difficult than expected. The experiment was carried out in a commune, which supplied terminals and modems to the households in the area, so that they could be connected to a computer in the municipal house. Half way through the experiment, scheduled to run for two years, it appears that only half of the households use the terminals regularly. Only a few persons tried to use it for working from home, and several of the participants proved unwilling to spend time to get acquainted with the system. Women proved to be most reluctant. The rather unsuccessful outcome of the experiment contrasts with the results of a survey, carried out before the project was initiated, which showed that people in the commune, having on average a high education level, had a positive attitude towards new technology.⁴

2. Employment

The Spanish Higher Council for Scientific Research (CSIC) and Fundesco (the Foundation for the development of telecommunications) carried out an evaluation study of human and financial resources devoted to scientific research in information technology. A survey was carried out of almost all groups of research workers in universities, public institutions and companies. The study found 133 groups of research workers, made up of a total of 1 587 researchers (1 101 when converted into full-time equivalent), 958 of whom have completed doctorates or higher education courses. The largest numbers were found in automation and technology, and in microelectronics and optoelectronics. Most of the finance for research comes from public funds. Problems were identified in the lack of equipment and premises available to groups of research workers, in the incompatibility of computer equipment and in the lack of contact between research groups and industry. Lastly, the study found little cooperation between different research groups in the same field.5

Several pieces of research in the Federal Republic of Germany throw some light on sectoral employment trends related to technological change. First, the Deutsches Institut für Wirtschaftsforschung estimated the employment effect of the installation of the infrastructure for cable TV. In 1982, the same Institute had estimated that 21 000 to 22 000 jobs would be created for every DM 1 000 million investment. The ex-post evaluation, referring to 1984, shows that only 13 500 new jobs have been created outside the Bundespost. 62% of these jobs were created in engineering works, 12.5% in the telecommunications industry, and only 2.5% in the cable producers. The Bundespost hired 5 300 workers. Overall, the employment effect was less than 1/1000 of total employment in the Federal Republic of Germany.⁶

A study on the impact of new technology in insurance was carried out by the Ifo-Institute. The study concludes that new technology does not produce an over-proportional increase in productivity and, correspondingly, a decrease in employment. This did happen in the early 1980s, when employment decreased at an annual average of 0.5%, but is no longer the case. The main impact now would be, according to the study, a shift in recruitment towards more qualified staff.⁷

A study focusing on the impact on new technology on the division of labour was carried out by the Battelle-Institute for the Federal Ministry for Youth, Family and Health. It comes to the conclusion that women's jobs are much more affected than men's jobs. This is because there are separate labour markets for male and female workers in the firms. The study recommends to design new job profiles as a bridge between typically male and typically female jobs.8 Finally, a researcher at the Science Centre in Berlin who examined the correlation between employment and technological development came to the conclusion that technology is not such an important factor when compared with the lack of demand for goods and services. Technological unemployment is

¹ J. M. Echevarria, M. L. Moreno, La difusion de la tecnologia de la informacion en el País Vasco. El efecto bandwagon, ESTE-Diputacion Foral de Guipúzcoa, San Sebastián, 1987. A summary of the research can be found in articles by the same authors in ESTE. Estudios Empresariales, No 65, autumn 1987 and No 66, winter 1987-88.

² Financial Times, 11 April 1988.

³ Financial Times, 18 February 1988.

^{*} Berlingske Tidende, 2 February 1988

⁶ CSIS and Fundesco, Comunidad Cientifica Espanola en las tecnologias de la información, Madrid, 1987.

⁶ Frankfurter Rundschau, 15 October 1987

Wirtschaft und Produktivität, Nos 1 and 2/1988.

⁸ Frankfurter Rundschau, 26 January 1988.

possible but, in his opinion, is not the dominant factor at present.¹

The *Danish* trade union SAM DATA/HK carried out an analysis of employment prospects for EDP assistants, an occupation which the Ministry of Education wishes to expand. The union found that 46% of those completing the EDP-assistant course (which lasts between 1½ and 2½ years) do not obtain a job when they finish their studies. Soon after the course was created, students used to get a job straight away, but now the unemployment period gets longer and longer and wages stagnate. The union is consequently against a further expansion of EDP-assistant courses.²

Much of the discussion on employment focuses on employment creation in new sectors and job losses in traditional sectors. This does not always hold true in actual practice. A document prepared by the Portuguese union UGT examined the evolution of employment in 1987 and pointed out that the 2.6% increase in employment was mostly due to agriculture, textiles and construction industry. In agriculture, what increased was the number of self-employed women. This trend, whereby new jobs are created almost exclusively in the primary sector and in the most traditional branches of industry, is considered worrying by UGT, since it runs counter to all expectations and the need to develop the services sector and those industrial sectors which are fundamental for the modernization of the economy.

3. Skills and qualifications

In the Federal Republic of Germany, two research projects of the Institute for Social Research at the University of Göttingen provide some insights into qualification requirements and training needs in the coming years. Drawing from the conclusions of these studies, one of the authors argues that the German economy will increasingly rely not so much on mass production, but rather on the production of highly sophisticated goods and services for fast

changing needs. This will require highly qualified workers, capable of selecting data and handling strategic information. Educational requirements will thus be a good professional knowledge, the analytical ability to interpret information, great intellectual flexibility to cope with changing situations, and the ability to communicate. Technical knowledge is considered less important. This change has positive aspects, in so far as workers will be more challenged and have a wider scope for autonomous decisionmaking. On the other hand, however, it can be expected that these qualifications and the necessary training will be mostly provided by industry, leaving aside those who are not in employment. The gap between those within the employment system and those outside could then become wider and more difficult to cross, and the socio-economic status of the two groups could diverge even more in future.3

On a more specific issue, i.e. health insurance, another German study on the impact of computers points to rather negative conclusions, in so far as the authors argue that insurance workers are becoming less skilled than they used to be. In the past, when the employees processed written cards, every employee received a certain variety of cases to deal with, since cards were usually distributed in alphabetical order. Thus the employees had a good understanding of all services offered by the insurance. With the introduction of computers, every employee can draw all information about any insured person; the division of labour has been organized in such a way that every employee is given only certain cases and becomes a specialist in a specific field. With time, he is no longer able to understand the whole range of services of the insurance company nor is he able to advise clients on the full range of problems they may have. Advising becomes a special service to which insurance companies may allocate less qualified workers, since they do not have to make decisions. The end result is a lower skill level, according to the authors.4

As regards the labour market for skilled staff in the information technol-

ogy area, a number of reports in the United Kingdom point to continuing shortages. A CBI (Confederation of British Industry)/Manpower Services Commission survey of manufacturing industry published in March 1988 found that, in 1986-87, about 34% of companies faced the threat of having their output limited by skills shortages. The most significant shortages overall were among professional engineers (noted by 14% of companies) and computer and managerial staff (6%).5 The National Computing Centre published another report in March on IT skills shortages. The report is based on replies from computer departments in more than 700 establishments plus detailed discussions with a number of large-scale firms. It estimates that the UK is short of about 19 000 people with IT skills at present and that there will be a need for a further 35 000 IT workers in the next two years and a further 51 000 in the next five years. However, due to a net loss of more than 5 000 people with IT skills each year, the authors of the report suggest that the real demand over the next five years is between 82 000 and 100 000.6 Another survey, this time from the Institute of Manpower Studies, suggests that software and computing skills shortages are still growing despite the fact that recruitment difficulties have eased over the last two years. The survey of 143 companies found overall growth for IT specialists was between 5% and 10% per annum. This would suggest a total of over 230 000 such specialists in the

K. F. Zimmermann, Technologieentwicklung und Beschäftigung: Endogene Produkt- und Prozessinnovationen und die Rolle von Löhnnebenkosten und Nachfrage, IIM/IP 87-16.

