

Flexible Work Practices and Communication Technology (FLEXCOT)

Executive summary

1. Introduction

The overall objective of the FLEXCOT project (1) is to determine to what extent the new generation of information and communication technologies (ICTs) can be used in order to develop new flexible work practices, which would be socially more sustainable than the current ones (2).

The research project aims at four objectives:

- to understand the development of flexible work practices associated with the diffusion of new communication technology;
- to identify the range of factors that can have an impact on the design of these flexible work practices and their concrete impact on working life;
- to identify the role of flexibility in new pathways for the future of employment and social relations in the information society;
- to develop options and recommendations for innovation policies in the field of communication technology, as well as for long-term social policies.

Following the preparation of the State of the Art, a series of case studies was carried out focusing on four distinct sectors: printing and publishing, civil engineering, banking and insurance and decentralised health services. Case studies were carried out in six countries: Belgium, Denmark, France, Italy, Spain and the UK. In addition a national-level sectoral analysis was undertaken in each country and a European-level sectoral analysis was carried out for each sector, in order to contextualise the individual case studies.

Drawing on our review of the literature and on previous work by members of the project team, a table of flexible work forms was constructed (see table below). The key results presented in this executive summary are organised around the main headings of this table – work time, work location, work contracts, outsourcing, and work functions. First, the *main* forms of flexible work found in each individual sector are outlined. Second, the main forms of flexible working which are found across the various sectors are highlighted.

In each phase the central thrust of our analysis is to understand the relationship between ICTs and new forms of flexibility. Crucially, however, our research makes it clear that *new work forms and the*

(1) The FLEXCOT project (1998-2000) was supported by the European Commission (DG Research), under the Targeted Socio-Economic Research Programme (TSER) of the Fourth Framework Programme for R&D.

(2) Vendramin P., Valenduc G., Rolland I. (FTU), Richardson R., Gillespie A., Belt V. (CURDS), Carré D., Maugéri S., Combès Y. (LABSIC), Ponzellini A., Pedersini R., Neri S. (Fondazione Seveso), **Flexible work practices and communication technology**, Report for the European Commission, SOE-CT97-1064, TSER programme, Brussels, February 2000.

manner in which these work forms are introduced to organisations are not determined by ICTs. There is no ICT-work-organisation logic. ICTs are both a driver of change and an enabler of change, but they interact in complex ways with other inter-related drivers of change. Overwhelmingly, in our case studies ICTs were introduced by management working within the context of an increasingly competitive commercial environment (due to the inter-related drivers of globalisation, liberalisation, changing consumer demand, and technology itself). Within this context ICTs are seen as a competitive tool which enable enhanced efficiency, through cost-cutting and improved productivity.

This economic or commercial rationale, however, seldom takes into account the social outcomes of the changes taking place and may even neglect the long-term and wider economic good. It is these issues which we turn to explore the policy implications section of the report. In the third section of the executive summary we summarise the policy concerns which arise from the study and put forward a number of policy recommendations, directed to public authorities, trade unions and firms.

Flexible Forms of Working

Flexible work time	Flexible work location
Part-time working	Remote office working
Weekend working	Mobile working
Flexi-time working	Hot desking / hotelling
Twilight-shift working	Home working
Night-time working	Telecommuting
Overtime working (including unpaid overtime)	Telecottaging
Term-time working	Remote Computer Supported Teamwork
Split shift working	
Flexible Contracts	Outsourcing
Fixed-term working	Employed by agency
Job sharing	Self-employed contractor
Specified hours contracts	Employed by third party supplier
Annualised hours	Work contract transferred to third party supplier
Zero-hours	Functional Flexibility
On-call working	Horizontal and vertical de-demarcation
Piece Work/Performance related pay	Multi-skilling/job widening
Individualised contracts	Team working

2. Empirical research results

2.1 Key findings from sectoral trends analysis

2.1.1 Banking and insurance

Banking and insurance is the study sector where new information and communications technologies are most advanced and these technologies permeated every level of activity in our case study firms, from front line work to product and process design. ICTs have been introduced to the sector at a time of rapid change, notably:

- re-regulation of financial services, the pace of which varied across countries, but was generally in the direction of liberalisation;
- increasing competition, resulting from the convergence of previously discrete elements of the financial sector and from the entry of new players;
- changing management culture which is partly a response to greater competition;
- changing customer demand, with new demands include more sophisticated products, new delivery channels and longer hours of access to services. ICTs are a crucial element in delivering these new services cost effectively. It might also be argued, however, that financial service firms appear to “reconstructing the consumer” to prefer to use these new (cheaper to operate) channels, such as tele-banking, automated teller machines (ATMs) and, increasingly, the Internet.

