The implications of the KBS for employment and gender relations.
Towards a conceptual and analytical framework.

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Introduction

The purpose of this report is to summarise the main directions taken by the debate concerning the impact of the Knowledge Based Society (KBS) on established power and subordination structures between the genders. A great deal of the literature analysing the development and institutionalisation of industrial societies has traced a correlation between the social and sexual division of labour and the hegemony of a production model peculiar to industrial societies which both reproduced this division and served to perpetuate it. The questions which inspired this enquiry are to what extent the changes in the production system (from an industrial society towards a KBS) have entailed a change in power relations between the sexes and what role employment and social policies have played in this process of change. Specifically, our purpose is to analyse the extent to which the European Employment Strategy (EES), and, more specifically, the gender mainstreaming approach promoted by this strategy, can genuinely transform these established forms of relationship between the sexes and in what direction. It is a question of analysing the extent to which this process of transformation of the production model – assuming that such a process is indeed taking place – is serving to call into question the ideological and social foundations of gender inequalities and whether it is constructing/creating/fostering new types of inequality and new forms of social vulnerability.

A second question arising concerns the extent to which these processes of transformation – insofar as they can be shown to exist – are actually giving rise to more equal power relationships between the men and women. Nonetheless, considering that these processes of transformation in the direction of the KBS can take very different forms depending on social and geographical context, our aim in further workpackages is to analyse these varying effects on gender relations, attempting to identify the factors that explain the variations (social policies, institutional framework, prevalent model of social and sexual labour, etc.). The purpose, viewed from this standpoint, is to observe to what extent gender mainstreaming represents an appropriate approach to achieving the ambitious goal of equality between the sexes.
Taking due account of different interdisciplinary approaches and the different geographical and analytical contexts of the various authors, this summary of the relevant literature has revealed the extremely polemical nature of this debate. What has turned out to be polemical is not only the direction of the changes but also their nature and the various and wide-ranging ways in which they impact on gender relations. This first report, which puts on record the state of the art, did not set out to settle this fascinating debate but rather to reflect some of its aspects in order to put in place an analytical and theoretical framework for our area of enquiry. It is, accordingly, an unfinished work requiring important analytical and geographical honing that will be the subject of subsequent phases. In other research ventures we will subject to further scrutiny the national and disciplinary specificities, in an effort to elucidate the multifaceted nature of this process of transformation and its complex manifestations in the social construction of gender relations.

In the first chapter of this report, we will review concepts, theories and empirical evidence used to describe and verify a development towards the KBS in the academic and policy literature. The aim is to understand the nature of the changes behind the move towards the KBS. Our focus will be on the main technology, economic, political and social dimensions of the transformation towards the KBS in order to assess the implications of these changes from a gender perspective. Thereafter, we will examine in details the employment and gender challenges associated with the KBS in chapter 2. In chapter 3, we will analyse the context, the method and the goal of the gender mainstreaming approach. The purpose is to examine the extent to which gender mainstreaming is an appropriate approach to achieve the ambitious goal of gender equality. The report will conclude with an analysis of the extent to which the goal of EU’s gender mainstreaming approach addresses the challenges of KBS and how it can be used to rebalance the imbalances of the KBS.
1.0 Transition to the KBS

Amparo Serrano-Pascual, Lilja Mósesdóttir, Seppo Roivas, Pertti Koistinen and Karen Sjørup¹

In the academic and political literature on the KBS, black and white dichotomies are frequently outlined to describe the technological, economic, political and social changes associated with the implementation of the ICTs. However, empirical investigation of these changes point to growing complexities as concerns the development of employment and gender relations.

The underlying idea behind the concept of the KBS is the growing use of the ICTs as a tool for providing economic growth and social progress. More global and flexible work organisations, greater automation of work and higher educational attainment of the workforce is believed to result in productivity gains that generate economic growth. Experts have, however, had difficulties locating these productivity gains and empirical evidence reveal a growth in unskilled work and in pay inequalities among people with similar educational qualification. Hence, there does not appear to be a direct causal relationship between the implementation of the ICTs on the one hand and economic growth and social progress on the other hand. Although literature on the development of the KBS and its societal implications has been extremely prolific over the last years, there is no real consensus as to the direction of this KBS and its implications in terms of social cohesion and equal opportunities.

Several factors have been identified as the driving forces behind the transformation towards the information or knowledge societies. These forces are the production and diffusion of new technology such as the ICTs, knowledge, and the dynamic interaction of economic, political and social relations that shape and are shaped by technology changes. These forces have been at work for a long time and they push societies at different times from one stage/mode of development to another. This process of change from one stage to another is continuous as it is shaped by prevailing institutional structures or path-

¹ We would like to thank the other project members for their useful comments and contributions to this chapter.
dependent (Pierson 2000). With ‘continuous’ we mean two things. First, institutional patterns successful in the industrial societies will not disappear but adapt to new challenges of the KBS. Castells (2000) suggests, for example, that the new societies emerging should be named informational rather than post-industrial as they are still both agricultural and industrial but rely now much more on the utilisation of information. Secondly, the process of change is “continuous” because previous institutional setting, cultural values and other country-specific conditions shape it. External forces as, for example, intensified global competition exerts similar pressures on the national-specific institutional structures such that a certain convergence across development paths may occur (see Seeleib-Kaiser 2001). However, the way in which different countries deal with these common challenges is path-dependent preventing complete convergence across countries to take place. Thus, the transition towards the KBS is uneven and different models of the KBS co-exist as countries differ in their vulnerability to external challenges, in their perception of these challenges and in their capacity to respond to them.

The aim of this chapter is to analyse the technological, societal, political and ideological dimensions involved in what has been termed as the transition to the KBS. The nature and the direction of these changes have been a subject of an intensive debate as well as the effects on social and sexual division of work. We can find a polarity in the way these changes have been interpreted in the academic literature. Optimistic interpretations emphasise that these changes are an opportunity to challenge power relationship among the men and women while pessimistic approaches focus mainly on the social risks of these changes. Most studies are placed on a continuum between these two constructed poles. One of the conclusions of this debate is that there does not exist a lineal causal relationship between the changes in the productive system promoted by an increasing use of ICTs and gender equality. The relationship between (in)equality and the KBS is a complex one as institutions and actors in different countries play a central role in shaping it. Thus, the questions arising are how we understand the options of the KBS at large and what the societal possibilities for interventions are.
1.1. **Technology dimensions**

The underlying assumption behind most of the research on the move towards the KBS is that technology is shaping the social, cultural, political and economic aspects of our lives. In the following, we argue that there is no direct link between the ICTs and social progress because it is shaped by political choices.

The research focus in studies of the technology changes underway has in most cases been on the ICTs and computer networks instead of dialogues between the technology-society interaction and the knowledge creation (see Vehviläinen 2001:13; Kitchin 1998:57). This technology approach is based on the linear notion that innovation leads to new technologies and its application impacts society (Graham and Marvin 1996:83). The underlying logic of the discourse until the 1990s was that engineers create innovation and new technologies which the entrepreneurs and business firms translate into products that create jobs for the unemployed (Europe) and value for consumers (US).

There are two main interpretation of the extent to which this economic transformation is having an impact on society as a whole. One interpretation assumes that the advantages of the technology development will trickle down to the rest of the society thereby transforming the industrial society into a new economy (see Tuomi 2001:6). Another approach highlights the fact that income disparities in the OECD countries have widened since the mid-1979 and poverty grown in countries like the UK and the US (see Martin and Morrison 2003:242).

The first approach underlines that ICTs or the cyberspace makes our world barrierless and timeless. We are moving towards a world where all information will be available at all times and places to all people. Access to the future networks is more democratic and equitable than in the current world of familiar social divisions. Peripheral regions are almost in the same starting line than the metropolises when the broadband connection has reached one’s territory. By teaching basic computer skills to everyone the whole world can communicate together equally and capitalise the benefits of the ICTs and new economy (Graham and Marvin 1996:88). Moreover, the opening of international labour markets may promote the human capital mobility and in this way it will reshape the old
socio-economic structures and promote structural change towards a more specified division of labour and increase of productivity.

The second approach underlines that high-tech industry and employment is in most countries highly concentrated in a few regional and local clusters and the access to ICTs differ across social groups and localities. Moreover, the skilled workforce is gaining access to jobs beyond their domestic labour market, while the unskilled are increasingly trapped in local labour markets offering restricted job opportunities. The opening up of international labour markets to skilled or knowledge workers increases the risk that these workers will become disengaged from and disinterested in the development of their local communities as they are less dependent on their home country for security (see Martin and Morrison (eds.) 2003).

Regarding the impact of these developments from a gender approach, two main interpretations have been found in the literature. One approach underlines that the gender wage differential has decreased during the last decades, partly as the differences in years of schooling among male and female full-time workers have largely disappeared (Blau and Kahn 1997; Harkness 1996). Harmon, Walker and Westgaard-Nielsen (2001) found, for example, that the effect of schooling on female wages exceeds the effect on male wages by 5 percentage points in Ireland and by 2 or more percentage points in Italy, West-Germany, Greece and the UK but these countries have different wage setting systems. Moreover, years of schooling have a greater positive effect on women’s wages in countries with a lower female labour participation (de la Fuente and Ciccone 2002:11-12). Thus, the extent to which years of schooling and other factors have been able to narrow the gender pay gap is very much affected by women’s participation rate and wage setting systems prevailing in each country. In addition, barrierless and timeless world created by the ICTs may breakdown traditional division of work within families as it gives men and women greater opportunities of reconciling work and family life.

Another approach emphasises that women’s greater educational attainment and participation in paid work has not always led to corresponding increase in their contributions to the household earnings (Clarke 2001). From 1994 to 1999, women’s educational attainment and labour force participation increased on average in the European Union at the same time as the gender pay gap measured as the ratio of average
gross hourly earnings remained unchanged or 84% (Eurostat 2003). During this period, the gender pay gap widened in 6 out of the 14 member states (Denmark, Spain, Ireland, Italy, Finland and Sweden). It appears when the earnings distribution of men and women are compared that a much larger proportion of women are at the bottom end of the wage distribution than at the top. Women are at the lower end as they are much more likely than men to be employed as unskilled manual and low paid service workers in, especially, the private sector. According to analysis made by Eurostat, the most important factors contributing to the gender pay gap in the EU are gender segregation by sectors and occupations and lower earnings of women in female-dominated sectors and occupations (European Commission 2002a:35-42). Thus, the process of ‘trickling down’ does not go evenly through the economy as traditional ‘male’ sectors benefit first and traditional ‘female’ sectors lag behind. ‘True believers’ of the benefits and advantages of the KBS would stress that this is just a temporary disadvantage since sectors lagging behind will catch up eventually. Less optimistic watchers would warn against a permanent dichotomy between a primary (male-dominated) and a secondary (female-dominated) labour market.

In many countries, women have still less access to information technologies and receive less training in the ICTs’ skills (see e.g. Morahan-Martin 1998). Moreover, few women are employed in knowledge-intensive industries such as in the computer and software industries. In 1999, women in the EU constituted only about 15% of those in ITEC occupation (information technology, electronic and communication technology) and 20% of those classified as computer associate professions (Star 2001). Several studies undertaken during the 1990s have found that rising capital intensity, technological upgrading, and improvement in the quality of export products were accompanied by a secular decline in women’s share of manufacturing employment. Employers’ discrimination against hiring women in the new, higher-paid, skill-intensive jobs and capital-intensive production processes has been used to explain this unfavourable trend (Berik 2000).

Other reasons for women’s lack of progress in high-tech industries are barriers to women’s skill acquisition in the educational system (Webster 2001), the conditions of work in these type of sectors (the intensity of work, the culture of long hours, and the
lack of boundaries between professional and private life that characterise the conditions of this type of work, etc.), and the social construction of what is denoted as “skill”. Thus, women are much more likely than men to be under-valued and under-represented in skilled jobs and their actual and potential skills under-exploited. The transformation towards the KBS appears, therefore, to reshape and in some cases reinforce prevailing gender segregation in the labour market. Moreover, recent empirical surveys show that flexible working hours - assuming such a flexibility is taken place - are more accessible to men than to women and more to professionals than to industrial or clerical workers. Although men claim to have considerable flexibility in their daily life they seldom use it to pick up children early from kindergarten or school or to do the daily grocery shopping or cook dinner for the family (Sjørup 2003).

It is also important to differentiate between the level, quality and the form of implementation of technologies in each society. Variations in the access to and utilisation of the same technology seem to be large across societies and this may be the main reason for different social outcomes of technological innovations (OECD 2002a). Differences in the diffusion and use of ICT may create new kinds of social divides and accentuate existing old divides relating to income, education, age, family type and sub-national regions. There are particularly striking differences by household income and education in households’ PC and Internet access, but all of these are greatly influenced by other access factors such as whether individuals have access in the workplace, schools, libraries and in public services. The role of public policies and welfare state seems to be an important factor improving equal opportunities for all irrespective of the gender, race, citizenship or age (OECD 2002b). Thus, there is not a lineal causality between technological development and increase of inequalities in the society. The inequality is an outcome of wider societal processes of competition and social selection and capabilities of institutions to redistribute the wealth and avoid discrimination and inequality. In the KBS there will be new mechanism and rules of competition, which may create inequalities. The possible widening of the gender gap has also been mentioned as a possible outcome of competition. The question is then, how the gender gaps link with the other inequalities of the KBS.
Consequently, there is a growing scepticism among scientists about the actual will and capabilities of societies – institutions and politicians - to avoid the negative outcomes of social selection process. The Foucault school asks whether education can still function as big equalizer of the society or if education has shifted from “great equalizer” to a “big sorting machine” (Silvennoinen 2002). If this is the case, what can we then expect from the KBS and its sorting machine?

1.2. Economic dimensions

The concepts Information Society (IS) and Knowledge Based Society (KBS) have been used to understand contemporary modern societies and especially their extensive and advanced use of information technology. Both concepts stress that skills are essential for the creation and utilisation of information and a key productive factor. There are, however, important differences between these two concepts. The IS concept highlights more technical and economical issues related to information (also data) storage and delivery while the KBS concept emphasise more the use of information in knowledge creation, education and learning as well as cultural values of communities (see Karvonen 2001:107). Technology is the driving force behind economic development and growth in the IS while the interaction between societal processes and the new technology are facilitating the transformation towards KBS. Countries and regions have gone different ways in legitimating measures to promote the IS. In the US, the IS was introduced as a solution to infrastructure crisis and American consumers were to benefit from universal access to Information and Communication Technologies (ICTs) provided by the private sector. In Europe, the IS was seen as a way out of unemployment and the role of the public sector in Europe was to design new regulatory regimes and to provide services enabling citizens to make full use of the opportunities and benefits of the IS (see Tuomi 2001:4-5).

Mainstream economic perspectives of the transition towards the IS and the KBS assume that there exists a linear link between use of ICTs and productivity growth. These perspectives use the US as a reference model and then ask why Europe is not performing as well as the US model. Thus, the KBS is presented as a conditio sine qua non for the survival of the European economy. In the long run, the EU not only lacks sufficient
labour supply, but has no natural resources whatsoever. The only ‘natural resource’ available (and available more widely than in most other parts of the world) is knowledge. This implies that the EU has only one single factor of production with which it can keep up the competition with other economies and that is knowledge. This is also thought to be the rationale for ‘embracing’ the KBS.

In this framework, a causal link has been established between the move toward the KBS and productivity growth, low unemployment and changes in the structure of the economy. Nevertheless, many of these aspects have been the subject of significant controversy: whether the “new” economy promoted by the KBS really is all that new (Evans 2000; Visco 2000; Wolf 1999), the lack of empirical evidence supporting the assertion that there has been a real increase in global trade (Petit 1999), the questioning of the much-touted correlation between the use of the new ICTs and increased productivity (Petit and Kragen 1999), the real impact of these processes on organisational changes (Brödner 2000), the extent to which these economic processes really involve an increase in work-related qualification and whether “knowledge” is more important in the KBS than in any other society.

1.2.1. KBS and productivity growth

Many economists claim with reference to the US economy that the new ICTs and its application in old and new industries have led to the development of a new economy characterised by a long period of economic growth, high productivity growth, low inflation and low unemployment. Rapid technological change and trade liberalisation have opened up markets for specialised products and services beyond national borders (see Koski, Rouvinen and Ylä-Anttila 2001:2-3; Nyhan 2002a:12). Moreover, global markets and the diffusion of the ICTs across all realms of economic activity are believed to be the main source of productivity and growth in the IS.

Recent EU and OECD studies verify empirically that there is a correlation between human capital and economic growth, productivity and employment. In the case of typical OECD country, human capital accounted for 22% of observed productivity growth over 1960-90 and for 45% of the productivity differential in 1990. Roughly two thirds of each of these figures reflects the direct or immediate impact of schooling on the level of
productivity, and the remaining third captures its contribution to technological progress (de la Fuente and Ciccone 2002:4; OECD 2002a). In spite of the cyclical downturn since late 2000, there is strong believe that the ICT sector will account for a growing share of production, value added, employment and trade as well as investments in the future.

In the 1980s and early 1990s, economists could not find empirical evidence confirming a general trend towards increased productivity levels as a result of investment in the ICTs. According to Brynjolfsson (1993) this was due to three factors or to mismeasurements, time lag and mismanagement. Mismeasurements arouse as traditional productivity calculations could not capture intangible benefits of the ICTs’ implementation. Intangible benefits are, for example, quality, variety and availability of products and services. Moreover, the benefits of the ICTs take time to realise, as they require re-organisation of firms and work processes. Hence, the productivity gains of the ICTs will appear at a later stage or well beyond the implementation phase. Finally, many managers did not adopt the right implementation strategy as they misjudge the time required, the cost involved and the organisational changes needed. In recent years, several researchers have been able to find evidence that the ICTs is associated with improvements in productivity by correcting for mismeasurement problems to capture intangible benefits and expanding the time span of their calculations (Brynjolfsson and Yang 1996). Moreover, there have been widespread concerns that the ICTs and global competition are increasing efficiency and productivity of labour to the extent that firms can expand output without additional labour inputs. A jobless growth means that there will not be sufficient jobs for everyone who wants to work.

