



# Telework in the scenarios for the future of work

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## CV

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## Conference Abstract

This paper proposes to analyse the current and future trends in the development of telework in the context of scenarios for the future of work in the information society.

A first point will point out some central issues in the studies of the future of work in the information society: the dematerialisation of the economy, the increasing search of flexibility in organisation, some new trends in human resource management. These issues are particularly relevant as regards the development of telework

A second point will examine the current trends in the development of telework. It will point out that the most widespread forms of telework are not home-based telework as such, but new forms of organisation of work based on communication technology, for instance: mobile telework, new enterprises providing teleservices, "mixed" telework combining, various workplaces on irregularly basis. The common characteristic of these forms of organisation is the search of flexibility.

Finally a third point will discuss an important challenge for the future of work, that is not specific to telework but particularly put forward with the development of telework: how to develop flexible telework patterns avoiding a deterioration of working conditions ? What can be a socially sustainable scenario of flexibility ?

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## Conference Paper

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This paper proposes to analyse the current and future trends in the development of telework, in relation to scenarios of the future of work in the information society.

1. First of all we will point out some key issues in the studies of the future of work in the information society: the dematerialisation of the economy, the increasing search for flexibility in organisation, some new trends in human resources management. These issues are particularly relevant as regards the development of telework
2. A second section will examine the current trends in the development of telework. It will point out that the most widespread forms of telework are not home-based telework as such, but new forms of organisation of work based on communication technology, for instance: mobile telework, new distance working companies, "mixed" telework combining various workplaces on irregularly basis. The common characteristic of these forms of organisation is the search of flexibility.
3. Finally we will discuss an important challenge for the future of work: how to develop flexible telework patterns avoiding a deterioration of working conditions ? What can be a social scenario of flexibility ? This challenge is not specific to telework, but particularly enhanced with the development of telework.

Given the diversification of forms of telework (home-based telework, mobile work, call centres, etc.), we will often use the expression *distance working*, although "tele" and "distance" are objectively synonymous. The expression distance working has fewer connotations that the term telework and it is more representative of diversity. Mobile work and distance working companies, for example, are rarely mentioned under the telework label, but they are entirely significant for the purposes of this paper.

### Visions of the Future of Work in the Information Society

In the literature and debates about the future of work in the information society, a set of common trends is usually analysed. They mainly concern dematerialisation, skills, knowledge and training, flexibility. The scenarios of the future of work also examine more fundamental changes in society: new definitions of the concepts of work, employment and activity; working time arrangement and reduction; the challenge of regulation. In this section, we will briefly present some of these trends that are particularly relevant as regards the development of telework or distance working:

- the dematerialisation of economy;
- the restructuring of service activities;
- the new emphasis on knowledge and competence;

- the development of flexible organisation and flexible labour markets.

This overview of the scenarios of the future of work and the discussion about flexibility mainly refer to the first report of the FLEXCOT project (Flexible work practices and communication technology) for the TSER programme of the European Commission [Valenduc & al., 1998].

### 1.1. A Dematerialised Economy

Neither technological changes nor the promotional campaigns of the European Commission are enough to explain the expansion and diversification of forms of distance working. The real cradle of telework lies in certain major changes in the economy, and more particularly in services, mainly the tendency towards the dematerialisation of economy and the restructuring of service activities.

This dematerialisation of the economy is shown in the growing share of non-material activities in economic activity, characterised by:

- Growing immaterial production and consumption: the market for information products and services, like software, multimedia, teleservices, is growing faster than markets for material equipment and goods.
- An increasing number of persons are employed in the production and distribution of information, knowledge, cultural and leisure activities, whereas employment in the production of material equipment and goods is decreasing.
- Companies draw greater profit from their non-material activities than from their directly productive activities, via their financial engineering, financial investments, maintenance, advice and service activities.
- The share of non-material investments, i.e. software, organisation, training, human resource management,

research & development, is growing as compared to material investments.

The development of emerging forms of telework, such as mobile work and distance working enterprises, is linked to the process of dematerialisation.

### 1.2. Restructuring Service Activities

In the area of services, except for some social or relational services, many new forms of organisation are based on information and communication technologies. This trend in restructuring services presents three characteristics, which are relevant to explain the renewal of telework: the separation of production and consumption of services, the industrialisation of services and "telemediation" in services.

