



# Teamwork and high performance work organisation

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This report is available in electronic format only.

*This report provides a comparative overview of teamwork, based on the European Working Conditions Surveys and 16 national contributions to a questionnaire. It considers how teamwork has developed as a new form of work organisation and takes into account the context at national and company level. The study assesses the positive and negative influence of teamwork on diverse aspects of working conditions, such as job autonomy, job satisfaction, work intensity, productivity and the learning environment. It also investigates the prevalence of teamwork according to various factors including sex, sector and occupation. The national contributions from the following 16 countries are available (as PDF files): [Austria](#) , [Bulgaria](#) , the [Czech Republic](#) , [Denmark](#) , [Estonia](#) , [Finland](#) , [France](#) , [Germany](#) , [Hungary](#) , [Italy](#) , the [Netherlands](#) , [Portugal](#) , [Romania](#) , [Spain](#) [Sweden](#) and the [United Kingdom](#) .*

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## **Introduction**

This study maps the issue of teamwork, as covered by research into working conditions in European countries. First, the report briefly outlines how teamwork has developed and tries to take into account both the national context of individual countries and the context at company level in these countries. It thus addresses how teamwork has been incorporated into companies' overall organisational strategy. Teamwork in this case is regarded merely as one element of the new forms of work organisation and as an important component of 'high performance work organisation' (HPWO).

The study then focuses on certain specific aspects of teamwork. Besides looking at the overall incidence of this type of work organisation in different European countries, the study examines the prevalence of specific forms of teamwork. It considers whether teamwork helps to give workers greater autonomy and higher job satisfaction. Moreover, it ascertains whether the presence of teamwork influences the learning environment in an enterprise. Attention is also paid to the possible negative impacts of teamwork, such as higher work intensity and work overload.

The study draws from the contributions of 16 national correspondents reporting to the **European Working Condition Observatory (EWCO)** . The national reports are also available: Austria, Bulgaria, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, the Netherlands, Portugal, Romania, Spain, Sweden and the United Kingdom. The information on quantitative and qualitative research from the national correspondents is combined with statistical analysis of data from the **European Working Conditions Survey (EWCS)** of 2000/2001, which makes it possible to compare the individual participating countries. The third EWCS, from 2000, provides data for the EU15 countries, and the same survey was applied to the 10 new Member States (NMS) and Bulgaria and Romania in 2001, while they were all still acceding and candidate countries (ACC12) for membership to the European Union.

## **Defining teamwork**

It is difficult to arrive at a single definition of teamwork. Several concepts exist and researchers in the field of working conditions differ in their view of what teamwork actually means. Work organisation using teamwork can refer to a wide range of possibilities, such as quality circles, cross-functional teams, self-managing teams or virtual teams. Many employers provide teamwork with varying degrees of autonomy.

The form of teamwork depends on task specificity. According to the definition proposed by Hacker (see below), a distinctive feature of teamwork at the assembly line is successive work actions to assemble different parts of a product. On the other hand, where the goal is to improve the production process, group teamwork is much more about complexity, communication and integrative work (O'Leary-Kelly, 1994). For the purposes of this study, teamwork is understood in a broader context without drawing a distinction between teams and work groups; it thus encompasses the following definitions:

- team: 'Groups of employees who have at least some collective tasks and where the team members are authorised to regulate mutually the execution of these collective tasks' (Delarue, 2003);

- group work: 'Group work is defined by a common task requiring interdependent work and successive or integrative action' (Hacker, 1998).

## **Cultural differences**

The varying cultural context in countries may influence understanding of the term 'teamwork', due to different experiences in using the term in everyday language, experiences from a person's own work, and the influence of the media and public debate. When analysing quantitative surveys in particular, it is not possible to be certain what respondents understand teamwork to mean, especially if the question does not offer a precise definition. Qualitative surveys may then complement this information.

Primarily, different historical experiences emerge in countries of the former western and eastern European country groups. In western European countries, and in particular northern European countries like Sweden, Denmark and also the Netherlands, the concept of teamwork has been in place for decades, experiencing a surge in the 1980s and 1990s. Conversely, in eastern European countries, new forms of work organisation and their influence on company efficiency have only been considered since the start of the 1990s, so their development has thus far been brief. In view of the transformation in key areas of the economy that these countries had to undergo, the implementation of new forms of work organisation was not a central topic for debate: rather, it was and still is a question of implementation at individual company level.

How employees understand the term 'teamwork' is linked to the popularity of the topic itself in the country in question. Employees may regard teamwork as any kind of cooperation with colleagues or have a clearer idea of a team that works on a common goal, makes joint decisions on what action to take and takes responsibility for the task.

In Bulgaria, a very broad concept of teamwork exists, which is underlined by the relatively high incidence of teamwork noted within the employee population, at 67%. According to a 2005 qualitative survey on the subject, 'teamwork is understood as interdependent work in general by both employees and employers. For example, if people are grouped in departments or just work in the same premises, it is reported as teamwork.'

The national correspondent explained that it is also fashionable in Bulgaria nowadays 'to put in all job advertisements "ability to work in a team" as a requirement for potential job candidates. In this sense, the ability to work in a team is mostly understood as the ability to cooperate and to be friendly and polite, which is an important but insufficient precondition for teamworking.'

Romania is another example of a country where teamwork has a relatively brief history. The interest of specialists and of well-established companies in these issues started to increase only in recent years, as the economy became more stable and developed. Such companies have carried out case studies on teamwork but have not published this information.

Conversely, in countries such as Denmark, Sweden and Finland, teamwork has a relatively long tradition and, at the height of its expansion, numerous studies were conducted. The development of new forms of work organisation, including teamwork, was even supported by government initiatives. This raises the question of whether teamwork has already found its place in the majority of existing companies, at least in part, and whether the trend of organisational restructuring in the form of teamwork is stable. In Denmark, the evidence of trend data supports this hypothesis, showing a decreasing number of companies in which teamwork has been implemented in the last three years. According to the national contribution, 'in the 2000 survey (SARA - see Annex 2 for an outline of all surveys cited in this report), approximately 34% of the companies surveyed responded that teamwork had been introduced within the previous three years. In 2004, this figure was approximately 26%.'

Similarly, in Sweden the subject of teamwork is much less current and relevant than in the last two decades of the twentieth century, and few new studies focus on teamwork in companies. At least two reasons for this declining interest are possible, according to the national correspondent.

*One report talks about Swedish industry not believing in the 'Swedish model' (or sociotechnical theory) any more (Engström et al, 2004) and gives examples of several Swedish car production plants going back to regular assembly line production. Another report by Wallace (2003) confirms that workplaces that earlier were pointed out as good examples are now moving away from this way of working.*

The second reason proposed by the Swedish national correspondent seems more likely: 'Teamwork has become a common way of organising and working in Sweden, hence it is nothing new so not as many researchers study it.'

Another methodological question arises as to whether teamwork even exists in small companies. The Dutch report emphasises that 'about half of the employers/organisations with 10 or fewer employees indicate that teamwork is not applicable'. However, other expert opinions confirm the possibility of teamwork in small companies (Pexová, 2004). The question of whether teamwork exists in small organisations remains open for possible further research.

## ***High performance workplace organisation***

The challenge for companies nowadays is to deliver quickly and flexibly new quality products and services, in order to be able to respond to greater and changing demands from clients. Standardisation and specialisation characterise traditional work organisation; the work is divided into different segments, from preparation to support roles, in which workers specialise in order to maximise productivity. Specialisation, control and routine are suitable when a constant demand for standardised products applies. However, for a fast changing demand, this method does not seem to work as well, and may lead to coordination problems and rigidities. Thus, companies started to look for new forms of work organisation (Delarue and De Prins, 2004).

A high performance workplace focuses on increasing people's influence on the business as well as the impact of processes, methods, the physical environment, and the technology and tools that enhance their work (Burton et al, 2005). HPWO also implements a so-called holistic organisational approach which means featuring flat hierarchical structures, job rotation, self-responsible teams, multi-tasking and a greater involvement of lower-level employees in decision-making. A high performance workplace invests in its human resources and supports both their technical and innovation skills and their social skills; this promotes good interpersonal relationships in the workplace from which the company can also benefit. This type of organisation is different from the Taylorist work organisation, which is characterised by task specialisation, a pyramid hierarchical structure and a centralisation of responsibilities.

The need for new forms of work organisation as a good base for a high performance workplace is considered to be a key element and integral part of the Lisbon Strategy, which set its goal to make the EU economy 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 by 2010. Since then, this objective has been underlined in several European Council meetings. In 2005, the Presidency conclusions of the Spring Council stated that 'new forms of work organisation ... will contribute to adaptability' and, in September of that year, the UK European Presidency organised a conference on the theme of high performance workplace organisations.

### **A core element in new forms of work organisation**

While teamwork is considered to be one of the core elements of this new work organisation, different forms can be distinguished, and not all with the same consequences. In fact, wide differences emerge between the forms of new work organisation developed in different countries (Lorenz and Valeyre, 2003). A good overview of these can be found in the report *Partners at work? A report to Europe's policymakers and social partners* (Totterdill, Dhondt and Milsome, 2002).

Under the traditional system - the Taylorist model - the work was divided into narrow functions with short, repetitive work cycles and the work method is prescribed in detail. However, as noted, this system does not offer sufficient scope for a process of upgrading and innovation, which is essential for quick change and adaptation. The slowness and relative rigidity of the traditional organisational scheme often earns it the name 'dinosaur syndrome'. Thus, it was felt important to involve the workers themselves and, in order to be involved, they must have the possibility of exercising judgement, developing social contacts and learning (Green Paper on *Partnership for a new organisation of work*, European Commission, 1997 - see below under Policy documents). A paper of the European Work Organisation Network (EWON, 1998) also considers that enterprises should use the principles of HPWO - such as self-development and higher commitment of employees - as a competitive advantage.

From the point of view of the dynamics of company organisation, teamwork can be regarded as just one of many elements of organisational change. From the perspective of this study, however, teamwork is a very important

HPWO factor, as it directly affects employees and the quality of their working life. It is perhaps for that very reason that it is regarded as one of the most progressive instruments of current company organisational practice.

The work performance of the team is higher than individual performance when the work requires a broader scope of knowledge, judgement and opinion. The advantage of teamwork is significant productivity growth in the spheres that require creative solving of different tasks, a high degree of adaptability and operational management. Teamwork also creates an environment that facilitates knowledge and information exchange and so-called knowledge sharing. Other advantages are the ability of new forms of work organisation to increase the potential for innovation that may add value to products or services, moving them into less price-sensitive markets. Moreover, the ability of new forms of work organisation to increase the employability of workers through multi-skilling and the acquisition of higher competencies in problem solving, communication and teamworking will help labour market adaptation, and also support new forms of local and regional economic growth and regeneration (Totterdill, Dhondt and Milsome, 2002; OECD, 2000). Teamwork could lead to more job autonomy, greater responsibility and higher job satisfaction. Most of the latest studies refer to the positive impact of teamwork on work productivity and company efficiency (Cohen and Ledford, 1994; Employee direct participation in organisational change [ EPOC ] survey, 1998).

### **Role in organisational change**

New forms of work organisation are used by companies to implement strategic decisions that are taken in response to a range of business challenges and pressures (EWON, 1998).

A company's attitude to the introduction of teamwork is important in the process of implementing and transforming the work organisation into a HPWO. Teamwork is not an answer to all company problems and organisational changes usually require interventions at all levels within an enterprise (Guest, 1995). If a company decides to introduce teamwork, this needs to be integrated into the entire organisational structure of the enterprise and this structure needs to be adapted to the new model; otherwise the effectiveness of teamwork is lost. If certain conditions are upheld, making organisational changes can be expected to have positive impacts, namely improved innovative capacity and operating efficiency, higher quality of output, better mutual relations at the workplace and higher productivity in general.

The principal conditions are sufficient autonomy for teams and direct participation by team members. As Ingrid Dackert (2004) comments, a team must have the right team climate to be innovative and beneficial in its work. Participation in accountability among individual team members and multi-skilling are important preconditions of team effectiveness. In multi-skilled teams, the borders between different job categories are broken down, thereby encouraging employees to broaden their skills and knowledge. There is also a considerable slimming down of the structure and a reduction of functions, which may make it hard for managers to accept some loss of power. Reorganising management functions in a way that creates room for autonomous teams is also an important precondition of increasing productivity.

These assumptions are confirmed by German research conducted by the Sociological Research Institute at the University of Göttingen, which also emphasises the importance of correct and comprehensive implementation of teamwork (Kuhlmann, Sperling and Balzert, 2004). The German study proposes a 'coherence thesis', founded on making close links between an organisation's various dimensions. 'The key issues are the integration of work organisation and teamwork with the overall company organisation and payment system. Pay and performance determination and different aspects of reorganisation promote a process optimisation that is actively supported by the employees.'

### **Impact on efficiency and productivity**

The primary aim of this study is to measure a company's productivity in connection with introducing new forms of work organisation through 'soft indicators' such as work autonomy, job satisfaction, opportunities for personal and professional development, and level of communication (Campion, Medsker and Higgs, 1993). Therefore, it will try to give an overall picture of the aforementioned trends on the basis of both theoretical and empirical surveys, by means of relevant experiences and studies cited in the contributions by the EWCO national correspondents.

For example, a Spanish study (Galve Górriz and Ortega Lapiedra, 2000) examined the efficiency of two plants of a

company in the steel sector which practised two different approaches to teamwork. In Plant A, which did not register any increase in work efficiency, the organisation of work around a production line made the establishment of informal contacts in the workplace impossible. Secondly, teamwork training was only given to senior managers and did not take into consideration the specific needs of each production plant, failing therefore to customise the teamwork structures to the specific characteristics of each plant. Finally, hierarchical organisation within the company tended to weaken the information flow among the different business process levels, and thus diminish performance.

Conversely, Plant B had developed a teamwork structure that showed a high work performance. This result was possible due to use of a combination of Japanese and Swedish production models. Japanese production models are characterised by developing economic and technological aspects based on a flat, flexible and decentralised organisation that enhances a quicker adaptation to market changes. In the case of Swedish models, informal and open communication among workers is used to improve the communication flow within and between the different levels of the company.

A Portuguese study investigating the efficiency of teams in services sector companies emphasises the need for what is known as participation security so that the team functions well and proposes innovative ideas. The study examined 26 teams accounting for 70 individuals in total, who work for seven publicity agencies in the Lisbon region (Curral and Chambel, 1999). It considered both the quality and quantity of teams' innovative benefits when tackling individual tasks. According to the national correspondent, the results show that:

*the innovation in work groups depends on the type of interaction processes occurring. When using the quality and quantity of products and ideas produced by groups as measures of innovation, one may see that the groups which produce innovations of higher quality define their objectives clearly and try to achieve common agreement among all members of the group; they also have means of innovative performance control, processes of evaluation and reformulation of ideas and critical appreciation of opinions and suggestions from the team members. Moreover, these groups also have a climate of high participation security, which allows them to introduce more information necessary to the development of good ideas.*

As a further example, it is worth considering the difference in productivity between workplaces where employees are organised in teams and workplaces where employees do not work in teams. In a national Dutch representative survey of labour relations, conducted by TNO Work and Employment, part of the Netherlands Organisation for Applied Scientific Research (Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek, TNO) in 2005, managers appraised the performance of the work organisation using several parameters, including the ability to keep costs low, achieve identified goals within budget, customer satisfaction and product quality. It was found that overall productivity, based on an aggregate productivity scale, did not depend on whether the manager organised the work according to teams. Nevertheless, an assessment of selected performance characteristics does demonstrate certain aspects of teamwork:

*Supervisors of teams with a minimum of four and a maximum of 20 persons who work on a product or service together, report more positively about the degree of flexibility of their employees than other supervisors. Flexibility was measured by the extent to which workers can be deployed in different tasks. The supervisors of teams also report somewhat more positively about the extent to which the team develops new products or services, although the association is very weak.*

## **Policy documents**

The Green Paper on **Partnership for a new organisation of work**, issued by the European Commission in 1997, emphasises the need for implementing new work organisation with the aim of increasing work flexibility and the social responsibility of organisations towards employees by enhancing their professional and personal development. New forms of work organisation are also regarded as an essential part of the Lisbon Strategy.

In the European countries under study, teamwork is not currently a topic of wide debate in government documents, as the Dutch contribution mentions.