⁻ LO-Bladet, No 5/1988; Berlingske Tidende, 18 April 1988

³ Kern and Schumann, The end of the divison of labour?: Baethge and Oberbeck, The future of white-collar workers; both discussed in Frankfurter Rundschau, 15 January 1988.

furter Rundschau, 15 January 1988.

T. K. Karlsen, M. Oppen, Fachqualifikationen und die Grenzen der Verwaltungsautomation, Wissenschaftszentrum Berlin, IIVG/re 87-210.

⁵ CBI/MSC Special Report on skill shortages in manufacturing, CBI, 1988.

⁶ B. Buckroyd and D. Cornford, *The IT skills crisis* — *The way ahead*, National Computing Centre, 1988.

UK last year. Employers continue to prefer recruiting experienced staff — retraining of existing employees was a rare occurrence. Turnover rates of IT employees were high in London and the South-East but a third of all organizations had turnover rates of less than 5 %.1

4. Work organization and working conditions, health and safety

A study carried out by the Department of Work Psychology of the University of Liège (Belaium) looks at the man-machine interface in computercontrolled continuous processes. It points out that the role of the operators change, in so far as they no longer regulate the process, but rather supervise the integration of the system: this makes communication very important. The organization of operators' work must be based on some basic principles, namely that his know-how must focus on certain key areas, the know-how itself is acquired though different channels, the scope of the problems to be solved must be reduced. As regards the design of the screens, the study suggests that complexity should be reduced by diminishing the number of variables and using graphs, so that the operator can monitor and understand the development of the process; and that the acquisition of logical reasoning and statistics should be favoured. Since the reliability of the systems depends on the operators, training becomes very important: it must concern designers and operators, as well as the persons responsible for organization.2

A less widely investigated issue is the use of computers by managers. A recent survey carried out in the *United Kingdom* by Romtec on the awareness and use of executive information systems found that senior executives are heavily dependent on computer originated information in assisting them to manage their business. 130 finance directors and 59 managing directors were questioned and in two thirds of the organizations management already used

computers. Of those, 75% believed they got sufficient information from their systems to run their business with the other 25% thinking they received too much information.3 The findings of another survey of senior management, this time carried out by the Financial Times in conjunction with Price Waterhouse, found that a majority of chief executives believe they have the necessary expertise at board level to guide their companies in the strategic use of information technology. On the other hand, the role of the data-processing manager seems certain to decline as his traditional responsibilities are annexed by the IT director and his 'customers' run their own systems.4

Studies of the social legislation concerning in particular working conditions have been carried out in Belgium and the Netherlands. In Belgium, a study by the Centre of Sociology of Law of the 'Université Libre de Bruxelles' gives a comprehensive survey of social legislation concerning new technologies, particularly as regards health and safety on the one hand, and flexibility and new forms of work organization on the other hand. On health and safety, the main hazards are found in the use of screens, Xeroxing equipment and robotics. The study examines how these risks are taken into account in the policies of the firms and who should be in charge of prevention. Stress and specific problems of pregnant women are examined in detail. As regards new forms of work organization, the study focuses on telework, examining which provisions of present legislation condition the development of this form of work, though it is presently not widespread in Belgium. Finally, the study examines some aspects of the relations between employer and employees, such as the statute and rights of salaried inventors, the professional responsibility of workers and the protection of private life.5

In the *Netherlands*, the results of a research carried out by the Nijmegen University Institute for Applied Social Research ITS on the impact of the 1983 Labour Conditions Act were presented at a congress and to Parliament in February 1988. The impact of the law does

not appear to be significant: the regulations laid down are often not well known by the workers nor by their immediate superiors, and not all managers seem to really care about the law. The main provisions of the Act concern worker information on working conditions and protective measures, annual reports on working conditions, high standards for health and safety, rights and competence of works councils, and the role of company health services. The opinion of the employers, as expressed by the Christian Employers' Association NCW stressed the need to limit legislation in this field and pleaded for a freer interplay between employers and workers, the unions and the works councils. Secretary of State De Graaf, who presented the report to the Parliament, stated on the contrary that the Act should not be regarded as a 'luxury product of the 1970s', no longer needed in the 1980s. New technology, new products, more complex and dangerous processes, and also more flexible employment contracts, are all factors that show the need for an effective regulation of working conditions.6

Health hazards caused by laser printers are being studied in *Denmark* in a project run by Rank-Xerox and the National Postgiro. In 1985 the Postgiro bought laser printers which the members of the National Union of Clerical Workers HK refused to use, so that they have hardly been at work ever since. Skin problems have also been reported by employees at Kommunedata in Aalborg using the same equipment. The ex-

¹ R. Pearson, H. Connor, C. Pole, IT Manpower Monitor 1988, Institute of Manpower Studies, 1988.

² De Keyser V., Decortis F., Housiaux A., Van Daele A., Les communications hommes-machines dans les systèmes complexes, Service de Programmation de la Politique Scientifique, Bruxelles, 1987.

³ Financial Times, 28 January 1988.

^{*} Financial Times, 15 April 1988.

Peles-Bodson S., Vogel-Polsky E., *Droit social et nouvelles technologies*, Services de Programmation de la Politique Scientifique, Bruxalles 1997.

⁶ Press Release Ministry SZW, 11 February 1988; De Volkskrant, 12 February 1988.

periment was done with the help of 28 volunteers at the Postgiro who worked with laser printers under medical supervision in April 1988. Some of the participants developed itch, pain in the eyes and blushing faces; the medical reason for this, is, however, not yet established.'

Computers may be dangerous in family life. At a *German* symposium of child psychotherapists the growing use of computer games was discussed as the main risk of mental illness or deviant behaviour. It was said that computer games are a greater factor of risk than conflicts within the families. In some

cases children did not communicate with other family members for several days and had contacts only with their computers.²

¹ Det Fri Aktuelt, 16 April 1988.

² Frankfurter Rundschau, 9 February 1988.