Separation of production and consumption of services means that a service can be produced and stored in one place and consumed later in another or in several different places. Many services are becoming products, which can be consumed anywhere and any time. They are becoming more easily commercialised and can be delocated.

Actually, without information and communication technologies, a service is essentially a non-physical activity; it must be consumed when it is produced. The output of services cannot be stored or transported. This characteristic decreases the possibility of marketing services and makes them very localised activities. Conversely, with information and communication technologies, services can be stored and transported at very low cost, since by and large they consist of information. The cost of storage and transport is becoming very low in comparison to the cost of production of a service. This explains the growth of teleservices, distance working enterprises and other activities like home banking or distance learning.

Industrialisation of services is another major tendency. In the service sector, the movement towards industrialisation increases every time information and communication technologies make significant

headway. This industrialisation takes the form of a two-fold transformation. On one hand, codifying data and knowledge tends to standardise most situations handled by employees. On the other hand, systems to distribute tasks, like workflow software for example, automatically move from operation to another, whatever the location of the successive agents involved in processing a dossier or carrying out a task [Perret, 1995].

Finally “telematiation” is the third major trend which characterises the future of service activities in the information society. This refers to replacing or completing a “face to face” relationship with clients, by a “mediation by telephone”; i.e. offering advice and services based on a telephone call. In a growing range of industries many functions of services involve mediation by telephone, particularly sales, marketing, technical assistance, booking, insurance, market studies, etc. Call centres have developed the supply of services in this promising new niche [Cornford & al., 1996]. Growth of on-line services on the Internet can be considered as telematiation evolving in the direction of the Web. The characteristic common to these services based on telematiation is that they are perfectly mobile, both in space and time, meaning that they can be executed from any place and at any time.

The future of service activities offers more and more opportunities for distance working. New organisational patterns are already explored in order to increase flexibility in organisation by using ICTs and distance working.

### 1.3. Knowledge and Competence

A direct consequence of the debate on the “dematerialised economy” is the strategic role of knowledge. In many policy documents of the European Commission or the OECD, the information society is also termed the “learning society” or the “knowledge society”. The most recent technical progress related to communication technology develops its impacts in areas of knowledge and

competence where there is little routine work. The purpose of technology is now to improve complex processes, in which human knowledge is a key factor, and to increase the individual performance in a complex working environment. The main concern of human resources management is to develop work competence in a changing environment.

The issue of qualification, education and training is dealt with in several prospective studies of work in the information society. Such studies often focus on two dominant trends:

- *New skills and professions linked with ICTs developments*: the skills of ICTs professionals become less “hard” and more “soft”, including organisational aspects and ability to communicate. Although their growth rates are high, ICTs professions only represent a small labour market, highly sensitive to “fashion” effects or short-term shortages.
- *Shift in existing skills, from operational requirements to new requirements based on knowledge and communication*: many studies emphasise the immaterial and relational dimensions in the content of work (creativity, abstraction, aptitude to communicate, management of uncertainties, reactivity to events, etc.). Knowledge and competence themselves are becoming a direct factor of production.

A significant feature for the future of work in the information society is the shift from qualification requirements to competence requirements. New forms of organisation supported by ICTs make the distinction between qualification, skill or competence less and less clear [Dubé & Mercure, 1997; Zarifian, 1996]. The usual distinction between qualification and skill lies in the fact that qualification is attached to the workplace, while skill or competence belongs to the worker. Qualification depends on organisational options, human resource management, collective agreements and technology. Skill and competence are related

to education, training and experience of the workers, and to their personal capacities.

In the firms where ICTs are widely implemented, the recruitment requirements and the description of functions are mainly based on competence. This is an important shift from a collective to an individual approach of qualification.

Some authors go further in the analysis of such a shift from qualification to competence. "Competence appears as a substitution process; it challenges the recognition and validation of knowledge and know-how through the wage system. Competence leads to a new model of the "productive individual". It generates a specific model of human resource management, not centred anymore on qualification and employment, but on the individual. (...) Moreover, does the shift from the qualification model to the competence model represent another shift, from wage earning to entrepreneurship? Are competence and employability something similar for entrepreneurship, as qualification and employment are for wage earning? (...) Competence can be understood as a new form of bargaining qualifications, in a context of technological change and economic change". [Brangier & Tarquinio, 1997]

Competence is often put forward when discussing the professional profiles of distance workers or teleworkers. More generally it seems that, whatever can be the sectors or the jobs, the use of advanced communication technologies increases the competence requirements for the workers.