The main developments in flexible work related to ICTs were:

- Flexible working time. Financial service organisations are extending their hours of service beyond those traditionally associated with the sector, for example, call centres normally operate between 12 and 24 hours a day. This results in an increase in part-time work, evening and weekend working.
- Functional flexibility. Here a dual process is occurring. On the one hand there was a general move towards teamworking, which required multi-skilling. At the same time the Taylorisation of the production process in areas such as back office work and call centre work led to a narrowing and flattening of skills for some workers. In both cases, however, adaptability over time was required to take into account more rapid product and process cycles;
- Intensification of work, with enhanced management planning and monitoring of workers made possible by new technologies.

Generally flexibility is introduced through negotiation, reflecting the embeddedness of trade unions in the sector and most flexibility was managed internally. Management clearly leads the way here, however, and ICTs have strengthened its position. It was also clear that where agreement could not be reached management were prepared to seek other solutions. In particular where sectoral agreements did not allow certain forms of working, such as night-time working, management by-passed those agreements through outsourcing. There was also some evidence that new workers were being employed on different (and less favourable) terms and conditions of service. There are national differences in this sector, but these relate to the pace of change rather than the overall direction. Regulatory differences lead to different management solutions. For example, light labour regulation allows management to introduce flexible systems internally. In other countries where regulation is relatively strong management by-passes these arrangements through outsourcing.

2.1.2 Civil engineering

Unlike in banking and insurance ICTs have not permeated all areas of work in the construction sector, with only limited use of ICTs on the actual construction sites themselves. It is mainly in professional and management activities such as design and workflow and project management where ICTs have been introduced.

The project-based nature of construction, and its openness to economic cycles has meant that work has always been relatively flexible for large numbers of workers. ICTs have been introduced in the context of increased competitiveness, resulting from globalisation and the opening up of national private and public sector projects to competitive tendering. The general rationale for their introduction is improved efficiency and better (business) customer service, often through better utilisation of spatially dispersed human resources. The main features of this new flexibility in professional work in construction are:

- Locational flexibility, particularly computer supported team working at various spatial scales, including the inter-continental level. This process is supported by intranet technologies which give access to common databases and allow transfer of CAD generated designs and plans. It is also supported by videoconferencing technologies. Management information systems also support this distributed working. These developments have potential benefits for workers in that they can result in fewer and shorter-duration journeys per project, though some face-to-face meetings are still required on each project. These advantages can be undermined, however, by the growing tendency for professionals to work simultaneously on several projects.
- Functional flexibility. ICTs are leading to new skill requirements. On the one hand, the analytical power of ICTs calls forth new specialisms. On the other hand, ICTs also standardise and 'take over' certain processes thus freeing up time for other tasks such as project management, which require new skills. Certain technical skills become redundant.
- Intensification of work. This outcome is linked, in part at least, to the way in which ICTs have been introduced and the logic which sees them mainly as efficiency creating and cost-reducing tools. So, for example, the remote presence created by ICTs leads clients to expect faster turnaround, co-workers to contact each other at unsuitable times, and for there to be more iterations in the production process.

In general, there were few national differences in this sector. This may be because the case study explored mainly professional workers in a sector where norms are transmitted across national boundaries and because several of the firms involved operated in the same (global) markets. There were also examples of what might be termed win-win situations. For example, there was some limited evidence of management and workers trading commitment to project-based work rhythms for unofficial time off when work was quiet. This can also be accounted for to some extent by the professional nature of the workers we studied. On the one hand professionals are imbued with power (resulting from scarce skills, status, shared professional background). On the other hand, and often for the same reasons, they are assumed to be committed to company goals.

2.1.3 Printing and publishing

Our case studies suggest that ICTs have permeated most areas of printing and publishing. They have had a profound impact on this sector. Again ICTs have been introduced with the intent of improving the product, whilst reducing costs, and outcomes must be viewed in this context. One element in cost reduction is increased work flexibility. ICTs, by changing the balance of power in favour of management, have allowed them to negotiate or enforce changes:

- Functional flexibility represents the most profound change, with the reduction in demarcation of tasks and professions. ICTs are centrally implicated in this process. Crucially they change production skill requirements, making redundant many craft-based skills such as compositing,

replacing them with computer-based skills, which, in general, are more easily learned and require less specialised training. Functional flexibility is also reflected in the emergence of workflow-based production systems, replacing task-based systems, has been accompanied by the introduction of teamworking. Workers are expected to be 'multi-skilled', in that they can turn their hands to a series of relatively unskilled activities in line with production requirements;

- Locational flexibility. In some cases this workflow-based production system extends across space altering the geography of production. Trends here include decentralisation of some editorial and production activities within the firm and outsourcing certain activities to individuals and agencies beyond the firm. Here a 'network logic' appears to be emerging, though it should be noted that the technology allows a smaller editorial nuclei retain a strong co-ordinating position;
- Working time flexibility is also developing as the rhythm of production changes. The computerised nature of production allows later interventions to change final lay-outs and newspapers can be 'put to bed' closer to the publishing deadline. This both makes for a longer production day, and more intensity of work as more changes are made. These developments in turn lead to different work shift requirements.