*The topic of implementing new forms of work organisation is hardly a policy issue in the Netherlands today. The standpoint of the government, the Ministry of Economic Affairs and the Ministry of Social Affairs and Employment*

*are that this is the responsibility of the social partners, companies and workers ... The last governmental initiative in this field of new forms of work organisation and teamwork dates from the mid 1990s. Since then, work organisation and teamwork have had a decentralised, indirect policy interest, mainly through policy on working conditions.*

Enterprise-level collective agreements and higher-level collective agreements do not usually address new forms of work organisation or teamwork, nor are new forms of work organisation a priority interest for the vast majority of social partners. The Finnish contribution cites one of the few statements of the social partners on the issue of teamwork. In Finland, it is possible to conclude agreements enabling local workplaces to regulate ways in which teamwork can be established in the enterprise.

The Danish correspondent mentions the concept of ‘developmental work’ (Det Udviklende Arbejde), advanced by the Danish Confederation of Trade Unions (Landsorganisationen i Danmark, LO ) at the beginning of the 1990s.

*The concept can be described as a strategy for securing the work environment standards and opportunities for skills and personal development in times of change. Team-based working arrangements were central in the discussion of developmental work. Recently, however, the concept was altered to focus on environmental sustainability and teamwork, in itself, seems to have receded into the background.*

Overall, the national contributions cite few references to governmental documents, policies, programmes or social partner agreements discussing the implementation of new forms of work organisation and, in particular, teamwork. This absence of attention to teamwork in official government literature and other documents is most likely because the issue has been sidelined in countries where it was a topical concept in the 1980s and early 1990s.

## **Scope of study**

### **Perspective of individual employee**

According to the majority opinion of specialists in various fields, teamwork should help both to improve company performance and also to boost employees’ well-being (Gulowsen, 1972; Hayes, 2005). Provided that the conditions of autonomous decision-making are in place, with the corresponding powers and responsibilities for assigned tasks, teamwork enhances employees’ interest and motivation, not just in the context of the employee’s work task but also in the context of the corporate strategy as a whole. The key to increased company productivity should be increased employee satisfaction (Moldaschl and Weber, 1998). According to Nicky Hayes (2005), teamwork reduces fluctuations in performance and improves work morale. Leading researchers in the field of work organisation, Katzenbach and Smith (1993), are convinced that people working in a team function more efficiently, are less prone to stress and make a greater effort in their work. Furthermore, they spend less time incapacitated for work, come up with new ideas and try to improve their work.

This comparative analytical report intends to contribute to both specialist and public debate by looking at how teamwork, as one instrument of the modern form of work organisation, could contribute to quality of work and employment, how it is associated with the learning environment in enterprises and how it increases empowerment of workers. As noted above, it will measure the relationship of work productivity and new forms of work organisation indirectly through selected ‘soft indicators’ associated with higher productivity (Figure 1).

In addition, the report considers a subjective appraisal of the effectiveness of teamwork and its impact on the quality of working life of the employees themselves. Employees do not always welcome the introduction of teamwork, as was shown by the following case study of a UK company in the steel industry.

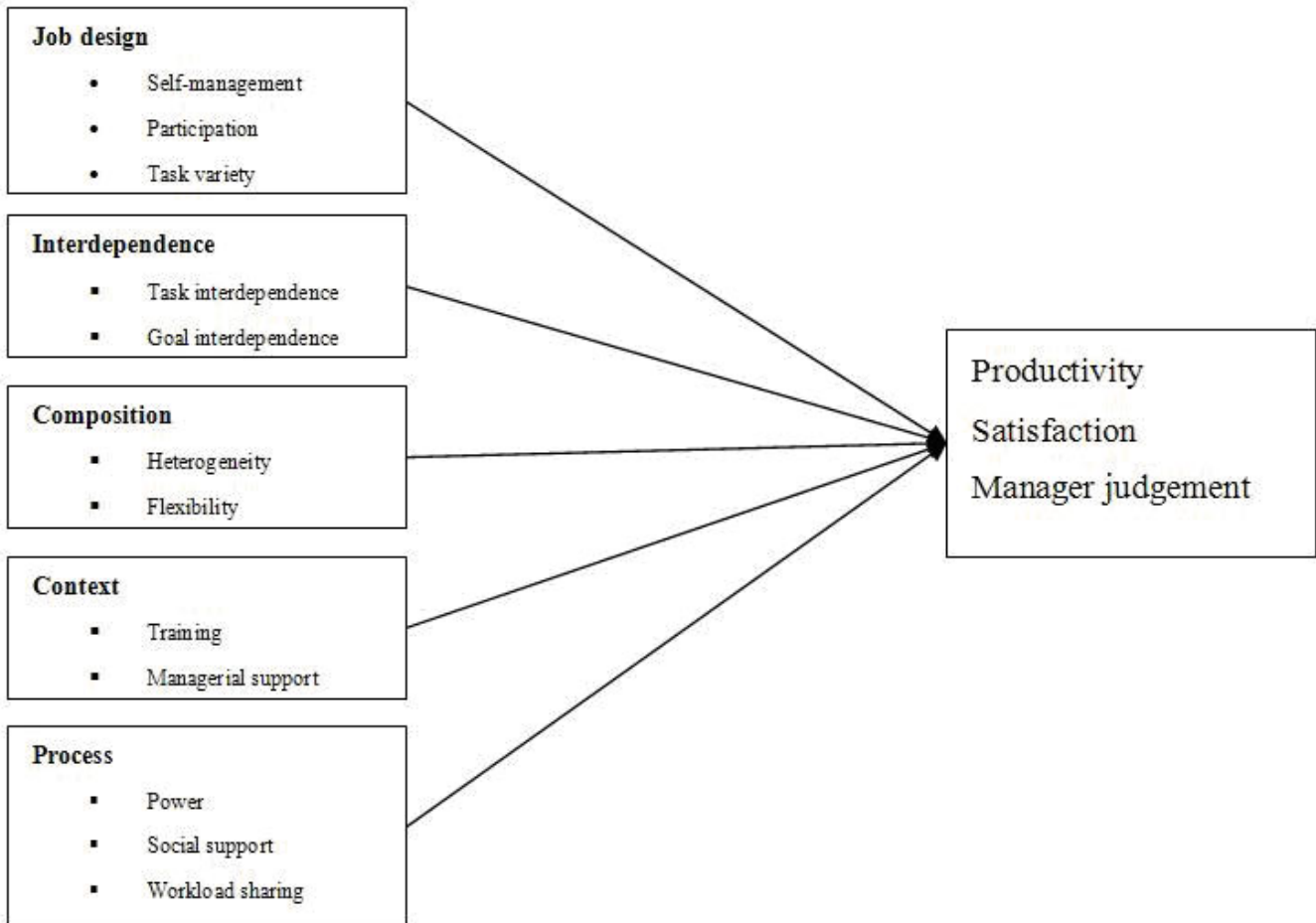
A UK paper, *Worker responses to teamworking: Exploring employee attributions of managerial motives* (Bacon and Blyton, 2005), revealed, after two years of investigation, that managers benefited disproportionately from teamworking in comparison with other employees. Employees perceived the introduction of teamwork merely as a means for furthering the careers of managers who were successful in its implementation. Many employees also adopted an even more negative view, complaining that teamwork was only introduced for effect, as a result of the company prioritising the claims of shareholders over the interests of employees or as a way of reducing the number

of workers in the enterprise.

On the other hand, data from the Quality of Work Life survey in Finland show the opposite trend, whereby the employees themselves believe that productivity improves when work is completed in groups. This belief is stronger in the private sector and in the public sector at local government level than in the public sector at central government level.

For the purposes of this study, internal group dynamics are not examined. The interest is rather focused on the overall impact of teamwork on organisational performance and quality of individual working life. Therefore, issues such as leadership style, leader elections and work organisation within the team and task distribution will not be considered.

**Figure 1: Themes and characteristics related to work group effectiveness**



Source: Campion, Medsker and Higgs, 1993

### National working condition surveys and teamwork

The study also examines teamwork as a subject of research in working conditions in EU Member States. The contributions of the EWCO national correspondents, compiled on the basis of available national research, covered the various topics relating to teamwork in very different ways. Table 1 indicates the aspects of teamwork on which the different national studies focused.

**Table 1: Aspects characterising teamwork in individual national studies**

Country	Team typology	Autonomy	Job satisfaction	Work intensity	Learning environment	Work productivity	Good practice
<b>Austria</b>	+	+	-	+	+	-	-



<b>Bulgaria</b>	+	+	+	+	+	-	-
<b>Czech Republic</b>	+	+	+	+	+	-	-
<b>Denmark</b>	-	+	-	-	-	-	-
<b>Estonia</b>	-	+	-	-	-	-	-
<b>Finland</b>	+	+	+	+	+	+	-
<b>France</b>	-	+	-	-	-	-	-
<b>Germany</b>	+	-	-	+	-	+	-
<b>Hungary</b>	-	-	-	-	+	-	-
<b>Italy</b>	+	+	+	+	+	+	-
<b>Netherlands</b>	+	+	+	+	+	+	-
<b>Portugal</b>	-	-	-	-	-	+	-
<b>Romania</b>	+	+	+	+	-	-	-
<b>Spain</b>	+	+	+	+	+	+	+
<b>Sweden</b>	-	-	-	-	-	-	-
<b>UK</b>	+	+	-	+	+	+	-

*Note: A plus (+) sign was allocated where the topic was at least partly investigated in quantitative or qualitative research, or more fully within a purely qualitative study. The absence of a topic or only a passing mention that the problem was registered in a study is denoted by a minus (-) sign.*

*Source: EWCO correspondents' national contributions*

The individual aspects of teamwork were often outlined on the basis of both quantitative and qualitative research and case studies. A large volume of information about individual surveys came from secondary sources, as the authors often had no access to primary data and were thus unable to prepare the required data.

Annex 1 outlines numerous sample questions from national surveys, recommending useful questions to gather information about teamwork and its relation to autonomy, work intensity, job satisfaction, the learning environment and work productivity.

### ***Incidence of teamwork***

Data from the EWCS 2000/2001, which surveyed the employee population only, provided employees' subjective assessments of their involvement in teamwork. However, it should be emphasised that, due to a hazily defined and understood concept of teamwork, the data do not give precise information on the extent of this kind of work organisation in each country in question.

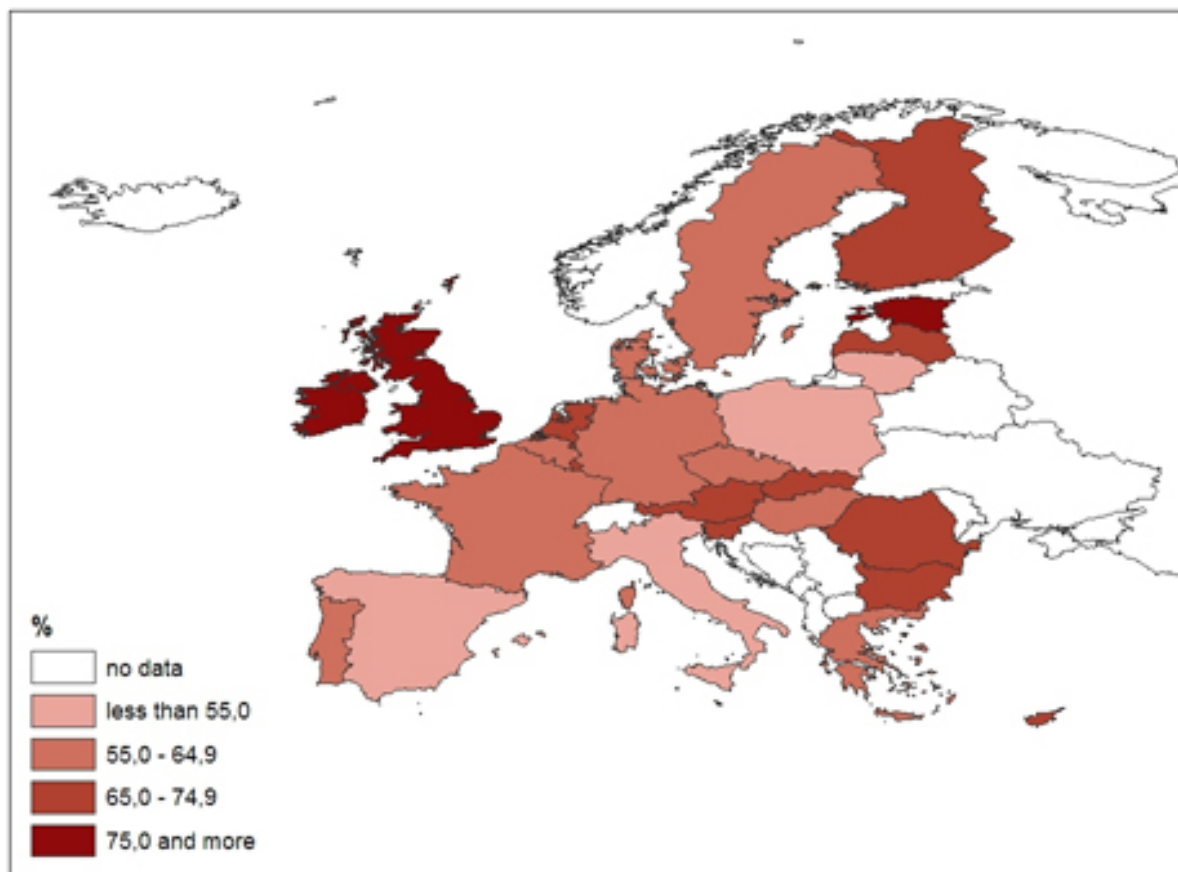
The analysis of the incidence of teamwork derives from questions Q.27b.2 (EU15) and Q.24b.2 (ACC12): 'Does your job involve, or not...? Doing all or part of your work in a team.'

The data are broken down by sex, size of enterprise, occupational activity and sector. The results reveal that the incidence and scope of teamwork cannot be differentiated according to the traditional scheme of old and new EU Member States. Pronounced regional differences emerge between countries; however, unifying criteria such as

geographical location or similar political and socioeconomic conditions cannot be determined. The scale of teamwork thus depends more on other characteristics; it may be assumed that the internal company environment is key.

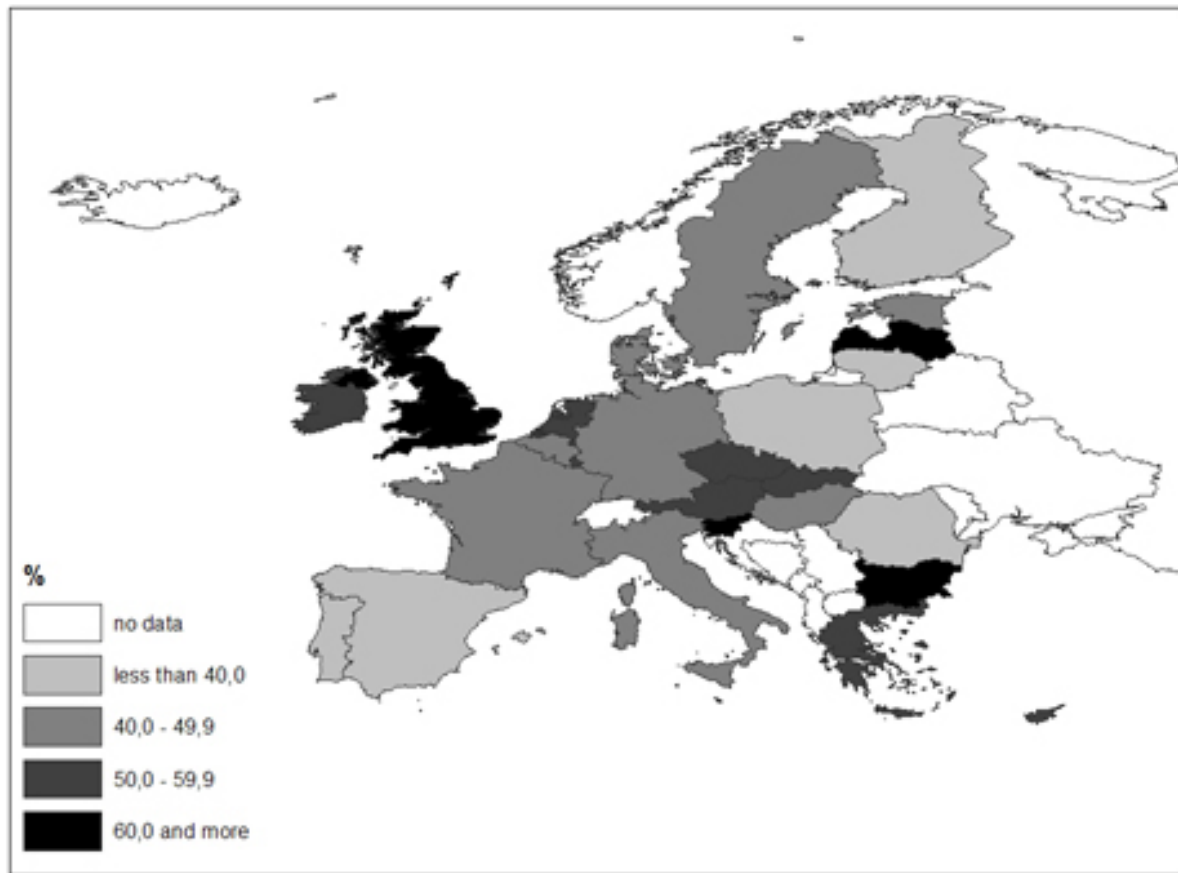
Overall, in the EU15, teamwork is most common in the UK and Ireland, at 80.6% and 76% respectively, while Estonia and Malta are the NMS where employees most commonly work in teams, at 81% and 80.1% respectively. While among the NMS, the lowest incidence of teamwork is found in northern regions, i.e. in Lithuania and Poland, at 38.3% and 54.3% respectively, among the EU15, the southern Member States of Spain and Italy - at 53.9% and 40.9% respectively - are the least likely to use teamwork (Figure 2).