Part four

Statistical data



I.	Po	pu	lat	ion

Year		В	DK	DE	GR	E	F	IRL	IT	L	NL	Р	UK	EUR 12
		1. Total p	population	ĺ									•	
		(a) in 1 (000s — an	nual avera	ge or 30	lune								,
1970 1980 1981 1982 1983 1984 1985 1986		9 638 9 847 9 852 9 856 9 856 9 855 9 858 9 861	4 929 5 123 5 122 5 118 5 114 5 112 5 114 5 120	60 651 61 566 61 682 61 638 61 423 61 175 61 024 61 066	8 793 9 643 9 729 9 789 9 850 9 896 9 935 9 966	33 779 37 386 37 751 37 961 38 173 38 387 38 602 38 668	50 772 53 880 54 182 54 480 54 729 54 947 55 170 55 392	2 950 3 401 3 443 3 483 3 508 3 529 3 540 3 541	53 822 56 434 56 508 56 638 56 836 57 005 57 141 57 246	340 365 366 366 366 366 367 368	13 039 14 150 14 247 14 313 14 367 14 424 14 492 14 572	9 044 9 909 9 855 9 930 10 009 10 089 10 157 10 208	55 632 56 314 56 379 56 335 56 377 56 488 56 618 56 763	303 386 318 016 319 116 319 906 320 606 321 276 322 016 322 77
		(b) Aver	age annua	l increase	as %									
1970 — 1980 1980 — 1981 1981 — 1982 1982 — 1983 1983 — 1984 1984 — 1985 1985 — 1986		0.2 0.1 0.0 0.0 0.0 0.0 0.0	0.4 -0.0 -0.1 -0.1 -0.0 0.0 0.1	0.1 0.2 -0.1 -0.3 -0.4 -0.2 0.1	0.9 0.9 0.6 0.6 0.5 0.4 0.3	1.0 1.0 0.6 0.6 0.6 0.6 0.2	0.6 0.6 0.5 0.5 0.4 0.4	1.4 1.2 1.2 0.7 0.6 0.3 0.0	0.6 0.2 0.2 0.3 0.3 0.2	7.4 0.3 0.0 0.0 0.0 0.0 0.3 0.3	0.8 0.7 0.5 0.4 0.4 0.5 0.6	0.9 -0.5 0.8 0.8 0.8 0.7 0.5	0.0 0.1 0.1 0.1 0.2 0.2 0.2	0.4 0.3 0.3 0.2 0.2 0.2
		(c) By a	ge groups	as % — er	nd of the y	ear								
0—14 years	1970 1980 1984 1986	23.6 20.0 19.0 18.6	23.1 20.6 18.6 17.9	23.1 17.8 15.3 14.7	24.6 22.5 21.1	27.9 25.7 23.6 22.3	24.7 22.3 21.3 20.8	31.2 30.4 29.6 29.0'	24.4 21.7 19.6 18.4	22.0 18.6 17.3	27.2 22.1 19.7 18.8	28.8 25.5 23.8 22.7	24.0 20.8 19.4 19.1	24.8 21.5 19.8
15—64 years	1970 1980 1984 1986	63.0 65.6 67.4 67.2	64.5 64.9 66.4 66.7	63.6 66.7 70.1 70.1	64.3 64.3 65.6	62.4 63.4 64.5 65.4	62.4 63.9 65.9 65.9	57.7 58.9 59.8 60.1	65.0 64.7 67.7 67.2	65.4 67.8 69.5	62.6 66.4 68.3 68.9	62.0 63.1 64.3 64.9	63.2 64.2 65.6 65.6	63.2 64.8 66.8
65 years	1970 1980 1984 1986	13.4 14.4 13.7 14.2	12.4 14.5 15.0 15.4	13.3 15.5 14.7 15.2	11.1 13.2 13.3	9.8 10.9 11.9 12.3	12.9 13.8 12.8 13.3	11.1 10.7 10.7 10.8	10.6 13.5 12.7 13.4	12.6 13.6 13.21	10.2 11.6 12.0 12.3	9.2 11.4 11.9 12.4	12.8 15.0 15.0 15.2	12.0 13.7 13.4

1 1985.

Source: Demographic statistics 1986, Eurostat.

I. Population (continued)

Year	В	DK	DE	GR	E	F	IRL	IT	L	NL	Р	UK	EUR 1
	2. Comp	onents of	population	changes									-
	(a) Birth	rate (live b	oirths per	1 000 inhat	oitants)								
1970	14.8	14.4	13.4	16.5	19.6	16.8	21.8	16.8	13.0	18.3	20.0	16.2	16.4
1980	12.6	11.2	10.1	15.4	15.2	14.9	21.8	11.3	11.4	12.8	16.2	13.4	13.0
1981	12.6	10.4	10.1	14.5	14.1	14.9	21.0	11.01	12.1	12.5	15.4	13.0	12.7
1982	12.2	10.3	10.1	14.0	13.6	14.6	20.3	10.91	11.8	12.0	15.2	12.8	12.4
1983	11.9	9.9	9.7	13.5	12.5	13.7	19.1	10.61	11.4	11.8	14.4	12.8	11.9
1984	11.7	10.1	9.5	12.7	12.1	13.8	18.1	10.31	11.5	12.1	14.2	12.9	11.8
1985	11.6	10.5	9.6	11.8	12,11	13.9	17.6	10.11	11.2	12.3	12.8	13.3	11.82
1986	11.9	10.8	10.3	11.3	12,01	14.1	17.3	9.71	11.7	12.7	12.4	13.3	11.9 ²
	(b) Death	n rate (dea	ths per 1	000 inhabi	tants)								-
1970	12.3	9.8	12.1	8.4	8.3	10.7	11.4	9.7	12.2	8.4	10.3	11.8	10.6
1980	11.5	10.9	11.6	9.1	7.7	10.2	9.8	9.8	11.3	8.1	9.9	11.7	10.3
1981	11.4	11.0	11.7	8.9	7.8	10.2	9.6	9.61	11.2	8.1	9.7	11.7	10.2
1982	11.1	10.8	11.6	8.8	7.5	10.0	9.3	9.41	11.3	8.2	9.3	11.8	10.1
1983	11.3	11.2	11.7	9.2	7.7	10.2	9.4	9.91	11.3	8.2	9.6	11.7	10.3
1984	11.1	11.2	11.3	8.9	7.7	9.9	9.1	9.31	11.1	8.3	9.6	11.4	10.0
1985	11.2	11.4	11.5	9.3	7.71	10.0	9.4	9.51	11.0	8.5	9.6	11.8	10.2
1986	11.2	11.3	11.5	9.2	7.61	9.9	9.5	9.51	10.7	8.6	9.4	11.7	10.1
	(c) Net in	mmigratio	per 1 00	0 inhabita	nts)								
1970	+0.4	+2.4	+9.2	-5.3	-0.8	+3.5	-1.2	-2.2	+3.1	+2.6	-16.4	-0.3	+1.4
1980	-0.3	+0.1	+5.1	+5.2	+3.0	+0.8	-0.2	-0.1	+3.7	+3.7	+ 4.3	-0.7	+1.2
1981	-0.8	-0.4	+2.5	+0.7	0.0	+1.1	+0.3	-0.5	+1.1	+1.2	+ 1.7	-1.5	+0.9
1982	-0.5	-0.0	-1.2	+0.8	-0.6	+0.7	-3.2	+1.9	-0.9	+0.2	+ 1.8	-1.0	+0.1
1983	-0.8	+0.3	-1.9	+0.9	-0.1	+0.3	-2.7	+2.4	+0.1	+0.4	+ 3.3	+0.3	+0.3
1984	0.0	+0.8	-2.5	+1.0	-0.2	+0.3	-5.0	+1.6	+1.3	+0.6	+ 3.3	+0.9	+0.2
1985	0.0	+1.9	+1.4	+0.5	-3.2	0.0	-7.3	+1.4	+2.3	+1.7	+ 2.3	+1.3	+0.6
1986	-0.1	+2.1	+3.2	+1.1	_	0.0	-7.3	+1.3	+5.4	+2.2	+ 1.3	+0.5	+1.1

Provisional figures.
Data for Spain relate to 1984.
Source: Demographic statistics 1986, Eurostat.