Other scholars have argued that while new technologies destroy old inefficient jobs, it also creates many more new ones in new firms and new industries (job miracle model or “destructive creation”). Thus, the problem is not a lack of jobs but making sure that people have the skills required to fill them. Finally, several studies show that labour markets are becoming increasingly divided by skill, security and pay or polarised between the skilled and the unskilled (job polarisation model). The services and high-tech activities are now the main source of employment growth involving creation of both high skilled and low skilled jobs (Anxo and Storrie 2000; Martin and Morrison 2003:246-248).
1.2.2. KBS and changes in the economy sectors

A second aspect underlined in the economic literature as concerns these processes is the changing structure of the economy. The main weight in economic activity has shifted from goods production to service delivery. In some (few) cases new forms of organisation have also developed which are less hierarchical, more skill-intensive and more flexible in terms of employment, hours and location than before. In addition, a growth has occurred in occupations with a high information and knowledge content in their activity such as managerial, professional and technical occupations (see e.g. Castells 2000:218-219). The focus of international investments in ICTs has shifted from manufacturing to services (OECD 2002b). This means that the future options as concerns employment growth depend on the expansion of the ICT sectors and the service sector.

During the period 1995-2000, the ICT sector has been a major source of employment growth in OECD area. Moreover, the ICT service grew everywhere in the OCED except in Austria. The UK (10.5%), the Netherlands (10.2 %), Finland (9.8 %) and the US (9.5 %), the Czech Republic and Spain (7.3 %) registered annual growth rates in ICT services above the OECD average (6.3 %). The share of ICT workers in total employment in EU countries was about 1.6 %, being highest in the Netherlands (3.2 %) and Sweden (2.8 %) and lowest in Greece (0.6 %) and Portugal (0.9 %) (OECD 2002a:16-17 and 24-25).

The service sector has continued to expand as a result of the diffusion of the ICTs, trade liberalisation and greater demand for services. This greater demand for services is the logic consequence of increased wealth as most “primary needs” have been satisfied people start working on the fulfilment of “secondary needs”. However, this expansion of the service sector didn’t take the same form in each country. According to Castells (2000:230), there are large differences in the structure of the employment patterns of the advanced economies in the KBS. He is nevertheless able to distinguish between two major models. In the Anglo-Saxon model, a shift has taken place from manufacturing to advanced services at the same time as employment in the traditional services has been maintained. The Japanese/German model has expanded both advanced services and preserved a manufacturing basis, while internalising some of the service activities in the industrial sector. France is in between these two models, although leaning toward the Anglo-Saxon model. The shift towards service sector employment has involved the growth of different types of services across countries. The main source of employment
growth in the Anglo-Saxon model has, for example, been business services provided by the private sector while Japan and Germany have only witnessed a modest growth in this type of services. During the 1960s, social services were expanded in response to social demands for more inclusive societies.

The response of the Nordic countries to social demands and excess demand for labour during the 1960s was to expand services enabling women to participate in paid work. The growth in public sector services was greater in the Nordic countries than most other countries and the majority of women became segregated in the public sector while the majority of men worked in the private sector (e.g. Rubery et al 1998; Mósesdóttir 2001a). Instead of expanding its welfare services during the 1960s, Germany, for example, encouraged the immigration of foreign workers and developed its transfer system such that women’s employment rates did not rise significantly until the 1980s when business services finally expanded (see Mósesdóttir 2001a:165). Today, the demand for services such as business services (legal, engineering, architectural), health service and education are growing fast and are expected to continue.

The growth of the service sector has been presented as beneficial for the integration of women into the labour market for two reasons. First, it could facilitate the development of child care facilities and secondly, it may provide employment opportunities for women entering into the labour market. Hence, the growth of the service sector could raise the employment rate of women in the future and remove the obstacles hindering their integration into the labour market. Moreover, this development will enhance the transformation of informal household work into paid employment.

This positive scenario has been questioned as evidence by some authors, showing that gender inequalities are reproduced in the service sector (e.g. Anxo and Fagan 2000). The hierarchical gender division of labour in the household is being reproduced under new forms in the service sector. The majority of women in post industrialised countries are concentrated in a narrow range of service occupations that correspond closely to gender-stereotypes about their perceived abilities and role in society as the main providers of care and domestic work (see e.g. the detailed study of occupational segregation in the OCED countries by Anker (1998)). Moreover, the state in several countries is withdrawing from many service activities to cut cuts and substituting public with private
care. For (female) employees this may result in deteriorating employment conditions. Traditional job opportunities for men in the manufacturing sector have also declined in recent years that may result in greater competition between men and women for jobs in services (Anxo and Fagan 2000).

Feminist scholars studying these global changes have emphasized the different experiences of women across time, countries and groups of women. Many women have been able to find new jobs in the service sector while others have lost their jobs in, for example, manufacturing. In 2000, almost half of women in employment in the EU worked in just four main areas of activity, i.e. in health care and social services, education, public administration and retailing. Men’s employment is far less concentrated. Just under a third of men in employment in the EU worked in four areas of activity in 2000, i.e. in construction, public administration, retailing and business services (European Commission 2002a). The results are, however, influenced by the way occupations are classified or grouped together. The ISCO system used by Eurostat has, for example, been criticised for having more occupational categories covering male-dominated occupations than female-dominated occupations such that women appear to be much more concentrated in narrow range of occupations than men. However, studies using more disaggregated occupational categories reveal considerably more occupational segregation than if more aggregated categories are used (see Anker 1998; Mósesdóttir 2001:chapter 4).

To sum up, it seems clear that there is no systematic structural relationship between the diffusion of ICTs and the evolution of employment in economy as whole (see e.g. Castells 1996:263). The specific outcome of the interaction between ICTs and employment is largely dependant upon macroeconomic factors, economic strategies, and socio-political contexts. The winners and the losers change all the time and the global processes are converted to the world of firms, jobs, salaries, taxes, and public services. Moreover, Castells (2000:236) argues that informational societies are unequal societies not so much as a result of upgraded occupational structure as of the exclusions and discriminations in and around the labour force. Moreover, several scholars (e.g. Reich 2001; Beck 2000; Carnoy 2000 and Sennett 1998) argue that we have entered an era in which individuals face increasing risk of, for example, unemployment and insecurity as
concern the future skill requirements and the quality of employment throughout their life-course. Technology change and more deregulated labour and capital markets have been associated with a growth in temporary work, longer working hours and growing income inequalities (see Perrons 2003:132).

At the same time, deregulation of trading and labour markets has intensified competition between firms such that many women and some men have seen their wages decline, their working conditions deteriorate, or their workloads increase (for more detailed discussion in chapter 2). Pay differentials between men and women within the EU are still substantial and changed little during the 80s and 90s, although women have increased their labour force participation, hours of work, education and training. However, we need to differentiate between different groups of women when evaluating the development. Deregulation of labour market institutes has, for example, enabled well-educated women in Australia, UK and the US to climb up the wage structure and their gains have offset the loss of women at the bottom such that the gender pay gap has become smaller (see Mósesdóttir 2003).

1.3. Political dimensions

The development and application of the ICTs is not only a technological and economic affair but also inscribed into the discourses of knowledge and political and social relations of societies. Individuals, social groups and institutions have some degree of choice in shaping the design, development and application of technologies at the same time as technology change creates conditions for breaking down prevailing power relations and institutional structures. Hence, the KBS is not an eventual development of technology change but influenced by the socio-political context or partly the outcome of political choices, institutional structures (e.g. the welfare state) and social relations.

The development towards the KBS will differ across countries as the capacities of institutional structures and relations to adapt to new challenges vary. Variations in the provision of care have, for example, influenced how women have been integrated into the labour market to meet labour shortage or the growing need for "flexible" labour. In the Nordic countries, welfare services have been expanded to ensure equal participation of
men and women in paid work. In the continental countries, current institutional structures are based on the unpaid care work of women (Italy and Spain) or cash-for-care provisions (Germany, Austria and the Netherlands). These welfare arrangements have prevented a full integration of women into the labour market such that they work part-time during periods of lighter domestic work while men work full-time to provide for the family.

Growing international competition and rapid technological development enabling capital and production to move around the world to areas of lower social costs are making it increasingly difficult to preserve comprehensive European welfare states in their present form (Castells 1999:344). Enterprises make relocation decisions by comparing entrepreneurship climates, technological and social infrastructures and availability of educated labour. Hence, the nation-state is increasingly powerless in controlling monetary policy, deciding its budget, organizing production and trade, collecting its corporate taxes, and fulfilling its commitments to provide social benefits. Moreover, economic integration and the European monetary union (EMU) have reduced the capacity of the social state in the member countries to influence the course of their economies in order to realise self-defined socio-political goals, i.e. to adjust exchange rates, deficit spending, monetary policy, labour cost increases, etc. (Scharpf 2002). The social state has not reduced its regulatory power but the nature of its intervention. The responsibility of the social state is no longer to protect the citizen against the risk (or against social risks) inherent in a market economy but to forestall (avoid) risk by placing at the disposal of individuals the tools required to improve their personal capital (employability) in order to facilitate their adaptation to an economy in a state of flux. The problem to be fought is not so much the lack of a job as a shortage of employability.

Hence, we are moving towards a post-welfare state situation where people who cannot follow the constant updating of skills, fall behind in the competitive race. The processes of social exclusion do not only affect the “truly disadvantaged,” but those individuals and social groups who are in a constant struggle to escape falling down to a stigmatised underworld of downgraded labour and socially disabled people (Castells 1999:365). Thus, a much larger group of people is exposed to the risk of social exclusion as we move towards the KBS.
According to Castells and Himanen (2001:181-182), the case of Finland shows, however, that the developed welfare state is not necessarily in conflict with the emergence of technological innovations, the development of KBS and the functioning of dynamic and competitive new economy. As a matter of fact, the welfare state appears to be a central factor behind the steady growth of the new economy. It guarantees the productivity and the education of labour necessary for the knowledge economy and creates social sustainability, which soften the social and institutional damages typical in the rapid economic fluctuations. Moreover, the co-operation of workers and industrial life regulated by the state guarantees a development of flexible conditions of employment without unbalancing industrial relations. Hence, governments striving to build a productive and innovative economy at least to a certain extent have a choice as how much inequality or social exclusion is built into the KBS. In the following, will discuss political goals and policies of the EU in order to identify how the EU tackles the challenges of the KBS.

1.3.1. EU’s political goals concerning the KBS
The European Council decided at its Lisbon Summit in 2000 that the strategic goal of the EU is to become the most competitive and dynamic knowledge-based economy in the world capable of maintaining sustainable economic growth with more and better jobs as well as social cohesion. Moreover, the European Commission (2002b:5) claims it is not possible to achieve a strong, competitive economy simply by incorporating digital technologies into manufacturing or services. There is also a need for highly skilled workers to operate the new systems and digitally literate consumers to buy the new goods and services. This requires training and education for people of all ages. The role of the member states in achieving the Lisbon strategic goal is to ensure access to the ICTs, education and training opportunities, and employability of individuals.

The EU institutions have been particularly active in providing a discursive and political framework to shape the changes involved in the transition to the KBS. Moreover, academic debates of the political dimensions of the KBS have been echoed in EU policy documents. The main features of the EU discourse on the KBS include the tendency to
regard history as if it were nature, a repeated reference to a dichotomy between the American and the European economy and society, and the postulating of a “new” European social model. In the face of technological, economic and social change, presented as given and obvious, the “need” for social and institutional modernisation (structural reform, more training for new technologies, etc.) is considered inevitable.

This modernisation is described as a “natural” response to technology and economic change. The transition towards the KBS is, thus, presented as the question of technical management and not so much political choice. A further important feature of the EU discourse is its symbolic reliance on the American model to which it addresses itself while at the same time stating that it lags behind it. The final goal of the European project is to become even more competitive than the American economy by developing its own model of the KBS. Accordingly, European countries must take on the lead in the production and dissemination of the ICTs and undertake a fast adaptation of social

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2 See for instance, “The European Union is confronted with a quantum shift resulting from globalisation and the challenges of a new knowledge-driven economy. These changes are affecting every aspect of people’s lives and require a radical transformation of the European economy. The Union must shape these changes in a manner consistent with its values and concepts of society ...” pp. 1, Lisbon European Council. Presidency conclusions, 24.03.2000. Nr. 100/1/00.

"Digital technologies are transforming the old rules that governed a predominantly industrial society to a new set of rules - those of the Information society.... The term new economy describes the transformation of economic activities that is taking place as digital technologies make accessing, processing and storage of information increasingly cheaper and easier" (eEurope An information society for all. Progress Report. For the special European council on Employment, Economic reforms and Social Cohesion - Towards a Europe based on innovation and knowledge. Lisbon, 23 and 24 March, 2000. COM(1999) 687 final).

3 ‘The rapid changes in information technology, communication and life sciences make it necessary for each Member State...to be at the cutting edge of the knowledge-based and innovatory economy and society, the wellspring today of growth and development’ (European Council 2000b: 14).

‘These changes are affecting every aspect of people’s lives and require a radical transformation of the European economy.’ (European Council 2000a: 1)

“ Achieving this goal requires an overall strategy aimed at: preparing the transition to a knowledge based economy and society by better policies for the information society and R&D, as well as by stepping up the process of structural reform for competitiveness and innovation and by completing the internal market; - modernising the European social model, investing in people and combating social exclusion, - sustaining the healthy economic outlook and favourable growth prospects by applying an appropriate macro-economic policy mix…” (p. 2. Lisbon European Council. Presidency conclusions, 24.03.2000. Nº. 100/1/00).

4 “Europe has major weaknesses and is well behind the United States in the use of the new information and communication technologies”, p.5. Communication from the Commission, e-Learning- Designing tomorrow’s education, Brussels, 24.5.2000. COM (2000) 318 final

“The Union has today set itself a new strategic goal for the next decade: to became the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion...”, p.2. Lisbon European Council. Presidency conclusions, 24.03.2000. Nr. 100/1/00.
institutions and relations to the new opportunities generated by the ICTs. A failure to adapt to the new situation is said to reduce economic growth, which in turn increases the risk of unemployment and social exclusion in Europe. Governments in Europe are urged to prevent social exclusion and gender inequality by ensuring universal accesses to the new technology and by ensuring individuals are endowed with the right knowledge. Moreover, the basis for growth in Europe must be renovated through a combination of macro-economic policies, economic reform and structural policies, active employment policies and moderation of social protection.  

According to the EU, the prevailing European social model cannot deal effectively with the new economic and social conditions as it generates uncontrolled growth in social expenditures. The development towards the KBS requires new division of responsibilities between the welfare state, social agencies and the individuals or a new social contract. The state must provide training opportunities, incentives for people to become and remain active as well as flexible and to ensure access to the ICTs with the help of the

5 “Despite a number of undeniable successes, Europe is lagging behind in this transition to the innovation and knowledge-based economy. The delay is apparent in the production and dissemination of much information technology but also in adaptation of social institutions and relations to the new potential opened up by such technology. While this failure to adapt to the new paradigm continues, there will be a shortfall in economic growth and an increased risk of unemployment and social exclusion. We need to increase the pace of technological change but also of institutional reform …An economic and social strategy to renovate the basis for growth in Europe must combine macro-economic policies, economic reform and structural policies, active employment policies and the modernisation of social protection (p.5) Nowadays it is becoming clear that the problem is not only about information, but about knowledge and innovation, and not only about technological change, but also about economic and social change (p. 6)” (Council of the European Union 2000, Economic reforms and Social cohesion - towards a Europe based on innovation and knowledge, Document for the presidency, 12.1.2000 5256/00).

6 Technological development and the globalisation of economies have permanently changed the character of both work and employment […] Employment has become on average less stable and less certain than in the past, and more dependent on high skills and adaptability’ (European Commission 2000:13).

‘Work in successful businesses is no longer the same as in the old industrial model, … instead it requires flexible and adaptable workers with a range of skills’ (European Council 2001).

‘It is essential for skills to develop and evolve in order to improve adaptability and competitiveness and combat social exclusion’ (European Council 2000b: 14)

‘Workers in the digital age therefore need to be ICT literate, highly skilled and have a high degree of personal autonomy, and mobile and ready for continuous training (lifelong learning)’ (European Commission 2000:14).

‘Benefit, tax and training systems – where that proves necessary – must be reviewed and adapted to ensure that they actively support the employability of unemployed persons. Moreover, these systems should interact appropriately to encourage the return to the labour market of those inactive persons willing and able to take up a job. Particular attention should be given to promoting incentives for unemployed and inactive people to seek and take up work …’. (European Commission 2001b: 11).
social state. The individual has the responsibility of acquiring the right competences\(^7\), finding and keeping jobs or to remain employable\(^8\). The role of social agencies is not so much to guarantee work than to ensure the employability of individuals. Firms have limited responsibility in the EU vision of the KBS. The right economic incentives will ensure that firms operate effectively or transform knowledge into innovation and creative practices. The main responsibility of the welfare state has been to provide workers and their families protection against social ills of unregulated market economies. There is no real consensus as concerns the way in which the functioning of the welfare state needs to change to adapt to the challenges of the KBS. One group claims that the welfare state must increase its intervention into the life of individuals by monitoring and controlling good behaviour. Others state that the responsibility of the welfare state is and will be to develop policies and instrument that enable individuals to gain full citizenship in the context of the KBS.

Intensified global competition and the spread of information technology has coincided with greater flexibility in employment and faster obsolescence of knowledge such that increasing number of people are now confronted with the risk of unemployment during their working life at the same time as the number of people living alone is growing (cf. “risk society”). The earlier mode of dealing with unemployment, based on the provision of a subsidy or insurance for the unemployed, has been forfeited its legitimacy and is

\(^7\) Qualifications is used to refer to the knowledge gained by following courses of more or less formal training in educational establishments including the gaining of a diploma. Competences, on the other hand, are a component of the more informal and more psycho-social labour activity; rather than precise technical knowledge they consist in attitudes and dispositions with regard to work, change and the company (Alaluf and Stroobants 1994; Zimmermann 2000).

\(^8\) Thus, a comprehensive and co-ordinated policy approach to social inclusion should go far beyond the redistribution of prosperity by means of passive benefits paid to those left out by economic and social change - the challenge is not so much to increase redistribution but to manage our economies and societies in a way which maximises the potential for full participation, so as to reduce the waste of human resources and to achieve a fair distribution of opportunities … More than ever, encouraging and supporting a forward looking adaptation process that prepares all citizens for change offers the best prospect for the strengthening of solidarity and social cohesion (p.8, Communication from the Commission. Building an inclusive Europe” Brussels, 1.3.2000. COM (2000)79final.