#### **1.4. Flexible Labour Markets**

It is anticipated that a key element in the information economy will be flexibility: of individuals, of organisations, of institutions and of society in general. Flexibility is very much a portmanteau word, however, and carries many different meanings to different people. It is often suggested that flexibility will be a key element in enhancing economic competitiveness and that the future economic health of Europe will rely to a large extent of the ability of economic actors and

supporting institutions to develop such flexibility.

Flexibility is generally used to denote a new organisational form, whether at the level of the firm or at societal level, contrasting this with those organisational system(s) generally known as Fordist or Taylorist, forms which are said to have characterised industrial economies during the period from around the 1920 to the early 1970s. For the era of 1980s and 1990s characterised by globalisation, increasing competition, more dynamic markets, greater and more sophisticated consumer demands, greater uncertainty, rapidly decreasing cycles of technological innovations, and the emergence of new information and communication technologies, it is argued we need more dynamic and flexible organisational and institutional structures.

Within this framework of flexible organisation, various scenarios of the future of work develop new visions of the labour market. Beyond the classical labour market with a classical organisation of economic activities and "typical" workers' status conditions, a lot of new forms of organisation and status conditions are developed, analysed or taken into account. Flexibility is a common character of these "atypical" labour markets. Some visions of the future of flexible labour markets are oriented towards social integration (through ideas such as plural economy, intermediary activities, quaternary sector, or transitional labour markets), while others lead to a growing individualistic culture (through ideas such as self-employment, self management or employability).

Telework or distance working may belong to each type of scenario even if, in Europe, the tendencies seem also to be different from a country to another, with quite different ways of implementing flexible labour markets in the Nordic countries and in the rest of Europe.

#### 1.4.1. *Flexible Labour Markets oriented towards Social Integration*

Unemployment and exclusion are more than a problem related to conjuncture. Society is changing; social cohesion, work and its connection with growth are in a crisis.

Insecurity is growing not only in the “peripheral” labour markets but also in the “core” labour market. Atypical employment is growing, precariousness and unemployment too, particularly at the beginning and at the end of a professional career. In this society, work can no longer be the only reference for the socialisation of individuals.

Some authors are developing the idea of the development of a “plural society”, a society with many levels, and the emergence of “plural activity”. “Plural activity” means the recognition of a diversity of activities, a plural economy and a plurality of social times in which the individuals can find their social identity and their incomes. The idea of a society of plural activity is in opposition to the model of a society completely organised around the salaried work. [Gauillier, 1997].

In this category of literature, the future of work and society is envisaged through radical changes. Other corpuses of literature consider the future of work, also in a perspective of integration and cohesion, but in fewer fundamental and more practical ways. Some scenarios consider new fields of activities, new status conditions or new global conceptions of full employment in order to favour the integration of unemployed people. Their approaches try to introduce security in the peripheral labour markets and in the multiple passing from core labour market to peripheral labour markets during someone’s life.

This is the key idea developed by Schmid [1998] in the concept of transitional labour market, for example. The concept considers employment and professional carrier from the perspective of a whole working time along someone’s life. It also considers atypical ways of working as socially useful labour markets. But these markets need to be regulated and not regarded as ways leading

to precariousness. This way of dealing with the question of employment and unemployment considers the so-called “atypical labour markets” from a radically different angle.

Telework is often regarded as a mean for integration and social cohesion. A great number of telework experiments have been, and are still, developed in order to fight exclusion and unemployment. These new theories of flexible labour market can help to develop such “socially oriented” telework experiments.

#### 1.4.2. *Flexible Labour Markets oriented towards Individualism*

Beside the scenarios of the future of work turned towards social integration, other visions are quite more individualistic and consider the future of work through self-employment and self-management. Flexibility becomes a general attribute of all the work practices and how to gain some security is left to individuals.