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Year	В	DK	DE	GR	E	F	IRL	IT	L	NL	Р	UK	EUR 12
	1. Comp	ulsory edu	cation (a	ge)		***************************************							
970 1985	6-14 6-18¹	7-14 7-16	6-14 6-15	7-13 5.5-14.5	6-14 6-14	6-15.5 6-15.5	6-14 6-15	6-14 6-14	6-15 6-15	6-14 5-16	6-12 6-14	5-15 5-16	5-15.5 5-18
	2. Numb	ers of pup	ils and stu	udents					-				
	(a) in 1 0	00s											
970/71 980/81 985/86	2 361 2 289 2 255	951 1 103 1 063	11 060 12 455 10 872	1 648 1 908 2 026 ²	6 929 9 538 10 155	12 396 13 442 13 421	766 911 970	11 036 12 699 11 882	61.5 61.2	3 204 3 517 3 315	1 510 1 826 2 107 ²	10 819 11 255 10 247	62 741 71 002 68 371 ⁵
	(b) as %	of the por	oulation aç	ged 5 to 24	years								
970/71 980/81 985/86	78.4 77.6 82.2	61.3 72.5 73.4	63.3 68.9 66.9	59.7 65.6 69.9²	60.2 74.6 78.8	73.2 79.4 81.6	69.7 70.4 73.0	66.1 72.2 68.7	62.1 59.0	68.2 74.5 75.0	47.7 54.6 62.0 ²	63.4 65.8 62.7	65.3 71.5 71.6
	(c) by le	vel of edu	cation as o	/0									
First level 1970/71 1980/81 1985/86	44.2 37.5 33.6	47.8 39.4 38.1	36.9 23.1 21.7	55.8 47.2 44.4 ²	51.4 38.8 35.2	41.5 36.5 30.9	52.2 47.2 44.2	44.7 34.9 31.3	52.3 44.2	47.7 39.9 35.5	76.0 63.7 60.5 ²	54.0 44.1 42.3	46.4 36.8 33.8
Second level 1970/71 1980/81 1985/86	31.1 37.1 37.9	40.1 45.2 44.8	46.2 54.8 49.6	33.7 38.8 39.4 ²	31.7 41.7 44.5	34.4 38.1 40.4	27.2 33.0 34.9	34.7 42.0 45.5	33.9 41.5	31.4 40.3 44.3	18.4 25.8 28.4 ²	38.9 48.3 48.4	36.3 43.7 44.3
Third level 1970/71 1980/81 1985/86	5.3 8.6 11.0	9.9 9.6 11.8	6.1 9.7 14.1	5.2 6.3 8.2 ²	5.1 7.1 9.2	6.2 7.6 9.5	3.4 4.6 5.7	6.2 8.3 9.4	0.9 1.3	5.5 8.1 9.3	4.5 5.0 5.6 ²	4.2 4.7 5.9	5.6 7.5 9.5

Estimates Eurostat.
 16 years and older: at least participation in part-time education.
 1984/1985.
 Source: Eurostat.

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111	_	Em	nla	vm	ant
	_		$\mathbf{v}_{\mathbf{i}}\mathbf{v}_{\mathbf{i}}$	v	CIII

Year		В	DK	DE	GR	E	F	IRL	IT	L	NL	Р	UK	EUR 12
		1. Worki	ng popula	tion										
		(a) 1 000	annual av	erage										
1970		3 824	2 380	26 817	3 430 ^s	13 049	21 434	1 118	20 886	135.8	4 795	-	25 308	127 189
1975		3 999	2 486	26 884	3 434s	13 757	22 354	1 158	21 233	150.3	4 991	4 030	25 877	130 353
1980		4 156	2 662	27 217	3 636	13 456	23 370	1 247	22 459	152.5	5 386	4 338	26 841	134 920
985		4 202	2 834	27 844	4 0785	13 938	23 902	1 305	23 495	156.3	5 812	4 522	27 643	139 73
986		4 212	2 898	28 024	4 063 ⁵	14 147	24 009	1 303	23 851	157.4	5 843	4 519	27 772	140 798
		(b) as %	of total po	pulation (a	ctivity rate	s)								
1970		39.7	48.3	44.2	39.0	38.6	42.2	37.9	38.8	40.0	36.8	_	45.5	41.9s
975		40.8	49.1	43.5	38.0s	38.7	42.4	36.4	38.3	41.7	36.5	42.8	46.0	41.8s
980		42.2	52.0	44.2	37.7	37.7	43.4	36.7	39.8	41.8	38.1	44.4	47.7	42.4
985		42.6	55.4	45.6	41.0s	41.0	43.3	36.9	41.1	42.6	40.1	44.5	48.8	43.4s
986		42.7	56.6	45.9	40.8 ^s	40.8	43.3	36.8	41.7	42.8	40.1	44.3	48.9	43.6
		2. Total	employme	nt										
		(a) 1 000	– annua	average										
1970		3 698	2 363	26 651	3 294 ^s	12 856	20 905	1 053	19 775	140.2	4 708s	-	24 753	124 192
1975		3 783	2 365	25 810	3 359 ^s	13 133	21 453	1 073	20 007	157.5	4 747	3 852	25 035	124 774
980		3 797	2 489	26 328	3 541	11 946	21 903	1 156	20 869	158.2	5 077	4 007	25 328	126 599
985		3 662	2 598	25 540	3 774 ⁵	10 955	21 460	1 079	21 113	161.9	5 178	4 137	24 465	124 123
986		3 698	2 709	25 796	3 776s	11 174	21 519	1 075	21 240	165.1	5 238	4 137	24 561	125 088
		(b) Femi	ale employ	ment as %	of total er	mploymen	t							
1970		31.9	38.6	36.0	26.4 ^s	24.1	34.9	26.7	27.5	26.9	25.7 ^s	-	35.8	32.5s
1980		35.1	44.0	37.3	28.1	27.8	38.5	28.8	31.3	30.8	30.0	38.1	39.8	35.6
1985		37.4	44.5	38.2	32.3s	28.3	40.5	30.8	32.4	34.2	33.6	40.0	41.7	37.1s
1986		38.0	45.0	38.3	32.1s	28.8	40.8	31.1	32.8	34.2	33.8	42.1	42.1	37.5 ^s
		(c) Total	employm	ent by sect	tors as %									
	lture, fishery													
1970		4.7	11,3	8.5	38.8s	28.5	13.2	26.9	19.6	9.3	6.1 ^s		3.2	-
1980		2.9	8.0	5.5	28.7	18.5	8.5	18.1	13.9	5.4	4.8	28.0	2.6	9.4
1985		2.9	7.0	5.3	27.5°	17.6	7.4	15.8	10.9	4.2	4.8	23.4	2.6	8.5s
1986		2.8	6.1	5.2	27.2 ^s	15.6	7.1	15.6	10.6	3.9	4.7	21.5	2.5	8.1

⁵ Estimates Eurostat. Source: Employment and unemployment — 1988, Eurostat.