More generally, Europe’s population, and young people in particular, must have extensive access to new basic skills - they must be helped to develop a capacity to learn and to resolve problems; they need an appreciation of science and technological skills, they will need to be able to use information technologies, to develop a sense of initiative and entrepreneurship, and to be active, free and responsible citizens (p. 11. Communication from the Commission. Building an inclusive Europe” Brussels, 1.3.2000. COM (2000)79final.
increasingly replaced by policies promoting the “activation” of individuals. A twofold argument is used in support of this approach, namely, the crisis in social security funding on the one hand and the so-called “unemployment trap” on the other. According to this interpretation, social protection serves merely to create a relationship of dependence and subordination to the welfare state, offering no incentives to recipients to climb out of such a situation. The new approach to unemployment is to supply individuals with the necessary tools such as training, education and motivation to get out of welfare dependency. Hence, unemployment is no longer regarded as a social risk but an individual shortcoming or inadequacy as concerns employability (Chassard and Bosco, 1998; Gazier, B 1999; Serrano 2000; Crespo and Serrano 2003). However, the former social-liberal coalition (1994–2002) in the Netherlands claimed that unemployment is not a matter of risk or shortcoming, but a question of how well individuals can deal with these risks. Increasing individualism, emancipation and higher education enable individual citizens more and more “to take their fate into their own hands”. Thus, there is no need for patronising government telling individuals what to do. In this framework, the role of the government is to help those who do not have sufficient “tools” to help themselves.

The theoretical approach reduces the functioning and failures of labour markets to the question of capabilities, preferences and behaviour of individuals. Moreover, economic labour market theory and employment policy doctrines of European unions are to a large extent based on the notion of job search theory. It has been shown in surveys concerned with job search theory, such as those of Layard et al. (1991) and Bean (1994), that the job search activity and the forms of job search of the unemployed are factors of great significance in their integration into the labour markets. The basic assumptions of the job search theory are interesting, although it’s notion of the openness of the labour markets and of the willingness and ability of job seekers to give preference are not very realistic. At least in the Nordic countries we need some realism, because within the framework of the welfare state the unemployed have different forms of allowance and several routes of exit from unemployment (Strandh 2000; Koistinen 2001:181-183). So far, too much importance has been given to factors such as individual characteristics of the unemployed and the way in which they seek employment. At the same time, too little attention has been paid to other affecting factors such as community values and the structure and
functioning of the labour markets. Consequently, all these essential factors need to be evaluated. Unfortunately, this biased position has also influenced the policy recommendations and policies of European unions (Koistinen and Sengenberger 2001:255-269)

1.3.2. EU’s policies promoting the KBS

In this framework, and as a means to enhance the competitiveness and sustainable economic growth in Europe, the EU implemented in 1997 the European Employment Strategy (EES)\(^9\). The EES demonstrates a shift in policy emphasis away from efforts to reduce unemployment through job creation to measures promoting life-long learning, reduction of gender gaps and reconciliation of working and private life. The reason given for this shift is the poorer employment performance of the EU as compared with the United States in relation to the employment rates of women, older workers and young people. The EU has enhanced through the EES a more equal participation of men and women in paid work. Since 1997, the average employment rates across the member states have moved closer together but a sharp North-South division exists. Women’s employment is much closer to that of men in the North while large gender differences in the South of Europe. The extent to which this convergence is due to the EES or to favourable economic conditions is, however, debated. Another contested issue is the extent to which this activation strategy promoted by the EES is the right one from a gender equality perspective.

The National Action Plans (NAPs) written annually by the member states as a part of the EES have mainly focused on supply side factors such as women’s lack of skills, the benefit and tax systems, care arrangements to a much greater extent than demand side factors such as lack of good jobs and employers’ discriminatory practices (Rubery et al. \(^9\)

\(^9\) In the Amsterdam treaty (1997) a new Employment Title was adopted that committed the member countries to “high level” of employment. As a means to achieve this objective, the European Council and the European Commission establish annually Employment Guidelines (EEGs) involving four lines of actions or “pillars” to guide the member state policies on employment. The four pillars are entrepreneurship, employability, adaptability and equal opportunities. Since 1998, member states have been required to submit annually a NAP to the Commission indicating what measures it intends to implement under each of the four pillars Every year, the Commission analyses systematically the NAPs and issues recommendations to the member states.
By focusing on women’s supply deficiencies or lack of employability, the EU and the member countries have avoided the sensitive question of how to reach a more equal distribution of paid and unpaid work between men and women (Mósesdóttir 2003). In 1995, men spent on average 3 hours per week on care for small children and others in the EU while women spent 12.6 hours. The gender gap in domestic care work is smallest in countries such as Denmark and Sweden where women’s employment rates are relatively high (Rubery et al. 2001).

Many EU member states and later on the EU have emphasised the provision of adequate child care in order to enhance the participation of women into the labour market. The target of the Barcelona European Council Summit is provide child care to at least 90% of children between 3 years old and the mandatory school age and at least 33% of children less than 3 years of age by 2010. The growth in women’s employment has eroded the primacy of the male breadwinner model. However, institutional variations as concerns the care of children, the elderly and the sick have prevented a full convergence among the EU member countries around the dual breadwinner model involving greater participation of women in paid work. In countries where current institutional structures are based on the unpaid care work of women or cash-for-care provisions, the convergence towards the dual breadwinner model involves a full-time male worker and a part-time female worker or a homemaker. For educated mothers this means a potential loss of qualifications and a risk to their future career.

The family provides care for children and the elderly in countries like Spain and Italy where women’s employment rates are the lowest in Europe, although the dual breadwinner model is establishing itself among younger generations. Austria and Germany use cash-for-care schemes in the form of an extended parental leave to enable parents to care for young children at home (Leitner 2001; Mósesdóttir 2001: chapter 3). These cash-for-care schemes reinforce the male breadwinner model or men’s full-time work, as the payments are in most cases lower than is being paid for low-paying jobs in the labour market. In all Nordic countries, the employment pattern of women is approaching that of men (see OECD 2001:209-224). A common characteristic of these countries is that the proportion of young children in publicly subsidised childcare is among the highest in Europe (see Bettio et al 1998). A sharp fall in birth rates among
working women has occurred in countries that scarcely have any policies enabling the reconciliation of work and family life (Navarro 2000).

The structural funds are another policy area in which the EU actively promotes the development of the KBS and gender equality. The KBS is a central theme and a cross-section principle in general programmes and there are special programmes aimed directly at the development of KBS. Moreover, gender mainstreaming has become a critical goal of the Structural Funds. Hence, the various programmes must address how gender structures opportunities and promote actively the achievement of equality. The main initiative behind EU policies on the KBS is eEurope, which main objectives are: bringing every citizen, home and school, every business and administration into the digital age and online; creating a digitally literate Europe supported by an entrepreneurial culture ready to finance and develop new ideas; ensuring the whole process is socially inclusive, builds consumer trusts and strengthen social cohesion (eEurope 2000). Finally, the EU, national states and municipalities finance at least partly different initiatives and projects promoting the application of ICTs and the development of the KBS at the international, national and local levels.

The KBS has been the object of several public policies typically related to national competitiveness and social welfare and inclusion. All OECD governments are, for example, addressing the ICT issues through a wide variety of policies and action plans in the fields of technology development, technology diffusion, improving the IT environment and the global diffusion and distribution of ICTs. Moreover, policies are being implemented to encourage broadband infrastructure investments and to foster public-private partnerships in the development and use of ICT (OECD 2002b:11). Governments are also implementing policies to facilitate the supply of skills and to develop human resources and social capital. Behind these policies is the need for a skilled workforce and business support. ICT skills have become a new type of “general” skill, like literacy or numeracy. An array of policies is targeted at different segments of population in order to promote basic and advanced ICT skills. There are also many special development programmes in the application areas of ICT as, for example, e-learning and on-line job searching programmes. Policies are aimed at preventing a digital divide, a social problem due to a lack of access to ICT and skills to exploit ICT.
However, general and specific policies are needed to target more specific goals and socio-economic groups that may be excluded from the KBS (OECD 2002b:12).

1.4. Social change

Technology, economic and political changes involved in the transition towards the KBS interact with social structures and relations in the labour market, family and the civil society. The proliferation of the new ICTs, together with the more globally and more competitive environment is contributing to the spread of a model of work in which knowledge is a key element. According to Dant (1991:1), knowledge is a key feature of modern society. It binds individuals and groups of people into larger group, which we call society. It is a link between people and creates a common sharing of society and its culture. But it can also create fragmentations between social groups because knowledge can both joint people into groups and divide groups. This will certainly happen if individuals do not have the same access to information or if they do not have the skills to shape and take part in the KBS. In the KBS, there is a continuous need and requirement to update people’s skills both in the working life and outside it. Capabilities to do this are still closely connected with people’s social and cultural background. Knowledge workers erect, for example, professional barriers to hinder the entrance of newcomers, especially of those who do not have the same educational background. Moreover, the gender pay gap and unequal representation of men and women across industries and occupations have in recent years hardly changed in the EU. Moreover, individuals are also faced with new risks of social exclusion as we move towards the KBS that arise from the lack of access to the ICTs, skill obsolescence and a more individualised approach to unemployment.

1.4.1. The family

The necessary reorganisation of work organisations offers unique opportunities to replace old structures and practices by new more equitable ones. This reorganisation is associated with greater flexibility, more autonomy and new division of work breaking down job hierarchies and making reconciliation of work and private life easier to achieve. Work is no longer separate from private life as the ICTs makes it possible to work anywhere at
any time. The organisational changes associated with the new technology and its dissemination is the blurring of the barriers between the world of work and the family. Work has become more flexible in terms of location and hours that should make it easier for men and women to reconcile work and family life.

Nevertheless, some scholars put into question this positive scenario. Firstly, in most organisations the introduction of ICTs has not been accompanied by real organisational changes (Askenazy 2000; Brödner 2000; Duval and Jacot 2000). According to Eurobarometer data, only about half of the workers at workplaces where ICT have been introduced (about a fourth of all EU workers) states that significant changes have been made in their organisations (European Commission 2002a). In spite of their low incidence, practices aiming at encouraging workers’ participation in managerial matters are on the rise. However, as the survey of the European Foundation (1995 and 2000) shows traditional work organisation features still remain and repetitive work and monotonous work are still prevalent (Paoli and Merllié 2001).

Moreover, studies of Hochschild (1997) show that neither women nor men in the US responded positively to the company’s work-life balance programme. Reasons given were that: they needed the money they could earn from a full or over time working day; they feared losing their jobs; they feared that good shorter hours jobs could be easily converted into bad ones; they would not be considered a ‘serious player’ at work (1997:197). Hochschild also found that parents felt more at home at work than at home and more appreciated and competent at work than at home. The workplace appears, thus, to have become the new haven for at least white-collar workers while blue-collar workers seem still to regard home to be the haven. Moreover, blue-collar women workers answered no, when they were asked whether they would still work if they did not need the money. According to Hochschild (1997), white collar workers meet the demands of the company by rationalising their real homes in a taylorized manner:

“As the first shift (at the work place) takes more time, the second shift becomes more hurried and rationalized. The longer the workday at the office or plant, the more we feel pressed at home to hurry, to delegate, to delay, to forgo, to segment, to hyperorganize the precious remains of family time. Both their time deficit and what seem like solutions to it (hurrying, segmenting, and organizing) force parents, as shown in earlier chapters, to engage in a third shift - noticing,
understanding, and coping with the emotional consequences of the compressed second shift” (1997:215).

Hence, the barrierless and timeless world associated with ICTs appears to have destabilised the family such that it has lost some of its function in protecting against the “ills” of the market forces and in fostering reproduction. It is, however, unclear what impact the KBS will have on the quality of work and private life.

1.4.2. Civil society
Another dimension to take into consideration when talking about the KBS is that of the citizen. The citizen’s everyday life is also being challenged and structured in a new way by the modernity offered by KBS. The development of the KBS is usually interpreted from above using the concepts of technology development, new economy and changing role of nation states. It is, however, important to recognise the use of the ICTs in organising everyday structures of individuals and family life as well as in enhancing communication and cohesion in local communities.

The European Commission has issued a statement outlining principal objectives for the World Summit 2003 in Johannesburg (comp. IP/03/731, Brussels, 22 May 2003, DN: IP/03/731, Date: 22/05/2003). Amongst its priorities are the development of a knowledge-based economy and of an appropriate legal framework, human capacity building, securing fundamental human rights, including the right to access information and knowledge, and the use of ICTs for socio-economic development. There are some points in the statement that could be of particular interest for civil society such as the support for the right to communicate and for the inclusion of all stakeholders. Moreover, an online discussion took place that focussed on a Charter of Civil Rights for Sustainable Knowledge Societies (see www.worldsummit2003.de). This charter deals with free and inclusive achievement to knowledge and information, which is seen as the common ground for capability of action of the individuals within a civil society. Sustainable development concepts which include ecological, economical and social development aspects as well as structural framework conditions to empower the different stakeholders formulate political principles like:

- Knowledge and the achievement of knowledge and information should be free.
Priority for political strategies should be the reduction of a digital splitting of societies (those who do have access to new media technology and those, who don’t have it – with regard to the traditional gendered, social and / or ethnical disadvantages).

All people do have a right to access to documents of official and official controlled institutions.

The achievement of these principles involves the implementation of special training programs and network-building-program focusing on younger women and students in order to increase the number of female students in the fields of new technology, technology, mathematics and informatics and other future technology fields (see e.g. www.uni-konstanz.de, www.frauenstudiengaenge.de, www.tn.uni-linz.ac.at/FIT/, www.MentorinnenNetzwerk.de or www.vhto.nl/mellow).

If the private sector continues to focus on e-business, business logistics and managerial relationships at the same times as the public sector is maintaining administrational services and formal education, then there is a lot of room left for the civic society and the third sector in influencing the application of ICTs. Moreover, it should not be forgotten that many public and private actions promoting the KBS are carried out by the civic society or by citizens, families, different communities, associations, organisations and societies themselves, or there are different kinds of public-private-citizens partnerships. It is also important to notice how the ICT is used in the everyday life of families and individuals and whether citizens have equal opportunities to recruit ICT in different situations of their life. This is closely connected to the use of new services offered through computers and data networks and to social inclusion in KBS. There are already many ICT-related applications in this field of civic activities such as:

- citizens local community intranets.
- virtual discussion, meeting and (self)help arenas for different peer groups, e.g. for mothers, immigrants, parents of handicapped children.
- lay persons information services, e.g. in the field of cooking, hobbies, travel and sickness.

Looking at all the different possibilities of ICT application in the civic society, it seems that individuals exploit the ICT in a way, which is related to their needs, abilities, skills
and resources. According to several studies, social status, incomes, profession, age, sex and life cycle affect strongly the diffusion of ICT among individuals and how people orient and make use of technology-related services. Important in this respect are what kinds of services are available and whether they are user-friendly and satisfy needs and resources of individuals in their everyday life. Experiences in the Nordic countries verify that public policies can shape the access to these services that in turn affect the traditional social and gender divisions of society.

There will be a lot of ICT-based services, which may substitute or shape traditional services and change the way labour is utilised. New employment opportunities may also be created in fields of work with the elderly, health care services, employment services, e-learning, family services and peer group and self-help communication. The presumed change in the structure of people’s everyday life and the new formation of civic society makes it difficult to forecast who are actually the winners and losers in KBS. If looking at the application of ICTs in the civic society in its entirety, it may be that the traditional divisions (young-old, men-women, educated-non educated, natives-immigrants etc.) are inadequate to analyse the new social structures and formation of KBS. At least, the concept of citizenship and the rights of citizens in the KBS must be rethought in light of the current changes. Another important issue to consider is the role and quality of social capital in each society, which is usually seen as a precondition for social cohesion and welfare. Social capital is not only closely connected with the skills and abilities to use and exploit ICT, but also to opportunities provided by ICTs solutions. Moreover, civic society can create new types of social capital and generate a positive social change.

1.5. Concluding remarks

In this chapter, we have identified different approaches to the current development of the production model and its impact on the sexual division of work. It has become increasingly apparent that the KBS will restructure societies in terms of economic, social, regional and political development, but the development itself is not technologically determined. Power relations, involvement and user’s experience are important factors, which shape technological innovations. Hence, there is no direct link between the ICTs and social progress. There are significant discrepancies in the technological development
across countries and social groups as national states differ in their vulnerability to external challenges, in their perception of these challenges and in their capacity to respond to them. It should, however, be underlined that the KBS is still progressing and will take on different forms depending on the geographical and social context. In other words, various models of the KBS will develop involving different firms and levels of social divisions. This gives reason for critical and comparative studies of the transition to the KBS and its implications for prevailing institutional and social relations.

There are growing evidence that benefits of the KBS are unevenly distributed across and within countries and social groups. Recent studies show, for example, that high-tech industries and employment opportunities are in many countries highly concentrated in a few regional and local clusters and the access to ICTs differs across social groups and localities. In addition, many prosperous regional and local labour markets are becoming increasingly segmented internally due to a simultaneous growth of high skill and high paid jobs on the one hand and low skill and low paid jobs on the other hand (Martin and Morrison 2003:251). Moreover, women have increased their education and employment levels across Europe in recent years but their contribution to the household income has not grown correspondingly. In addition, the access of women to the ICTs and skilled jobs are more constrained than that of men and employers remunerates female-dominated work lower than male-dominated work. Although men’s work has become more flexible than women’s, men are not using it to reconcile work and family life to the same extent as women.

We must, however, differentiate between different groups of women as the benefits have been unevenly distributed among them. Some women have found new employment opportunities in the service sector while others have lost their jobs in especially the manufacturing sector. Moreover, educated women have in some countries been able to move up the wage ladder while low skilled women have lost out. Hence, empirical investigation point to growing complexities as concerns the development of employment and gender relations. It is, therefore, difficult to predict who will be the winners and losers of the transition to KBS without a closer examination of the changes in employment and the sexual division of work.
1.6. References


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2.0 The employment and gender challenges of the KBS

Lilja Mósesdóttir and Amparo Serrano-Pascual

2.1. Introduction

New forms of work organisation and the mobilisation of human creativity seem to be some of the main tools to achieve competitive advantage in the Knowledge Based Society (KBS) (Totterdill 2001). The main characteristics of the new work organisation are less hierarchical working methods and upgrading of skills on the one hand and more flexible working methods as concerns employment, hours and location on the other hand. Studies show that major gains in enterprise performance only occur when the use of the new technologies is combined with wide-ranging changes in work organisation. Moreover, firms are only able to fully utilise the potentials of human capital when they have the appropriate work organisations. Most European companies continue, however, to use traditional organisation methods such as hierarchical management structures and repetitive and monotonous method of working due to among others poor knowledge base, short-term approach to productivity and mismanagement (European Commission 2000; Totterdill 2001; Brynjolfsson and Yang 1996).