For some authors the worker of the future will be a self-employed, poly-active man or woman, managing his or her own carrier in an individualistic world. Tomorrow’s worker must be able to manage the “enterprise of himself” [Bühler & Ettighoffer, 1995] in an autonomous and responsible way. From this viewpoint, the worker is preferably self-employed. One goes from a logic of employment to a logic of a supply of services, with a “poly-active man” as the new worker’s profile. This strategy suits companies, which prefer to buy the skills they need, when they need them, where they are to be found, rather than to pay to have them constantly at their disposal. In these views, the worker becomes his or her own manager.

It can be asked, however, whether for the majority of workers, the self-management or poly-activity era is not very close to a catch-as-catch-can economy. The reality shows that many self-employed workers did not really choose this status – they were more or less forced into it by reorganisation in their

companies (through downsizing, outsourcing) [Cornford & al., 1996].

In the literature about telework, self-employment is also often envisaged and the workers are supposed to become “freelancers”. The term “contingency workforce” is also used. In the United States the “contingency workforce” has become a widely used term. The contingency workers are those belonging to the growing number of “employees” working on one-year or six-month contracts, often half time, and with several jobs at the same time. From the company’s perspective this way of working represents a “just-in-time” thinking, applied on its staff. Obviously, for the employee the more loose relation to the labour market often represents insecurity and uncertainty, but also the opportunity for flexibility and constantly new challenges as well as the great freedom so highly valued by the generation born in the seventies [Forsebäck, 1995].

If we find a great number of telework experiments oriented towards social integration, a lot of discourses about telework also belong to the individualistic approach and put all professional profiles on the same footing, as if the potential and constraints of a system engineer were the same as those of a secretary or a nurse.

### **Current Trends in the Development of Telework**

The concept of telework is born in the economic and technological context of the early eighties. At this time, the dominant trends described above were not yet prevalent as such. The current reality of telework covers both old forms of telework inherited from the past and new forms of telework emerging from the context of the late nineties.

In our recent studies of telework [Valenduc & Vendramin, 1997], we distinguish six major categories, which constitute the hard core of telework today. The first three are declining; the last three are flourishing:

1. home-based telework;
2. telework in satellite offices;
3. telework in telecentres or telecottages;
4. distance working companies;
5. mobile telework;
6. mixed telework.

These six categories will be considered in greater detail below, referring to a paper recently presented at the Third International Workshop on Telework in Turku [Valenduc & Vendramin, 1998]. But it already appears that the declining forms often concerned few groups of workers here and there and they were almost always set up either as a limited experience within a company, or as some kind of pilot project, often oriented towards social integration or cohesion. Conversely, the flourishing forms of telework (the last three) concern entire categories of workers in entire sectors of economic activity. These are not pilot projects. The first three categories were often the result of institutional partnerships and were partially subsidised by public funds, whereas the following three are corporate initiatives in response to market pressure, corresponding to basic trends in the organisation of the economy.

## **2.1. Declining Forms of Telework**

### *2.1.1. Home-Based Telework*

Home-based telework is the best known form of distance working and the most discussed, although quantitatively remains far below the optimistic forecasts of the 70s and the 80s. Still today, home-based telework is a category of telework that is immediately envisaged in thoughts and discussions about telework. Despite what certain articles say in the press on the basis of old forecasts, home-based telework is not widespread today – we are referring to the case where the home becomes the main work place, and not mobile or mixed telework which is presented in the following points.

Home-based telework is an experiment done by only a few companies and for small

groups of workers within those companies. Few firms have taken the technical, organisational and social risk of intensifying the use of telework. Large public or private companies, who have tried the experience of home-based telework, have almost never gone beyond the pilot project state, which often covers only a very small share of the staff. Most of the frequently cited classical examples generally concern small, specific groups (translators, programmers) in large companies, without affecting the general organisation of their company. Larger scale experiments often concern computer or telecommunication companies, which are testing working methods, not always at home, to try to extend the scope of the markets for new products.

Alongside these minor examples, there are also very specific experiment, often backed by the public authorities, targeting integration of disabled persons. Here, the objective is not the telework as such, but the use of new distance working technologies to promote the professional insertion of disabled persons. These measures are addressed to specific groups, for whom telework, not necessarily at home of course, represents an instrument particularly adapted to social objectives. The potential offered by telework is far from fully exploited to the benefit of disabled or other persons with reduced physical mobility. Although this concern was present in the first telework experiments in the 80s, it remains a secondary purpose in the promotional campaigns.