**Figure 2: Teamwork incidence in EU (%)**



Source: EWCS 2000/2001

**Figure 3: Job rotation incidence in EU (%)**

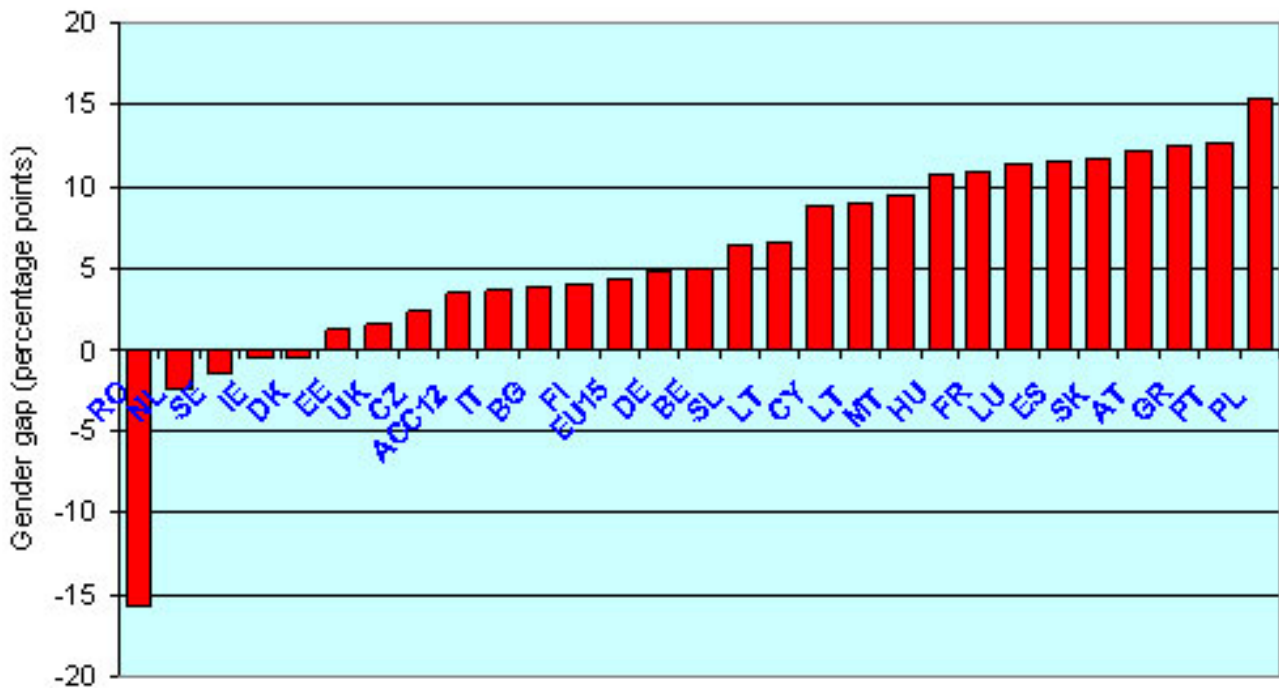


Source: EWCS 2000/2001

### Gender gap

Although it might seem that teamwork should not be gender specific, Figure 4 shows that more men work in teams in most of the countries under study. One major exception in this respect is Romania, where the gender gap in terms of more women being involved in teamwork reached 15.7 percentage points. Women also more commonly worked in teams in countries such as the Netherlands, Sweden, Ireland and Denmark, although the difference between men and women was not statistically significant. Fundamental differences between the sexes and their work organisation were found in Poland (a difference of 15 percentage points), Portugal, Greece and Austria, with more men than women working in teams. It is likely that these countries have more traditional work organisational parameters, particularly in sectors employing mainly women.

**Figure 4: Teamwork incidence, by extent of gender gap**



Source: EWCS 2000/2001

The results and indications provided by the national studies make it possible to state that teamwork is equally divided between men and women in countries where there is generally greater gender equality in employment, such as in Scandinavia and the Netherlands. Conversely, southern European Member States, such as Spain and Portugal, have more pronounced differences in terms of teamwork.

The main explanation for the gender differences in teamwork most likely pertains to sectoral aspects, where women are more concentrated in certain sectors of the economy. Another less likely explanation might consist of the actual composition of teams, where women may be disadvantaged in this regard. Nevertheless, according to a Swedish study (Sandberg, 2004), a mixed gender team composition is considered to only contribute positively to the overall working climate.

### Company size

Analysis of teamwork by company size reveals some differentiation according to the ACC12 and EU15 country clusters. While in the majority of the EU15 countries, a statistical correlation was found between company size and teamwork, in the ACC12 the situation was the exact opposite. Among the EU15, the incidence of teamwork did not depend on company size in Austria, Finland, Germany, Ireland, the UK, and Sweden, while in the other nine countries, a correlating effect was found. In the majority of cases, large enterprises with 250 employees or more have a relatively higher proportion of employees working in teams than small companies have (Table 2). Luxembourg and Italy are exceptions: in these countries, an increased incidence of teamwork was found in medium-sized companies, with 50-249 employees.

Conversely, significant statistical differences in teamwork by company size were not found in the majority of the ACC12. Where a statistical correlation was registered, the tendency was similar to that in the EU15: teamwork was more characteristic of large companies.

**Table 2: Teamwork incidence, by company size (%)**

Company size		
0-49 employees	50-249 employees	250+ employees
%	%	%
<b>Austria</b>	65.0	70.1
<b>Belgium*</b>	49.8	60.6
<b>Denmark*</b>	58.5	67.9
<b>Finland</b>	64.8	66.7
<b>France*</b>	53.5	64.1
<b>Germany</b>	53.3	57.4
<b>Greece*</b>	56.8	67.7
<b>Ireland</b>	74.1	80.2
<b>Italy*</b>	37.2	48.3
<b>Luxembourg*</b>	66.4	81.0
<b>Netherlands*</b>	66.5	71.7
<b>Portugal*</b>	56.2	59.2
<b>Spain*</b>	51.5	57.9
<b>Sweden</b>	61.7	61.4
<b>UK</b>	79.0	81.0
<b>EU15*</b>	59.6	66.1
<b>Bulgaria*</b>	63.8	75.9
<b>Cyprus</b>	66.0	63.9
<b>Czech Republic</b>	64.0	66.0
<b>Estonia</b>	80.0	82.9
<b>Hungary</b>	61.2	50.9
<b>Latvia</b>	70.8	77.6
<b>Lithuania</b>	36.7	43.6
<b>Malta</b>	79.9	83.0
<b>Poland*</b>	50.9	59.3
<b>Romania*</b>	63.1	73.8
<b>Slovakia*</b>	65.2	72.8
<b>Slovenia</b>	71.8	77.1
<b>ACC12*</b>	60.3	65.0

Note: \* Statistically significant differences: probability (p) #0.05.

Source: EWCS 2000/2001

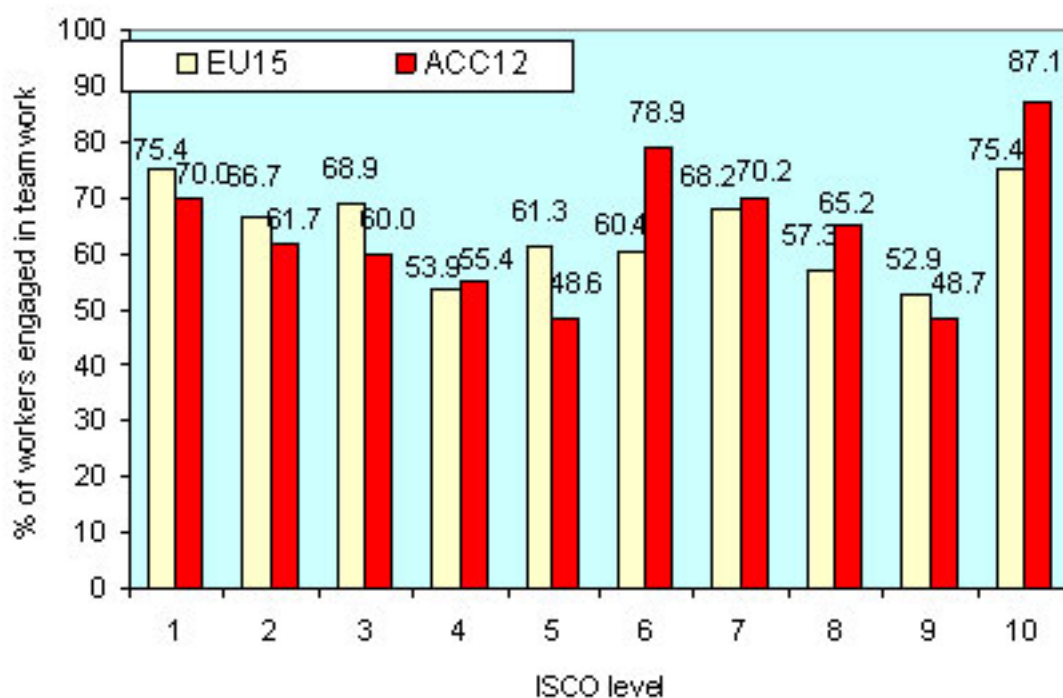
## Occupation and employment status

Teamwork is directly related to the type and nature of professions. The following analysis clarifies which professions have a high or low incidence of teamwork, according to the International Standard Classification of Occupations (ISCO).

The EU15 countries are typified by a predominance of teamwork among the three highest-level occupation categories, namely legislators and senior officials and managers (75.4%), professionals (66.7%), and technicians and associate professionals (68.9%) (Figure 5). A higher incidence of teamwork is also found among craft and related trades workers (68.2%), while a lower incidence of teamwork prevails among clerks (53.9%), plant and machine operators and assemblers (57.3%), and elementary occupations (52.9%). The results thus indicate that teamwork predominates among highly-skilled jobs with a higher than average degree of autonomy.

The conclusions from the national studies support this finding; in France, for example, according to the 1997 survey of organisational change and computerisation, teamwork is generally characteristic of managerial and planning or design positions with hierarchical or technical responsibilities. In the UK, the nationally representative survey of establishments, WERS 1998, shows that teamworking was least common in workplaces mainly comprising craft and related workers, and operative and assembly workers. Conversely, teamwork was most common among professionals. The Portuguese correspondent also states that teamwork is most frequently found among professionals, technicians and associate professionals, and managers.

Figure 5: Teamwork incidence, by occupation (%)



Notes: 1. Legislators and senior officials and managers; 2. Professionals; 3. Technicians and associate professionals; 4. Clerks; 5. Services workers and sales workers; 6. Skilled agricultural and fishery workers; 7. Craft and related-trades workers; 8. Plant and machine operators and assemblers; 9. Elementary occupations; 10. Armed forces. The low representation of armed forces, legislators (in Luxembourg and Portugal) and skilled agricultural workers means that there may be some bias. Armed forces and skilled agricultural workers are not taken into

account when interpreting the data.

Source: EWCS 2000/2001

A similar model is also seen in the ACC12. The only distinct exception is the much lower proportion of employees whose work is organised in team form among services workers, at 48.6%, and the higher proportion of teamworkers among plant and machine operators and assemblers. It may be concluded that, in the ACC12, teamwork is more widespread among blue-collar workers than it is in the EU15.

## Sector

The results of the EWCS 2000/2001 show a clear predominance of teamwork in industrial sectors (Table 3). By contrast, teamwork is less frequent in the services sector. Statistically significant differences between sectors were found both in the ACC12 and in the EU15.

Significant differences, at a significance level of probability (p) #0.05, were not found in Belgium, Finland, Greece, Ireland, Italy, Luxembourg, Spain, Sweden and the UK. Among the ACC12, the same is true for Estonia, Hungary, Latvia, Malta, Slovakia and Slovenia.

According to the EWCO data, the Netherlands was the only country with a marked predominance of teamwork in the services sector, at 71.4%. However, the national report, based on data from the 2005 TNO survey of labour relations, shows that teamwork is relatively evenly balanced between the services sector and industrial sectors. Data from the TNO survey draw attention to the predominance of teamwork in the agricultural sector, where 95.5% of employees work in teams; however, this proportion is most likely distorted by the low representation. The 2005 survey only finds substantial differences when using a more detailed classification of economic activity. The highest proportion of employees working in teams of a minimum of four and a maximum of 20 persons, who work on a product or service together in companies with 30 employees or more, can be found in the hotels and restaurants sector, at 82.4%, and in the financial services sector, at 76.2%. The lowest proportions are registered among employees working in the construction industry, at 48.5%, and in business services, at 59.4%.

**Table 3: Teamwork incidence, by sector (%)**

Sector		
Agriculture and fishery	Industry	Services
%	%	%
<b>Austria*</b>	78.9	72.8
<b>Belgium</b>	47.1	59.9
<b>Denmark*</b>	27.2	67.1
<b>Finland</b>	61.3	66.2
<b>France*</b>	41.9	67.8
<b>Germany*</b>	64.1	63.8
<b>Greece</b>	72.9	65.2
<b>Ireland</b>	67.2	76.3
<b>Italy</b>	60.4	41.3
<b>Luxembourg</b>	100.0	75.2
<b>Netherlands*</b>	84.9	62.6
<b>Portugal*</b>	50.1	68.4

<b>Spain</b>	63.6	56.5
<b>Sweden</b>	60.8	61.3
<b>UK</b>	68.3	79.7
<b>EU15*</b>	59.3	65.1
<b>Bulgaria*</b>	70.1	73.1
<b>Cyprus*</b>	83.9	79.5
<b>Czech Republic*</b>	80.7	66.9
<b>Estonia</b>	80.1	84.1
<b>Hungary</b>	74.7	56.6
<b>Latvia</b>	73.8	74.3
<b>Lithuania*</b>	24.3	44.2
<b>Malta</b>	50.0	85.6
<b>Poland*</b>	75.2	60.1
<b>Romania*</b>	61.9	74.6
<b>Slovenia</b>	76.4	76.0
<b>Slovakia</b>	60.8	72.7
<b>ACC12*</b>	64.3	66.2

*Notes: The proportions of employees working in teams in the agricultural sector are often distorted by the very low representation of respondents in this sector. In Cyprus, Malta and, surprisingly, Poland, this category had markedly below-average representation. \*Statistically significant differences:  $p \neq 0.05$ .*

*Source: EWCS 2000/2001*

The incidence of teamwork can also be viewed from the perspective of the private and public sectors. In this case, the results of the national studies vary. While in the UK, for example, a higher proportion of employees work in teams in the public sector, the opposite is the case in Finland and Estonia.

### **Company ownership**

Another dimension that plays a role in the incidence of teamwork is the type of company ownership and whether foreign capital is present. This factor needs to be emphasised primarily in the case of the NMS. Data for the Czech Republic dating from the end of the 1990s, for example, draw attention to the fact that new forms of work organisation were more common in companies with foreign ownership, which can be assumed to have imported a different organisational culture and management practices. The results also show that companies with foreign capital use autonomous teamwork more than other companies do.