Again, there are differences across countries, but the direction appears the same. Also it should be noted that in some cases many changes pre-date the technology. In the UK, for example, flexibility pre-dated much of the growth in ICTs, and can be seen as a result of changes in industrial relations regulation and proprietors determined to break the power of unions. However, new technology has clearly been a factor in the re-balancing of the distribution of power between workers and management, thus accelerating this process.

2.1.4 Decentralised Health Services

As with the other sectors considered here efficiency and cost savings has been a key reason for introducing ICTs into health care. This is reflected in the high levels of spending on management information systems. However, the health service remains largely a public or quasi-publicly operated, not-for-profit, sector. Political considerations concerning standards of patient care provide a balance not present in the other study sectors. In addition, health care delivery still generally requires a degree of personal and face-to-face service.

It is these front-line services upon which we focused in our case studies. Here the introduction of ICTs was at an early stage in all countries studied. We, therefore, focused on a number of pilot projects: a 24 hour telephone helpline, ICT networks linking hospitals at a distance from each other to allow the sharing of expertise, tele-monitoring in the home, and management support systems for health visitors.

The most important development for workers was the changing nature and distribution of skills. The most obvious new skills are those associated with the use of the technology itself, though, generally, this did not present many problems. Of equal interest was the requirement for new *complementary* skills, which had to be developed by all workers in order to deal with patients at a distance. For example, nurses on the telephone helpline had to learn to assess patients without seeing their facial expressions and body movements. There was also a nascent redistribution of work tasks across the professions, with, for example, nurses taking on diagnostic tasks using ICT-based support systems and doctors taking on tasks previously in the hands of specialists such as radiologists.

2.1.5 General comments on the case studies

ICTs are being used to develop new work processes. The aim appears universally to be cost savings and increased profitability. In none of our case studies was there any indication that the quality of working life was considered as a central issue by organisations introducing technology. Rather for many the quality of working life has diminished, as 'downsizing' and the speeding up of the production

process, together with the introduction of computerised work planning and monitoring systems has led to work intensification. It is clear from our case studies that ICTs are introduced differentially across sectors and that different outcomes emerge. There are also differential outcomes for individual workers and groups of workers *within* sectors depending on their relative power which is mainly related to professional status and skills ownership.

2.2 Key findings from transversal analysis: established and nascent trends

The evidence from the case studies also suggests a number of common trends across countries and across sectors regarding the impact of ICTs in work flexibility. Here we explore these under the rubric provided in table 1.

2.2.1 Flexible working time

A common theme in virtually all our case studies was the emergence of *new rhythms of production*. The main driving force here appears to be customer demand – customers (both business customers and final consumers) increasingly expect service at their convenience not at the producers', and the timely provision of services is becoming a competitive tool. ICTs are central to the timely provision of these services cost effectively. The main points are that:

- there was little evidence of negotiated working time reductions taking place in the case study firms;
- there was a generalised move away from standardised working hours, but on a more individualised basis, demand for de-standardisation mainly came from management;
- ICTs are being used to create flexible hours, thus allowing (some) individuals to work more suitable hours. By and large, however, working hours are arranged to suit the employer rather than the worker;
- the timing of production is becoming more closely integrated with the timing of customer's demand for the product or service;
- there is an increase in the level of inter-changes of information and iterations during some production processes, which leads to an intensification of work;
- the production day is being extended. ICTs encourage longer operational hours by facilitating increased customer contact, leading to longer working hours, part-time working, evening working, weekend working, increasingly without reward premiums;
- ICTs are enormously increasing management's capacity to create monitor and control production activities, including for the first time the customer interface, leading to work intensification;
- by standardising certain tasks and allowing information to be shared across space and time and by enhancing planning and monitoring capacity, ICTs facilitate part-time employment.

2.2.2 Flexible work location

Empirically-based research concerning ICTs and the flexibility of work location suggests the relationship is not simple, and that a variety of spatial outcomes can be expected. The FLEXCOT case studies confirm this proposition and firms used ICTs to reconfigure their spatial organisation in a number of ways:

- By using ICTs to seek out new locations in order to unlock labour reserves which are currently underused or undervalued. Firms are accessing "skill deposits" which have previously been untapped.