The growth of home-based telework in certain European countries is principally due to self-employed labour. It is the consequence of strategies for downsizing and outsourcing used by many companies [Gillespie & al., 1995]. The direct consequence is externalising of certain tasks to a network of small companies and self-employed persons, at times former employees. Finally, the rose-coloured picture of home-based telework holds for a very small minority.

### 2.1.2. *Satellite Offices*

Satellite offices are locations at a distance of part of the activities of a company. These offices are often set up far from the major centres and connected with the main premises. The development of satellite offices is based on the geographical separation of front office and back-office tasks. Most back-office work, particularly the most routine jobs, could be located outside large cities, as long as they are set up in a network with the places where decisions are taken and the main offices.

As other authors [Cornford & al., 1996; O'Siochru & al., 1995], we note relatively few significant realisations of this type in Europe. To the detriment of local development projects, we see that the information handling centres, which exist often, tend to concentrate in large cities around urban centres and in suburban zones.

As concerns perspectives for the future, we observe that the development and spread of processes for distributing tasks has resulted in the reintegration of back-office tasks, particularly entering and consolidating data, in front-office operations. Moreover, data handling becomes increasingly automatic, particularly with the development of scanning, bar codes, voice recognition and other technologies for direct entry of data, without forgetting entry by the client himself. Under these circumstances, little local development can be foreseen on the basis of this type of activities.

### 2.1.3. *Telecentres or Telecottages*

The infatuation with telecentres and telecottages dates back to the 80s. The initial idea was to set up local centres equipped with a computer infrastructure for workers from different firms, or offering services to different firms. The targeted activities consisted for the most part of a set of administrative support activities (telesecretariat, administrative management, accounting, translation, etc.), but without any specific value added which could justify the use of a telecentre.



Except in some Nordic countries, viable realisations remain very rare, although the telecentre is systematically the image of telework which has motivated promoters of local development in recent years. In countries such as France, Belgium, Italy, many municipalities have tried, via local partnerships and generally with financial backing of national or European programmes, to promote local employment and the development of economic activity by creating telecentres. From an economic standpoint, small telecentres, which were tried in many countries in the 80s, proved unsuccessful. Almost none was able to survive without public financing.

A characteristic common to many telecentres is that of relying on the drive and participation of a single individual with a strong personality (volunteer, employee or self-employed) and particular qualifications in computer sciences and/or a special role in local life. This dependence is both an asset and a weakness.

Although telecentres may have a role to play in the local life of a community, the ambition of making them agents of economic activity must be seriously reconsidered in the light of past experience. In France, certain telecentres have already moved into other channels and have become training centres or centres with social-economic objectives rather than service companies.

One of the probable perspectives of telecentres for the future is to become local training centres in information technologies. These centres are becoming suppliers of "hands-on" training, in that the persons in the training course carry out real work for public or private clients, near or far. Sub-contracting for public authorities should ensure constant demand and the viability of this kind of initiative. Training objectives in new technologies of the local population are gaining on the ambition of creating teleservice companies.

## 2.2. Flourishing Forms of Telework

### 2.2.1. *Distance Working Companies*

Distance working companies are specialised in the supply of on-line network services. They provide value-added services, based on information and communication technologies, essentially or exclusively at a distance.

What distinguishes telecentres and satellite offices, which are on the decline, from distance working companies, which are thriving in a favourable climate ? On first sight, the activities of the one and the other consist of providing teleservices from a distance. But telecentres and satellite offices were imagined in a context where the main concern was land planning and the economic development of remote areas. All over Europe, these experiments were part of public policies to aid economic deployment and the creation of job openings in less developed regions. The idea was to propose sufficient incentives to make peripheral regions attractive, by advantageous real estate offers, effective infrastructures, qualified personnel and public aid in various forms.

Conversely, the distance working company, and its emblematic image the call centre, corresponds to another type of reasoning. The call centres are commercial companies whose objective is to manage communication of their client companies. They are a fairly good illustration of the principle of distance working and the strong and weak points of this kind of service company.