More frequent use of teamwork in foreign-owned companies compared with domestic companies was also mentioned in the Hungarian national report:

*Significant regional differences emerge: in the Székesfehérvár region, southwest of Budapest, almost 60% of companies used teamwork, while the rate of the same indicator was only 37% in Dunaújváros, situated south of Budapest. ... in Székesfehérvár, a strong foreign direct investment inflow was registered during the 1990s ... in the region of Dunaújváros, the presence of foreign capital was rather poor. The foreign-owned companies are the*



*'main vehicle' of modernising work organisation and employment practices not only in these regions but in the Hungarian economy as a whole.*

## **Teamwork and autonomy**

This part of the study concerns the incidence of teamwork and employee autonomy. It considers whether teamwork increases the autonomy of employees in making decisions about their work; which degrees of self-regulation can be distinguished; the particular form of teamwork involved; and how these forms are monitored in research on working conditions.

Team autonomy is understood as the possibility of the group to participate in the decision-making process in relation to tasks, working methods, organisation of working time and assessing the quality of their own work. However, this study focuses on the autonomy of the individual rather than that of the team.

Various types of teamwork generally differentiate according to the autonomy of individual members within the team and the autonomy of the team as a whole, including its participation in the decision-making process within the company's organisational structure. Table 4 presents the two forms of teamwork, according to employee autonomy.

**Table 4: Basic distinction of teamwork, according to employee autonomy**

Semi-autonomous/sociotechnical/Swedish or Scandinavian teams	Lean/Japanese/Toyotist teams
Task is integrated, autonomous, no formal leaders, flat hierarchy; teams are responsible for their own part in reaching common business goals.	Employees can be exchanged easily. Few or any formal skills required; on-the-job training is more feasible.

*Source: Author's summary*

Lean production is a more or less coherent set of practices stemming from the Japanese automobile industry. The emphasis is on the advantages of running production with the lowest possible level of inventories - zero defect and a limited vertical integration. The composition of teams can be homogenous as different jobs do not require extensive formal training and employees can be exchanged relatively easily.

Alternatively, work organisation may be connected to sociotechnical principles such as an autonomous group. A sociotechnical team is defined as 'a group of workers, with generally between four and 20 persons, responsible for a complete part of the production process and entitled to take certain decisions autonomously' (Benders and Van Hootegem, 1999). Roles and responsibilities tend to be flexible and often are decided by the team members to suit the task and individual needs.

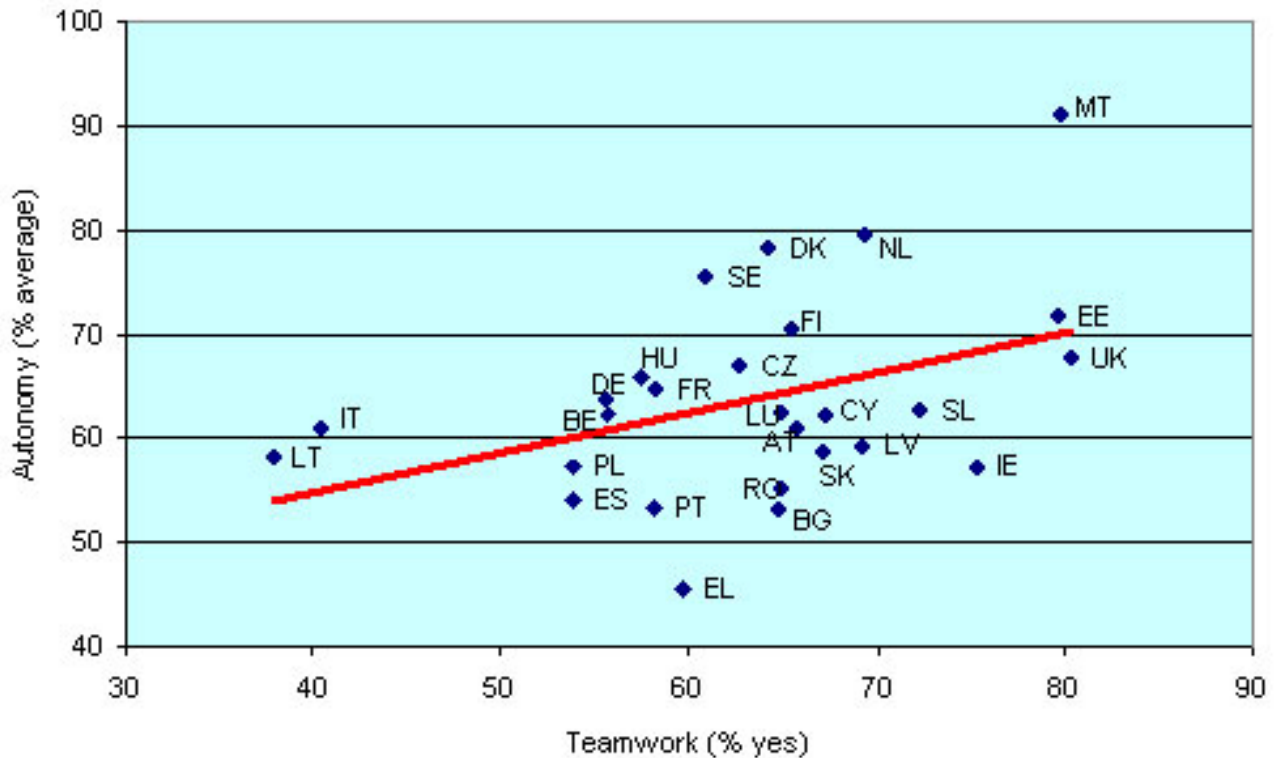
In the EWCS 2000/2001, worker autonomy is characterised by decision-making in relation to one's work in the sense of choosing the sequence of tasks, choosing what methods to use and the pace of work.

The analysis draws on the following questions:

- Are you able, or not, to choose or change your order of tasks?
- Are you able, or not, to choose or change your methods of work?
- Are you able, or not, to choose or change your speed or rate of work?

Figure 6 shows the results of the quantitative analysis.

### **Figure 6: Teamwork and employee autonomy**



Note: The averages were calculated from the percentage incidence of the answer 'yes' to the three aforementioned questions.

Source: EWCS 2000/2001

Source: EWCS 2000/2001

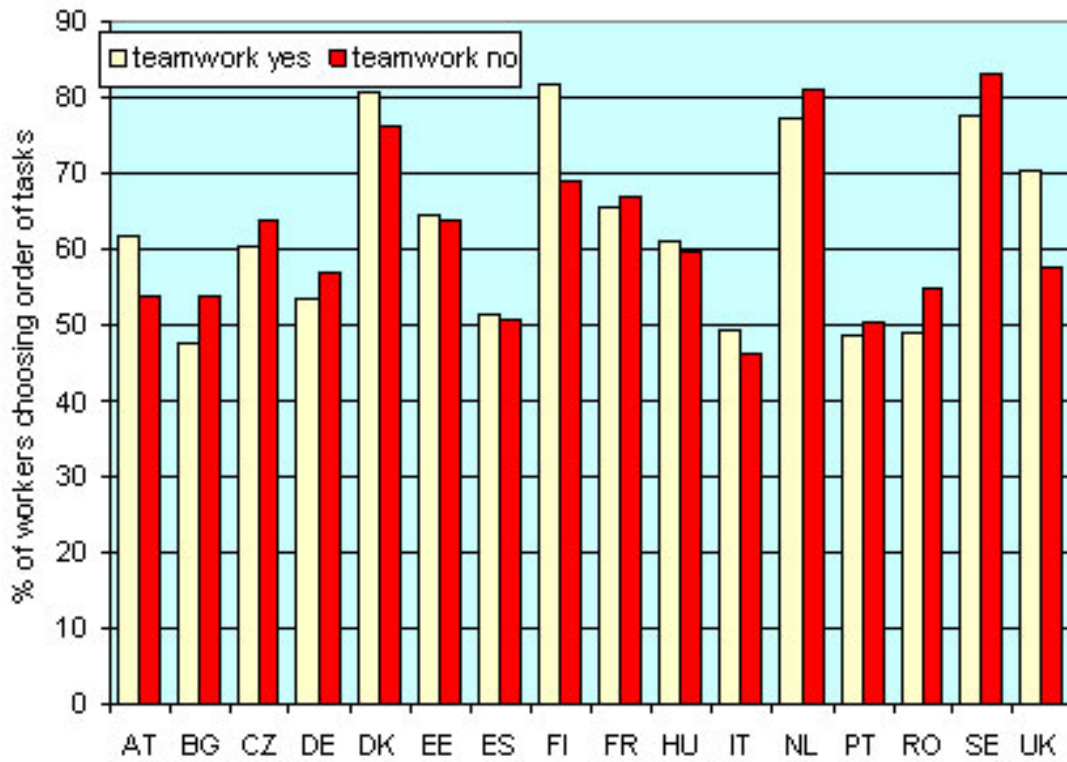
Source: EWCS 2000/2001

Source: EWCS 2000/2001

Figure 6 maps the association between two dimensions: the incidence of teamwork and the degree of individual autonomy. In fact, such an association cannot be proven by statistical analysis of the data. The EU15 and the ACC12 display considerable differences in the various aspects of autonomy that show a correlation with teamwork.

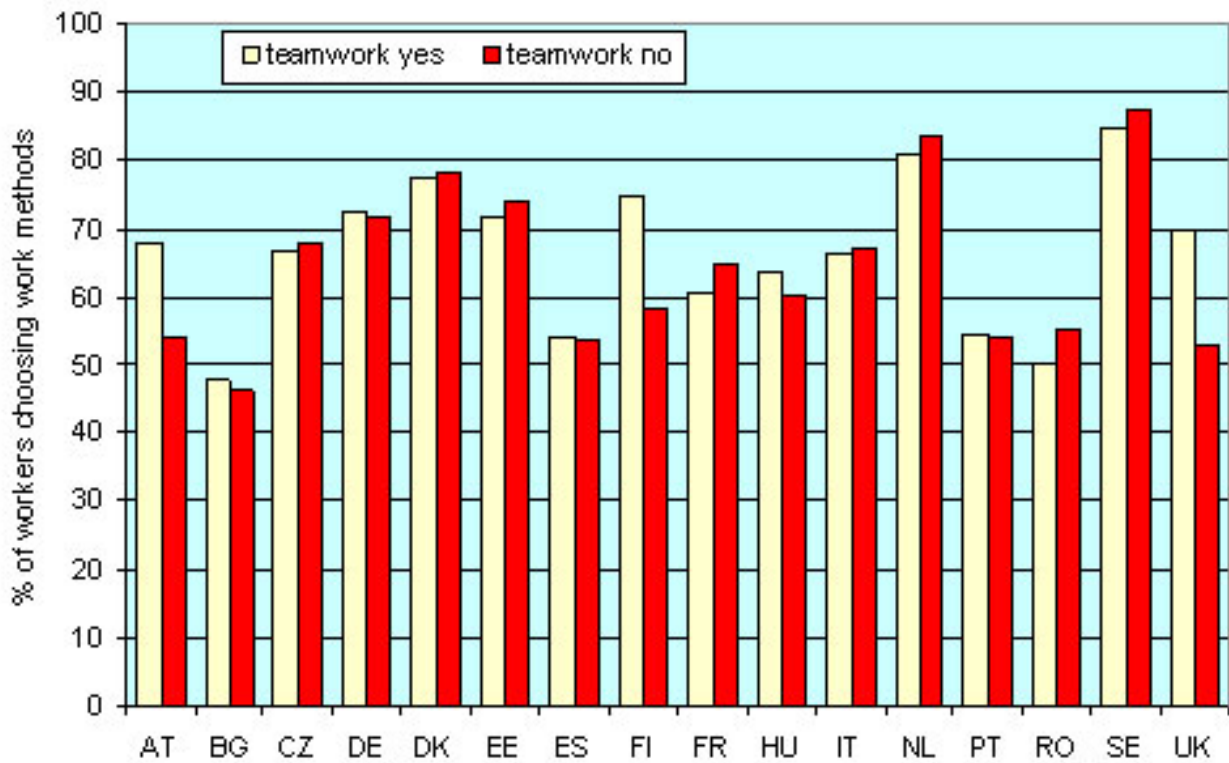
In the EU15, the incidence of teamwork has a statistically significant association with a higher rate of worker autonomy, specifically in respect of influencing the order of work tasks and choosing one's own work methods (Figures 7 and 8). However, this tendency is not found among workers in the ACC12. Conversely, in the ACC12 dataset, a statistically significant relation emerges between teamwork and the possibility of choosing one's pace of work (Figure 9).

**Figure 7: Possibility to choose order of tasks, according to teamwork**



Source: EWCS 2000/2001

**Figure 8: Possibility to choose methods of work, according to teamwork**

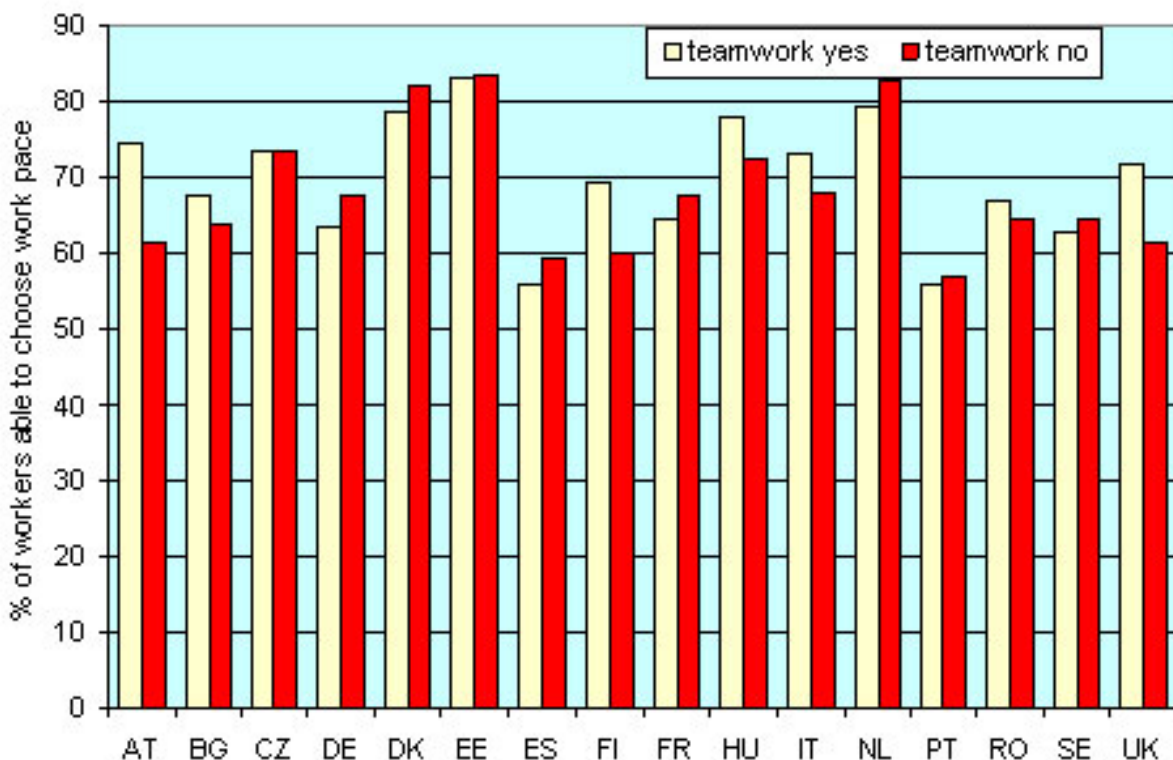


Source: EWCS 2000/2001

EU15 countries as a group thus display a relation between the incidence of teamwork and greater employee autonomy in the possibility of choosing the order in which work tasks will be carried out, at a significant level of  $p < 0.001$ . The cases of Austria, Finland and the UK demonstrate this dependency in analysis at national level. In both Finland and the UK, employees working in a team display a greater autonomy, by 13 percentage points, than employees not working in a team. On the other hand, Figure 7 also reveals certain EU15 countries with the opposite tendency, namely France, Germany, the Netherlands, Portugal and Sweden.

The EU15 countries also demonstrate a statistically significant association, at a significant level of  $p < 0.05$ , between the incidence of teamwork and the possibility of choosing one's work methods. This association was confirmed for Austria, Finland and the UK, as the percentages shown in Figure 8 indicate. In Finland and the UK, a gap of 17 percentage points emerges regarding choice of work method between employees working in teams and employees not working in teams. On the other hand, Sweden, although within the EU15, demonstrates a statistically significant association in the opposite direction. Thus, no clearly unifying tendency for teamwork appears in relation to employee autonomy in the 16 countries under study.

**Figure 9: Possibility to choose pace of work, according to teamwork**



Source: EWCS 2000/2001

The tendency of increasing autonomy combined with teamwork in the aspect of choosing the pace of work was shown to have statistical significance in the ACC12 group, at a significant level of  $p < 0.001$ .