New forms of work organisations involving upgrading of skills and more flexible working methods challenge prevailing organisational capabilities. The process of organisational change may not only imply challenges for society but also be accompanied by some important risks for workers. The diffusion of ICTs and deregulation of labour markets have stimulated a growth in atypical employment or in temporary and part-time work, which is, at least in some EU countries, characterised by lack of security in terms of duration of work and social rights. In the EU as a whole, workers in atypical employment run a much higher risk of unemployment than those in regular employment. Moreover, individuals are now exposed to greater risk of skill obsolescence such that

10 We would like to thank the other project members for their useful comments and contributions to this chapter.
they need to cross the boundaries between work and education several times during their life-course to ensure “employability”. The organisational change involving upgrading of skills and more flexible working methods has the potential of replacing prevailing gender inequalities as concerns working conditions and division of paid and unpaid work with more equitable patterns and practices (see Webster 2001). The key issues are, therefore, to what extent these new forms of work organisation, which seem to play a crucial role in the emerging productive model, may challenge traditional forms of gender inequality and whether we can see more equitable relationship between men and women.

In this chapter, we will examine processes of skill upgrading and flexible working methods. The focus will be on the gender implications of these interconnected processes. We will review academic discussions on the issues whether there is too little or too much invested in education on the one hand and whether upskilling, downgrading or polarisation of skills has taken place in employment on the other hand. Then we will examine four dimensions of job quality that are particularly relevant from a gender approach. These dimensions are personal development possibilities, fair remuneration, contractual regulation and capacity to reconcile work and private responsibilities. Our discussion of quality of jobs will highlight how new divisions in skill, pay and security are affecting inequalities, risks/fragilities and boundaries between public and private responsibilities. Moreover, changes in the quality of jobs indicate whether the member countries are moving towards the goal of the Lisbon Summit (March 2000) to make the EU the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion.

2.2. Upgrading skills?
There is widespread concern among academics and policy makers that insufficient supply of skilled labour will constrain employment and economic growth (job growth model). The right skills must be available to firms, if the new technology is to be successfully implemented and lead to higher productivity and economic growth. Nevertheless, the extent to which we are seeing a trend towards more skilled work is widely disputed in the academic literature. Warhurst and Thompson (1998) argue that the key growth areas in future employment will be in low-level service jobs rather than knowledge work. These
low-level service jobs require knowledge-ability in work (social skills and competences) rather than knowledge work (technical skills) and will be filled by low skilled women working part-time. The service sector is, however, heterogeneous such that the development in terms of qualification, age and gender structure, work contract and other workforce characteristics varies a lot from one type of service to another (OECD 2000: 79-129).

According to Soete (2001:154), the direct effects of ICT include both the creation of new jobs to produce and deliver new products and services and the replacement of old jobs by new ICT. Many automate tasks that can easily be codified have been computerised while other tasks have been re-organised into more specialised or skilled jobs (Zambarloukos and Constantelou 2002:241). Recent evidence reveals a picture of simultaneous skill upgrading and skill downgrading (Ardenti and Vrain 2001; Beaujolin 1999; Duval and Jacot 2000; Valenduc and Vendramin 2001) which is also partly connected to the new global division of labour.

Based on analyses of case studies, several authors point out that the extent to which the introduction of ICTs leads to the growth in unskilled and/or skilled work depends on the implementation strategy of managers and not solely on skill-biased technical change. In other words, the organisation and structure of firms are important factors stimulating learning and knowledge acquisition and play a role in skill creation and supply (Levy and Murnane 2002:433; De Witte and Steijn 2000:246; Zambarloukos and Constantelou 2002). However, the impact of the knowledge economy on employment structures and skills demanded are not only affected by technology and the implementation strategy of managers. Soete (2001:154-159) maintains that the growth of the labour force participation of women and young workers during the 1990s has also stimulated demand for new ICT products (mobile communication, Internet use etc.) produced by skilled workers. Moreover, trade has in some instances led to relocation of low-paid manufacturing jobs in the high-wage countries to the low-wage countries. Kahmann (2003) estimated, for example, that 30% of service employment could be shifted to low-paid countries. Hence, manufacturing firms in high-wage countries have upgraded their skill requirements in order to face uncertainty about the evolution of production processes in times of rapid technological change and tense international competition. Future
developments depend also on economic growth and global regulations of work and working conditions in the ICT sector on the other hand.

2.2.1. Under- or overqualified workers?
It is important for countries to attain the ‘equilibrium’ level of human capital investments as knowledge is essential in the KBS. The level of human capital is influenced by individual preferences as well as by private and social returns of human capital. Social returns from investment in education may be higher than their private returns. Individuals will then invest less in human capital than is socially beneficial which will in turn lead to insufficient supply of qualified workers (see discussion in Arnal, Ok and Torres 2001:38). Recent evidence from, for example, Finland and Netherlands, shows that labour shortage of skilled workers in different sectors and occupations prevails at the same time as overqualification is widespread (European Commission 2000; Brynin 2002:638). Moreover, 58% of those employed in Europe and asked to assess their skills with respect to their current job declared that they have skills to do a more demanding jobs. Hence, employees in Europe are either overqualified for their job or ambitious to perform more demanding jobs (European Commission 2001:73). Personal desires for social status and increased state expenditures on education to achieve social equality are two reasons why society may produce more education than required by the labour market. Overqualification may also be the result of firms’ recruitment strategies.

Brynin (2002:638-639) suggests that this mismatch between the level of education and skills required to perform a job will, however, fluctuate depending on where economies are in the business cycle. Moreover, overqualification depends increasingly on where the individual is in his/her life-course. In the UK, there is, for example, a trend towards declining average status of both first and second jobs. This means that people start their career at a point lower down the ladder than their qualifications may previously have entitled them to but they then manage to climb up the job ladder. However, business cycle and life-course approaches to skill mismatches do not go far in explaining why experts find both evidences of skill-deficiencies and overqualification in countries such as the Netherlands and Finland. Hartog (2000) suggests that the demand for skills has become more dispersed than supply. Employers want a wide range of qualifications
rather than rising average educational levels. The link between the educational and employment systems may also be insufficient.

The educational attainment of the population in the Europe increased during the 1990s and this trend was especially pronounced for women. Comparing the attainment of the population aged 25 to 34 years with that of the population aged 45 to 54 in 2001 shows that the proportion of individuals who have completed upper secondary education has risen in all the EU member countries and in some sharply (see table 1). Among older age groups, women have attained lower levels of upper secondary education than men while the pattern is reverse for younger people in most EU countries (OECD 2002:33; European Commission 2002a:chapter 1.3). The trend towards higher educational attainments is an important driving force in the transition towards the KBS and evidence of overqualification in some EU member countries signals wasted opportunities to realise the full potential of the KBS. At the same time, high education level brings new kind of occupational and skill based flexibility into the labour market. This may be one reason why some researchers argue that women have been one of the main players boosting the structural change of the economy in the late 1990s in Finland (Koistinen and Sengenberger 2001).
Table 1. Educational attainment of the population by gender in 2001.

*Percentage of the population that has attained at least upper secondary education*\(^1\) by aged group and gender

<table>
<thead>
<tr>
<th>Country</th>
<th>25-64</th>
<th>25-34</th>
<th>35-44</th>
<th>45-54</th>
<th>55-64</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td><strong>Austria</strong>(^2)</td>
<td>82</td>
<td>69</td>
<td>86</td>
<td>81</td>
<td>85</td>
</tr>
<tr>
<td><strong>Belgium</strong>(^2)</td>
<td>59</td>
<td>58</td>
<td>74</td>
<td>77</td>
<td>61</td>
</tr>
<tr>
<td><strong>Denmark</strong></td>
<td>82</td>
<td>79</td>
<td>85</td>
<td>88</td>
<td>82</td>
</tr>
<tr>
<td><strong>Finland</strong></td>
<td>72</td>
<td>76</td>
<td>84</td>
<td>90</td>
<td>81</td>
</tr>
<tr>
<td><strong>France</strong>(^3)</td>
<td>67</td>
<td>61</td>
<td>78</td>
<td>78</td>
<td>69</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>87</td>
<td>78</td>
<td>87</td>
<td>84</td>
<td>88</td>
</tr>
<tr>
<td><strong>Greece</strong></td>
<td>54</td>
<td>49</td>
<td>69</td>
<td>76</td>
<td>62</td>
</tr>
<tr>
<td><strong>Ireland</strong></td>
<td>55</td>
<td>60</td>
<td>71</td>
<td>76</td>
<td>59</td>
</tr>
<tr>
<td><strong>Italy</strong></td>
<td>44</td>
<td>43</td>
<td>55</td>
<td>60</td>
<td>48</td>
</tr>
<tr>
<td><strong>Luxembourg</strong></td>
<td>58</td>
<td>54</td>
<td>62</td>
<td>57</td>
<td>61</td>
</tr>
<tr>
<td><strong>Netherlands</strong>(^2,3)</td>
<td>63</td>
<td>61</td>
<td>73</td>
<td>75</td>
<td>71</td>
</tr>
<tr>
<td><strong>Portugal</strong></td>
<td>19</td>
<td>21</td>
<td>28</td>
<td>37</td>
<td>19</td>
</tr>
<tr>
<td><strong>Spain</strong></td>
<td>42</td>
<td>40</td>
<td>55</td>
<td>59</td>
<td>46</td>
</tr>
<tr>
<td><strong>Sweden</strong></td>
<td>79</td>
<td>82</td>
<td>90</td>
<td>91</td>
<td>84</td>
</tr>
<tr>
<td><strong>United Kingdom</strong>(^4)</td>
<td>69</td>
<td>57</td>
<td>70</td>
<td>65</td>
<td>70</td>
</tr>
</tbody>
</table>

1. Excluding ISCED 3C short programmes
2. Year of reference 2000
3. Not all ISCED 3 programmes meet minimum requirements for ISCED 3C long programmes.

Source: OECD (2002:55)
The greater enrolment of young women in upper secondary education as opposed to young men in Europe is often used to support claims that women will be the winners of the KBS. However, men dominate the fields of studies and sectors defined as the locomotives of growth and competitiveness in the KBS. Science and engineering are male-dominated while the reserve is true in most cases for arts and humanities (European Commission 2002a:chapter 1.3; OECD 2002:33). Moreover, technology training in higher education for women is also declining throughout Europe (see Webster 2001). A survey conducted among 15 years old in the OECD countries showed, for example, that males report a significantly greater confidence and perceived ability to use computers than females. The gender differences were greatest in Denmark, Finland and Sweden and smallest in Australia, New Zealand, Scotland and the United States (OECD 2002:307). In addition, gender segregation is extensive in high-tech occupations. Information on the gender composition of ITEC occupations (information technology, electronic and communication technology) in and computer associate professionals in the EU reveals that women are severely underrepresented in these occupations (see table 2). There are, however, large differences across the EU member countries. These gender patterns cast doubt on the assertion that women will be the winners of the KBS.
Table 2. Share of female workers in ITEC and non-ITEC occupations in the European Union (1999)\(^1\)

<table>
<thead>
<tr>
<th></th>
<th>ITEC occupations (total)(^2)</th>
<th>Computer associate professionals (ISCO 312)</th>
<th>Computing professionals (ISCO 213)</th>
<th>Non-ITEC occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>9.4</td>
<td>11.6</td>
<td>.</td>
<td>46.5</td>
</tr>
<tr>
<td>Belgium</td>
<td>15.0</td>
<td>-</td>
<td>18.8</td>
<td>44.8</td>
</tr>
<tr>
<td>Denmark</td>
<td>18.6</td>
<td>23.2</td>
<td>11.0</td>
<td>48.5</td>
</tr>
<tr>
<td>Finland</td>
<td>14.4</td>
<td>43.1</td>
<td>22.4</td>
<td>51.1</td>
</tr>
<tr>
<td>France</td>
<td>12.8</td>
<td>22.1</td>
<td>20.0</td>
<td>47.7</td>
</tr>
<tr>
<td>Germany</td>
<td>17.8</td>
<td>24.5</td>
<td>16.3</td>
<td>46.1</td>
</tr>
<tr>
<td>Greece</td>
<td>15.2</td>
<td>-</td>
<td>-</td>
<td>38.8</td>
</tr>
<tr>
<td>Ireland</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>40.9</td>
</tr>
<tr>
<td>Italy</td>
<td>11.3</td>
<td>17.9</td>
<td>-</td>
<td>38.1</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>8.1</td>
<td>-</td>
<td>-</td>
<td>41.9</td>
</tr>
<tr>
<td>Netherlands</td>
<td>15.8</td>
<td>12.5</td>
<td>13.7</td>
<td>45.0</td>
</tr>
<tr>
<td>Portugal</td>
<td>17.7</td>
<td>-</td>
<td>-</td>
<td>46.4</td>
</tr>
<tr>
<td>Spain</td>
<td>10.3</td>
<td>12.3</td>
<td>12.6</td>
<td>37.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>17.1</td>
<td>-</td>
<td>25.4</td>
<td>51.2</td>
</tr>
<tr>
<td>UK</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>EU15</td>
<td>14.8</td>
<td>20.0</td>
<td>17.6</td>
<td>44.1</td>
</tr>
</tbody>
</table>


2. ITEC occupations include computing professionals, architects, engineers & related professionals, physical & eng. science technicians, computer associate professionals, optical & electronic equip operators, electrical & electronic equip mechanics and fitters.

Source: STAR (2001)

Beside women’s individual choice of field of studies and job, gender segregation in the labour market is the outcome of different forces. These forces range from discrimination in education and training systems to workplace practices assigning women to jobs of lower status and pay than men. In addition, women are in many cases discouraged from taking up ICTs based employment because of the intensity of work, the culture of long hours, and the lack of boundaries between professional and private life that characterise the conditions of this type of work. Skills are also socially constructed and reflect the bargaining power of the workers who resist and negotiate the value of skills. Women's bargaining power is weaker than that of men due to the patriarchal power structures,
cultural beliefs (secondary earners), gender-stereotypes (typist), and unequal division of
domestic responsibilities and to employers’ discriminatory behaviour. Hence, women are
more likely than men to be occupationally segregated in jobs defined as unskilled or
requiring less than upper secondary education that in turn curtails their opportunities to
use and acquire skills (see Webster 2001; Rees 1998). Many female computer specialists
are, for example, assigned to jobs involving maintenance of programs and customer
services which have lower status than male-dominated programming jobs (Fitzsimons
2002). The opportunities to overturn established practices and patterns of gender
segregation are, thus, not being necessary realised as we move towards the KBS.

2.2.2. Upgrading, downgrading or polarisation of jobs
Skill is not only a question of under- or overqualification of workers but also of
upskilling, downgrading or polarisation of job-based skills due to the implementation of
ICTs. In the OECD countries, a widespread loss of skilled manual jobs occurred during
the 1980s which accompanied by growth in white-collar jobs and in some countries the
latter was more in low than in high skill jobs (OECD 1996). Hence, the extent to which
the growth of skilled jobs or unskilled jobs has been more prevalent has differed across
countries and regions. Felstead, Ashton and Green (2000) study of job-based skill in the
UK labour market between 1992 and 1997 reveals that there is no longer a strong process
of skill polarisation. It was actually more appropriate to talk about winners such as full-
time male and female workers and losers as part-time workers who enjoy less social right
in the UK. In the EU, there was in the second part of the 1990s a slight increase in the
proportion of employees in highly skilled jobs and a slight decrease of those in non-
skilled work (Gallie and Paugam 2002:75). However, it has become more and more
difficult to distinguish between jobs on the basis of skills. The current restructuring of
work requires that workers have variety of skills to perform multiple tasks such that
traditional occupational barriers have become blurred (Lindbeck and Snower 2000:355-
356). Moreover, Thompson, Warhurst and Callaghan (2001:926) claim that part of the
difficulty in validating either upskilling or downskilling lies in official classifications of
the occupational structure which is insensitive to heterogeneity of work and employment
within, especially, the service sector.
Wolff and Baumol (1989) have designed a conceptual framework to examine recent changes in occupational patterns in order to overcome deficiencies of traditional classification systems in measuring knowledge-intensive employment. According to this approach, knowledge-intensive employment consists of five occupational categories or knowledge workers, management workers, data workers, services workers and goods-producing workers (for more detailed description see Arnal, Ok and Torres 2001:Annex B). The knowledge-worker category includes those occupations which involve the production of knowledge or the provision of expert opinion not easily transferable (e.g. engineers, scientists and computers specialists). The group denoted as data workers covers occupations requiring some knowledge on how to manipulate data. Service workers are those employed mainly in personal services as professionals. Goods-production occupations refer to the transformation and processing of materials and physical objects (skilled and craft workers).

Arnal, Ok and Torres (2001) used this framework to evaluate occupational development across the US and the EU member countries. They found that knowledge and management workers combined accounted for over half of total jobs created from 1992 to 1998. The number of knowledge and management workers rose, however, faster in the US than in the EU due to uneven development across the member countries. The number of knowledge-intensive occupations increased in Italy, The Netherlands, Spain and the United Kingdom while it fell in France and Portugal. Arnal, Ok and Torres (2001:14) claim that the current expansionary phase is accompanied by higher labour demand for both unskilled and skilled labour but there is evidence of a bias in favour of knowledge-intensive employment.

Unfortunately, Arnal, Ok and Torres (2001) did not examine the gender composition of knowledge-intensive employment. They studied instead the development of educational attainment within the five occupational groups of knowledge-intensive employment during the 1990s. For all five occupational groups, the ratio of high-educated versus low-educated – defined as the ration between the number of people employed having tertiary education and those with lower education – increased. It must be noted that methodological differences make cross-country comparison difficult in this area (Arnal, Ok and Torres 2001:15).
and/or university studies to those having up to secondary studies - increased on average in the OECD (see figure 1). In the European countries, between 50% and 65% of the knowledge workers had a high educational attainment while the ratio is 77 in the US. It is noteworthy that between half and one third of knowledge workers did not have a university degree. This highlights the importance of job experience for knowledge-intensive employment.