- ICTs, however, are also facilitating a redefinition of corporate structure within existing locational parameters, effectively allowing the geography of the firm to be reconstituted without involving relocation.
- A process of centralisation is also occurring in some organisations as a result of the increasing "span of control" which ICTs allow. At the same time the centre often seems prepared to grant a degree of autonomy/responsibility within the constraints of standardised and homogenised systems.
- There is a clear tendency towards teamworking and networking, both of which are facilitated by ICTs. These processes are happening within individual sites. They are also happening across sites, however, sometimes on a global scale.
- Finally, but crucially, organisations are using ICTs to access existing or new markets remotely, thus reconfiguring their spatial organisation and impacting upon worker and consumer mobility and travel.

2.2.3 Flexible contracts

There was an increase in a variety of new 'atypical' contractual forms in our case studies. By and large, these new contractual forms were confined to new workers and to new organisational formats which could be separated from other parts of the organisation. Examples of this include:

- Younger workers entering financial services in Belgium are being engaged under different sectoral agreements.
- In the UK, new workers and those returning to work are being (re)engaged under different terms and conditions. 'Specified hours' were becoming increasingly important. This was mainly in financial services and printing and publishing. These specified hours tended to be in 'difficult to fill' shifts, i.e., unsocial hours. This trend is increasing.
- In Spain the use of flexible contracts in the main traditional areas of financial services are limited, through management and union agreement. In new areas of activity, however, notably telebanking, these new contracts, including temporary contracts, appear to be accepted. This work is mainly performed by women and union representation is weak.
- In Italy, in areas such as banking call centres, agreements are emerging (or unions are being bypassed) whereby traditional bank work "privileges" disappear. To date these conditions remain entrenched in other areas of the bank, but it is questionable whether this situation can be sustained.
- Individualised performance related pay (PRP) based on sales is becoming the norm in call centres in telemarketing. In more customer care oriented call centres, PRP systems based on team performance are tending to emerge.

Overall, the case studies suggest *nascent* trends towards flexibilisation of contracts. At present this is largely confined to new workers and new organisational formats. Again, this points to a dualisation within the workforce, with the existing workforce being sheltered by current agreements. Whether, over time, this process becomes more generalised will depend on the relative strength of the social partners and the attitude of governments towards labour regulation. We did not find many examples of more radical new flexible contractual forms such as zero hours and annualised contracts. The link between these new forms of work and ICTs is far from clear. These technologies may contribute in some areas through, for example, standardising work processes, thus allowing workers from temporary agencies to be brought in and trained quickly. ICTs cannot, however, be described as the main proximate cause for this form of flexibility.

2.2.4 Outsourcing

It is widely suggested that outsourcing or contracting out of work is likely to increase as firms move to concentrate on their “core activities”. In its extreme form this “networked firm” where firms would specialise in their particular area of expertise, but would form a network (or several networks) of firms, working together on a commercial basis for the duration of projects, combining and recombining as appropriate. This literature generally conceives ICTs as a key component in providing the glue which allows firms to work closely together for either short or extended periods of time. Our case studies did not provide evidence of fully blown “networked firms”. We did, however, identify various forms of outsourcing:

- Firms contracting with temporary work businesses to supply them with workers on a temporary basis. These workers thus have a direct relationship with one firm, but carry out work for another. There has been an increase in levels of temporary agency work in several countries in Europe over the past few years and a more liberalised regulatory approach to the phenomenon has been adopted in most countries. However, this practice was not common in our case studies, and where it did occur it was seen as a short-term solution. There appears only to be a tenuous and contingent link between this practice and ICTs, for example, IT specialists were employed on this basis to deal with YK2 problems:
- There were indications of a nascent trend for firms to use freelance workers to undertake work which at one time would have been done in-house. This relates mainly with professional workers who contract directly with the firm or indirectly through a temporary work agency, but who are engaged for a particular time-limited project. This was most advanced in publishing where some journalists are now hired on an 'as and when required' basis. It was suggested that a similar model might be emerging in civil engineering consultancy. In each case there it is assumed that a 'network' or 'hub-spoke' organisational configuration will emerge, with ICTs providing the glue to hold the various parts together. This is likely to be accelerated by Internet technology which should overcome current problems regarding software standards and protocols.
- Contracting out of work to third party contractors, either on a project basis or on a long-term basis was becoming common across most of the industries studied, including an increasing tendency to contract out activities which until recently would be seen as 'core' to the organisations operation. Outsource activities included:
 - Subcontracting the design and implementation of the technological innovations which are at the heart of the reorganisation process.
 - It was common for firms establishing new organisational formats such as call centres to outsource these activities. Some firms outsourced all such activities. Others carried these out in-house during traditional working hours, but outsourced out-of-hours activities, in order to circumvent sectoral-based labour agreements.
 - Outsourcing work which can be done cheaper elsewhere, either at home or abroad. There were only a couple of examples of work going 'off-shore', but respondents in a number of industries suggested this may become more commonplace.
- A new development associated with the transfer of routine work to third party companies, is the simultaneous transfer of the firms' own staff. We found only one example of this phenomenon in our case study firms, but found other examples through national sectoral surveys. Here the third party firm typically takes over the workforce. Initially, conditions may remain the same as they are protected under the Acquired Rights Directive. Over time, however, they are likely to be renegotiated. This may be to the advantage of some workers and the detriment of others, but it represents another element of dualisation.