Figure 9 reveals, however, that there is both a positive and a negative association between these aspects in different countries. Austria, Finland and the UK, where teamwork was demonstrated to have a positive influence on the previous two aspects of autonomy, are joined by Hungary in the case of the aspect of choosing the pace of one's work.

Overall, it can be concluded that the EWCS 2000/2001 does not categorically prove that teamwork causes

increased worker autonomy in decision-making about one's own work. In some countries, a positive relation is found between teamwork and greater autonomy, while in other countries, a negative relation emerges. At national level, it is possible to prove a correlation between the presence of teamwork and greater levels of autonomy only in Austria, Finland and the UK.

The main Finnish national survey of working conditions, Quality of Work Life Survey 2003, confirms this correlation for Finland. According to the national correspondent, 'Employees who work in teams have, according to the survey, slightly more influence on the working environment compared with employees who do not do teamwork.'

In the Netherlands, research by TNO and the Ministry of Social Affairs and Employment (Ministerie van Sociale Zaken en Werkgelegenheid, SZW), based on a 1998 survey of labour in the information society, has mapped the issue of teamwork in great detail, including an analysis of the link with autonomy. In relation to task autonomy, the differences between workers who do and who do not work in a so-called autonomous task group or self-managing team were very small; those who work in an autonomous task group or self-managing team have slightly more task autonomy.

Conversely, according to the Bulgarian correspondent, the 'national working conditions survey (2005) reveals that the ability to self-organise working time shows a strong correlation with teamworking, with teamworkers being more limited in this regard: 16.5% of teamworkers and 23% of non-teamworkers can change their working time.'

Certain qualitative analyses point to a slightly higher degree of autonomy in connection with teamwork. For example, a Bulgarian 2005 qualitative study on teamworking in companies finds that all teams can autonomously change their pace of work and, except in one company in the manufacturing sector, teams can design schedules and working time autonomously. Nevertheless, the autonomy even in these selected companies is rather low overall.

This Bulgarian study, however, refers to the autonomy of the team rather than the autonomy of the individual. According to the Danish correspondent:

*A literature survey on group-organised work found that the autonomy of the team or work group may conflict with the autonomy of the individual worker. ... Even though it tends to be the case, quality control, planning and the delegation of responsibilities to employees do not automatically increase the autonomy of employees. Some cases indicate that the team organisation of work may become a mere addition of work tasks to a certain occupation, thus intensifying work without increasing the employees' control over work.*

Some qualitative studies point to teamwork having a positive influence on employee autonomy but representative quantitative analyses cannot confirm this trend. Logistic regression, which will be used later in this study to outline the work organisational environment that is typical of teamwork, even points to a connection between teamwork and a lower degree of employee autonomy.

Possible reasons for the differing results of qualitative and quantitative studies may be, on the one hand, the choice of companies to include in qualitative research or, on the other hand, the problem with the different notions of the term 'teamwork' among respondents in quantitative research.

## ***Impact of teamwork on learning environment***

This section investigates how teamwork influences a company's learning environment. Pedler et al (1989) defined a learning organisation as an organisation that 'facilitates and promotes the education of all its members and systematically transforms itself'. The assumption is that teamwork creates an environment for shared responsibility, knowledge, and both continuous professional and personal development of employees. This study will analyse the learning and professional growth opportunities of employees working in teams, in comparison with other workers.

The EWCS 2000/2001 did not pose a question that would directly map the influence of introducing teamwork on a company's learning environment. Therefore, the learning environment is assessed instead by reference to the three questions listed below, which may be regarded as relevant indicators. It is important to note the difference between

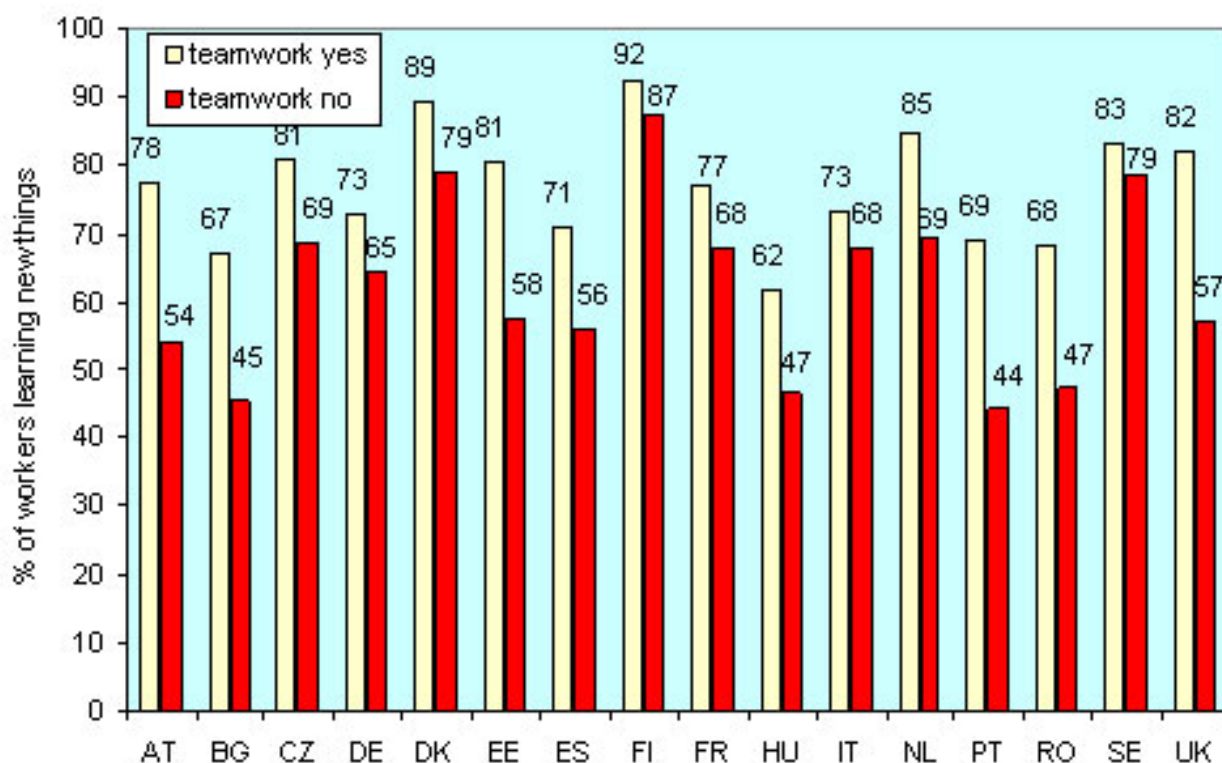
the provision of training and the creation of a learning environment or so-called 'learning organisation', as mentioned by the UK correspondent.

The analysis draws on the following questions:

- Over the past 12 months, have you undergone training paid for or provided by your employer to improve your skills or not?
- Generally, does your main paid job involve, or not, learning new things?
- Generally, does your main paid job involve, or not, complex tasks?

Analysis of the data confirmed the hypothesis that working in a team is closely associated with an environment typified by the possibility to learn new things and perform complex tasks. Teamworkers are more likely to learn new things in their work than those not working in teams are (Figure 10). This association was confirmed at the level of both groups of countries as a whole (EU15 and ACC12) and at the level of individual countries, where significant differences were found for all countries, with the exception of Cyprus. Figure 12 shows that teamworkers in the EU15 are 13 percentage points more likely to learn new things at work than those not working in teams. Similarly, in the ACC12, the difference between teamworkers learning new things and non-teamworkers learning new things reaches 15 percentage points.

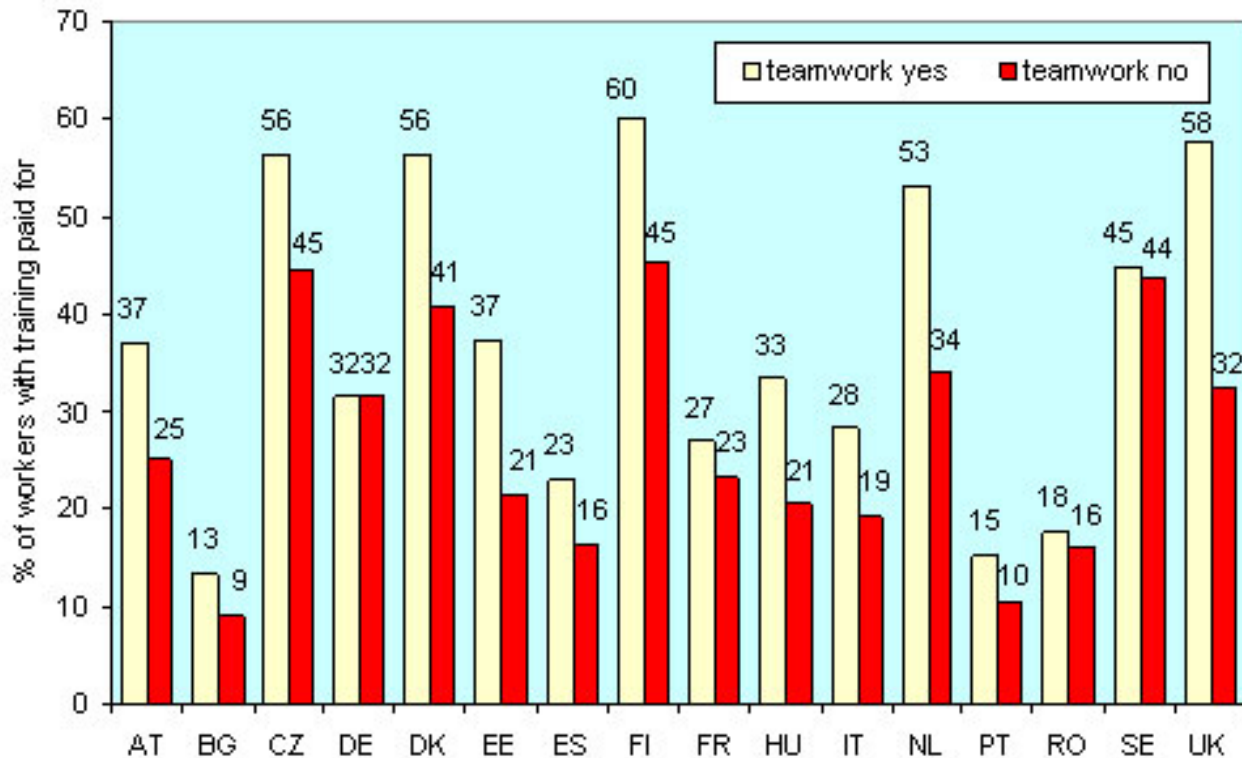
**Figure 10: Teamwork and learning new things**



Source: EWCS 2000/2001

The same positive tendency exists between teamwork and the possibility for employees to take part in training paid for by the employer. In both the EU15 and ACC12, a significant difference was found, at a significant level of  $p \leq 0.001$ , showing that teamworkers have a greater chance of taking part in training. The difference between teamworkers and non-teamworkers in taking part in training is 13 percentage points in the EU15 and seven percentage points in the ACC12. Analysis at national level confirms a significant difference in access to training for teamworkers in 11 of the 16 country reports, excluding Bulgaria, France, Germany, Romania and Sweden. Figure 11 shows the percentages for the individual countries.

**Figure 11: Teamwork and training paid for by employer**



Source: EWCS 2000/2001

The logistic regression later in the study also confirms the association between the incidence of teamwork and the learning environment in an organisation. In addition, the results of surveys from individual European countries support the conclusions of quantitative analysis of the EWCS 2000/2001 data.

The Bulgarian national working conditions survey 2005 finds that: ‘some 16% of respondents received training in the previous 12 months, 10.5% of whom were teamworkers and 5.5% of whom were not. Within the group of teamworkers, 71% were trained, compared with only 28% of the non-teamworkers. Teamwork definitely impacts positively the opportunity of training.’

The Bulgarian research also confirmed that teamworkers more often learn new things in their job than those not working in teams do; the difference between both sets of workers is 20 percentage points. According to the qualitative teamwork study in Bulgaria in 2005, managers also believe that ‘after implementation of teamwork, the teamworkers become more motivated to learn new things and they actually learn from each other in the process of work’.

The Finnish Quality of Work Life Survey also reports a positive correlation between teamwork and employee training. ‘Employees who do teamwork have generally better possibilities for receiving training and for developing their skills than people who do not work in teams.’

The Hungarian regional surveys on manpower and knowledge use (2001) and a model of cooperation between economic and vocational training institutions (2003) also found that teamwork has a positive impact on the intensity of training.

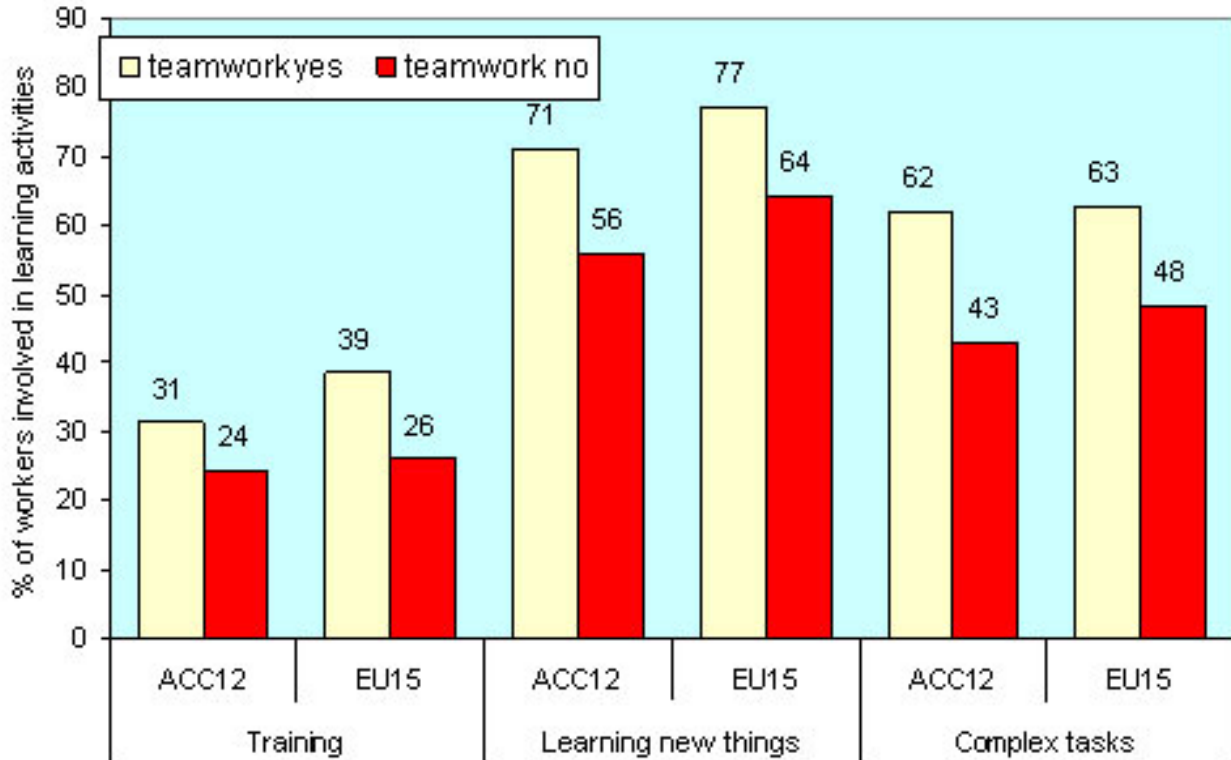
However, several surveys identified no association between teamwork and the possibility of learning new things at work or taking part in training. In relation to the indicator of employee training, such surveys included the Czech survey of Quality of Working Life 2000 and the Dutch TNO survey of labour relations 2005. Likewise, the Spanish survey of Quality of Life in the Workplace found no link between a ‘stimulating working environment (learning



environment) and the presence of teamwork practices’.

Nevertheless, overall, the vast majority of the national correspondents highlighted the positive impacts of teamwork on the company’s learning environment.

**Figure 12: Teamwork and indicators of learning environment**



Source: EWCS 2000/2001

### **Job satisfaction**

This section seeks to clarify the relationship between teamwork and job satisfaction. It examines whether workers are satisfied with a team-based way of working, the association between overall job satisfaction and teamwork, and whether teamwork increases overall job satisfaction.

Teamwork theorists believe that if teams work well, have a common goal, are autonomous in their decision-making, and have responsibility and support, teamwork becomes a valuable experience for the workers involved. ‘Working in a team empowers people and helps them develop autonomy, which is a source of profound job satisfaction and reduces stress.’ (Hayes 2005, p. 172) In view of this theory, the following hypothesis may be made: ‘Working in a team contributes to job satisfaction.’