First of all, distance working companies are initiatives from private economic agents; firms which are trying, among other things, to take advantage of the effects of deregulation of telecommunications in Europe. While telecentres only offered administrative support activities, distance working companies constitute a new economic activity and a new method of producing services, such as on-line assistance

services, telemarketing, market studies, booking, insurance management, etc.

Distance working companies are often specialised in a type of service in which the “face to face” relationship is replaced or completed by a service based on telemediation. For a growing number of services and functions, the relationship with the client – sales, after-sales service, client studies, etc. – is done by telephone, not by direct contact or by mail. More and more companies sub-contract these functions to companies specialised in distance working. They thus exploit a new niche of activities, as they propose value added: availability around the clock, direct management, reception in several languages, etc.

If the distance working companies are clearly a form of telework that is doing well, there are two determinant criteria in the growth of “telemediated” services and the location of distance working companies: less expensive labour and the performance of communications. For instance, call centres are flourishing in Ireland, where wage costs are 50% lower than in Germany, taxation of companies is one of the lowest in Europe, communications rates are decreasing with the volume of calls and population is traditionally cosmopolite [Cornford & al., 1996].

### 2.2.2. *Mobile Telework*

Mobile telework is another growing form of telework. It mostly concerns executives, itinerant commercial employees and maintenance technicians. Today it is exploiting all the potential of portable computers and data transmission networks, so that a growing portion of tasks can be carried out at a distance, in other words, anywhere – in a client's premises, at home, in a subsidiary, at a colleague's home or even in the train or a hotel room. Mobile technologies favour greater geographic mobility.

Unlike isolated experiments of home-based telework, mobile telework concerns large categories of employees, mainly “field

workers” such as controllers, technicians and sales personnel. In the long run, it reflects a deep-rooted reorganisation of the commercial function and the maintenance function in companies.

The expansion of mobile telework, as opposed to “sedentary” telework (at home or in a telecentre) is the illustration of exploitation of communication technologies and portable computers serving new types of organisation: just-in-time, flexible management, etc. In management terms, the objective of telework is to set up more flexible organisational methods which can react more quickly, to seek better organisational productivity [Carré & Craipeau, 1997].

### 2.2.3. *Mixed Telework*

Beyond the personnel concerned by the new requirements of mobility, the most common form of distance working today is also the most atypical: a few hours per week at home, a few hours on the road or in the field, a few hours with clients, but the main reference is still the office and colleagues. This type of working organisation concerns not only executives, researchers, journalists, graphic artists, but also a growing number of qualified employees confronted with the constraints and requirements of flexibility.

Many companies now offer a home computer to their staff members, sometimes without a specific project in mind, but always with an idea of triggering new dynamics in the use of computers and networks. This is a significant evolution in relations between the professional sphere and the private sphere.

Mixed telework is not an exclusive category, because it can cover telework from home, mobile telework or decentralised telework. What characterises mixed telework is the fact that it covers a variety of arrangements, and it changes to meet the circumstances and needs. The result is often a compromise between the pressure exercised by companies for greater flexibility of their executives and skilled employees on one hand, and those persons' need to be able to

make personal arrangements in the way they organise their working time on the other. Mixed telework indeed presupposes certain autonomy in individual organisation of working time and mobility.

### 2.3. Flexibility: A Common Characteristic

All the emerging forms of distance working have two characteristics in common. On the one hand, they do not try to develop telework as an end in itself. They target a new niche in the services market: the provision of services at a distance, by means of communication technologies. On the other hand, they reinforce the most flexible forms of work organisation, which overcome constraints of time and space.

The distinction between flourishing and declining forms of telework must not be understood as “good” and “bad” telework. The purposes can be very different and the way to achieve them too. Projects of telecentres or satellite offices were designed within local or European programmes aiming at regional development and social cohesion, which are of course stimulating purposes. At the contrary, some call centres develop flexible work practices with very hard working conditions.

The organisational and social dimensions of the implementation of flexible work practices are critical issues for the future of telework. The next sections go further in the development of these issues.