ICTs cannot be seen as a key driver of outsourcing. They play a limited role in providing a co-ordinating tool, binding certain aspects of the client and third party company together thus reducing transaction costs. In other respects attempts to reduce costs and head-count are the driving forces.

2.2.5 Functional flexibility

New forms of functional flexibility were common across all organisations. This was associated with a common re-organisational thrust which saw the disappearance or redrawing of demarcation boundaries. Two forms of functional flexibility were identified.

- Horizontal flexibility where segmentation between workers on broadly similar grades reduced. There was a move towards multi-tasking with production being organised around 'flow logic'. This involved rotating the employees around a number of posts, but also transferring from slack to busy areas of production or service in line with requirements;
- Vertical flexibility which involves both junior workers taking on aspects of work previously undertaken by higher grade staff, often without monetary or other recompense, and higher grade staff incorporating work, previously done by more junior staff, into their work routine.

ICTs are implicated in both forms of boundary blurring. First, they take over certain aspects of tasks as traditionally constituted and allow new configuration of tasks. Second, they create generalised access to information and consolidated databases to allow different tasks to be undertaken by a number of workers

ICTs do not determine this multi-skilling and boundary blurring, however, and this is just one managerial strategy. ICTs are implicated in an apparently contradictory strategy adopted by the case study firms which aims to narrow the range of skills required through the further Taylorisation of production. This was clearest in back office work and call centre work where workers are required to undertake only a narrow range of repetitive tasks. Even here, however, management seeks to promote a culture of adaptability and teamworking, though these terms have only limited meaning in such environments.

2.2.6 Functional flexibility and skills

These new organisational forms also call forth new skill requirements. Individual workers must all be adaptable and able to learn new skills on a continuing basis. The notion of skills is a complex one and remains under-conceptualised. In the report we have adopted a three-fold definition:

- *Key or Core Skills* – Very general skills needed in almost any job.
- *Vocational Skills* – Needed in particular occupations or groups of occupations, but less useful outside these areas.
- *Job Specific Skills* - The usefulness of these is limited to a much narrower field of employment and could be specific to individual firms.

Changes were underway in each of these areas. In some cases these changes were clearly associated with ICTs, but a direct link could not always be established. ICTs have had an interesting impact on *job related skills*. Production processes are becoming standardised around a number of software packages from basic processing tasks to management information systems. The result is standardise certain skill requirements. Thus, skills learnt in one organisation become transferable to others.

The nature of *vocational skills* is also changing, as some of the specialist tasks and concomitant skills associated with particular professions (e.g., printing) decline. As team working, multi-tasking and work-flow systems become widespread, workers require a broader, but probably a less deep range of

skills. ICTs are centrally implicated in this process, as they take over certain elements of work tasks, thus freeing up workers to perform others.

For some workers, specialisation increases. This can take the form of skills deepening. For example, in our civil engineering case studies ICTs allowed the collection and detailed analysis of data previously unavailable. This required specialists to understand and interpret the new data. ICTs also facilitated the emergence of new specialisms at lower level tasks, associated with further Taylorisation of production in areas such as call centres. Here, specialisation is associated with a flattening and narrowing of skills.

Our case studies suggest that a new set of core or key skills are emerging to supplement pre-existing core skills. The ability to use ICTs was widely seen as such a skill. For those without such skills an ever decreasing range of opportunities are likely to be available. A second set of skills not directly linked to ICTs are emerging. These are communications skills – customer service skills, presentational skills, leadership skills, teamworking skills and so on. It should be noted, however, that although these skills were widely demanded, there is often a gap between the rhetoric and reality, with many workers based lower in organisational hierarchies being expected to have these skills, but seldom having the opportunity to utilise them.