**Figure 1. Employment shares by educational attainment and groups of occupations, OECD average**

*Percentage of high-educated workers within each occupational group*

<table>
<thead>
<tr>
<th>Occupation</th>
<th>1992</th>
<th>1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge workers</td>
<td>57.4</td>
<td>59.5</td>
</tr>
<tr>
<td>Management workers</td>
<td>31.3</td>
<td>34.8</td>
</tr>
<tr>
<td>Data workers</td>
<td>29.6</td>
<td>34.0</td>
</tr>
<tr>
<td>Service workers</td>
<td>8.9</td>
<td>10.5</td>
</tr>
<tr>
<td>Goods-producing workers</td>
<td>4.1</td>
<td>4.6</td>
</tr>
</tbody>
</table>


Source: Arnal, Ok and Torres 2001:20

**2.3. Better jobs?**

Work organisations are an important source of skill formation and we will now study four dimensions of job quality that are particularly relevant from a gender approach. These dimensions are personal development possibilities, fair remuneration, contractual regulation and capacity to reconcile work and private responsibilities.
2.3.1. Personal development

Spener (1983, 1985, 1988, 1990 quoted in De Witte and Steijn 2000:246) points out that the answer to the question whether we are seeing a trend towards upgrading or downgrading depends on how the concept of skills is defined. Studies defining skills as “substantive complexity” find in most cases evidence that upskilling has taken place. Contrary, studies measuring skills as the degree of autonomy at work indicate downgrading effects from 1990 to 2000 (see e.g. European Foundation for the Improvement of Living and Working Conditions 2000). The level of autonomy reveals the extent to which workers are able to use their formal education at work. The ability to use formal education is an important source of work motivation. Thus, Spener recommends the use of these two dimensions of skills when evaluating skill changes. A study of social precarity and social integration in the EU member countries from 1996 to 2001 gives information about the complexity and autonomy enjoyed by those at work (see Gallie and Paugam 2002). In other words, employees were asked whether job involved diversity of sub-tasks (variety) and learning (learning). They were also asked the extent to which they had something to say over what happened in the job (say re job) and whether they were able to take part in decisions affecting their job (take part). Gallie and Paugam (2002:chapter 4) used these questions to measure changes in job quality in the EU.

Table 3 gives the percentage distribution of those answering "very true" to these four questions/indicators of work complexity and autonomy. In 2001, only about 27% thought that it was very true that there was lot of variety in their work and 28% said they were learning new things on the job. The ratio of those stating that they enjoyed autonomy at work was even lower. Around 18% agreed strongly to the statement that they had something to say about their job and 23% that they participated in taking decisions affecting their job. Employed women were in jobs of poorer quality than men as concerns complexity and autonomy both in 1996 and 2001. Those in jobs of poorer quality as is the case of many women are at much higher risk of becoming unemployed and socially excluded. The overall job quality measured as these four indicators on complexity and autonomy declined from 1996 to 2001 for both men and women but the reduction was significantly greater for women. Hence, the pace of upskilling in Europe appears to have slowed down, especially among those lower down the job hierarchy. Accordingly, female
employment grew in some instances because women were more likely to accept lower quality jobs and in particular part-time jobs and not because of diminishing gender inequalities (see also discussion in Rubery, et al. 2001a; Rubery, et al. 2001b).

Table 3. Job task characteristics 1996-2001 by sex

<table>
<thead>
<tr>
<th>% very true</th>
<th>Variety</th>
<th>Learning</th>
<th>Say re Job</th>
<th>Take part</th>
<th>Overall task Quality Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>33.0</td>
<td>31.1</td>
<td>23.3</td>
<td>26.0</td>
<td>1.70</td>
</tr>
<tr>
<td>2001</td>
<td>27.4</td>
<td>28.3</td>
<td>18.3</td>
<td>23.2</td>
<td>1.62</td>
</tr>
<tr>
<td><strong>Men</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>34.8</td>
<td>31.8</td>
<td>23.6</td>
<td>28.4</td>
<td>1.73</td>
</tr>
<tr>
<td>2001</td>
<td>28.8</td>
<td>30.2</td>
<td>20.1</td>
<td>26.6</td>
<td>1.67</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>30.8</td>
<td>30.2</td>
<td>22.9</td>
<td>22.9</td>
<td>1.66</td>
</tr>
<tr>
<td>2001</td>
<td>25.6</td>
<td>25.8</td>
<td>15.9</td>
<td>18.6</td>
<td>1.55</td>
</tr>
</tbody>
</table>

1. A scale of intrinsic job quality was constructed for the four questions. Each item was scored from 3 for “very true” to 0 for “not at all true”, and the scale score represents the average score across the four items.

Source: Gallie and Paugam 2002:65

The negative development in the reported job quality from 1996 to 2001 contradicts Spenner’s thesis that jobs are becoming more complex but support his suggestion that employees enjoy less and less autonomy. Explanation given by Gallie and Paugam (2002:74) to these trends is that the spread of computers during the early 1990s involved task enlargement and greater task discretion for employees. In the second half of 1990s, we saw the expansion of more integrated network systems that facilitated closer monitoring of work performances and constrained employees’ ability to control their jobs. It is important that the declining quality of work is counteracted as those confined to poor quality jobs are less likely to acquire or maintain the competences needed to remain in stable employment and to progress to better paying jobs. There have also been concerns that technology change and competitive pressures are leading to intensified work pressures (information overflow and constant availability) which affect the risk of both psychological and physical illness as a result of work. Gallie and Paugam (2002:71)
found in their survey that work pressures were highly correlated with skill levels, and those in higher skilled occupations reported more work pressure. Men were more likely to be in skilled jobs and under heavy work pressures. More intensive work pressure may have constrained men's opportunities to take on domestic work. From 1996 to 2001, there were, however, no significant changes in the level of work pressures.

2.3.2. Pay

Closely related to the quality of jobs is the remuneration of skills. According to the results of the PURE project (PURE 2001: Final report (http://www.etla.fi/PURE)), return to education during the mid-1990s differed across Europe and there was no sign of convergence. Moreover, the wage gap widened since the 1980s between those with university education and those with less than upper secondary education, although the level and the growth of the gap displayed considerable variations across countries. The overall gender pay gap in the EU hardly changed during the 1990s as the gains of skilled women moving up the wage structure were offset by the loss of unskilled women at the bottom (see discussion in Mósesdóttir forthcoming). Nickell and Bell (1996) examined changes during the 1980s in the wage distribution in terms of educational level of workers in different OECD countries. They found that earnings differentials between the higher and lower educational groups have widened in the majority of G7 countries and especially in the United States and the United Kingdom. In France and Japan, the wage gap remained, however, unchanged during the period. Economists attribute the increase in the overall earnings inequality to a rise in the demand for skilled workers at the same time as the demand for unskilled workers has fallen or remained unchanged. Moreover, Guy Standing (1999) argues that the threat of capital relocation to low wage countries has put a downward pressure on wage in the high-income countries, particularly for unskilled labour. This pressure has contributed to the growing inequality in income distribution between highly skilled and less-skilled labour within and across countries.

Improving the educational attainment level of the less educated can be expected to reduce pay inequality and the gender pay gap. However, inequalities within educational and occupational groups will counteract some of the positive effects of increased educational level. A pattern prevailing in most countries is that the higher the educational and occupational level, the greater the wage differences within the particular group. The
PURE project found also evidence of growing within-educational-level inequality in Europe. Moreover, a Eurostat study of pay differentials in the EU member states shows that the remuneration of educational attainment levels and specific skills is higher for men than women. Hence, the gender pay gap for women with university education was 28% and 34% for women manages in 1998 as compared with the overall gender gap of 16% (see European Commission 2002b:37).

According to Brynin (2002:641), widening inequality within educational and occupational categories is highly problematic. In the light of the upgrading of skills in the labour markets of Europe and North America, it is difficult to explain why similar jobs should be treated differently over time. In addition, this trend contradicts the efforts of many governments to increase state expenditures on education to achieve social equality. More diverse demand for skilled workers and greater demand for social capital have been used to explain growing inequality within educational and occupational groups. Hartog (2000) suggests, for example, that the demand for skills has become more disperse than the supply. Hence, employers want a wide range of qualifications rather than rising average levels. They reward, therefore, the highest levels while those just below lose out because they are not easily distinguished. In this way, skill clustering may be associated with some reduced returns to education rather than only with increasing wage dispersion.

According to Lindbeck and Snower (2000:373) people within particular education and occupation groups vary greatly in terms of social competence and ability to perform multiple tasks or in what has been termed social capital. Hence, the move to a more knowledge-intensive employment may lead to widening dispersion of wages within these groups in countries such as in the case of the US and the UK, where real wages often respond flexibly to changes in labour demands and supplies. Real wages are more rigid in most European countries such that the reorganization of firms may, on the contrary, give rise to a widening dispersion of employment opportunities among groups with similar educational background. Widening dispersion of wages within occupational groups implies that traditional meritocratic model allocating positions according to years of education do not work as systematically and steadily as before. Hence, rates of return to a given degree may vary widely such that it is not easy for young people to determine which curriculum to follow, especially since careers not only correspond to a wider range
of wage trajectories but also increasingly include non-wage remuneration as e.g. stock options or standard financial benefits (Soete 2001:159).

2.4. **Contractual regulation**

In contrast to the standardised labour regulation promoting stability and security that characterised labour markets until at least the 1980s, the shift towards the KBS appears to be accompanied by a growth in working methods involving atypical forms of work or temporary and part-time employment in many countries. However, the ICTs is not responsible for spread of atypical jobs. The advent of new technologies hastened their proliferation.

In 2000, 13% of men and almost 15% of women in the EU worked in temporary jobs or not on fixed term contracts. The overall gender difference in temporary employment appears to be disappearing as the proportion of men in such jobs is rising. The difference in the proportion of men and women in temporary work widened over the period 1992-2000 in Belgium, Greece, Portugal and Sweden. Most employees on a fixed-term contract in the EU are under the age of 30 or 54% of women and 58% of men (Franco and Winqvist 2002). Temporary employment is in some cases the result of personal choices, although that varies from country to country. In countries like Belgium, Spain and Greece over 70% were working involuntary on fixed term contract while many temporary workers in Ireland were doing it by choice (European Commission 2001). Moreover, women are more likely than men to be in temporary jobs out of choice. This information should, however, be interpreted with care as personal choices are influenced by the societal contexts or, for example, the family and the social protection given to permanent employment as compared to temporary employment. In most member states, those employed in temporary jobs were on fixed-term contracts of relatively short duration. Temporary workers are more likely to have relatively low education levels as compared with those in permanent jobs. However, the proportion of women under the age of 30 in temporary jobs was higher for those with tertiary level education that for those with lower level of educational attainment (European Commission 2002a; Franco and Winqvist 2002).
In some cases, temporary employment has served as a bridge to permanent employment and jobs of better quality (Employment in Europe 2002; Remery et al., 2002; Jolkkonen and Koistinen 2001; Korpi and Levin 2001). The risk associated with high incidence of temporary employment has, therefore, been played down in many countries. However, people with weak labour market position such as women, unskilled workers and older workers are less likely to make a successful transition from temporary work to permanent employment. During the period 1995-1998, 31% of women and 19% of men in temporary employment moved into unemployment and inactivity. Half of the young people in temporary employment made a successful transition from temporary into permanent employment while this ratio was only 31.47 for older people. The high inflow rate of older people, the low skilled and women from temporary employment into unemployment put into question whether temporary employment could serve as an adequate means of re-integration in the labour market in general and in jobs of high quality in particular (European Commission 2002b).
A significant proportion of workers in jobs with fixed-term contracts seem to be on the fringes of the labour market, moving in and out of temporary work on a regularly basis, especially in countries like Spain, Greece, France, Italy, Finland and Sweden (Franco and Winqvist 2002). Temporary work has been valued for providing workers with the flexibility needed to reach a better balance between public and private responsibilities. However, studies show that the working conditions of temporary workers are less favourable than of those in permanent work. Individuals on temporary contracts have less control over their working hours, enjoy less autonomy, perform less skilful tasks and receive less training (Third European survey on working conditions 2000; Goudswaard and de Nanteuil 2000). Moreover, the risk of unemployment is, for example, four times higher for those on temporary contracts than for those in permanent employment (European Commission 2002b:11).

Another atypical form of work which is growing in some EU member countries is part-time employment. In some EU countries, part-time work is widespread and increasing for both men and women, but in some cases (for instance Denmark) this is also the result of increasing number of students working part time. In 2000, 30% of employed women in Europe worked part-time while the ratio for men was only 6% (OECD 2001:224). Most Europeans state that they work part-time on a voluntary basis. Nevertheless, a remarkable percentage (15.8%) is involuntarily part-time employed and 23% state that they would like to work more hours (Third European survey on working and living conditions 2000). The high incident of voluntary part-time work in Europe may not only be the outcome of personal choices but also reflect constraints on peoples´ behaviour. According to information from Eurostat, the Netherlands, Luxemburg, Germany and the UK have the highest share of voluntary part-time work but these countries do not have extensive provision of child care (see European Commission 2001:70). Visser (2002:34) claims that Dutch women see the choice to work part-time as a progress compared with the alternative of withdrawal. It is also difficult to imagine that individuals choose to work part-time voluntary as it is much more likely to be low pay than full-time work (Eurostat, New Release, n. 94/2000). As was the case with temporary employment, the working conditions of part-time workers are less favourable in most European countries than of those in full-time work. Individuals in part-time work have less control over their working hours, enjoy less autonomy, perform less skilful tasks, receive less training and
have less career prospects. Moreover, part-timer workers are at much higher risk of unemployment or inactivity than full-timer workers. Hence, the growth in atypical work is not leading to a radical change in gender inequalities, imbalances between public and private responsibilities and in risks of social exclusion due to unemployment.

2.4.1. Reconciliation of work and private life

The ICTs have in some cases been used to free workers from the restrictions of space and time, making work less and less dependent on the co-ordination of workers at a specific point in time. The new production requirements made possible by ICTs (just in time) have also led to greater pressure on some workers to be permanently available. The principle of uniform working hours for all workers is no longer taken for granted and there has been a proliferation of different approaches to working time (Boulin 2001) involving more flexible and varied forms of employment such as part-time work or freelance work, etc. The new breed of labour regulations, if they exist at all, tends to be based more on the achievement of results and goals, than on the number of hours spent working. This is making it very hard for workers to distinguish between what forms part of their work and what forms part of their leisure time such that it is increasingly difficult for them to limit the number of hours they work. Hence, a new “psychological contract” with the company is being established, particularly among skilled workers (Bouffartique and Bouteiller 2001).

According to the model of the good worker implicit in this type of contract, the key requirement of workers today is to be committed to their work, to be available for work whenever required, to have a strong psychological bond with the company and to make the company's goals their own goals. The internalisation of pressures of work, together with the excessive workloads to which managers are subjected, result in their work not being limited to any fixed amount of time. While they supposedly have greater autonomy at work, they find themselves internalising new forms of subordination. In the service sector, the evolution of working time patterns is driven by extended opening hours, in order to meet customer demand (Goudswaard and de Nanteuil 2000). Working hours are becoming increasingly uncertain: irregular, fragmented, unscheduled and increasingly self-managed with objectives which force workers to work long hours of unofficial overtime (Volkoff 2001). As Thébaud-Mony (2001) states, these “modern” organisation
of work legitimise new forms of subordination by shifting responsibility for production control from management into the workers. Time irregularity, atypical forms of working time and time unpredictability, and a high percentage of a-social hours may explain the difficult conciliation of productive and reproductive activities, contributing to the sexual and social division of work.

The strategy used by most families in Europe to cope with the time pressures of work is for women to work part-time and for men to work very long hours (Mósesdóttir 2003). Atypical times are widespread among workers, and particularly among fathers. Father’s atypical work was linked to financial necessity or job insecurity, or career ambition and culture of long working hours. The group of fathers most likely to work long hours (professional and managerial jobs) were the least likely to be involved in their care of the children (see table 4). Parents’ control over working arrangements depends largely on their bargaining position. Parents in professional jobs were more likely to report working arrangement which suited both their career aspirations and their family needs (La Valle et al: 2002), although the weight of one or the other depend very much on whether the arrangement is made by a men or a women. Parents in lower socio-economic groups do not have much scope for negotiating more flexible arrangements such that atypical work was seen as impinging negatively on family life. Moreover, for low paid parents, the need to increase financial resources limits their ability to achieve a better balance between work and family life. Atypical work means that parents, and particularly fathers, are not able to take on domestic responsibilities, reinforcing the sexual division of work.

Table 4. Lack of compatibility of working hours with family and other commitments by gender and occupational status

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>White-collar managerial jobs</td>
<td>30</td>
<td>21</td>
<td>27</td>
</tr>
<tr>
<td>White-collar professional jobs</td>
<td>20</td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>White-collar clerical and service jobs</td>
<td>22</td>
<td>14</td>
<td>17</td>
</tr>
<tr>
<td>Blue-collar craft and related manual jobs</td>
<td>20</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Blue-collar operating and labouring manual jobs</td>
<td>22</td>
<td>14</td>
<td>19</td>
</tr>
<tr>
<td>All</td>
<td>22</td>
<td>16</td>
<td>19</td>
</tr>
</tbody>
</table>

1. Based on the Third European Survey on working conditions, carried out in 2000.

Source: Fagan and Burchell 2001:66
2.4.2. Space

The industrial concept of work implies the regulation of social spaces. This involved separating and distinguishing between people’s work and their domestic lives, both geographically and socially. As modern industry developed the two realms became separated at both the social and the geographical level: the realm of work with its standardised routines on the one hand and people’s private lives, free from the dictates of the market forces on the other. These realms gradually evolved into a hierarchy, in which work that formed part of economic activity was considered as real work, i.e. as an activity that contributed to the prosperity of society. A distinction was drawn between the reproductive activity associated with the domestic realm and the productive activity carried out in the public realm. As a result, commercial work became the most important means of becoming integrated into the network of exchanges and relationships that formed the basis of social recognition. This concept of distinct realms has been transformed as we enter the KBS. Workers are now expected to be available at all times, and consequently there are virtually no limits to work. A growing number of heterogeneous social realms are appearing (Boulin 2001; Schmid 2001).

Over their life course, people are also finding themselves continually shifting from one category to another. It is easier and easier to cross the boundaries between the labour market and other social structures (the education system and the private household). More and more workers are undergoing continual shifts from one category to another over the course of their careers, depending on the different situations and opportunities that come up at different points in their lives (Schmid 2001). One example of this tendency of spatial limitation to disappear is the case of teleworking. On average, 6% of the employees in Europe practise one form of telework or another, and 4% do that in a regular basis. This number varies a lot from country to country, ranging from Finland (16.8%) to Spain (2.8%) (ECATT 2000: Final Report (http://www.ecatt.com)). The extension of telework is particularly high in Nordic countries and the Netherlands. Teleworkers are generally hard working, highly qualified professionals and managers - mainly men. Moreover, teleworking is being used as a means to respond to the quick demands of business, more than in providing better opportunities to reconcile different activities or on responding employees’ willingness to work outside the traditional office. A study under the 4th Action Programme for Equal opportunities (1992-1996) underlined
that on-line work may result in a non-stop working day for women, who take care of their children during the day, and on-line work for late in the evening (European Commission 2002b). However, this assumption was also based on the assertion dominant in the 1980s and early 1990s that teleworkers would be mainly low skilled workers in remote regions doing typing and coding for firms in the capitals (Cronberg 1988).