111	Emn	lovment	/aantini	104)
111.		ovinent	(CONTIN	Jea I

Year	В	DK	DE	GR	Ε	F	IRL	IT	L	NL	Р	UK	EUR 12
Industry													
1970	41.6	37.1	48.4	23.8s	36.0	38.1	29.6	38.4	44.1	38.1s	_	44.1	
1980	33.6	28.6	43.2	28.7	34.8	35.0	32.1	36.9	38.1	30.8	35.3	37.2	4 36.9
985	29.2	26.4	40.2	26.0s	30.7	31.2	28.4	32.7	33.4	26.6	33.3	31.4	32.8°
1986	28.6	26.5	40.1	26.8s	31.0	30.5	28.0	32.1	32.8	26.3	33.5	30.7	32.5°
Services													
1970	53.7	51.7	43.1	37.4s	35.5	48.7	43.5	42.0	46.6	55.7s	-	52.7	_
980	63.4	63.4	51.3	42.6	46.7	56.5	49.8	49.2	56.6	64.4	36.7	60.2	53.6
985	67.9	66.6	54.5	46.5s	51.7	61.5	55.8	56.5	62.4	68.6	43.3	66.0	58.7
986	68.6	67.4	54.7	46.0s	53.4	62.3	56.4	57.3	63.2	69.0	45.0	66.8	59.4
	3. Emplo	yees in e	mployment	,									
	(a) Total	(1 000) —	annual ave	erage									
1970	3 004	1 885	22 229	_	8 383	16 518	725	13 368	112.6	4 045s	_	22 851	_
1975	3 152	1 932	22 014	_	9 305	17 648	771	14 251	132.8	4 140	2 586	23 042	-
980	3 174	2 097	23 009	1 853	8 437	18 321	874	15 055	137.0	4 462	2 729	23 295	103 44
985	3 017	2 284	22 274	1 955s	7 654	18 119	820	15 023	143.1	4 590	2 815	21 835	100 52
986	3 043	2 399	22 525	1 949 ^s	7 968	18 204	825	15 084	146.6	4 664	2 842	21 915	101 56
	(b) as %	of total er	nployment										
970	81.2	79.8	83.4	_	65.2	79.0	68.9	67.6	80.3	85.9 ^s	_	92.3	-
1975	83.3	81.7	85.3	_	70.9	82.3	71.9	71.2	84.3	87.2	67.1	92.0	_
980	83.6	84.3	87.4	52.3	70.6	83.6	75.6	72.1	86.6	87.9	68.1	92.0	81.7
985	82.4	87.9	87.2	51.8s	69.9	84.4	76.0	71.2	88.4	88.8	68.0	89.3	81.0
986	82.3	88.6	87.3	51.6s	71.3	84.6	76.7	71.0	88.8	89.0	68.7	89.2	81.2
	4. Emplo	yees in th	ne iron and	steel indu	stry (ECS	SC)							
	(a) 1 000	— annua	l average										
1970	60.2	_	237.5	_	_	145.6	=	74.1	23.0	21.3	_	_	_
1975	61.4	2.7	226.8	_	_	156.9	0.8	96.1	22.6	25.6	_	191.1	_
980	47.4	2.5	201.0	_	-	113.6	0.7	100.6	16.0	21.0	_	133.4	_
1985	35.6	1.7	152.0	4.2	_	80.7	0.6	71.1	12.4	18.9	_	60.7	_
987	28.9	1.6	137.4	_	-	63.0	0.6	65.0	11.6	18.8	-	55.0	-
	(b) Avera	age annua	al increase	(+) or de	crease (-) as %							
1970/75	+ 0.5	_	-0.9	_	_	+ 1.5	_	+5.3	-0.3	+3.8	_	_	_
975/80	- 5.1	-1.6	-2.4	-	_	- 6.2	-3.2	+0.9	-6.6	-3.9	_	- 6.9	_
1980/85	- 5.5	-7.4	-5.4	_	_	- 6.6	-2.5	-6.7	-5.0	-2.1	_	-14.6	_
1986/87	-11.2	-9.5	-7.2	_	_	- 12.4	+8.7	-5.7	-7.5	-0.5		- 3.3	_
1000/01	11.2	0.0	1			144		V.,	,	0.0		0.0	

^s Estimates. Source: Employment and unemployment — 1987, Eurostat.

IV	Unem	nlo	ment
ıv.	Ollelli	יטוכ	ment

Year	В	DK	DE	GR	E	F	IRL	IT	L	NL	Р	UK	EUR 12
	1. Regist	ered unen	nployed (a	ccording	to nationa	definition	is)						
	(a) 1 000	- annual	average										
1970	80 ⁵	255	148	49	146	262	59	888	0	59 ⁵	13	558s	2 287
975 980	201 ^s 369	122 ^s 176	1 086 899	35 37	257 1 277	840 1 451	96	1 107 1 580	0.3	260 325	107 285	909 ^s 1 591 ^s	5 020 8 093
985	557	242	2 305	85	2 642	2 458	101 231	2 959	2.6	761	342	3 271	15 85
987	501	216	2 233	110	2 924	2 622	247	3 297	2.7	686	319	2 953	16 11
987 March	495	245	2 412	133	2 977	2 679	249	3 348	2.9	692	359	3 143	16 73
987 June	466	190	2 097	91	2 839	2 459	247	3 213	2.4	658	300	2 905	15 46
987 September	516	201	2 107	81	2 879	2 674	242	3 326	2.6	687	283	2 870	15 86
987 December	498	227	2 308	137	3 024	2 677	250	3 447	2.9	697	310	2 696	16 27
	(b) as %	of the civil	ian workin	g popula	ion (unem	ployment	rates)						
970	2.1s	1.1 ^s	0.6	-	1.2	1.3	5.3	4.4	0.0	1.3s	_	2.2s	1.9
975	5.1s	5.0 ^s	4.1	_	1.9	3.9	8.4	5.3	0.2	5.3	_	3.6s	3.9
980	9.1	6.7	3.4	-	9.9	6.4	8.2	7.2	0.7	6.2	_	6.0s	6.1
985	13.6	8.7	8.4	7.8	19.9	10.5	17.9	12.9	1.7	13.3	8.6	12.0	11.6
987	12.2	7.6	8.1	7.5 ^s	22.0s	11.2	19.2	14.2	1.7	11.9	-	10.8	11.7
987 March	12.0	8.6	8.8	-	22.1	11.4	19.3	14.4	1.8	12.1	9.3	11.5	12.1
987 June	11.3	6.7	7.6	-	21.1	10.5	19.1	13.8	1.5	11.5	8.7	10.6	11.2
987 September	12.5	7.0	7.7	-	22.0	11.4	18.7	14.3	1.7	12.0	8.4 ^s	10.5	11.5
987 December	12.1	8.0	8.4	-	23.2 ^s	11.4	19.4	14.8	1.8	12.1	8.6s	9.8	11.8
	2. Struct	ure of une	mploymen	t									
	(a) Propo	ortion of w	omen amo	ng the un	employed	as %							
970	36.0s	22.0s	38.3	_	_	44.4	17.0	30.1	82.2	17.65	_	15.4s	_
980	61.6	50.0	51.8	40.5	31.4	54.6	23.9	46.8	51.9	35.8	59.2	30.4s	43.4
985	56.0	56.8	44.1	41.6	39.5	48.2	26.2	48.6	48.1	34.6	56.1	31.2	42.3
987	58.3	56.6	45.8	46.0	47.8	50.5	28.8	48.9	43.2	37.5	56.7	30.7	44.9
	(b) Propo	ortion of yo	oung peop	le aged u	nder 25 ye	ars among	the uner	nployed as	s %				
975	40.0s	_	24.9	_	_	42.0	_	-	_	34.4	_	3.1s	_
980	38.0s	30.2s	25.0s	9.9	47.5	42.1	23.7	47.2	48.3	39.4	_	41.7s	41.0
985	34.9	24.7	24.45	34.4	45.3	38.4	31.0	46.8	47.4	37.6	-	37.8	38.5
987	32.0	23.3	21.6	28.5	42.4	31.7	30.0	46.6	38.6	33.0	_	33.4	35.6