Finally, employers were seeking what we term 'attitudinal skills', such as energy, commitment, enthusiasm, creativity, adaptability, flexibility and self-motivation. These can be seen as part of the 'information society' zeitgeist, but relate only tangentially to ICTs. The demand for these skills clearly emanates from the management literature. Originally they were associated with managers and professionals, increasingly they are expected from all workers. These notions are associated with the notion of a learning organisation. It is not clear, however, that the learning infrastructure to support them is always in place.

3. Policy Implications

3.1 *Towards a new policy agenda*

We have sought to show in our analysis that ICTs interact in complex ways with other drivers to impact upon work and work organisation. The impact of ICTs is mediated through a series of 'institutional filters'. The most important filter in our case studies was management strategies, which were almost universally concerned with enhancing operational efficiency and cutting costs. In turn, these strategies were driven by well known factors such as increased competition, the desire for shareholder value, more rapid product and process cycles, and liberalisation. These strategies were circumscribed to some extent by worker and union resistance, and by labour regulation. The overwhelming impression, however, is that these had only a limited impact on management who found it relatively easy to overcome these. ICTs undoubtedly shifted the balance of power in favour of management.

ICTs do not have a particular organisational logic. Indeed, management in individual firms often introduced what would appear to be contradictory logics around the same technologies. The important point to note, however, is that ICTs do allow management to increase their organisational repertoires, permitting multiple formats, each designed to maximise profit. ICTs offer different and greater opportunities in this respect than did IT developments in the 1980s. It is the "communication" element of ICTs, which through allowing access to and manipulation of the same data and information by multiple workers and organisations, across space and time which enhances organisational trends: blurring boundaries of working time and work location, growing importance of relationships with clients and partners, increasing role of communication skills in workers' profiles, new production rhythms in industry and services, networking and outsourcing.

The introduction of ICTs in our case studies, then, was aimed at commercial efficiency. In some respects this approach is to be applauded in that a general increase in efficiency in European companies should have wider economic benefits. However, this focus clearly creates a number of less favourable consequences and raises a number of concerns. In particular our case studies suggest that:

- A dualisation of the labour market is occurring. At the lower skill end of the labour market, new workers are being recruited on less favourable contracts than existing workers in the same firm. New forms of (often ICT-intensive) work are being outsourced. There is also some evidence that workers' contracts are being transferred to outsourcing companies, with new terms and conditions. There is also evidence of a nascent individualisation of contracts, including performance related pay. There is also an increase in temporary workers. Together these developments are likely to impact upon social solidarity at the firm and sectoral level, to undermine the position of trade unions and collective action in general. They may also impact on firm performance in the longer term as tensions arise between workers and workers and management.
- A dualisation is also occurring at the professional level, with outsourcing of work to freelance workers increasing. The new market relations may create new entrepreneurship opportunities for individuals. They are also likely to increase precariousness and uncertainty. In the long run these trends may be economically inefficient because of increased transaction costs.
- The manner in which ICTs have been introduced had led to downsizing in several of our case study firms. Those who remained in-post often suffered a loss of status and a loss of income, as their key skills became redundant. This is likely to take a psychological toll as well as a financial one. Of course, other workers increased their skills, but this seems seldom to have been rewarded either financially or in terms of status.
- There was a generalised intensification of work across our case study firms, ranging from call centres to professional engineers. This can lead to stress and burnout, impacting on the quality of working life, but also carrying over into the quality of home and family life. It may also impact on company performance. Whereas issues such as the length of the working day can be regulated at national or sectoral level, questions of work intensity can only be dealt with locally. In this context it is important that there is a more equal balance between workers and managers.
- The increase in part-time work, and particularly evening and weekend work is also likely to impact on social solidarity in the workplace and make collective representation more difficult. The implications for family life are also of concern. If, on a regular basis, one parent leaves for work as the other arrives home in the early evening, and one or other parent is working at the weekend, there are limited opportunities for family life.
- A further area of concern is that of skills and skill enhancement. Our case studies suggest a general broadening of skills. On the positive side there was also an increase in specialisation for some workers involving a deepening of skills. These developments are to be welcomed if they make work more stimulating. As indicated above, however, workers are not necessarily rewarded financially or in terms of status. Further since this process is often accompanied by work intensification, it is difficult to see how these workers can find the time to undertake the training and educational activities which would appear to be necessary for successful transition to a learning culture, which is widely deemed to be necessary at individual, firm-level, and societal level. Many other workers are being faced with a narrowing and flattening of work skills, as certain tasks are separated out and subjected to Taylorist organisational strategies. How can such workers meaningfully prepare for a "learning society"? Finally, the increase in flexible contracts, particularly temporary working, and outsourcing raises a number of concerns regarding who should have responsibility for ensuring training and education. It is not clear that firms will continue to see this as their responsibility or that individuals will have the capacity to manage this process.