## Telework and Flexibility

### 3.1. Two Ways of Considering the Future of Telework

There is a widespread belief that teleworking or distance working will concern more and more workers in the future. There is however a confused vision of telework. It has always been a fairly hazy notion, which can cover very different working situations. Classical forms of telework are rather well known but new forms of distance working are

concerning more and more activities and workers.

A general scenario for the future for all forms of telework is not relevant. The challenge for the future has to be envisaged differently according to the purposes of telework, which can be considered as:

- *means for integration and cohesion*: in this case telework is generally organised with the support of public funds and, very often, a specific attention is paid to the status conditions of the workers;
- *a way for implementing flexible work patterns and for setting up more flexible organisational methods*: it combines classical forms of flexible working (part-time work, short-term contracts, polyvalence, 24-hours office operation) with the new potential of advanced communication technology; in this second case, telework or distance working are corporate initiatives in response to large trends in the organisation of the economy.

There are two kinds of dynamics in the development of telework: policy dynamics and market dynamics. Distance working enterprises, mobile work and mixed telework are pushed by market forces. Such projects must be profitable and competitive. Telework is used as a means for increasing the flexible response of the firms to economic pressures.

Projects driven by policy dynamics have different purposes, such as revival of rural areas, local development, training and insertion of unemployed and disabled people, job creation, reduction of transport congestion. They are developed within public programmes or through institutional partnerships associating enterprises and public authorities.

In both cases the challenges will be different. For the projects driven by policy dynamics, the viability and the diffusion of the pilot projects are central, whereas in the second case the working and contractual features are core issues.

### 3.2. Two Visions for the Development of Flexible Work Practices in Distance Working

The search for flexibility in the organisation of economic activities and the organisation of work is not a feature specific to distance working. But the very nature of distance working makes it a choice field for implementing a large range of forms of flexibility. Certain forms of flexibility have already been tested in other types of working organisation, like part-time work, short-term contracts and variable hours, for example. Nevertheless, certain forms of flexibility are more particularly specific to distance working: itinerant work, multiple working places, availability on stand-by, multi-tasking, self-employment at a distance, 24-hour office operation systems, etc.

This general drive toward flexibility affects all elements of work: contents, working time, reward schemes, place of work, etc. and therefore leads to a broad re-definition of what we think of as "work". The traditional views on the separation of periods devoted to training (in the early stages of life) and work (from a certain point onwards), on employment (stable and full-time), on the roles of the regulatory framework (fixed rules and 'normative' industrial relations) are being replaced by more "blurred" visions.

Opinions differ greatly on the perception of flexibility of distance working. Two main attitudes may be identified:

1. An optimistic point of view, which stresses the new opportunities available for workers in terms of acquisition of new skills, conciliation of working time and social commitments, autonomy and "empowerment". Such an optimistic approach to flexible work can integrate the following dimensions: a constructive approach to technological and organisational options; an improvement of working and living conditions; a broader approach to social relations on the job.
2. A pessimistic and individualistic point of view, which emphasises the risks of a "two tier" society, of strict control on

workers performance (through ICTs) and higher pressure to conform.

In this vision, distance working allows to apply the "just-in-time" principle to human resources. For companies, the goal is to employ the right person at the right time, wherever that person may be, by giving priority to commercial contracts (with subcontractors, self-employed workers, and temporary companies) and without the constraints of continuity associated with an employment contract. Flexibility of skills, working hours and wages is organised on an individual basis.

The social risks related to individualisation of flexible work can already be observed: lack of control over the management of one's time, absence of supervision of health and safety, isolation, harassment of portable telephones, the loss of the social ties at work, increasingly difficult training possibilities, little chance of perfecting skills, loss of qualification as a result of the lack of exchange of experience and training.

The real challenge that faces decision-makers in the political and labour worlds today is to strike a balance between the flexibility of work and the workers' security.

### 3.3. Workers Concerned with Flexibility: Some Key Questions

#### *Whose Flexibility ?*

If, as the evidence suggests firms are moving towards more flexible working arrangements in the workplace, a key question must be who is benefiting from those arrangements.