2.5. Concluding remarks

In this chapter, we have studied organisational change involving upgrading of skills and more flexible working methods in terms of employment, hours and space. Our focus has been on the extent to which this organisational change is challenging traditional forms of gender inequality. The greater enrolment of young women in upper secondary education as oppose to young men in Europe is often used to support claims that women will be the winners of the KBS. However, men outnumber women in subjects such as in science and engineering that are defined as the locomotives of growth and competitiveness in the KBS. In addition, gender segregation is extensive in high-tech occupations producing and applying new technologies. Moreover, the overall gender pay gap in the EU hardly changed during the 1990s as the gains of skilled women moving up the wage structure were offset by the loss of unskilled women at the bottom. Greater educational attainments of women may reduce the gender pay gap as we move towards the KBS. However, inequalities within educational and occupational groups, which are in some instances growing, will counteract some of the positive effects of increased educational attainments on the gender pay gap. Currently, the remuneration of educational attainment levels and specific skills is higher for men than women such that the gender pay gap for women with university education in 1998 was 28% as compared with the overall gender gap of 16%. These gender patterns cast doubt on the assertion that women will be the winners of the KBS. In other words, established practices and patterns of gender segregation in education and at work are not being overturned. Moreover, evidence of persistent gender inequalities and of overqualification signal wasted opportunities to realise the full potential of the KBS.

Divisions in the labour markets have become much more complex and diverse due to changing skill requirements and greater flexibility. The labour force is in most cases
increasingly divided by skill, pay and security which in turn is reshaping or reinforcing prevailing patterns of inequalities as well as creating new risks for workers. Individuals are now exposed to greater risk of skill obsolescence which is forcing them to cross the boundaries between work and education several times during their life-course to ensure “employability”. Divergent intervals of education and work during the life-course of individuals are exposing greater numbers to the risk of unemployment. Moreover, more than half of those in temporary jobs are women and part-time work is primarily done by women and a rising number of men (many of both students) and this type of employment offers much less protection against unemployment. However, atypical work has been praised for the flexibility it provides and for being a bridge into standard employment for women and young people. Studies show, however, that a significant number of workers do not see this type of work as a personal choice (men more than women) and do not enjoy flexibility in terms of hours and autonomy at work (women more then men). Moreover, men and women use flexibility in most instances differently. Men increase their time at work due to greater work pressures while women increase their time at home. Finally, the technology has also led to growing imbalances between public and private life as it enables individuals to be available or at work at all times. Hence, greater flexibility as concerns employment, hours and location does not appear to be altering prevailing sexual division of work.
2.6. References


Third European Working Conditions survey on working conditions (2000). ([http://www.eurofound.eu.int/working/3wc/3wc_second.htm](http://www.eurofound.eu.int/working/3wc/3wc_second.htm))


3.0 Gender mainstreaming and the European Employment strategy

Karen Sjørup and Ute Behning

This chapter focuses on the state of art in gender mainstreaming. It is specifically focussing on the gender mainstreaming process going on in the European Union. In this connection the European Employment Strategy is of particular interest, as we are dealing with the question of:

How is this strategy adopting a gender mainstreaming approach? In which ways is the gender mainstreaming strategy reflecting the aims for an equal contribution for women and men in the European economy? What kinds of reservations to the strategy have been spelt out through academic debate?

The chapter contains a description of the historical roots of gender mainstreaming, an analytic discussion of the concept of gender inherent in the strategy, the methods used in the strategy, and at last how this methods and goals are implemented in the European Employment Strategy.

3.1. Historical Evolution of Gender mainstreaming

3.1.1. Roots of Gender mainstreaming

In the last ten years, gender mainstreaming has become the overall concept of the fight for gender equality at an international level. The United Nations (UN) Women's Conference in Beijing 1995 is frequently mentioned as having given birth to gender mainstreaming. It should be pointed out, though, that this concept actually originated in the co-operation between the international women's movement and various developments aid institutions. The roots of gender mainstreaming can therefore be found in the political

12 We would like to thank the other project members for their useful comments and contributions to this chapter.
support, i.e. development aid measures, for women in the Third World. Up to the 1970s, it was primarily men who benefited from development aid policies. Women were not considered a suitable target group for development aid by the politicians in charge. In order to change this, the UN dedicated an entire decade, ranging from 1985 to 1997, to "Women and Development". Some of the initial approaches to gender mainstreaming can thus be located under the subject of "women and development" (Callenius 2002:64-66).

In the 1980s, this type of support policy was considerably transformed by the southern feminist network "Development Alternatives with Women in a New Era" (DAWN) and in turn presented at the Third International Women's Conference, which took place in 1985 in Nairobi. From then on, the strategy was "empowering ourselves through organisation", demanding exclusively female organisations that would strengthen the female position in negotiations through empowerment (ibid. 66). At about the same time the World Bank commissioned various female scientists from Harvard University to develop a concept for gender analysis, which could be used to investigate and monitor the effects of gender relations in every single stage of a given development aid process. For the first time, political processes and the evaluation of these processes from the perspective of gender relations had now become the centre of attention (ibid. 66-67).

Another step forward, which became known as "Gender and Development" (GAD), was taken at the beginning of the 1990s. This approach was intended to make the entire range of positions and actions of and within organisations more gender-equality-oriented, a political objective, which was, adopted by all development aid institutions. In parallel with the 1990s' debates on development aid policy the international women's movement and the UN women's lobby tried to find a way to present their own, gender-conscious, critical view of globalisation at the Fourth International Women's Conference in Beijing 1995. The new concept, counterbalancing the effects of globalisation, has hitherto been known as "gender mainstreaming". The concept itself, however, was not clearly defined, which surely explains some of the confusion and bewilderment in connection with this issue (ibid. 67-69). In 1995, the entire UN system committed itself to recognising and implementing the objectives of gender mainstreaming (Art. 308ff; and Resolution of the General Convention 52/100). But what gender mainstreaming in the UN really means was defined much later:
"Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality" (ECOSOC 1997: Chapter IV.).

The UN discourse on gender mainstreaming considerably influenced the same discourse at the EU level and ultimately resulted in an adaptation of the principle of gender mainstreaming in the EU. The conceptual and historical development of gender mainstreaming in this context will be discussed in the following.

3.1.2. Gender mainstreaming as an EU Strategy?

At the EU level, the ultimate goal – obtaining "equal opportunities for women and men" – was initially set in 1993, when it was included as a support concept in the European Structural Fund (ESF). From now on, due account should be taken of gender relations in every political measure, all the way from the first stage of planning to its final evaluation. This type of gender mainstreaming was for the first time mentioned in 1995, in the Fourth EU Action Program on Equal Opportunities for Women and Men (1996-2000). In February 1996 the Commission adopted COM (96) 67 final: "Incorporating equal opportunities for women and men into all Community policies and activities", which can be seen as a first step towards the implementation of gender mainstreaming in the EU.

The legal foundation for gender mainstreaming was laid in the Amsterdam Treaty of 1997. Since then, it was based on the following articles:

Article 2 of the EC Treaty: The promotion of equality between men and women is a task of the European Community.

Article 3 of the EC Treaty: In all its activities the Community shall aim to eliminate inequalities and to promote equality between men and women.

Since 2000, the Fundamental Rights Charter – which was adopted in December of the same year – has also served as an additional legal basis for the implementation of gender mainstreaming.
Article 23 (1) of the Charter of Fundamental Rights of the European Union: Equality between men and women must be ensured in all areas, including employment, work and pay.

Every measure intended to promote gender equality is thus protected by law. However, a clear definition of what gender mainstreaming was not provided until 1998. The first institution in Europe to work systematically with gender mainstreaming was the Council of Europe. They defined it as follows:

“Gender mainstreaming is the (re)organisation, improvement, development and evaluation of policy processes, so that a gender equality perspective is incorporated in all policies at all levels and at all stages, by the actors normally involved in policy-making” (Council of Europe 1998:15).

Even though the Council of Europe's definition is frequently quoted in the EU and its member states, the EU definition can be found at the central information platform for gender mainstreaming in the EU:

(http://europa.eu.int/comm/employment_social/equ_opp/gendermainstreamings_en.html)

"incorporating equal opportunities for women and men into all Community policies and activities", This is further elaborated into:

"Gender mainstreaming involves not restricting efforts to promote equality to the implementation of specific measures to help women, but mobilising all general policies and measures specifically for the purpose of achieving equality by actively and openly taking into account at the planning stage their possible effects on the respective situation of men and women (gender perspective). This means systematically examining measures and policies and taking into account such possible effects when defining and implementing them."

"Action to promote equality requires an ambitious approach which presupposes the recognition of male and female identities and the willingness to establish a balanced distribution of responsibilities between women and men."

"The promotion of equality must not be confused with the simple objective of balancing the statistics: it is a question of promoting long-lasting changes in parental roles, family structures, institutional practices, the organisation of work and time, their personal development and independence, but also concerns men and the whole of society, in which it can encourage progress and be a token of democracy and pluralism."

As the short definition, i.e. "incorporating equal opportunities for women and men into all Community policies and activities", already implies, the EU apparently equates gender mainstreaming and equal opportunities – despite the fact that the above-mentioned
Internet platform mentions a "dual approach = gender mainstreaming + positive action". In addition to that, some of the more recent EU documents, such as COM (1999) 106 final, also contain the phrase "mainstreaming equal opportunities", which represents a mixture of these two approaches even on a linguistic level.

The most recent definition of gender mainstreaming in the EU can be found in COM (2000) 335 final: "Towards a Community Framework Strategy on Gender Equality (2001-2005)". Here gender mainstreaming is taken to be a "pro-active intervention", whereas specific equal opportunity actions are defined as "reactive intervention". This approach thus makes it evident that, at the EU level, there has clearly been a shift towards the Council of Europe's definition, which stresses that policy processes must be changed in a sustainable way. It states the necessity to transform programs, policies and actions at all levels, to change the design, implementation and monitoring processes. But, above all, this latest definition mainly proposes that the goal of gender mainstreaming be gender equality.

To enable a critical and reflective view on the gender mainstreaming strategy, it will first have to be linked up with the relevant theoretical approaches of feminist theory. Therefore, the following chapters will take a closer look at the two categories of sex and gender in feminist theory, based on which the gender mainstreaming discourse at the EU level will then be discussed.

3.2. Gender mainstreaming and Feminist Theories

3.2.1. Sex and gender as theoretical categories
In the 1980s, the concept of gender was widely applied to gender studies in a theoretical attempt to distinguish between the biological or physical sex and the socially or culturally formed gender. In her famous work "The Traffic in Women", Gayle Rubin (1976) proposed that this distinction would make it possible to isolate the social and cultural construction of gender superimposed on sex. Gayle Rubins distinction spread rapidly into the gender discourse and into the political terminology.
In the 1990s, this approach was mercilessly criticised by poststructuralist theorists such as Donna Haraway and Judith Butler, who argued that this distinction led us to think of sex as an essence and not as socially constructed. Butler, in her "Gender Trouble", went to great lengths to show that gender is merely a performance, the superficial act of producing a heterosexual stereotype.

According to Butler (1990) the juridical power structures produce the subjects they represent, but at the same time the feminist subject seems to be discursively produced by the same system, which is actually expected to initiate its emancipation. Butler thus tries to find out whether there is a subject prior to the law that expects to be represented in and by the law, and, if so, whether this subject is a joint subject with a common interest that transcends cultural limitations. She also examines whether the subordination of women has a singular form that can be distinguished in the universal and hegemonic structures of patriarchy and masculine domination.

The question is whether sex has a history, whether each sex has a different history, and how the duality of the sexes came about. The sexes and the difference between them originate just as much in scientific discourse as gender, whereby gender does not just represent the social side of sex. Gender is also the discursive/cultural means through which sex is established as pre-discursive.

In accordance with this argumentation, Butler suggests that gender should be reformulated to include the power relations hidden in the common understanding of gender; to reveal that the concept of gender in itself implies a discursive production. We also need to ask whether gender could be constructed differently, or whether the construction of gender implies a social determination that excludes action and transformation.

Returning to Beauvoir Moi (Moi 1999) reintroduced the notion of the body as a situation to be able to distinguish the bodily experience of gender from either an essentialist idea of the body as a natural being or the body as a mere performance. She hereby tried to understand the individual women's experience of motherhood in a historical and contextual way.
When Beauvoir stated that one is not born a woman but becomes a woman, she implies that a thinking human being can in principle choose to acquire either gender, but is then caught up in social destiny. The controversy here, and often in public debates as well, is whether gender is the result of free will or of determination/socialisation.

The humanistic tradition of the subject and the self tends to understand the subject as a substantial person carrying different essential and non-essential characteristics. A humanistic feminist position would accordingly imply that gender is a characteristic of a person, who is essentially shaped by a pre-gendered substance or core, a person, who is universally capable of creating reason, morals and language (Butler 1990). A discourse-analytical or deconstructive position, on the other hand, would argue that gender is discursively created for the individual drawing, the frames in which the single person can act gender.

This controversy is often spelt out in the discussion of gender and rights. To give an example: In the discussion on whether part of the paternity leave should be reserved for the father as a fathers' quota, the Danish Minister of Gender Equality argues that this decision ought to be made by the spouses and that policy should not interfere in it. The counter-argument, inferring that this decision will in most cases end with the woman taking the entire leave, is based on evidence from most European countries. Nonetheless, the conflict still exists between understanding the free will as the prior means for equality and determination that could be changed by policy.

It is clear that gender mainstreaming, as an EU strategy is currently not taking up the feminist debate on the construction of sex. Rather, it can be seen as a soft interpretation of the gender debates in feminist theories: the social ascription towards women and men are questioned. Due to economic reasons, the focus is mainly on the reconciliation of work and family life, with the intention to bring about an increase of female employment rates without jeopardising the fertility rates that are in some European countries catastrophic given the ageing European societies.

However, sex and gender are also analytical categories. Depending on how they are understood they will influence different research designs, which will be elaborated below.
3.2.2. Sex and Gender as Analytical Categories: Structural or Action Approaches?

The analytical categories of sex and gender apparently originate in structure-theoretical and action-theoretical thought. Whenever they are applied in a structure-theoretical way, sex and gender usually serve as terms that may blur "the characteristic of belonging to a naturally or grammatically formed group [,] with the social determination to be tied to a women's or men's world" (Becker-Schmidt and Knapp 1989:9, transl. by UB). Sex and gender are taken to be "social categories and a sociological label for polarised generic relations" (ibid. 10, transl. by UB). There is no question in this context that human beings do "have" a sex, as the biological sexes are constitutive for this way of thinking. The focus is rather on social differentiation, ascription of status, etc., which are made on the grounds that a person belongs to a specific gender (gendering). But although the proponents of these theories recognize them as being historical or social constructions, they primarily analyse the structural conditions of hierarchized gender relations (cf. esp. ibid. 9-10; also Beer 1991).

The action-theoretical view on the categories of sex and gender, on the other hand, places more emphasis on the social and historical (re-) production of "sex" (biological) and/or "gender" (social), and thereby frequently refers to constructivist approaches. In this context, the critique of the "tradition of interpreting sex as a bipolarized characteristic" (Gildemeister and Wetterer 1992:203, transl. by UB) is taken as a starting point. According to this approach, the existing binary interpretation pattern needs to be changed, because as long as the constructive nature of bipolarized sex-gender-relations is not understood, there will be a risk that they are also reproduced in women's research. As a result, they may also contribute to the social construction of bipolarized sex-gender-relations, to continue to promote its 'naturalness' and thus contribute to the “naturalisation” of a system of domination, which they would otherwise fiercely criticise in every respect and with good reason. (Gildemeister and Wetterer 1992: 204).

13 That sex is constructed as well, i.e. that sex is gendered, is not taken into consideration at this point.
14 This chapter mainly refers back to ethno-methodological approaches. It should be pointed out, though, that since the beginning of the 1990s discourse-theoretical approaches have also become increasingly significant (cf. e.g. Butler 1990; Maihofer 1995).
Here, constructivist analyses mainly focus on the "doing gender" (cf. West and Zimmermann 1991:14), i.e. the way sex and/or gender are constructed. Sex and/or gender are not deemed to be something that individuals "have". It is rather an element that is created in social situations: It is both the result and the justification of different social arrangements, and a means to legitimate one fundamental division of society (Gildemeister and Wetterer 1992:236f.).

This field of research aims to investigate the re-construction of the ways sex and/or gender are ascribed, whereby its main political objective is regarded to be the de-construction thereof (cf. e.g. Gildemeister and Wetterer 1992:245ff.).

These findings have caused women's researchers to emphasise more and more on gender research. Studies using the terms "sex" and "gender" mostly use "woman" and "man" as analytical categories. Feminist research frequently focuses on making "male" structures visible. Thus they try to attain or increase gender sensibility and in turn gender equality – in other words; they aim at "gendering" research subjects. This goal, however, can only be reached by means of a structure-theoretical approach, which takes the existence of the biological sexes for granted and implicitly recognises that – at least occasionally – the social sexes (gender) "exist" as well (Maihofer 1995). This type of research can primarily be seen as gendering research, i.e. research that contributes to the essentialization of "male" and "female" characters spheres, etc. but at the same time also makes it possible to analyse gender-specific differences and inequalities.

Comparative welfare state research has shown that welfare state policies promote gendering (Sainsbury 1994). Consequently, the normality of the country-specific, gender-ascribed characteristics of welfare states becomes rather shaky in view of the recently discovered variants. Little by little, this comparison of different countries has caused women's and gender research to concentrate more and more on the respective development and/or construction of welfare state laws and systems and on the various types of gender ascription.