The EWCS 2000/2001 did not ask about job satisfaction among employees working in teams, nor did it ask about overall job satisfaction. The analysis therefore contains a substitute question from the survey, mapping satisfaction with working conditions: ‘On the whole, are you very satisfied, fairly satisfied, not very satisfied or not at all satisfied with working conditions in your main paid job?’

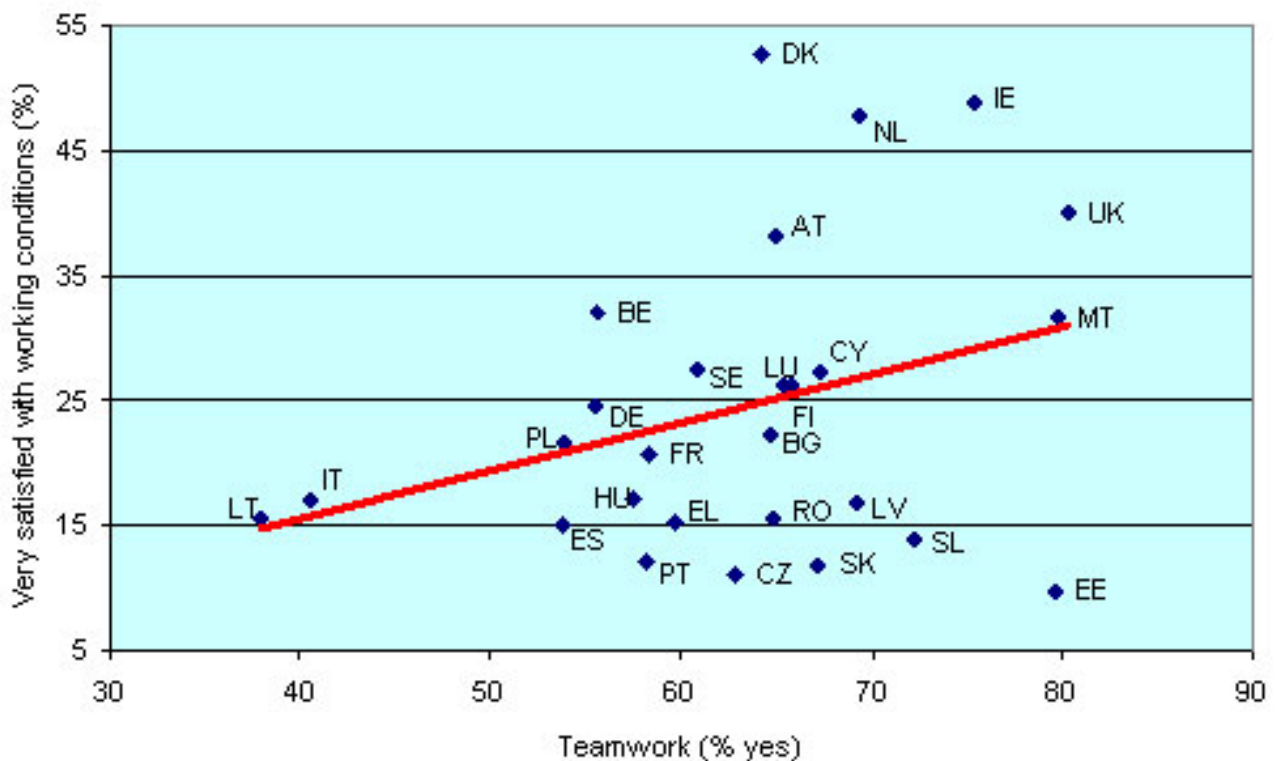
In this regard, it is necessary to point out the difference between the substitute question about working conditions and the question about overall job satisfaction. The relationship between the nature of work, working conditions and satisfaction is explained most often by the cited theory of ‘satisfactors’ and ‘dissatisfactors’ drawn up by



Herzberg (Herzberg et al, 1957). According to this model, two classes of factors influence job satisfaction. The first class of factors leading to job satisfaction corresponds to the employee's need to further his or her qualifications and career and, by extension, to develop his or her personality. The second category of factors forms a kind of base for the first class and comprises working conditions in a broader sense, encompassing pay, management style and work organisation. The first class tends to be denoted as satisfactors/motivators and the second as dissatisfactors, in other words factors serving to prevent dissatisfaction, but with little influence on positive attitudes to work. The latter type of factors tend to be described as 'hygienic factors' in relation to the working environment.

Satisfaction with working conditions as it is presented in this study, therefore, covers only one of the two parts of overall job satisfaction, namely the part that the aforementioned theory refers to as dissatisfactors. Figure 13 shows the overall distribution of satisfaction with working conditions in relation to teamwork.

**Figure 13: Teamwork and satisfaction with working conditions**



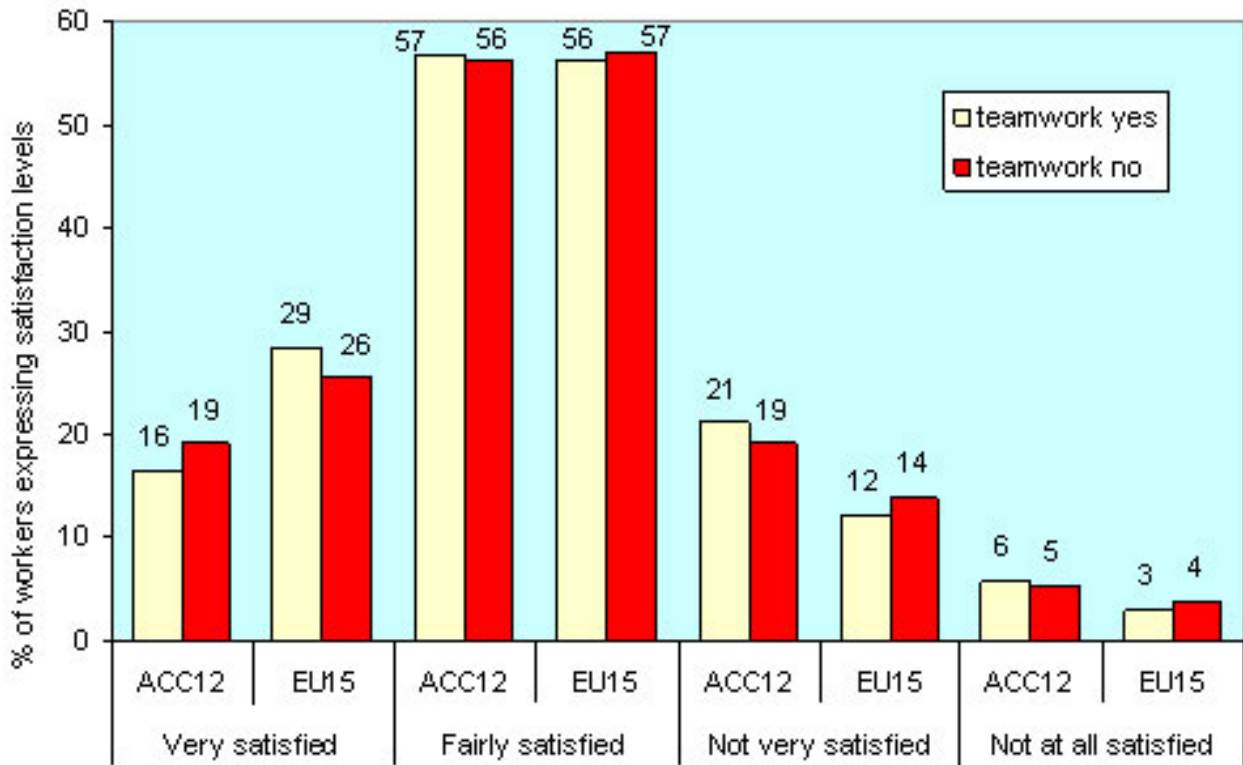
Source: EWCS 2000/2001

The results of more detailed statistical analysis of the incidence of teamwork and employee satisfaction cannot categorically confirm the initial hypothesis. It was not proven that teamwork contributes to satisfaction with working conditions in the countries under study. Various tendencies emerge among two groups of European countries. While, in the EU15, employees working in teams are slightly more satisfied with working conditions, the opposite is the case in the ACC12. The differences in satisfaction levels between those working in teams and those not working in teams are statistically significant - for the EU15, significant level  $p < 0.001$ ; for the ACC12, significant level  $p < 0.01$  - but relatively small, as Figure 14 shows. The differences between those working in teams and not working in teams amount to only three percentage points for the EU15 countries (teamwork 85%; no teamwork 82%) and two percentage points for the ACC12 (teamwork 73%; no teamwork 75%). Overall, 85% of employees working in teams in the EU15 are satisfied with their working conditions. In the ACC12, the rate of satisfied teamworkers is 12 percentage points less than in the EU15.

However, analysis at national level has not proved the contrary tendencies in job satisfaction between the EU15 and ACC12. Significantly greater satisfaction among teamworkers is demonstrated in just one EU15 country, Finland. Conversely, lower satisfaction among employees working in teams was found at a significant level in only one of

the ACC12, Estonia.

**Figure 14: Teamwork and satisfaction with working conditions**



Source: EWCS 2000/2001

With one exception, the national reports did not mention surveys that directly asked about satisfaction with teamwork. The exception was the Finnish Quality of Work Life Survey 2003, in which respondents expressed agreement or disagreement with the statement: ‘I am generally satisfied with a team-based way of working.’ The survey indicates that:

*people are usually satisfied with teamwork, with 96% of respondents agreeing that the above statement was completely true or true to some extent. No major differences were found in relation to any of the background variables. Moreover, satisfaction with the decision making authority of the team was high, at 93%. In general, team members in Finland are satisfied with the decision making of the group. Those who work in a small company are particularly satisfied.*

The survey also demonstrates that those who work in teams are more likely to be very satisfied with their current job than employees who do not do teamwork are, at 36% and 28% respectively.

Survey results from Denmark and Italy also indicate a positive correlation between teamwork and job satisfaction. Neither country had directly measured a declared incidence of teamwork by respondents; instead, the surveys mapped the organisational environment displaying features of teamwork. The Danish quantitative study, conducted in 71 companies - SARA Baseline data - concludes that ‘workplaces that develop the organisation of work towards more employee control, more skills development opportunities, more meaningful work and flexible working time arrangements tended to increase job satisfaction among employees’.

Where the national reports from the EU15 countries mention job satisfaction, they generally confirm the results of quantitative analysis of the EWCS 2000/2001 data and report greater job satisfaction among employees working in

a team. The exception is the Netherlands, where the TNO/SZW 1998 survey of labour in the information society did not confirm a correlation between the presence of autonomous task groups or self-managing teams and a better attitude to one's work and company.

The ACC12 contrast with the EU15 in this regard; in the ACC12, quantitative analysis indicates a slight tendency to a lower level of job satisfaction among teamworkers, compared with those not working in a team. However, this conclusion is not confirmed by any of the national correspondents' reports. The results of quantitative surveys in both Bulgaria (EWCS 2001 and Working Conditions 2005) and the Czech Republic (EWCS 2001 and Measuring the Quality of Working Life 2004) merely state that no statistically significant correlation was found between teamwork and job satisfaction. The Romanian 'Investigation of organisational structure effects on a qualitative index of human resources' examines the connection between different organisational structures and job satisfaction, and suggests a positive correlation between teamwork and satisfaction. Thus, companies using teamwork are characterised by higher levels of employee job satisfaction than companies that do not make use of teamwork. The Bulgarian national correspondent explained that the job satisfaction assessment in this study

*was made on five dimensions: the work itself, salary, promotion opportunities, relations with bosses, and relations with colleagues. The structures using teamwork score higher than the others, particularly in the last dimension. Often, friendship relations are developed by working together and interacting frequently with team colleagues. A more pleasant work environment increases overall job satisfaction. Moreover, the feeling that you belong to a group is very important for a state of happiness or unhappiness.*

The information available from research carried out in the ACC12 does not demonstrate a link between the presence of teamwork and employee satisfaction, except in the case of one qualitative study.

The discrepancy between the results for the EU15 and the ACC12 seems puzzling. How is it possible that in some countries teamwork contributes to job satisfaction whereas in other countries it either does not have any impact on job satisfaction or has a negative impact? More than one possible interpretation suggests itself. One explanation corresponds to the different understanding of teamwork in different countries. Due to the brief history of teamwork in former eastern bloc countries, where its introduction and public debate on new forms of work organisation are more recent, it is possible that in these countries the term 'teamwork' is understood very broadly, perhaps as any kind of cooperation. People do not have a clear awareness of what teamwork should entail. Respondents may thus answer a question by declaring that they work in a team even though their work does not have the characteristics of teamwork, which are presumed to lead to greater job satisfaction. This may be compounded by the failure to comprehend the term 'teamwork' among employees, employers and managers. Moreover, teamwork is still a very modern term in countries like Bulgaria and the Czech Republic. Recruiting employers advertise teamwork as a prerequisite for job candidates even though very often the actual work displays no such features.

Another possible answer could be based on the different proportion of teamworkers within individual categories of job occupations in the EU15 and ACC12. According to the incidence of teamwork by occupation, as outlined earlier, teamwork in the ACC12 is more widespread among blue-collar workers than is the case in the EU15. Assuming that working conditions in general are better for white-collar workers than blue-collar workers, it follows that teamworkers in the ACC12 are less satisfied with their job than those not working in teams, since teamworkers in these countries belong more often to the category of blue-collar workers.

Nevertheless, the different tendencies in job satisfaction in the EU15 and ACC12 are not very strong. Therefore, the above explanations only serve as hypothesis or suggestion.

## ***Negative consequences of teamwork***

This section considers possible negative aspects of teamwork, namely the possibility of an increased pace of work and the resulting higher workload and greater risk of health problems. However, it is difficult to generalise the results of analytical studies on this topic. The ambivalence lies chiefly in the increased demands on work performance and corresponding extended responsibilities and autonomy in work teams. If demands are increased but teams are not given the necessary scope for control and decision-making on how to meet these demands, it is likely that employees will experience higher levels of stress and work pressure.

The expert community can thus be divided into two groups of opinion. The larger group comprises advocates of teamwork, who usually claim that teamwork has positive impacts on employees and work organisation, for example in reducing the rate of work injuries, fewer absences from work and increased work productivity. The other group believes that teamwork and other aspects of HPWO may have 'detrimental effects on workers by increasing work-related health problems and the risk of occupational hazards' (Bauer, 2004; Askenazy, 2001; Brenner, Fairris and Ruser, 2004). Job rotation and greater responsibility on employees for product quality increase the pace of work; job rotation and rapid organisational changes facilitated by flexible production processes reduce workers' chances to improve safety through work routines and learning on the job.

Individual national studies included case studies or studies based on quantitative work with data that draw attention to this problem. A case study describing the introduction in 1994 of new forms of work organisation in a company in the automobile sector in Austria concluded that the introduction of new forms of work organisation, including teamwork, led to an increased workload and an increase in time pressure caused by a staff shortage and technical problems.

This trend was also tracked in a Danish comparative study based on comprehensive analysis of 144 completed case studies and theoretical studies. The study makes it clear that the introduction of teamwork is typically followed by an intensification of work. This higher work intensity is problematic from the employee's point of view mainly if the job enlargement is not accompanied by a greater possibility for control over one's work.

Increased intensity of work following restructuring and the introduction of new forms of organisation is not only relevant in the manufacturing sector. An Austrian study from 2003, which examined a project introducing virtual teams, shows that workers in the information technology (IT) sector cite a high and continuously increasing pressure of work. All of the workers were involved in project teamwork as this is the dominant form of work organisation in IT services and in virtual teams. The workers noted an increase in short-term projects in general, and increasing international as well as internal competition due to reorganisation processes.