Castells [1997] argues that there is a transformation of the power relationship between capital and labour taking place in favour of capital, through the process of socio-economic restructuring. He argues that new technologies are allowing businesses to adopt some combination of automation, off shoring, outsourcing, or subcontracting to

smaller firms, to obtain concessions from labour. He also argues that the development of the network enterprise (or flexible firm) induces flexibility of both business and labour, and individualisation of contractual arrangements between management and labour. Castells suggests, pessimistically, that instead of just temporary lay-offs, what we often now witness are lay-offs followed by subcontracting of work on an *ad hoc* basis. Work is performed on an 'as and when required', consultancy basis, with those performing the work having no job tenure with the firm and being entitled to no benefits from the firm. He concludes that "the processes of globalisation, business networking, and individualisation of labour weaken social organisations and institutions that represented/protected workers in the information age, particularly labour unions and the welfare state. Accordingly, workers are increasingly left to themselves in their differential relationship to management, and to the market place" [Castells, 1997: 9].

#### *A Core-Periphery Workforce ?*

Not all workers will be affected in the same ways by growing trends towards flexibility. There is, for example, a body of literature which suggest that what we are seeing emerging is a dual labour market, and a core-periphery (or less brutally a core-complementary) workforce. The components of the peripheral workforce are: subcontracting, self-employment, part-time, short-term contracts, public subsidy trainees, agency temporaries, etc.

Handy [1994] suggests that the logic of corporate restructuring together with new technological opportunities should result in half as many people in the core business, paid twice as well and producing three times as much. Rajan [1997] goes further and suggests that firms may soon perceive all staff as flexible and potentially temporary. But he also suggests that emerging patterns of employment flexibility result from supply side changes as well as demand-side changes. For example, he cites evidence to suggest that more people actually do want to

work on a part-time basis, this is particularly so for married women. The rise in self-employed is also often attributed, to some extent, to positive reasons. By contrast people do not wish to be employed on a temporary basis, however, and do so because they cannot find a permanent job.

#### *Gender Differentials*

Organisational flexibility will also have different sets of outcomes on gender lines. Flexible firms may, for example, now want "flexible women" rather than "organisation men", but findings from studies of women's work in the 1990s [e.g., Crompton et al, 1996] might lead us to predict the "core" workforce would be predominantly male, whereas women would be over-represented in the "peripheral workforce".

There is a significant literature on both horizontal and vertical occupational segregation of women and it has been suggested that women have to date been particularly vulnerable to some of the negative dynamics of information technology implementation, as the result of routinisation of work.

In some new forms of ICT intensive work organisation such as call centres women tend to dominate employment in the less skilled operations, but men are more represented in areas such as software helpdesk support. The implications of recent developments in flexibility around ICTs are not yet clear [Belt, Richardson and Webster, 1998]. It is conceivable that flexible working may allow employees poorer access to training and career development prospects than their full-time counterparts enjoy, this will effect all "peripheral" workers, but may well effect women more given that they are likely to form a larger part of the non-core workforce.

However, different organisations and sectors have different records of training and expertise development, and there are signs that some service sector firms are providing their female employees with improved career prospects in a framework of substantial

product and process innovation [Crompton and Sanderson, 1990].

### *National Differentials*

The ability of organisations to introduce the various forms of flexibility will not be the same in all countries. In the European context, culture and regulatory environments (for example, regulations on working hours, employer-employee relations, and female participation in the workforce) will lead to different outcomes.

Some authors put forwards different and opposite ways of organising labour flexibility in Europe. For example, M'hamed Dif [1998] makes a distinction between two models, one based on external flexibility and the other based on internal flexibility. These two models have different consequences on working conditions and employment.

The first model, the dominant one, is essentially based on *external* flexibility, through outsourcing, subcontracting, self-employment, short-time contracts, and interim. This model has clear impacts on employment: segmentation of the labour market, mass unemployment, increasing precariousness. In this model, the workforce is considered only as an input that has to be adjusted to variations of demand. A labour legislation favourable to all the forms of external flexibility is supporting the growth of this model.

The second model, at present mainly limited in its application to the North of Europe, is more based on *internal* flexibility. The two main adjustment tools are functional flexibility through polyvalence, education and training and working time flexibility with various working time arrangements. This second model contributes to an improvement in working conditions and employment.

The current challenge, for all countries, is to give to the new forms of work and employment a full-fledged framework of reference (legal, social and cultural), in order to transfer the social achievements of the industrial society to the information society.

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