3.2 Policy recommendations

3.2.1 Public Authorities at the European and National Levels

In a general way, there is a *need to come back to public policies* and to public authority to reduce excesses of market regulation. Re-introducing social concern in the regulation of the market can help to better reconcile flexibility and security and to avoid social exclusion. Paths for action are suggested.

- *The provision of continuing education and training appears as the essential basis of adaptability, and cannot be left to the determination of market forces alone.* Public intervention is needed, together with partnerships between social partners and individual employers. Access to training opportunities and lifelong education will be crucial elements in safeguarding individual participation in the learning society and in economic efficiency. Joint initiatives should be constructed aimed at increasing the average level of human capital and meeting the existing and expected skill demand.
- *It is crucial that workers become more flexible. However, to ensure this it is necessary that the notion of flexibility should be clearly differentiated from precariousness.* That is why access to some essential services (welfare services, training) could be positively made independent of individual job situations. Then, if the current implementation of flexibility is perceived as rewarding and increasing personal competence and skills, the workers may be more prepared to accept it. In a sense, it might be possible to give rise to a sort of “virtuous”, self-reinforcing, trend.
- *De-linking work status and social rights.* One of the reasons why flexibility and non standard jobs can lead to social exclusion is the fact that social rights and social protection are closely linked to work status. Atypical work status only gives access to partial social rights. As the diversity of work forms continue to increase, it will become more necessary to find concrete systems allowing a disconnection between work status (that are changing and unstable) and social rights (that should be guaranteed). Recent proposals along this line at currently being discussed at the European level [Supiot Report, 1999]. These consider how work status and social rights can be separated, without weakening either. Innovative ideas include, the concept of “*individual professional status*” instead of “work status” and the concept of “*social drawing rights*”, complementary to universal social rights.
- *Re-thinking the concept of subordination in work.* In the same framework as above, the evolution of the concept of “subordination” in work contract, which characterises wage-earning, is also discussed. Pathways are explored between wage-earning and self-employment. The concept of “para-subordination” is developed. This refers to a status “in-between”.
- *Creating a regulatory framework for subcontracting and for new forms of contract.* In order to cope with the development of external flexibility, national and European authorities could regulate and more closely monitor the conditions under which new forms of activity relating to subcontracting should take place. Similarly, *a new framework for collective labour relations in SMEs has to be developed.* If outsourcing is a process in which big companies (with strong collective agreements) externalise their activities towards SMEs (with few collective agreements, and weak union position), it is necessary to develop union position and collective agreements in the SMEs. It is however impossible to extrapolate to SMEs the model of industrial relations of big companies. New systems are needed; for instance, systems of workers’ representation, negotiation and agreements can be developed for SMEs at the territorial scale (regions, districts, urban communities).
- *Longer job tenure should be supported,* as well as investment in human resources by individual employers. Even if fixed-term employment and temporary agency work seem to be important for overall flexibility, they are essentially a short-run response for quick adjustments. A steady increase in productivity and competitiveness is more likely to be linked to stable work relationships, which may help increase human capital, mutual trust and commitment. The question

here is how to favour such employers' strategies. The experience illustrates that some "rigidities" and investments can be easily outweighed by other more important flexibilities: functional, working time and reward. Therefore, incentives might be granted for financial and economic participation, working time flexibility and the transformation of fixed-time employment into indefinite duration.

- *Creating relevant legislation to deal with distance working.* Very often not sufficient account is taken of the different forms of distance working. New legislation could be created in order to cover all forms of distance working regardless of the status of the worker or the work place. A first step could be the creation of an observatory that could allow the assessment of all forms of distance working.
- *Thinking about how to collectively manage the desynchronisation of working time and social time.* New production rhythms and flexibility in working time lead to an increase in unsocial working time. The organisation of time is also a collective matter. It does not only concern companies and workers, many collective services and public structures are designed around a reference working time.