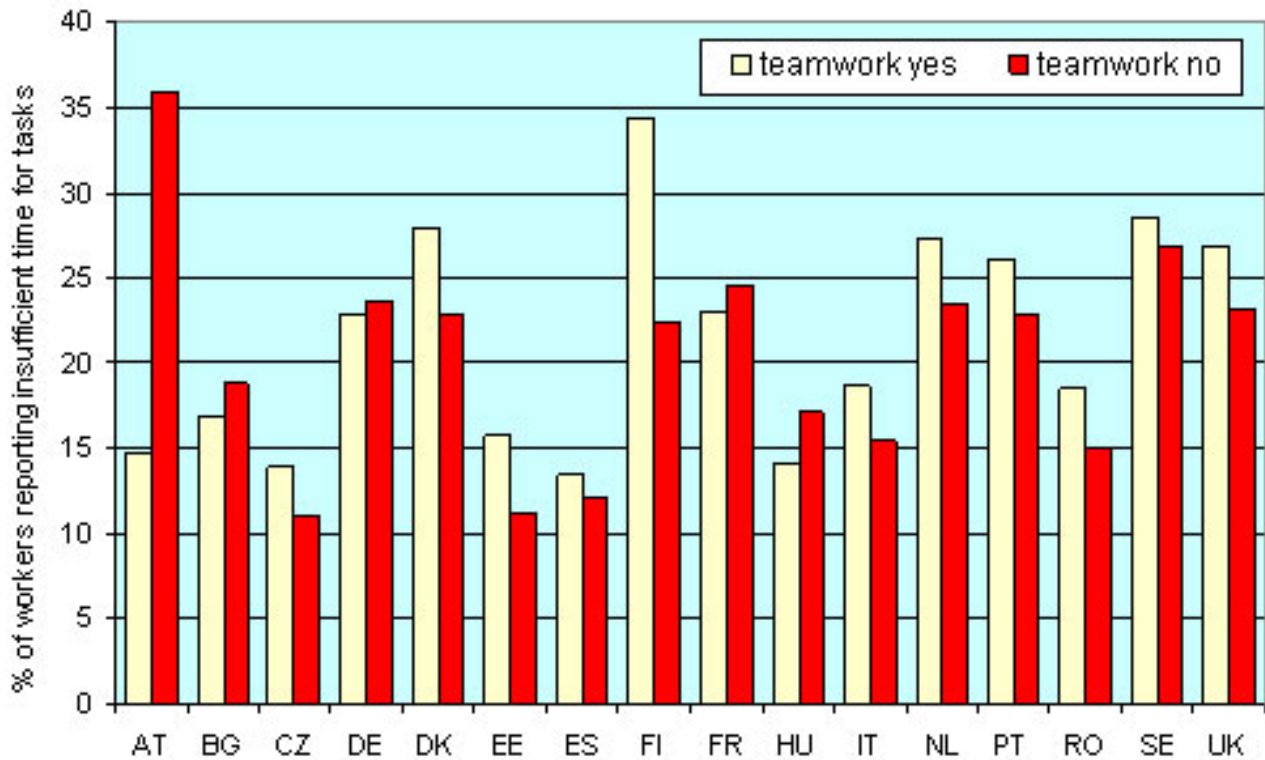
The Finnish Quality of Work Life survey reveals that 59% of employees working in teams described their working environment as being driven by time pressure and tight time schedules, compared with 51% of employees not working in teams. Increased stress among teamworkers is also apparent from the Spanish representative survey, Quality of Life in the Workplace, 2004. The available data show that 32.2% of those who work in a team report being 'always or frequently' stressed at work, in comparison with 23.4% of those who do not work in teams or groups. On the other hand, the results of the extensive Dutch quantitative survey of labour relations 2005, conducted by TNO, identified no statistically significant correlation between teamwork and working under time pressure.

The Employment in Britain Survey in 1992 and Working in Britain Survey 2000 revealed that 'high performance work practices, including group work, were a source for spill-over of work into home life'. Overall, the results of this survey 'suggest a conflict between high performance practices and work-life balance policies and in particular showed that group working practices were playing a larger role in work demands'. The Finnish Quality of Working Life survey 2003 draws similar conclusions, finding that people who work in teams think about their work in their free time more often than those not working in teams.

### **Insufficient time to get the job done**

A correlation between teamwork and lack of time for work was not proven in most countries. Furthermore, contradictory tendencies can be observed among Member States where a statistically significant dependency was found. In Finland and Denmark, employees working in teams feel that they have insufficient time to do their work tasks considerably more often than is the case among other employees (Figure 15). Conversely, the opposite tendency was identified in Austria, where only 14.7% of employees working in teams mentioned problems with a lack of time to complete tasks, compared with 35.9% of employees not working in a team.

Overall, it may be concluded, with certain exceptions, that the distribution of work tasks between members of a team does not contribute to the subjective feeling that there is insufficient time to do the work, nor does it help to improve this situation. *Figure 15: Percentage of those reporting insufficient time to complete job tasks*

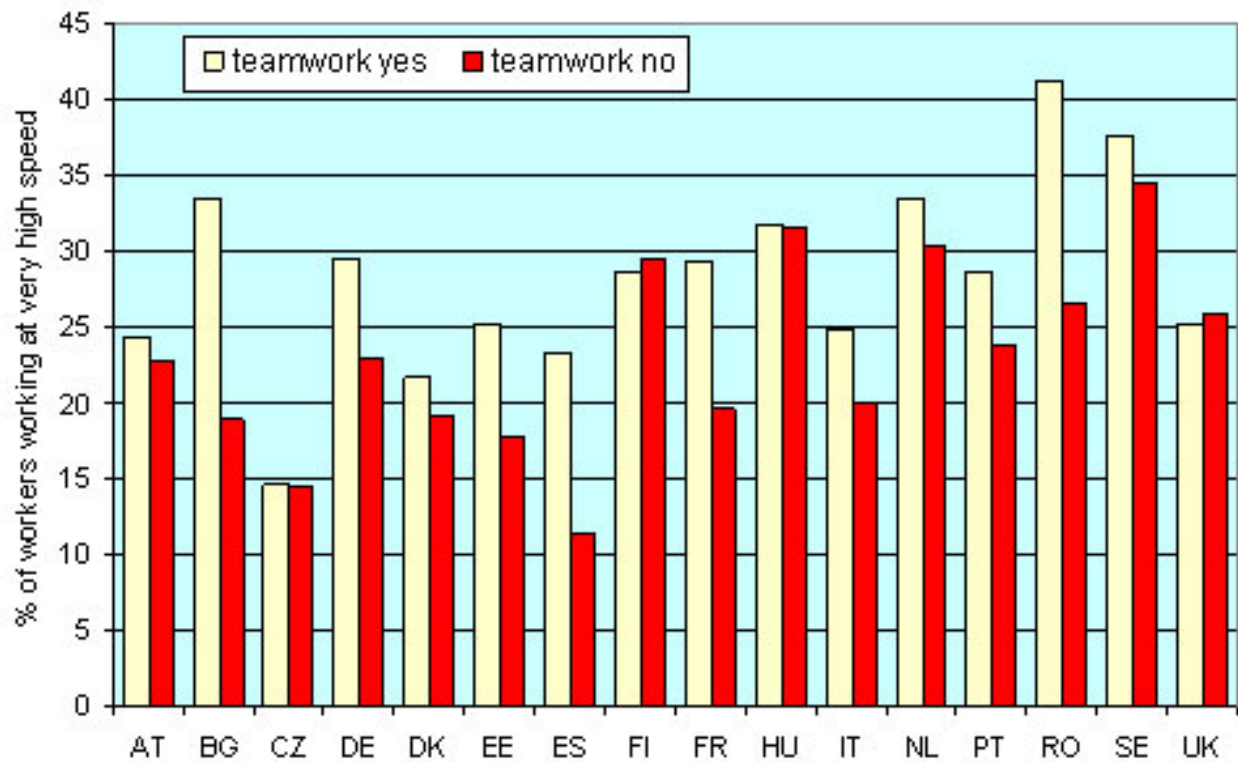


Source: EWCS 2000/2001

### Working at very high speed and to tight deadlines

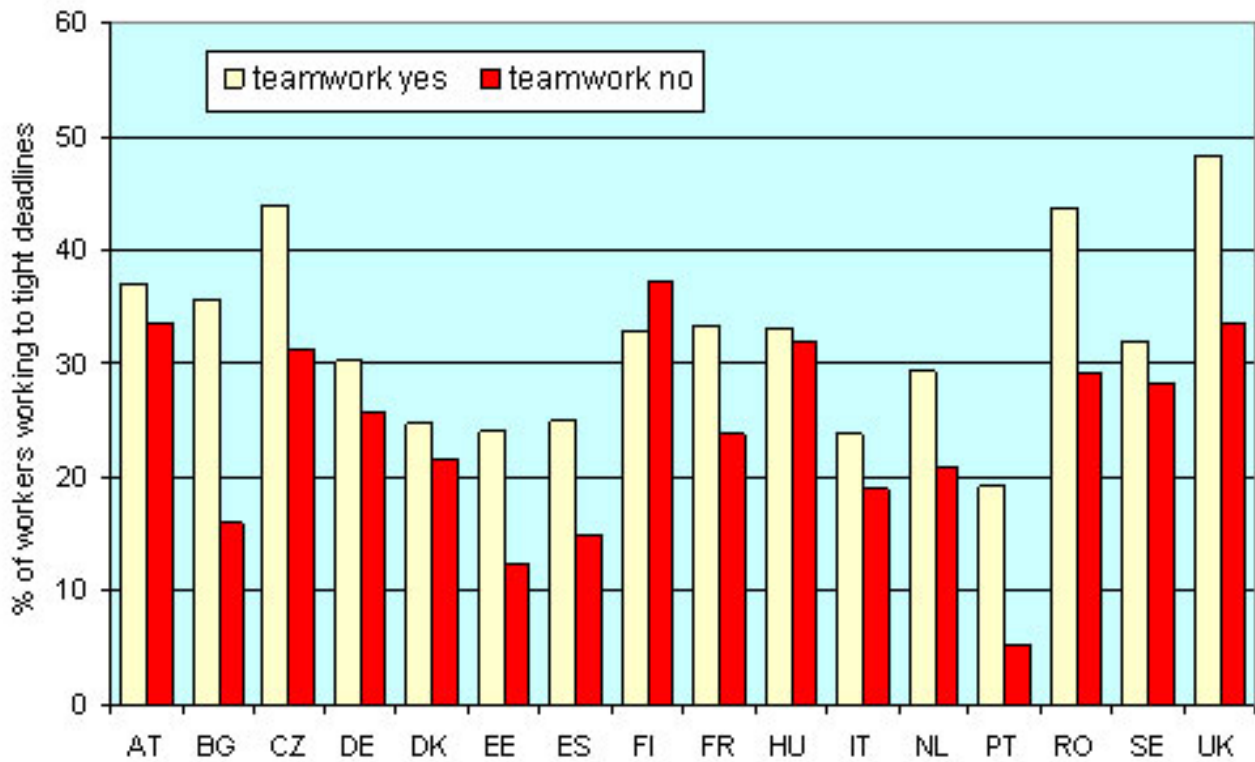
Working at a high speed and to tight deadlines, which reflect the intensity of work in different job categories, are further indicators of work intensity. The results show that teamwork has an impact on both variables, both in the EU15 and ACC12. People working in teams are more likely to work to tight schedules or at a high speed than other workers are. It is also significant that, in the EU15, a closer correlation exists between teamwork and working to tight deadlines than between teamwork and high-speed work. Nevertheless, the closeness of the association between teamwork and both of these variables was similar in the ACC12.

**Figure 16: Percentage of those who report working at very high speed all or almost all of the time, according to teamwork**



Source: EWCS 2000/2001

**Figure 17: Percentage of those who report working to tight deadlines all or almost all of the time, according to teamwork**



Source: EWCS 2000/2001

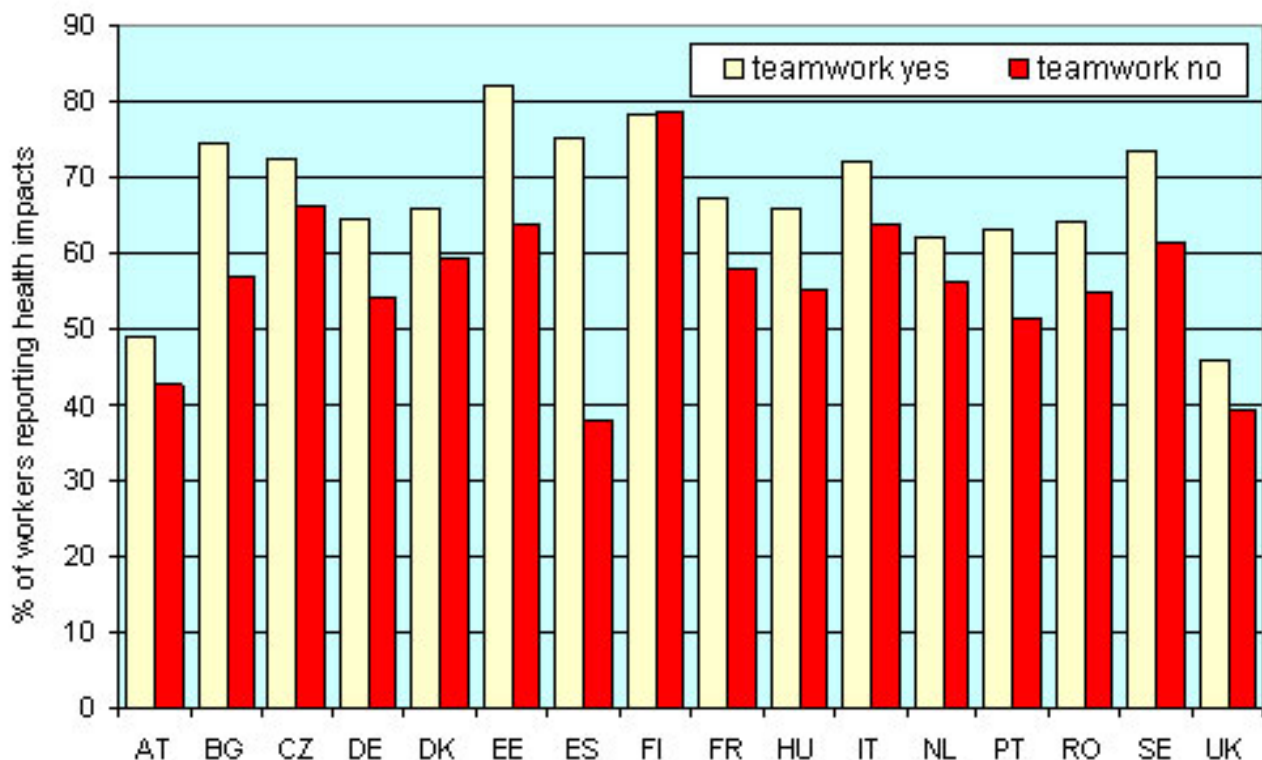
Figures 16 and 17 show the overall trend for individual countries. High-speed work is relatively more common among employees working in teams than among other employees in all countries except Austria, Finland, Sweden and the UK, where no statistically significant correlation was found (Figure 16). The most notable difference between the employee groups can be seen in Bulgaria and Romania, Spain and France.

Similarly, working to tight deadlines is more frequently the case for teamworkers than for other employees. In this regard, one can observe a correlation with the generally more frequent incidence of teamwork among higher-skilled professions. Again, no statistically significant association was registered in Germany or Sweden, while Bulgaria, Portugal, Romania and the UK show the widest differences between employees (Figure 17). Large gaps of 10 percentage points or more can also be found in the Czech Republic, Estonia, France and Spain.

### Impact on employees' health

As far as a subjective appraisal of the impact of working life on employees' health is concerned, the results show that the health of teamworkers is negatively affected by their work more than the health of employees not working in teams is. Significant differences between teamwork and the impact of work on employees' health were found in most countries, apart from the Czech Republic, Finland, the Netherlands and the UK (Figure 18). The values show that, in the EU15, 61% of employees working in teams believe that the work has a negative impact on their health, compared with 56% of employees not working in teams. Analysis of the ACC12 reveals the same trend, specifically 71% compared with 61%.

**Figure 18: Percentage of those reporting that their health is affected by work**



Source: EWCS 2000/2001

The above can lead to a judgement of certain tendencies in work intensity and its impact on the health of employees in an organisational environment where new forms of work organisation have probably been introduced, at least in part. Work pressure is demonstrably greater among teamworkers than among other employees. It is highly probable



that this fact also has an impact on the health of employees working in teams.

## Organisational environment

Teamwork does not exist in isolation within the organisational company strategy. Instead, it works in synergy with other characteristics of the organisational environment. Thus, Oei and Wiezer (2002) argued that it is not appropriate to study teamwork as an organisational concept since it is not a concept in itself but rather an elaboration of a chosen concept strategy - in other words, a structural consequence. Therefore, this section aims to describe at least partly the overall organisational environment in which teamwork operates.

For this purpose, a binary logistic regression model has been used to examine determination of teamwork from the perspective of participation, work intensity, learning new things and multi-skilling, and autonomy.

Data from the EWCS 2000 (EU15) and 2001 (ACC12) were statistically analysed. The regression model based on the ACC12 data has been chosen for its better discrimination and prediction power. However, the tendencies were almost the same.