Lately, feminist and gender researchers who are working with these comparative methods have increasingly questioned how these different constructions, i.e. the different welfare state laws and systems, have come into being. Pfau-Effinger, for instance, states that the
country-specific characteristics of welfare states are of socio-cultural origin (cf. Pfau-Effinger 1997). Culture is in this context understood as "ideas, meanings and values, which are generally taken to be valid interpretations of the world and provide our social actions with the necessary framework of a common understanding of existence" (Tenbruck, quoted from: Pfau-Effinger 1997:516f. transl. by UB). Obviously, individual countries do have different socio-cultural ideas, meanings and values with regard to the development of "modernisation paths in the gender arrangement" (ibid. 522, transl. by UB), which can in turn be used as an explanation for the differences in women's employment patterns in individual European countries (ibid. 522ff.).

Lewis (1997), on the other hand, tries to find out how the individual, country-specific types of financial support for single mothers came into being in Europe. She points out that the individual perceptions of political actors are decisive for the development of policies. It does, for instance, make a difference whether women with a child or children are considered to be available to the labour market or exclusively responsible for private care. According to Lewis, such perceptions indeed have a great influence on the development of welfare state policies (cf. Lewis 1997:72ff.). It has become more and more obvious that the actions of political actors in welfare states are largely responsible for the establishment of – as Lewis calls it – a gendered "policy regime" (ibid. 77).

As we can see, policy-making, which has hitherto been excluded from the gender-specific analyses of welfare state policies, has become ever more significant. A more extensive analysis of the actions of political actors in (and beyond) the field of welfare state policies could prove to be central in this context. And policy research would certainly provide a wide range of methodologies and heuristic models for this purpose (cf. esp. Schmidt 1988; Héritier 1993; for a summary see also Behning and Lepperhoff 1997:55ff.). It is, above all, policy-making – i.e. political consensus and conflicts – in combination with policies – i.e. the actual political content of the former – that analyses of political processes (i.e. recent public policy analyses) focus on.

Both the structuralist and the action-theoretical analyses' use of the categories "sex" and "gender" and can be helpful in analysing gender mainstreaming. But before the different types of results from each of these approaches can be discussed we will first have to take a closer look at the gender mainstreaming method.
3.3. Gender Mainstreaming as a Method

3.3.1. Gender mainstreaming and power relations
It is stressed in the EU documents on gender mainstreaming (Web site op.cit.) that gender mainstreaming is not in itself an aim or a goal, it is rather an approach to gender equality policy. Still it is also stated that gender mainstreaming has the goal of achieving gender equality, but only, it seems, pro-actively to avoid any gender inequality shaped by new policies or activities.

The question is how inequalities are shaped by other factors than policies, such as restructuring of international economics and most of all by power relations. And how already existing inequalities and mechanisms contribute to create inequality such as competition in the labour market or patriarchal structures in institutions and organisations will be addressed through the mainstreaming strategy.

It is also obvious that the gender mainstreaming strategy could be viewed in the context of the attempt to commodify the working capacity of both women and men and to be able to expand the European labour force in spite of the ageing societies.

3.3.2. The Analytical Process and the Change Process
As an overall tendency the gender mainstreaming strategy can be considered a tool to initiate a more longsighted process to create equality between women and men. This process involves two very different aspects: An analytical process and a process of change (Lehn, Lykke Nielsen and Sjørup 2003). It is after all evident that the gender inequality is very often underestimated. Especially the very profound gender differences expressed through the gender division of labour are often not recognised. Thereby, the gender mainstreaming strategy rests on premises that are undervaluing the amount of work necessary in order to succeed in the strategy.

The analysis process has the purpose to document whether there are actually gender imbalances in the field, and what kinds of inequality are in question. This process is supposed to set up the basis for the change process. The two parts are essential different and imply very different tools and methods. The first is rather a matter of academic research work and the latter a matter of developing political measures.
As a part of this process, the role of the actor as the agent of change for equality is moved from specific gender activists to all ordinary administrative bodies. It could also be argued that the traditional bottom-up perspective of gender policy has been replaced by a top-down perspective. Administrative bodies then become responsible for the successful implementation of the strategy and also for the involvement of citizens and social partners in the specific field, whereas traditional gender policy activists seem to have lost their role in the process.

In this way gender equality is intended to be integrated in the political mainstream. But at the same time gender equality is left to actors who are not specifically actors of gender equality, and often they may in practice consider this concern out of line with the general claim of objectivity in policies.

3.3.3. Aspects of Gender Mainstreaming

The EU-commission in the mainstreaming project connected to the 6. Framework programme in Science and Technology mentions three different aspects of gender mainstreaming:

1. Participation: All programmes and policies should be revised to make sure that women and men have equal possibilities to participate

2. Diversity: To secure that all policies and programmes reflect the different conditions, needs and interests of women and men.

3. Reduce inequality: To make sure that all policies and programmes contribute to reduce inequality between women and men. It concerns not only to secure a fair and equal treatment of the needs and interests of women and men. It demands a specific orientation and reorientation of policies and programmes through the elimination of barriers and through positive action (Braithwaite 2001).

It could be argued that the mainstreaming strategy aims at eliminating the contradiction between “equality” and “diversity” by making a strategy containing both the rights to diversity and the claims to equality. (Lehn, Lykke Nielsen and Sjørup 2003). If diversity between the genders should be recognised, the question will immediately be, whether
diversity between the genders will always be hierarchical and whether diversity will always reflect a disadvantage for women.

It is an open question whether this is actually possible in practice. As an example: At the moment part-time work is promoted in the EU countries inspired by the Dutch labour market model. In some countries, part-time work is considered the only chance for women with kids under school age to enter the labour market. At the same time, this can lock women to a secondary position. Still it may over the years, as it has done in other countries, lead to a more even position, when women have become a more well established part of the labour market, especially if they are granted full labour rights as part-time workers. But in general part-time work for women works against gender equality.

3.3.4. EU Tools for Gender Mainstreaming

The EU gender mainstreaming web site mentions the following methods for gender mainstreaming:

1. Dual approach = gender mainstreaming + specific actions
2. Gender impact assessment & gender proofing
3. Mobilising all Commission services
4. Anchoring responsibility
5. Training for & awareness raising among key personnel
6. Monitoring, benchmarking and break down of data and statistics by sex

In this list the division between analytical aspects and the change aspect is not clear. We will however here first deal with the analytical aspect and then with the aspect of change.

The analytical tools are: Gender segregated statistics, benchmarking and gender impact assessment. Gender segregated statistics are a means to understand dynamics of gender in-equality, the different mechanisms behind, for example, the gender pay gap, or the development and structure of it over time. Gender segregated statistics are not worth a lot if they stand alone, still there has been a lot of focus on this in the EU work on gender mainstreaming. But after all statistics are important to document inequality in simple and
quantitative terms, as it is sometimes necessary whenever the argument is put forward that we already achieved gender equality.

Like the concept of mainstreaming the concept of benchmarking has no pendant in other languages. Benchmarking is to set standards and indicators for the objectives. The methods are often related to the methods of examples of best practice in which you will find the best examples to set at standards for your own effort.

Gender impact assessment is a method to identify whether a decision, a new law or another initiative will affect gender equality negatively. It is a method to make sure that inequality is not produced by new decisions. This analysis can be made at 3 different levels:

1. The investigation of how the gender dimension is expressed socially, politically and economically at a certain field.
2. The usage of this knowledge to analyse which consequences the decision will have.
3. The development of alternative proposals for acts programmes decisions and indicators.

In stating this more political side of gender assessment analysis it is also shown that this analysis will often be more politically contested than the two previously mentioned.

3.3.5. Actors of Gender mainstreaming

The change aspect of the EU gender mainstreaming strategy is: Mobilising all Commission services, anchoring responsibility and training for & awareness raising among key personnel. It is obvious that the commission put a lot of effort into the development of gender mainstreaming methods and spreading them to the member states. It is however just as obvious that is it not an easy task to disseminate the strategy and to transform it into political action.

Gender mainstreaming, especially the question of how it is to be understood and implemented, often tends to cause quite a lot of confusion and problems (Stiegler 2000 and 2002). This obviously also concerns the different actors who are supposed to implement it (cf.. Behning and Serrano Pascual 2001). One of the main reasons for this lack of clarity is the fact that gender mainstreaming is not a political equality tool in the
classic sense, i.e. it does not have clear objectives such as quota systems. It is, on the contrary, a far-reaching, albeit still insufficiently developed strategy (Bothfeld et al. 2002).

Extensive, successful gender mainstreaming requires all actors in all political processes to direct all their thoughts and actions towards obtaining equal rights for men and women. The actors' reflections are needed in relation to the gendering effects of the different policies that will have to be devised and implemented. Thus, besides being knowledgeable about individual political fields, the respective actors need to be aware of the gender-specific ramifications of various policies. In accordance to that, gender mainstreaming primarily aims to bring about changes at an institutional level, which should in turn lead to gender equality.

The strategy can be seen as an attempt to initiate a long-term process striving for equality. The question is do we assume that the people in charge acknowledge the complexity and transformational character of this process? Or: Do the civil servants, who should take such a large step ahead from what they have learned and practised so far, consent to the total effort? In this context, Verloo (2001) states that the general problem of policymaking processes is that they are gender-blind or gender-biased. Policy makers and organisations assume that their work is gender-neutral, but it shows that gender differences are not recognised (Verloo 2001:3).

But according to the gender theories discussed above, policy-makers are much more than just gender-blind or -biased. They are, moreover, the producers of institutional inequality and/or equality between the biological sexes, even if they believe themselves to be neutral.

3.3.6. Analysing Gender mainstreaming
The knowledge about the gender-specific effects of policies is an essential asset to policy-makers. This type of knowledge needs to be assessed in any given policy area; but this can only be done by means of structuralist approaches that mainly focus on the categories of sex and gender.
We do, however, believe those action-theoretical approaches albeit with the same focus on sex and gender, are better suited to analyse the implementation of gender mainstreaming.

Some of the more recent contributions in comparative gender research have shown that the success of policy-making processes intended to establish or change institutional frameworks largely depends on what kinds of gender models and/or gender-specific codes are represented by the relevant actors (cf. Behning 1999a; Behning 1999b, Kulawik 1999). How and by whom these gender models are chosen and interpreted ultimately shapes the structural orientation of institutions. The aforesaid studies mainly analyse and portray actor-specific, gender-specific discourses in selected political areas. Historical studies imply that political actors usually cause the gender-specific characteristics of a given institution.

These insights, enabling the identification of the gender-specific constructors and construction of institutions, were gained through an analysis of actions, i.e. by means of specific policy research tools (cf. e.g. Ostendorf 1999; Behning 1999b). This way, the "doing gender" of political actors can also be analysed (West and Zimmermann 1991:14). In our opinion, this actor-specific analysis is especially important for an appropriate evaluation of how gender mainstreaming is implemented. In other words, this is not just about making the construction of gender more transparent but also about gaining insights into the implementation of gender mainstreaming.

3.4. Goals of Gender Mainstreaming

According to Braithwaite: “Equality” has a wider and potentially deeper meaning than “equal opportunities”.” Equal opportunities suggests that the objective is merely to offer women and men the chance of participating equally in development. The objective of equality in development means not only equality of access and participation, but also of the benefits of development; women and men should be equally active as participants and should have their needs and interests equally well met. Even more pro-actively, development could play a role in reducing disparities between women and men. “This
implies not only equality in development but also equality through development” (Braithwaite 1998:10-11).

It is yet to be investigated what such full equality will mean as the EU also states that it is an “ambitious approach, which presupposes the recognition of male and female identities”.

The question then is: What are the male and female identities that should be presupposed? Are we dealing with an idea of essential identities prior to social construction or are we dealing with the fundamental bodily differences between women and men in the reproductive process?

The EU states that mainstreaming should include the change of social roles of women and men in many respects:

“*It (Mainstreaming KSJ) is a question of promoting long-lasting changes in parental roles, family structures, institutional practices, the organisation of work and time, their personal development and independence, but also concerns men and the whole of society, in which it can encourage progress and be a token of democracy and pluralism*” (EU gender mainstreaming Web Site op.cit.)

So according to the EU the gender mainstreaming process involves changes in:

? Parental roles
? Family structures
? Institutional practices
? Organisation of work and time
? Personal development and independence

Change in these issues may be considered the point of departure for indicators of gender mainstreaming. However, the problem then to be solved is how to measure change in these matters that can not be easily measured quantitatively.

Still it is also a question whether the knowledge-based society establishes new gender inequality at the same time. Whether the new globalisation creates a new gender division of labour that is counteracting European policy initiated gender mainstreaming and whether the new flexibility in time and space in knowledge producing institutions and companies is reducing or increasing gender division of labour in time and space.
3.5. Gender mainstreaming in the European Employment Strategy

3.5.1. EU overall measures for employment and equal opportunities
The overall aims of the European Employment Strategy are to improve the employment rates and to mobilise the female workforce for the labour market. Since 1999 the gender mainstreaming strategy goes hand in hand with this mobilisation. It is, however, a question whether the mobilisation for the labour market is always in the best interest of women and whether labour market mobilisation is always the key to gender equality. Particularly insofar the establishment of childcare provision and proper training for returning mothers are not available in most countries.

3.5.2. The National Action Plans for Employment
Late 1997, the mainstreaming strategy and equal opportunities policy were confirmed in the Amsterdam treaty as a highly prioritised effort. Article 137 of the treaty is dealing with: Working conditions, working environment and equal labour market opportunities and the article 141 is dealing with the principle of equal pay.

Until 2003 the European Employment Strategy was based on a 4-pillar structure:

1. Improved employability
2. Development of an entrepreneurship culture
3. Promotion of the adaptability of enterprises and their employment
4. Equal opportunities.

In the 1999 guidelines the gender mainstreaming approach was confirmed through the “insertion of a new guideline requiring member states to adopt a gender mainstreaming approach in implementing the guidelines across all four pillars” (Impact evaluation 2002:2). In the guidelines sketching the general outlines for the long term National Action Plans for employment (NAP) it was stated that the fourth pillar consists of the following four guidelines:

? Gender mainstreaming approach: Stating that women still have particular problems in gaining access to the employment market, in career advancement, in earnings and in reconciling professional and family life. This is follows by the aims of an active
labour market policy available to women in the proportion to their share of unemployment, to reduce tax-benefit disincentives, to give attention to obstacles for women to set up new businesses, to ensure that women are able to benefit from flexible forms of work organisation.

Tackling gender gaps by increased employment rates for women, to pay attention to the imbalance of women and men in certain economic sectors and occupations and to improve female career opportunities. This is followed by the aims of promoting equal pay for equal work or work of equal value and to diminish differentials in incomes between women and men, further to consider an increased use of measures for the advancement of women.

Reconciling work and family life: Policies on career breaks, parental leave and part-time work, flexible work arrangements. Provision of good quality care for children and other dependants; equal sharing of family responsibilities.

Facilitating reintegration into the labour market: Give special attention to women and men, considering a return to the paid workforce after an absence.

These 1999 guidelines departed from the former guidelines as the mainstreaming approach is now specifically mentioned. Moreover the gender pay gap was introduced into the pillar, whereas the integration of disabled persons has been removed from the fourth pillar.

An evaluation report (Impact evaluation 2002:16) shows that equal opportunities policy has been clearly influenced by the EES in most member states. But still the national evaluation reports provide hardly any impact assessment of the policies on gender gaps. In most member states, the principal reason for the reduction of the gender gap in employment is the increased participation of women in the labour market due to economic growth rather than the implementation of the Employment Guidelines (ibid.:16)

The persistence of the gaps in the labour market was explained by:
Barriers for women returning to the labour market but facing childcare difficulties (Ireland)
Lack of information on and accessibility of training schemes (Ireland)
Women’s occupation within a narrow range of occupations (Finland, Sweden, UK)
Gender pay gap can in varied extend be explained by discrimination (Ibid. 17)

3.5.3. New objectives
In the new millennium summits has been held in Lisbon (2000), Stockholm (2001) and Barcelona (2002). In this process a number of new objectives have been added to the EES. The Lisbon objectives specifically aim at preparing the EU member states for the knowledge-based society. “To become the most competitive and dynamic knowledge based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion” (Presidency conclusions 2000:2).

The Lisbon objectives demand that the female activity rate in the EU Member States reach a 60 per cent average in 2010. The Stockholm objectives demand a 50 percent employment for older workers in 2010. The Barcelona targets in terms of provision of childcare are essential. By 2010, childcare is to be provided to at least 90% of children between 3 years old and the mandatory school age and at least 33% of children less than 3 years of age.

The Lisbon-targets take into account that Member States have different points of departure considering the employment of women with low female employment rates in the Mediterranean countries and high rates in the Nordic countries. Denmark decided on a national 70% target for female employment. Still the problem of childcare provision is probably even more relevant in the Southern countries. The same is the problem of women returning after maternity leave. This illustrates that the main obstacles to the gender mainstreaming process is still the dilemma between maternity and a full work life for women. This dilemma has been partly solved in the Nordic countries but in most other EU member states it is still obvious.

3.5.4. The New 2003 guidelines
January 2003 the European Commission communicated draft new guidelines for the European Employment Strategy to be adopted by the European Council in the spring 2003. This means that they have not been adopted yet and that they have not been put into practice.
The new guidelines abolished the four-pillar structure of the earlier plans. But, apart from that the changes to the overall priorities are limited, as the plan is still building on the Luxembourg process for employment in the future Europe. It is rather a change that eases the process and limits the targets. But the overall change is that gender mainstreaming as a strategy is now presented as a totally integrated strategy without any specific targets aiming at reducing the inequality between women and men.

In 2003 the European Commission initiated three overarching objectives to be particularly dealt with. They are:

1. Full employment
2. Quality and productivity at work
3. Cohesion and an inclusive labour market

It could appear that the issues of reconciling work and family life have now been given a lower priority, as all three overarching objectives are dealing with labour market and especially the improvement of labour market performance in both quality and productivity.

It is also an obvious conclusion that the individualist Nordic welfare and labour market participation model is applied rather crudely to countries and cultures with different levels of individualism versus family orientation. That is in Esping-Andersen’s (Esping-Andersen 1990:26-27) concept a shift at least in respect to the female participation from the liberal welfare state model (Austria, France, Germany and Italy) to the social-democratic model (Scandinavian countries).

3.5.5. Criticism to the integration of gender mainstreaming into the European Employment Strategy

The European Commission made an impressive effort to integrate the gender mainstreaming strategy into a number of different policy areas. As we have shown above, the EES has gone through some phases of developing the gender equality issues from pinpointing specific gender gaps in reconciling work and family life, in family roles, in the gender division of labour, to less focus on these specific gender issues and more focus on the general labour market mobilisation.
The OPTEM survey (2002) covering public-authorities officials and social partners in the 15 member states showed that the acceptance of the gender mainstreaming strategy as a community strategy varied from a high degree of acceptance in Sweden, Spain, France, Portugal, Germany and Greece to a low degree in Denmark, the UK and the Netherlands. This pattern often followed the dividing lines of “euroscepticism”. It also showed that the interviewed persons felt that the avenues the strategy opens up are a priori so numerous that they may discourage action or result paradoxically in futile dispersion. That meant that they saw a risk of watering down an overall framework of gender equality.