* Estimates,

¹ Portugal excluded,

Source: Employment and unemployment — 1988, Eurostat.

V. Working conditions

ar	В	DK	DE	GR	Е	F	IRL	IT	L	NL	Р	UK	EUR 1
	1. Hours	s of work p	er week				'	1	h	*			
	(a) Norr	nal hours o	f work for	industrial v	workers fi	xed by col	lective ag	reements					,
70	42-44	42.5-41.75	40-41	48	_	401	41-42	42-44	41-45	42.5-41.79	5 —	40-41	40-4
80	37.5-40	40	40	43-44	42-45	401	40	36-40	40	40	_	39-40	-
85/86	36-40	39-40	38-40	38.75-40	39-40	37.5-39	40	35-40	40	36-40	40-45	35-40	35-4
	(b) Hou	rs of work	offered to	industrial w	vorkers –	- October							
70	42.7	_	44.1	44.6 ²	_	45.9	_	42.5	45.0	44.3	_	_	_
30	35.7	38.5	41.6	39.0 ²	-	40.9	42.3	38.4	40.2	40.8	-	40.7	-
34	35.7	38.5	41.2	39.1 ²	-	38.9	41.3	37.4	40.1	40.5	_	42.0	_
B5	35.7	37.9	40.7	39.3 ²	-	-	41.1	-	40.6	40.5	-	42.2	-
86	35.6	-	40.5	-	-	-	41.6	-	41.0	-	-	42.0	_
	2. Basic	annual pa	id holiday	s for indus	trial work	ers fixed b	y collectiv	e agreeme	nts in day	/S ³			
70	18	18	16*-24	6-12	_	24	12-18	12-15	18-24	15*-18*	_	12-18	6-2
30	24	26*-30	21*-30*	10-12	20-25	24	17*-19	20*-24	25*	20*-24*	_	18-23	10-3
35/86	24-25	26*-30	21*-32*	20-24	25	30	24	25-30	25*	26*	20-25	20-27	20-3
	3. Strike	es											
	(a) Wor	king days l	ost (1 000)									
70	1 432	102	93	_	1 092	1 742	1 008	18 277	_	263	_	10 980	_
30	217	192	77	2 617	6 178	1 511	412	13 514	0	54	533	11 964	37 26
34	_	131	2 921	-	-	1 317	386	7 279	0	29	270	27 135	_
85	-	2 332	35	-	_	727	418	3 177	0	89	_	6 402	_
36	-	-	28	-	-	568	309	4 737	0	-	-	1 920	-
	(b) Wor	king days l	ost per 1	000 employ	ees-								
70	482	56	4	_	135s	110	1 405	1 445	_	69		489	_
80	70	90	3	1 570	777s	82	480	932	0	13	204	521	362
84	-	61	136	_	891s	73	468	511	0	7	985	1 277	_
	_	1 021	2	_	_	40	513	211	0	20	_	298	_
85	_												

s Estimates.

Sources: 1(a) + 2: National collective agreements.
1(b) Employment and unemployment 1988, Eurostat; Bulletin of labour statistics ILO
3(a) + (b): Eurostat.

Estimates.
 Normal hours fixed by legislation.
 Hours paid for.
 Working days; where the data have been annotated *, they refer to days of work.

VI. Wages - labour costs

Year	В	DK	DE	GR	Ε	F	IRL	IT	L	NL	P	UK	EUR 1
	1. Averag	ge gross h	ourly earn	ings of inc	lustrial wo	rkers' -	October ²						
	(a) Conv	erted into	current pu	rchasing (power star	ndards							
1975	2.66	3.28	2.63	1.20	-	1.92	2.34	2.34	3.26	2.97	-	2.86	
1980	5.40	6.12	5.11	2.83	-	3.92	4.31	4.58	6.08	5.40	-	4.69	
985	8.02	8.77	7.96	5.10	-	6.21	7.00	7.23	8.50	8.04	-	7.87	
986	8.08*	9.19*	8.48*	5.01*	-	-	7.55*	-	8.75*	-	-	8.40*	
	(b) In na	tional curr	encies —	indices (1	980 = 100)								
975	65.1	60.9	73.2	35.8	_	52.4	47.2	39.5	68.2	71.0	_	52.7	
980	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
985	132.3	139.8	121.3	301.8	189.4	164.9	180.3	199.8	131.3	117.9	250.7	154.8	
986	132.9	145.4	126.1	334.9	-	-	194.4	-	135.6	-	295.9	165.3	
	(c) In na	tional curr	encies —	average ar	nual rates	of increa	se as %						
975/1980	8.9	10.4	6.4	22.8	_	13.8	16.2	20.4	7.9	7.1		13.6	
980/1981	9.6	10.8	5.7	27.5	18.4	15.1	19.7	24.1	5.2	5.3	24.7	12.1	
81/1982	5.6	9.7	4.3	36.0	14.7	13.0	14.4	17.0	8.1	6.8	23.0	9.0	
982/1983	5.4	4.1	3.3	18.5	13.7	12.9	11.3	15.9	7.9	2.0	17.9	7.9	
983/1984	4.2	4.3	2.5	24.1	11.3	6.1	10.4	7.4	3.5	0.4	15.2	8.9	
984/1985	4.1	5.9	4.0	18.4	10.2	5.8	7.2	10.6	3.4	2.4	20.4	7.9	
985/1986	0.5	4.0	4.0	11,0	-	-	7.8	-	3.3	-	18.0	6.8	
	(d) Deve	lopment in	real term	s — indice	es (1980=	100)	****						
975	87.7	103.1	88.8	76.3	_	87.0	92.9	87.1	89.9	94.6	_	100.6	
980	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
985	95.4	97.5	100.8	116.0	106.3	106.8	102.4	108.1	92.6	97.5	88.2	111.6	
986	95.0	97.1	105.8	105.5	-	-	107.2	-	96.5	-	93.2	115.7	
	(e) Deve	lopment in	real term	s — avera	ge annual	rates of in	crease as	%					
975/1980	2.7	-0.6	2.4	5.6	_	2.8	1.5	2.8	2.2	1,1	_	-0.1	
980/1981	1.7	-1.0	-1.5	1.7	3.3	0.8	-0.3	6.1	-3.4	-1.8	3.9	0.4	
981/1982	-3.9	-0.7	-0.7	13.4	0.3	3.4	-2.3	-0.1	-2.0	1.9	0.2	2.0	
982/1983	-1.0	-1.2	0.6	-2.2	1.3	2.4	1.2	2.4	-0.4	-0.6	-5.8	2.7	
983/1984	-1.5	-1.6	0.3	5.2	0.1	-0.8	2.2	-1.9	-1.3	-2.4	-10.6	3.7	
984/1985	0.1	2.1	2.1	-2.3	1.2	0.9	1.6	1.5	-0.5	0.4	0.6	2.3	
985/1986	-0.4	-0.4	5.0	-9.1	-	- 0.5	4.7	-	4.2	0.4	5.7	3.7	
000/1000	-0.4	-0.4	5.0	- 3.1	_		4.7	_	4.2		5.7	3.7	