3.2.2 Trade Union Organisations

- *The move towards the individualisation of work relationships should be kept under control.* Paradoxically, innovative organisational design may have more positive outcomes where labour is weaker in the starting situation. In fact, in that case there is room for collective representation and the lever of longer employment may support win-win results. In the case of professional jobs, excluding the key positions which probably possess highly "marketable" skills, the lower ranks run the risk to be devoid of both collective protection and contractual power. As a consequence, they are more exposed to increasing workloads and self-exploitation. In this case, the most useful step would probably be to support their contractual power through "exit threats" (besides the already mentioned general intervention on welfare and training access), that is the possibility to move to other employers. In this respect particular attention should be focused on job placement services.
- *The role of collective regulation may be very important for the transformation of working conditions and labour markets.* The structure of industrial relations and the social partners' strategies pertain to the autonomous choices made by the parties within their organisations and through collective bargaining. However, it is important to emphasise that when the co-operation within the parties decreases and the protection of status quo prevails, some "perverse effects" may arise. In fact, enterprises may try to circumvent such problems by "anti-collective regulation" choices, such as the individualisation of the work relationships or outsourcing aimed at avoiding collective bargaining regulation, especially at industry-level, but also at company-level. These are essentially short-run choices which aim at decreasing labour costs. In this sense, the decentralisation of the bargaining structure apparently reduces this possibility (simply because sectoral collective agreements do not exist), but at the same time weakens considerably the position of trade unions. Therefore, social dialogue and concertation should be encouraged in order to avoid these "zero-sum" strategies (which can eventually lead to lose-lose situations). Such a joint regulation may cover crucial aspects which are usually less controversial, but crucial in the new strategies for growth and development (such as training and health and safety provisions). Then, more difficult issues may be dealt with, like flexibility and participation. *Workers and their representatives might become more pro-active and take initiatives in the area of flexibility, and particularly to face the social implications of flexibility.*
- Another idea is to determine *how trade unions could better reconcile defending collective interest and taking account of individual aspirations.* How can trade unions deal with the very varying work situations, life styles, working hours and status so as to take into account the increase in individual motivation? How to take account of each individual aspiration compared to more collective demands? *The concept of solidarity must be reconstructed on new bases.* Some authors suggest that "differentiated solidarity" should replace the principle "actions resulting from a

common agreement” by “actions that do not damage the others”. Differentiated demands and actions related to atypical workers could rely on this principle that differentiated interests may be promoted and defended to the extent that they do not threaten any other category of workers. This concept is closer to the ethical concept of “social responsibility” than to the classical working class solidarity.

- *Participation and democracy must be reconsidered.* Classical structures of workers’ representation (union delegations, workers councils, etc.) are not easily accessible for atypical workers, so that they are under-represented in the structures of social dialogue at all the levels. What is true for participation at the firm level is also valid for internal union democracy. Some experiences already exist that use the potential of information technology (mainly the Internet) in order to implement new union services (social or juridical information) or new forums designed for atypical workers. But internal democracy is not only a question of access to services and participation in debates, it also concerns the fact that interests of minorities have to be taken into account, and not only the positions of the majority.
- *Findings new compromises between the different levels of negotiation.* Working sectorally for issues linked to flexibility is not necessary the good solution. Given the changing reality of the labour world and the nature of the challenges, trade unions need to adapt their means of acting to exert greater influence at the work place.

2.3.3 Management of Companies

- *We should remind the enterprises that workers' representation is more interesting than a generalised individualisation of work relations.* More and more managers are asking for different kinds of flexibility and by the way they try to reduce the role of trade unions or to bypass their influence. We should remind them that historically some managers have agreed to the need of co-operation with the trade unions, not only for the workers but more importantly because the trade union system can filter discontents and play a role of interface. An unduly individualised approach could create major difficulties to companies if they have to take all individually felt grievances into account.
- *Raising awareness of the limits of flexible work patterns.* Enterprises should be aware that an undue flexibility is contrary to economics. Various arguments support this view: systematic sub-contracting creates problems in terms of transaction costs, higher co-ordination costs for the companies, poor quality and performance, delays and logistics, unhappy customers, in some cases. Therefore, some companies are starting to take steps to internalise services that had been outsourced earlier on perhaps hastily.
- *Social links in work are necessary.* Companies should be aware of the following paradox: on the one hand, they develop specific methods to increase workers' involvement but on the other hand, the new organisational models (and the recourse to atypical work) tend to destroy social links in work. Companies are finding managerial methods more and more sophisticated in order to reconcile autonomous production systems and workers' involvement. They try to develop a corporate spirit, a common ethical behaviour through quality charters, etc. The question that should be raised here is whether all the flexible work-forms will unravel this social cohesion and the collective sense of working for a company.

In conclusion, it is possible to say that the transformations which are under way seem to require a complex redefinition of the overall regulatory framework. The essential parts of a possible “new model” are: the welfare system (including education and training), the labour market institutions and the industrial relations system. While the first one should provide guarantees, the other two may sustain the flexibility of the overall combination. Focussing on only one of the terms may lead to the risk of losing either growth opportunities for lack of adaptability or social cohesion for increasing inequality.