Sylvia Walby points to the fact that gender mainstreaming is often confused with using gender-neutral language: “Indeed the use of gender-neutral language is open to the possibility that gender concerns are hidden and neglected. By itself the use of gender-neutral language indicates that there is a change in the gendered way of thinking, but it is insufficient in itself as a guide to whether there are significant policy developments” (Walby 2001:242).

Walby states that the UK employment policy fails to assist women returning to full time employment by not providing sufficient childcare. Thereby women are often forced to take on part-time work in order to reconcile work and family life. Still the UK does not consider the childcare provision an integrated part of gender mainstreaming strategy for the labour market. (Ibid. 240).

Sjørup (2001:63) argues that only a very limited number of fathers take part in parental leave and that this is also an obstacle to the overall mainstreaming effort. Parental leave arrangements was introduced in most European countries in the 1990s but in overall measures primarily used by women, causing a decline in the labour market activity of women.

But especially Iceland managed to break this tendency by the 3 months fathers’ quota now used by 80% of Icelandic fathers. Still the general tendency is that when fathers take part in paternity leave they only do so in limited periods of time and limited numbers whereas mothers en general use maternity leave in full.
Teresa Rees (Rees 1998:15) states that: “Gender segregation is increasingly recognised as a major barrier to both economic efficiency and equality in pay between men and women. Nevertheless, patterns of segregation in education, training and employment remain entrenched and, in some sectors in some Member States, are indeed worsening. Women often work in ‘atypical’ work: Part-time, temporary contracts and ‘non-employé’-status”. (Rees 1998:17, quoting Rubery et al. 1995).

But it seems that this statement only covers a number of member states, as many tendencies indicate a different or partly different development.

3.6. Conclusion

The joint European gender mainstreaming strategy connected to the European Employment Strategy aims at an increased mobilisation of women into paid work. Still there are at least some tendencies pointing in the different directions concerning an equal integration of women into the labour market:

? In some countries, there are an increasing number of women doing part-time work whereas in other countries women only to a limited and declining extend do part-time work.

? Women in some countries still take a limited part in long-term education. In these countries, women are often doing low skilled jobs on temporary contracts, with low salaries and little job security. Whereas women in other countries more and more engage in long term professional training providing them with the opportunity of permanent civil servant jobs in the public sector or jobs in the growing business service sector, compared to a majority of professionally trained men in these countries working in the private sector sometimes with very high salaries but less stable conditions and job security.

? In some member states, women have a high labour market participation rate and the childcare provision is considerable good, whereas in other states women’s participation is low and so is the provision of childcare.
So it seems that it is a very ambitious target to set up joint strategies for member states with very different labour market structures, traditions, welfare- and gender systems.

In the Stockholm objectives the dilemma between the mobilisation of women for the labour market and the lack of childcare provision was identified through targets for developing provision for nurseries and kindergartens. But, it may be questioned whether there is such a systemic interrelationship between social policy and labour market policy in the member states supporting such a joint strategy. Although the member states may set up gender mainstreamed targets in employment policies they may not do so in social policies.

It is important to note that in spite of the EES setting up policies to move the European labour markets in the same direction, and using gender mainstreaming as an integrated strategy it seems that the different member states move in considerable different directions according to the gender mainstreaming strategy. It is a question whether this is reflecting the fact of an imperfect implementation of the EES and the gender mainstreaming strategy or whether this is merely reflecting more profound differences in the welfare models and the economic development.

But, it is obvious that the gender mainstreaming strategy is still to a very limited degree actually incorporated into policy development in the member states, and that the gap between the community expectation of the joint change in national policies and the knowledge and readiness to implement gender mainstreaming in the member states are still wide.

As a whole the gender mainstreaming strategy until now seems unable to address the fundamental power relations connected to the gender division of labour.
3.7. References


ECOSOC (1997) Coordination of Policies and Activities of the specialized agencies and other bodies of the United Nation system related to the following theme: 
*
Mainstreaming the gender perspective into all policies and programmes in the United Nation system.* Geneva.


Conclusion: Towards a conceptual and analytical framework

Current changes in the productive paradigm (from an industrial society toward a knowledge based society) is challenging established power relationships in our societies. The aim of this research is to understand whether and to what extent gender division of work is being modified by these new productive conditions. This report, which is the first of 5 reports written as a part of the WELLKNOW project, we have reviewed the main debates in the academic and policy discussions of the knowledge-based society (KBS) and the gender mainstreaming approach (GM). We have also focused on the main employment and gender challenges associated with the KBS. The aim of this report is to develop a theoretical framework to prepare the work of next WPs, which will evaluate how these developments towards the KBS can be gender mainstreamed. In the following, we will start by outlining the EU’s concept of GM and our conceptual understanding of the KBS based on academic and policy discussions. Thereafter, we will sum up our discussion of the gender opportunities and imbalances created by the move to the KBS and then highlight how they can be addressed by the gender mainstreaming approach.

EU’s concept of gender mainstreaming

The gender mainstreaming approach of the EU has three dimensions: context or the unequal position of men and women; method or the integration of the gender perspective into all policy process at all levels; outcome or gender equality. The EU states that the approach should be used to achieve long lasting changes in parental roles, family structures, institutional practices, organisation of work and time and personal development and independence. It is, however, not clear how these changes will transform gender inequalities. According to Braithwaite (1998), the goal of equality in development means not only equality of access and participation, but also of the benefits of development. “Women and men should be equally active as participants and should have their needs and interests equally well met. Even more pro-actively, development could play a role in reducing disparities between women and men. This implies not only

equality in development but also equality through development” (Braithwaite (1998:10-11). The transition towards the KBS should, therefore, facilitate equal participation of men and women in this emerging productive paradigm and be equally beneficial to them. In this report, we have focused on the extent to which the process of transformation of the production model – assuming that such a process is indeed taking place – is reshaping and reinforcing gender inequality and constructing new forms of social vulnerability. In other words, our objective has been to gender mainstream the debates by analysing the extent to which the changes in the production model are pro-active for the enhancement of gender equality. Before identifying the main gender opportunities and imbalances associated with the change, we need to outline our conceptual understanding of the KBS based on academic and policy discussions.

**Conceptual understanding of KBS**

The underlying idea behind the concept of the KBS is the reinforcing linkages between the changes in the productive model and the re-articulation of the prevailing social model. The growing use of ICTs and knowledge are seen as tools for providing economic growth and social progress. Several factors have been identified as the driving forces behind the transformation towards the KBS. These forces are the production and diffusion of new technology such as ICTs, knowledge, and the dynamic interaction of economic, political and social relations that shape and are shaped by technology changes. The various conceptual frameworks used to capture the development to the KBS give an unclear picture of the direction and nature of the transformation. The main changes claimed to be a part of the transition to the KBS are a shift in economic activity from goods production to service delivery, an expansion of work organisations which are less hierarchical, more skill-intensive and more flexible, and a growth of occupations with a high information and knowledge content in their activity. The extent to which these changes have taken place and associated with greater or less skills, inequalities and risks is contested. It is, however, possible to identify two opposed poles in the academic and political debates.

Firstly, there are those who are optimistic about the nature of the changes and focus on the opportunities provided by these changes. They claim that the KBS involves increasing educational attainment of the workforces and growing use of ICTs which will lead to
economic growth and social cohesion. Moreover, organisational changes may provide greater opportunities to reconcile work and private responsibilities and provide employees with more control over their working time which in turn may facilitate a more equal division of private responsibilities between the sexes. Finally the growth of the services sector will enhance even further women’s employment opportunities. These changes involved in the move towards KBS have the potential to challenge gender inequalities.

Secondly, there are those who are more pessimistic about the changes and point to empirical evidence indicating not only that previous social and gender inequalities have in most cases not been altered, but also that new inequalities are arising. At the same time, new risks of social exclusion are emerging. They also question the extent to which “emancipatory” organisational changes are taking place since most European companies continue to use traditional organisation methods such as hierarchical management structures and repetitive and monotonous method of working. In other firms (or in the same firm, but with another segment of its working force), employers’ adaptation to new productive conditions and new forms of regulation is based on new productive methods which involve the use of outsourcing, down-sourcing and the parallel growth of atypical forms of work. Atypical employment in the EU is on average less favourable in terms of hours of work, pay and security than other more standardised employment.

Divergent developments across countries and lack of empirical evidence manifesting the direction and the real impact of the changes underway have contributed to the controversy over what KBS implies. It has, however, become increasingly apparent that the transition towards the KBS is socially embedded. In other words, individuals, social groups and institutions have some degree of choice in shaping the design, development and application of technologies at the same time as technology change creates conditions for breaking down prevailing power relations and institutional structures. Nation states are able to influence the changes underway and can develop alternative models of adaptation to the KBS. Hence, different levels of skills, inequalities and risks are partly societal choices such that there is no direct link between the move toward the KBS and gender (in)equality. However, the EU has brought into play a certain converging pressure by urging the member states to modernise the European social model in order to promote investment in people and combat social exclusion by ensuring equal access to ICTs. The
member states are also being encouraged to develop a model of the KBS that is competitive and capable of maintaining sustainable economic growth with more and better jobs and well as social cohesion.

**Gendered opportunities and imbalances**

The extent to which the KBS involves more and better jobs and social cohesion is widely disputed as there is no systematic relationship between the diffusion of the ICTs on the one hand and employment and social cohesion on the other hand. This relationship is shaped by political choices and institutional structures prevailing in a particular country. Approaches emphasising the positive aspects of the KBS implicitly assume that the advantages of the technology development will eventually trickle down to the rest of the society. The process of ‘trickling down’ is, however, uneven and traditional ‘male’ sectors benefit in most cases first while traditional ‘female’ sectors tend to lag behind but catch up eventually. Moreover, the diffusion of ICTs may facilitate employment growth, upgrading of skills, greater quality of jobs as well as flexibility (time and space) that in turn offers new opportunities to overcome social divisions and inequalities at least in the long run. Women have, for example, been able to find employment opportunities in the service sector and many educated women have succeeded in climbing up the job ladder and the wage structure.

This positive scenario has been questioned by those adopting more pessimistic approach. They doubt that there is a general trend towards upgrading of skills and greater quality of jobs leading to social cohesion and gender equality. (In)Equality is an outcome of wider societal processes of competition and social selection as well as of capabilities of institutions to redistribute the wealth and avoid discrimination and inequality. Recent studies show, for example, that high-tech industries and employment opportunities are in many countries highly concentrated in a few regional and local clusters and the access to ICTs differ across social groups and localities. Many prosperous regional and local labour markets are also becoming increasingly segmented internally due to a simultaneous growth of high skill and high paid jobs on the one hand and low skill and low paid jobs on the other hand. In addition, evidence reveals extensive gender segregation in high-tech occupations and a survey of job quality in the EU shows that women’s jobs involve on
average less complexity and less autonomy than men’s jobs. In other words, women are underrepresented in high-tech jobs and their skills appear to be under-utilised in the labour market. In this theoretical and empirical context, several scholars argue that we have entered an era in which individuals face increasing risk of unemployment and insecurity as concern the future skill requirements and the quality of jobs throughout their life-course.

Greater educational attainments across Europe at the same time as the number of unskilled jobs have grown, have given rise to claims that the labour force is becoming increasingly overqualified. Evidence of both skill-deficiencies and overqualification has been found within the same country. Moreover, a survey made by Eurostat indicates that the majority of those employed in the EU state that they have skills to do a more demanding job. The mismatch between the level of education and the skills demanded or required to perform a job are explained by fluctuations in demand over the business cycle, changes in the life-course of individuals who now start at a lower job level, a more disperse demand as compared with the supply of labour and by insufficient institutional link between the educational and employment systems. The trend towards higher educational attainments is an important driving force in the transition towards the KBS and evidence of overqualification in some EU member countries may signal wasted opportunities to realise full potential of the KBS.

Another controversy is whether the KBS and the greater demand for qualified workforce in the KBS will improve the quality of jobs and eventually destroy the gender pay gap as young women are better educated than young men. Several studies have demonstrated that the wage gap is widening between skilled and unskilled workers. However, the gender pay gap in the EU has remained unchanged in recent years as the benefits of educated women moving up have just offset the loss of women at the bottom or in unskilled and low paid jobs. Moreover, dispersion of wages within occupational groups, which is in some cases growing, will counteract some of the positive effects of increased educational attainments of women on the gender pay gap. Currently, the remuneration of educational attainment levels and specific skills is higher for men than women such that the gender pay gap for women with university education in 1998 was 28% as compared with the overall gender gap of 16%. In addition, the overall job quality measured as
complexity and autonomy declined from 1996 to 2001 for both men and women but the reduction was significantly greater for women. Hence, the pace of upgrading of jobs in Europe appears to have slowed down, especially among those (women) lower down the job hierarchy.

There are signs of more complex divisions in the labour market based on skill and pay as well as security which in turn is reshaping or reinforcing prevailing patterns of inequalities as well as creating new risks for workers. The risk of skill obsolescence is increasing as we move towards the KBS. As a result, individuals need to cross the boundaries between work and education several times during their life-course to ensure “employability”. Divergent intervals of education and work during the life-course of individuals are exposing greater numbers to the risk of unemployment. The organisational change associated with the new technology and its dissemination is blurring the barriers between the world of work and the private life. The positive aspect of this development is that greater flexibility in terms of location and hours may allow men and women to achieve a better balance between work and family/private life. However, the economic pressures to develop more flexible production systems and operation hours have put a greater time pressures on families and households which has in some cases undermined their capabilities to tackle the burden of care. The strategy used by most families in European to cope with the time pressures of work is for women to work part-time and for men to work long hours.

The diffusion of ICTs and deregulation of labour markets have stimulated a growth in atypical employment or in temporary and part-time work. Atypical work has been praised for the flexibility it provides and for being a bridge into standard employment for women and young people. Studies show, however, that a significant number of workers do not see this type of work as a personal choice (men more than women) and do not enjoy flexibility in terms of hours and autonomy at work (women more than men). Moreover, the working conditions of workers in atypical employment are less favourable in most European countries than of those in typical contracts. Individuals in, for example, part-time work have less control over their working hours, enjoy less autonomy, perform less skilful tasks, receive less training and have less career prospects. Moreover, part-time workers are at much higher risk of unemployment or inactivity than full-timer workers.
Hence, the growth in atypical work is not leading to a radical change in gender inequalities, imbalances between public and private responsibilities and in risks of social exclusion due to unemployment.

**Gender mainstreaming the KBS**

So far, we have outlined the main gender opportunities and imbalances created by the move to the KBS. Our discussion has highlighted the development of different models of KBS across Europe. At the same time as the EU has used the EES to exert some converging pressure on the different forms of the European social model. Evidence shows that the traditional divisions in the labour market based on education and occupation categories as well as sex do not capture adequately the implications of the move towards the KBS. A large proportion of those classified as knowledge workers do not have a university degree and a group of high skill women have been able to progress to high paying jobs. Moreover, disparities in pay and quality of work within educational and occupation categories are increasing. Hence, those women who have been able to move up the pay and the job ladder have benefited to certain extent while women at the bottom have such that gender inequalities have remained almost unchanged in the EU.

As stated earlier, EU’s gender mainstreaming approach consists of three dimensions: context, method and outcome. The context is the unequal position of men and women and it is apparent from our discussion above that the benefits of the KBS will be unevenly distributed among men and women, although the picture is not very clear-cut. Hence, the disadvantage position of across and within different educational and occupational groups must be addressed by the gender mainstreaming approach if equality is to be achieved. It is, however, not apparent that the method of gender mainstreaming involving the integration of the gender perspective into all policy areas is the most appropriate method to ensure pro-active development to the KBS. The approach focuses on employment policies and employment performances while the transition to the KBS involves interconnected technology, economic, political and social changes. Hence, the strategy will, for example, not be able to address all the aspects of the transformation having a negative impact of the sexual division of work. In addition, the move to the KBS is changing the meaning of gender (in)equality both within and across countries such that it
is difficult to achieve a common understanding at the EU level to guide gender mainstreaming efforts.

The main advantage of gender mainstreaming is that it pressures the EU and the member states to take a holistic view of gender (in)equalities involving different actors, institutional levels and measures. So far, the aim of the gender mainstreaming approach has been to promote gender equality by: reducing gender gaps (unemployment, employment, gender segregation and pay); enabling the reconciliation of work and family life (flexible work arrangements and good quality child care); facilitating re-integration into the labour market. However, the main emphasis has been on activating the labour force and improving employability which may in turn create new forms of inequality. Moreover, measures to reduce long working hours and a male-based work ethic, gender gaps in hours of work, and pay, and the uneven representation of women and men across sectors and occupations have, so far, been scarce (see e.g. Council of the European Union 2001a: 35-39). Countries showing lack of progress as concerns gender equality have been identified as countries with very little collective care for children and the elderly. This dilemma can not resolve by the EES as it permits institutional diversity across the member states. Hence, women are in many cases encouraged to participate in paid work without having opportunities to reconcile work and family life such that they are forced to take up atypical work.

Our discussion of the transition to the KBS has revealed the polemical nature of the debate as concerns the direction and the nature of the changes on the one hand and the various and wide-ranging ways in which they impact on gender relations on the other hand. This first report did not set out to settle this fascinating debate but rather to reflect some of its aspects in order to put in place an analytical and theoretical framework for our area of enquiry. There are significant discrepancies in the technological development across countries and social groups as nation states differ in their vulnerability to external challenges, in their perception of these challenges and in their capacity to respond to them. Moreover, there are growing evidence that benefits of the KBS are unevenly distributed across and within countries and social groups. Hence, various models of the KBS will develop involving different forms and levels of social divisions. This gives reason for critical and comparative studies of the transition to the KBS and its
implications for prevailing institutional and social relations. In the following workpackage (2), we will studied how these positive and negative challenges of the KBS are addressed and gender mainstreamed in 5 EU member countries and 2 associate EU member countries (Austria, Denmark, Finland, Iceland, Hungary, the Netherlands and Spain). The objective of the subsequent workpackage (3) is then to estimate the extent to which statistical information covering the 15 EU member states as well as Hungary and Iceland reveals these changes.