All industry (NACE 1—5 except 16 and 17). Denmark and Ireland; building industries excluded, Greece: manufacturing industries. Ireland: September, Spain: annual average.

Provisional data.

VI	Wages	_	lahour	costs	(contin	(hau

/ear	В	DK	DE	GR	E	F	IRL	IT	L	NL	Р	UK	EUR 1
1000	2. Averag	ge gross m	onthly ea	rnings of n	ion-manu	al workers	in industr	y — Octob	er				
	(a) In nat	ional curre	encies —	indices (19	980 = 100)								
975	67.3	66.7	71.3	_	_	56.9	_	44.0	66.1	70.4	_	50.6	_
980	100.0	100.0	100.0	_	_	100.0	_	100.0	100.0	100.0	_	100.0	_
985	128.2	147.9	123,3	_	_	154.2	_	202.2	135.6	115.5	_	161.0	_
986	129.2	156.7	128.6	-	-	-	-	-	143.5	-	-	-	-
	(b) In na	tional curr	encies –	average ar	nnual rate	s of increa	se as %						
975—1980	8.2	8.4	7.0	_	_	11.9	-	17.8	8.6	7.3	_	14.6	_
980-1985	5.1	8.1	4.3	_	_	9.1	-	15.1	6.3	2.9	_	10.0	_
985—1986	0.8	6.0	4.3	9.7	-	-	-	-	5.8	_	_	-	-
	3. Labou	r costs in	industry (r	manual and	d non-ma	nual worke	ers)						
	(a) Avera	ige hourly	labour co	sts in ECU									
975	5.97	5.67	5.76	_	_	4.59	2.68	4.20	5.62	6.45	_	3.02	_
978	9.31	7.93	8.49	-	_	6.44	3.71	5.01	8.54	9.03	-	3.81	6.1
981	12.08	9.63	10.94	3.83	-	9.63	6.03	7.40	9.71	10.73	2.50 ²	7.43	9.1
984	13.09	11.90	14.14	3.88	_	12.17	8.58 ²	10.39	10.96	13.59	2.38	8.84	11.3
985	13.92	_	14.90	_	_	_	_	_	11.38	14.28	_	_	_
986	14.70	-	16.12	-	-	_	_	_	11.96	15.41*	-	-	-
	(b) Coun	itry with th	e highest	level = 100)								
975	92.6	87.9	89.3	_	_	71.2	41.5	65.1	87.1	100	_	46.8	
978	100.0	85.2	91.2	-	-	69.2	39.8	53.8	91.7	97.0	-	40.9	65.8
981	100.0	79.7	90.6	31.7	_	79.7	49.9	61.3	80.4	88.8	20.7	61.5	75.6
984	92.6	84.2	100.0	27.4	_	86.1	60.7	73.5	77.5	96.1	16.8	62.5	80.3
985	93.4	_	100.0	_		_	_	_	76.4	95.8	_	_	_
986	91.2	-	100.0	-	-	_	-	-	74.2	95.6	-	-	_
	(c) Direc	t cost of la	bour in in	dustry as	% of total	costs							
975	75.6	93.3	79.9	_	_	70.9	85.8	69.9	82.5	73.8	_	85.6	
978	76.1	94.5	78.3	-	_	71.1	86.0	70.9	83.8	73.9	_	82.4	
981	75.9	94.3	77.9	83.0	_	70.5	84.0	74.2	84.6	73.3	75.0 ²	81.5	
984	75.3	92.5	77.0	81.0	_	68.8	_	73.3	83.7	73.3	75.0	81.3	

All industry (NACE 1—5 except 16 and 17), Ireland and Denmark: building industries excluded. Greece: manufacturing industries, 2 Data for 1982.

* Provisional figures.

VII. Standard of living

Year	E		DK	DE	GR	E	F	IRL	IT	L	NL	Р	UK	EUR 12
	1, D	welling	gs											
	(a) I	xisting	g dwellin	gs per 1 (000 inhabit	ants — en	d of the ye	ar						
1970	37		353	341	280	314	376	244	319	332	295		346	349
980	38		422	412	354	3501	436	263	389²	383	343	348²	382	390
984	40		474	438	-	398	4444	276	-	_	367	-	393	-
1985	. 40	15	477	443	_	-	-	278	-	-	372		_	_
	(b)	Comple	eted dwe	llings per	1 000 inha	bitants								
1970	4.	8 ³	10.3	7.8	13.0 ³	9.1	9.3	4.6	7.0	5.2	9.1	2.9	6.6	7.8
1980	4.	9^{3}	5.9	6.3	20.23	7.0	7.0	8.1	4.5	5.6	8.1	4.1	4.5	6.3
1984		63	5.6	6.5	-	5.1	6.84	9.9	-	-	8.0	4.3	4.1	_
1985	3.	13	4.8	5.1	-	-	-	6.7	-	-	7.0	-	-	_
	2. D	urable	consum	er goods	— end of y	/ear								
	(a)	assen	ger cars	per 1 000	inhabitant	s								
1970	21	3	218	230	26	71	254	133	190	278	195	47	210	191
1980	32	0	271	377	89	202	343	215	310	352	322	156	281	298
1983	33	1	272	400	109	228	372	206	359	385	332	152	295	324
1984	33	5	282	413	116	231	378	208	366	400	335	159	305	327
1985	33	9	293	424	127	240	380	-	392	416	339	-	313	-
	(b)	elevisi	ion sets	per 1 000	inhabitant	s								
1970	21	7	274	275	113	163	216	149	181	208	237	42	294	223
1980	29		362	320	238	238	297	181	234	247	296	140	331	288
1983	30		369	335	257	258	375	205	243	255	310	151	328	294
1984	30		371	341	264	-	_	211	-	_	312	_	330	_
1985	30		370	346	272	270	394	213	253	252	315	157	331	_

¹ 1979. ² 1981. ³ Buildings started ⁴ Provisional figures. Source: Revue 1970—1979 and 1975—1984, Eurostat.

VII. Standard of living (continued)

Year	В	DK	DE	GR	Е	F	IRL	IT	L	NL	Р	UK	EUR 1
	(c) Insta	lled teleph	ones per	1 000 inhat	oitants								
1970	211	342	228	119	137	173	104	175	241	169	87	270	197
1980	365	644	464	291	315	460	187	337	361	347	132	496	405
1983	417	719	572	336	352	544	235	405	388	380	169	520	468
1984	-	749	598	357	-	-	253	-	402	390	-	-	-
1985	-	-	621	375	-	-	266	-	414	401	-	-	_
	3. Consu	ımer price	S										
	(a) Indic	es (1980=	100)										
1980	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1985	140.5	146.4	121.0	256.3	178.0	158.0	178.4	190.3	142.3	122.3	284.1	141.5	153.7
1986	142.3	151.7	120.7	315.5	193.6	162.2	185.2	201.4	142.7	122.7	317.6	146.3	159.
1987	144.5	157.8	121.0	366.3	203.8	167.3	191.0	211.0	142.6	122.5	347.2	152.4	164.
	(b) Annı	al average	rate of in	crease									
1980/81	7.6	11.7	6.3	24.5	14.6	13.4	20.4	17.8	8.1	6.7	20.0	11.9	12.1
1981/82	8.7	10.1	5.3	21.0	14.4	11.8	17.2	16.5	9.4	5.7	22.7	8.6	10.7
1982/83	7.7	6.9	3.3	20.5	12.2	9.6	10.4	14.7	8.7	2.7	25.1	4.6	8.6
983/84	6.4	6.3	2.4	18.3	11,3	7.3	8.6	10.8	5.6	3.2	28.9	5.0	7.4
1984/85	4.9	4.7	2.2	19.4	8.8	5.8	5.4	9.2	4.1	2.3	19.6	6.1	6.1
1985/86	1.3	3.6	-0.2	22.8	8.8	2.5	3.8	5.8	0.3	0.3	11.8	3.4	3.6
1986/87	1.5	4.0	0.2	16.1	5.3	3.1	3.1	4.8	-0.1	-0.2	9.3	4.2	3.2

VIII. Social protection

Year	В	DK	DE	GR	E	F	IRL	ΙT	L	NL	Р	UK	EUR 12
	1. Total s	social prot	ection exp	enditure a	s a % of t	he gross d	omestic p	roduct	•				
1970	18.7	19.6	21.5	-	-	19.2	13.8	-	15.6	19.7	-	14.3	-
1975	24.2	25.8	29.7	_	-	22.9	19.7	19.6	22.4	26.7	-	20.1	-
1980	28.0	28.7	28.6		_	25.5	20.6	19.8	26.4	30.4	13.0	21.6	-
1983	30.8	30.2	29.1	-	_	28.5	23.9	23.7	26.5	33.7	-	24.1	-
1984	29.4	28.7	28.7	-	-	-	23.3	23.3	-	-	-	24.1	-
1985	-	27.5	-	-	-	-	23.9	23.4	0.0	0.0	-	-	-
	2. Social	protection	n benefits										
	(a) Bene	fits per int	nabitant at	1980 price	es and pu	rchasing p	ower parit	ies					
1975	1 720	2 110	2 190	-	_	1 670	820	1 190	1 760	2 080	-	1 390	_
1980	2 190	2 420	2 500	_	-	2 150	1 020	1 460	2 340	2 590	530	1 660	-
1983	2 290	2 660	2 520	-	-	2 420	1 160	1 820	2 290	2 760	-	1 900	-
1984	2 210	2 620	2 490	-	_	_	1 150	1 830	-	_	-	1 930	_
1985	-	2 630	-	-	-	-	1 180	1 870	-	-	-	-	-
	(b) Bene	fits per fur	nction as 9	6									
1970								1					
- Sickness	22.1	29.2	27.7	_	_	26.9	30.8	26.3	17.7	29.9	_	28.1	_
- Invalidity, employment													
injuries	12.6	14.1	12.6	_	-	9.9	9.7	21.3	19.0	12.1	_	8.5	_
- Old age, survivors	40.6	36.3	45.6		_	41.1	34.6	34.8	50.9	40.5	_	48.7	_
- Maternity, family	20.0	14.1	10.2	_	_	16.8	16.9	12.9	11.8	13.9	_	11.2	-
- Unemployment, voca-													
tional training, placement	3.7	2.8	2.0	-	_	2.0	2.8	1.1	0.0	3.3	-	2.9	_
- Other	0.9	3.6	1.9	-	-	3.4	5.1	3.6	0.6	0.3	-	0.6	-
	100.0	100.0	100.0	_	_	100.0	100.0	100.0	100.00	100.0	_	100.0	_

¹ Data from the second European social budget.

Sources: Sespros, Eurostat, excluding Greece and Spain where national definitions apply.

VIII. Social protection (continued	VIII.	Social	protection	continued
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Year	В	DK	DE	GR	E	F	IRL	IT	L	NL	P	UK	EUR 1
1985	1984		1984		1982	1983			1983	1983	1982	1983	
 Sickness Invalidity, employment 	21.4	21.6	31.7	-	25.5	24.9	29.0	22.6	23.7	26.8	25.9	20.6	, -
injuries	12.2	8.8	15.5	_	11.6	8.6	7.2	22.1	18.3	19.4	18.2	9.8	-
 Old age, survivors 	40.2	37.7	33.3	-	44.4	40.8	31.2	45.4	45.0	28.3	38.7	41.4	_
Maternity, family Unemployment, voca-	11.0	10.8	8.0	-	3.0	11.3	12.3	6.5	9.5	8.8	8.2	12.1	_
tional training, placement	13.7	15.6	7.7	_	15.3	10.4	14.4	3.2	3.4	13.3	2.5	11.3	_
- Other	1.5	5.5	3.9	-	0.3	4.0	5.9	0.2	0.1	3.4	6.4	4.8	-
	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	3. Reven	ue accord	ing to nate	ure (%) 19	70								
1970	54.0					50.0				10.0		00.0	
 Employers' contrib. Contrib. from 	51.0	11.2	47.1	_	-	59.2	21.2	_	36.0	43.3	-	36.6	_
protected persons — Contribution from	21.2	6.4	24.2	-	-	18.9	12.0	-	24.9	35.8	-	20.5	-
public funds	23.5	79.6	23.7	-	-	18.6	66.0	_	30.3	12.5	_	34.2	-
- Other	4.3	2.8	5.1	-	-	3.2	0.7	-	8.8	8.4	-	8.7	-
	100.0	100.0	100.0	-	-	100.0	100.0	-	100.0	100.0	_	100.0	-
1985	1984		1984			1983			1983	1983	1982	1984	
- Employer's contrib Contrib. from	41.4	10.3	40.5	-	-	52.8	20.9	52.5	33.1	32.0	54.0	30.8	-
protected persons	19.7	4.2	29.8	_	-	23.6	13.0	13.9	25.5	36.3	19.0	16.8	-
- Contrib. publ. funds	33.8	77.4	26.3	_	_	20.5	65.2	31.5	32.8	18.3	25.0	42.6	_
- Other	5.1	8.0	3.4		-	3.1	0.9	2.1	8.5	13.4	2.0	9.7	_
	100.0	100.0	100.0	_	_	100.0	100.0	100.0	100.0	100.0	100.0	100.0	_



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