### Model description

The binary dependent variable is Q.24.b 'Does your job involve, or not, doing all or part of your work in a team?' (No=0; Yes=1).

The independent variables tested were categorical variables included in the abovementioned proposed factors:

- participation - Q.27a.1 (excluded for multicollinearity (linear inter-correlation)), Q.27a.2;
- work intensity - Q.23.5, Q.18b.1, Q.18b.2;
- learning new things and multi-skilling - Q.21.5, Q.21.6, Q.21.2;
- autonomy - Q.22a (excluded for multicollinearity), Q.22b, Q.22c (excluded for multicollinearity), Q.19.1, Q.19.4;

The notes under Table 5 describe the further preparation and testing of the logistic regression model.

### Findings

The empirical results show that working in a team is closely associated with an environment typical of the possibility to learn new things and job enlargement attributes. Such employees can also participate to a certain extent in the discussion of the work organisation. Although employees working in a team work more often to tight deadlines, it may be assumed that teamwork also contributes to a more effective working time distribution and consequently employees do not feel under pressure of having insufficient time to do their job. The results reveal that teamwork is strongly associated with lower work autonomy.

The probability that an employee will work in a team is higher in professions with low individual employee autonomy. There is a 20% lower chance of teamwork for workers who can choose their work methods. Conversely, a 50% higher chance of teamwork prevails in professions where the pace of work is dependent on the automatic speed of a machine or movement of a product. A more than three times higher chance of teamwork was found among employees whose pace of work is dependent on their colleagues' work; this underlines the fact that teamwork is characterised by the interdependency of the team's members.

**Table 5: Influence of organisational environment on teamwork incidence**

Variables in the equation					
Statistical notation:	B (coefficient for the constant)	S.E. (standard error)	Wald (chi-square test)	df (degrees of freedom for test)	Sig. (significance level)
<b>PARTICIPATION</b>					



<b>*Able to discuss the organisation of your work (Q.27a2)/Yes</b>	0.564	0.057	97.459	1	0.000
<b>WORK INTENSITY</b>					
<b>*Enough time to get the job done (Q.23.5)/ Yes</b>	0.198	0.072	7.672	1	0.006
<b>Working at very high speed (Q.18.b1)</b>			1.433	2	0.488
<b>- all + almost all of the time</b>	0.014	0.072	0.038	1	0.844
<b>- around 1/4-3/4 of the time</b>	0.077	0.067	1.328	1	0.249
<b>- never + almost never (dummy variable)</b>					
<b>*Working to tight deadlines (Q.18.b2)</b>			11.058	2	0.004
<b>* - all + almost all of the time</b>	0.212	0.072	8.688	1	0.003
<b>* - around 1/4-3/4 of the time</b>	0.176	0.069	6.473	1	0.011
<b>- never + almost never (dummy variable)</b>					
<b>LEARNING NEW THINGS AND MULTI-SKILLING</b>					
<b>*Job involves complex tasks (Q.21.5)/Yes</b>	0.507	0.056	81.267	1	0.000
<b>*Job involves learning new things (Q.21.6)/Yes</b>	0.330	0.059	31.358	1	0.000
<b>*Job involves assessing</b>	0.228	0.056	16.503	1	0.000

<b>yourself the quality of your own work (Q.21.2)/Yes</b>					
<b>AUTONOMY</b>					
<b>Pace of work dependent on ? (Q.19.1 and Q.19.4)</b>					
<b>* - work done by colleagues (Q.19.1)/Yes</b>	1.243	0.055	502.964	1	0.000
<b>* - automatic speed of a machine or movement of a product (Q.19.4)/Yes</b>	0.401	0.071	32.228	1	0.000
<b>Ability to choose or change methods of work (Q.22.2)/Yes</b>	-0.128	0.056	5.292	1	0.021
<b>Constant</b>	-1.383	0.097	201.315	1	0.000
<b>Dichotomous variables: dummy variable = 'No' answer</b>					

*Notes: The results show the estimated logistic regression coefficients in the final step. The model has been evaluated using a deviance measure -2 log likelihood and its improvement caused by model change. Working with a large data sample, the Hosmer-Lemeshow test was used to test the goodness of model fit. Moreover, the Akaike Information Criterion (AIC) has been taken into account to avoid bias from an overspecified model. In all, 68.8% cases have been correctly classified, which is satisfactory. The variables marked with an asterisk (\*) have a significant influence on teamwork prediction (# = 0.01).*

Source: EWCS 2000/2001

Employees who spend at least one third of their working hours working to tight deadlines have a 20% greater likelihood that their work will be team-based than those who never or almost never work to demanding deadlines. The likelihood that an employee will work in a team is also 1.7 times higher in professions where the work involves having to deal with complex tasks than in occupations where employees do not have to deal with complex tasks in their job. Equally, the possibility of learning new things is also a reliable determinant of teamwork. Moreover, employees who are allowed to give their opinion on organisational changes have a 76% higher chance of working in a team than those who cannot give their opinion.

## **Conclusion**

Teamwork, as an important instrument of new forms of work organisation, is essentially a specific organisational measure that may display many different features both in the national context and in the context of individual enterprises. It is therefore no surprise that quantitative analysis at national level and at the level of country clusters identifies contradictory results in relation to certain aspects. Notwithstanding, the analysis reveals some common trends.

The incidence of teamwork as recorded by the subjective reporting of employees in European countries cannot be predicted on the basis of old and new EU Member States or by similar political and economic conditions in individual countries. One factor indicating the incidence of teamwork is the historical context of the introduction of new forms of work organisation. For example, the Scandinavian countries have a long tradition of teamwork, to the extent that it has reached saturation point and has become an integral part of new forms of work organisation at enterprise level. Conversely, in most post-communist states, new forms of work organisation were introduced following the fall of the old regimes, and it is reasonable to assume that they are still in the development stage.

The organisation of teamwork is particularly characteristic for the manufacturing sector, both in the EU15 and in the NMS.

Another indicator of the incidence of teamwork is the size of the company, where teamwork is predominantly found in large enterprises with 250 employees or more. In the EU15, this prevalence is significant, compared with small and medium-sized enterprises (SMEs). However, differences in the incidence of teamwork between medium-sized and large enterprises are not evident in the ACC12.

The unequal access to this form of work organisation in gender terms is evident as teamwork is more characteristic for male employees. Gender differences to the disadvantage of women are particularly apparent in Mediterranean countries. By contrast, in Scandinavian countries and in the Netherlands, a balanced proportion of men and women work in teams.

In the EU15, teamwork is chiefly found among white-collar workers in the top three ISCO job categories. At the same time, however, a high incidence of teamwork prevails in the craft and related trade workers category. The exception among white-collar workers in the EU15 is the very low proportion of teamwork in the clerks and service workers groups. The same tendency emerges in the ACC12, in relation to an above-average representation of teamwork in the top three employment categories and also a high incidence in the craft and related trade workers group. Nevertheless, this tendency is complemented by a high incidence of teamwork among certain other blue-collar categories, such as plant and machine operators and assemblers. Overall, a greater proportion of blue-collar teamworkers is present in the ACC12 than in the EU15.

According to most experts, teamwork should contribute to a better quality of working life for employees, as well as improving productivity. Employee autonomy is considered an important attribute of the quality of work. However, the results of this study identify ambivalent findings in this regard. Data analysis did not reveal a clear-cut positive correlation between the presence of teamwork and increased autonomy. Logistic regression, which examined the link in the ACC12 between teamwork and autonomy, in terms of the possibility of choosing one's own work methods, even revealed a negative correlation.

It is clear that the degree of employee autonomy is directly influenced by the particular profession in question. It could be presumed that teamworkers will be more autonomous workers due to their higher concentration in professions like legislators and senior officials and managers, professionals, and technicians and associate professionals. Data analysis indeed shows that these professions display greater autonomy, compared with other employee categories in all aspects studied: methods of work, pace of work and order of tasks. However, other professions, namely craft and related trades workers, and plant and machine operators and assemblers - especially in the NMS - report very low autonomy despite a high incidence of teamwork. The question remains, therefore, whether teamworkers have greater autonomy than people not working in teams within these job categories.

A closer look at the data reveals that, in the case of the opportunity for choosing work methods and pace of work, teamworkers in the craft and related trades category have a significantly higher autonomy than employees not working in teams. This autonomy, however, falls far short of the values found among employees in higher ISCO categories. No difference in autonomy was found between teamworkers and non-teamworkers in the plant and machine operators and assemblers category.

In the case of choosing the order of tasks, autonomy among teamworkers was actually lower than non-teamworkers. Overall, therefore, these differences add to the ambiguity of the entire notion of seeking links between teamwork and employee autonomy. The autonomy of employees in a team cannot be viewed as a single factor: it is necessary to differentiate between employee categories and also between various aspects of autonomy.

The possibility of learning new things in one's job also improves the quality of working life. In this case, it can be stated categorically that teamwork contributes to employees' personal and professional growth. In the countries under study, teamworkers have a greater chance of learning new things and taking part in training paid for by the employer than employees not working in teams have. Teamwork is thus clearly positive in this respect and contributes to the learning environment in an organisation.

Satisfaction with working conditions is another indicator of the quality of working life, and is no different among teamworkers and non-teamworkers in the vast majority of countries. A comparison of the EU15 and ACC12 reveals a weak tendency distinguishing these groups of countries. In the EU15, teamworkers display greater satisfaction than employees not working in teams do. Conversely, in the ACC12, employees not working in teams are slightly more satisfied.

Besides positive impacts on the individual's working life, such as a more developed learning environment, teamwork also has negative aspects. The need to boost productivity, which is usually the primary objective of company management when introducing new forms of work organisation, often demands an increased pace of work and greater work intensity. Working in a team generally means a higher pace of work and working to tight deadlines both in the new and old EU Member States. Moreover, it is reasonable to assume that increased work intensity and work pressure have a negative impact on employees' health. Employees working in teams are more often convinced that their work has a negative impact on their health than employees not working in teams are. The findings of certain qualitative studies also demonstrate that teamworkers' jobs interfere more with their private lives.

In conclusion, teamwork may take many forms and the quality of an individual's working life is closely linked to the way this organisational measure is implemented in a company and what other steps accompany it. Although this observation pertains more to the enterprise level, this study also gives an insight into the success of introducing teamwork at the level of individual countries. Finland is an example of good practice as teamworkers were found to have greater autonomy, better access to training and a greater chance of learning new things. Finnish employees working in a team were also relatively more satisfied with their working conditions and did not display a greater work intensity than other employees did. In addition, complaints about the impact of work on employees' health were similar among teamworkers and non-teamworkers.

New forms of work organisation are a key element of the Lisbon Strategy, which aims to make the European economy the most competitive and dynamic knowledge-based economy in the world. The emphasis is on two concepts - productivity and employment. HPWO, with teamwork as one of its core functions, aims to be more innovative, flexible and more productive, placing the importance on both the organisation and the worker. A company using the HPWO model invests in its human resources and supports employees' technical and innovative skills, which contribute to employability. The latter attribute is also central to the European Commission's focus and strategies. It is hoped that this comparative analytical report makes a useful contribution to current debate on these important social and economic issues.

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## **Annex 1: Sample survey questions**

### **Examples of good ways of asking about teamwork**

Czech Republic

**Question:** My work is rather teamwork based, mainly organised by the members of the team themselves

**Response options:** 1. applies entirely; 2. generally applies; 3. partially applies; 4. does not apply at all; 5. don't know. I cannot judge

**Source:** Quality of Working Life 1994, 2000 - Research Institute for Labour and Social Affairs (see Annex 2 for an outline of all surveys cited in this report)

Netherlands

**Question:** Do you work in a team with a minimum of four and maximum of 20 persons who work on a product or service together?

**Response options:** 1. yes; 2. no; 3. don't know

**Source:** TNO survey of labour relations 2005

Denmark

**Question:** Do you work in an autonomous team? (i.e. a team that organises everyday work by itself)

**Response options:** yes/no

**Source:** SARA Baseline

Finland

**Question:** Do you work in a permanent work group or team that has common tasks and the possibility to plan its work?

**Response options:** yes/no

**Source:** Quality of Work Life Survey 2003



## Examples of good ways of asking about team typology

Czech Republic

**Question:** If you have the opportunity of working in a team in your company, what form does it usually take?

**Response options:**

1. Flexible teams using member rotation, set up for individual projects or problems
2. Entirely independent, separately functioning teams (which decide on work distribution and rewards)
3. The group is responsible for its results, but at the same time is reviewed from outside
4. The group does not have special responsibility for its results and is managed as a whole entity
5. Regular cooperation in the group with emphasis on task allocation for individuals
6. I mostly do not work in a group or team

**Source:** Changes in employment relations survey 1998

*Netherlands*

**I. Question:** To what degree can you take decisions on the following aspects of organisation and the content of your job?

**Response options:**

1. Mainly others, like my supervisor or management, take decisions on this aspect
2. I can take decisions myself on this aspect
3. Decision authority is delegated to the team I work in, so my colleagues and I can jointly take decisions on this aspect

Choose the appropriate response option from above for each of the following aspects:

- a. work planning: 1 2 3
- b. product or service quality: 1 2 3
- c. improving work processes: 1 2 3
- d. dealing with internal or external clients/customers: 1 2 3
- e. working schedule and/or working times: 1 2 3
- f. working conditions: 1 2 3

**Source:** Steijn, B., Working in the information society, Assen, Van Gorcum (in Dutch), 2001, pp. 69-74.

## II. Questions (virtual team):

1. Does your establishment have permanent work groups or temporary project groups with shared tasks?
2. Do these groups collaborate from different locations/buildings?
3. What type of communication tools do these groups use?

**Response options:**

1. yes/no
2. yes/no
3. elephone, mobile, conference calls, video conferencing, email, chat, FTP, document sharing

**Source:** Kraan, K., van Dalen, E.J. and van de Bovenkamp, M., Virtualisering van Organisaties 2004; Resultaten uit een survey onder 500 organisaties uit vijf bedrijfstakken, TNO Arbeid, Hoofddorp, 2004.

Italy

**I. Question:** Which of the following organisational practices do you use?

**Response options:** (more than one answer possible)

1. Quality circles
2. Production by means of teamworking
3. Just-in-time production or supply
4. Total quality management
5. None of these

**Source:** Reggio Emilia 2004 and 2006 (Pini et al, 2004 ; **Pini and Delsoldato, 2006 (in Italian, 953Kb PDF)** )

**II. Question:** Which of the following organisational practices are used in your work activities?

**Response options:** (more than one answer possible)

1. Job rotation
2. Job enlargement
3. Competence enlargement
4. Wider autonomy
5. Wider autonomy of groups and/or individual employees in problem solving
6. Structured forms of discussion on employee suggestions and/or proposals on work organisation and process/product quality
7. Continual training related to organisational needs

8. Reduction of hierarchical levels within the same company function
9. Target setting for teamworking and/or individual employees
10. None of these

**Source:** Reggio Emilia 2004 and 2006 (Pini et al, 2004; **Pini and Delsoldato, 2006 (in Italian, 953Kb PDF)** )

**III. Question:** Which of the following statements reflect the way the team operates?

**Response options:** yes/no

- a. The team members can nominate their head
- b. The team members decide together how to do the work
- c. Teams are responsible for specific services/products

**Source:** Bergamo, 2002 (**Leoni et al, 2001 (170Kb PDF)** )

Spain

**Question:** Does the company you work in use any of the following management tools?

**Response options:** yes/no

1. Total quality management
2. Quality circles or conflict-solving groups
3. Multi-tasking of workers
4. Autonomous work team
5. 'Just-in-time' production or supply
6. Outsourcing of the company's activities

**Source:** National Survey of Working Conditions

**Examples of good ways of asking about teamwork autonomy**

*Bulgaria*

**Question:** Are you able, or not, to choose or change each of the following work aspects?

**Response options:** yes/no

1. Order of tasks
2. Methods of work
3. Pace of work

4. Volume of work

5. Work to include new tasks

**Source: National working conditions survey**

Denmark

**Question:** Which tasks does this group undertake?

**Response options:** yes/no

- No group
- It hires employees
- It fires employees
- It conducts quality control
- It distributes tasks among the group members
- It takes a position on the skills and competence development of its members
- It takes decisions on minor investments

**Source:** SARA Baseline

Netherlands

**I. Question:** (Supervisor level) To what extent do the following statements apply to your team:

**Response options:** 1. certainly not, 2. hardly, 3. a little, 4. certainly, 5. most certainly, 6. don't know/not applicable

- As a team, we can decide how we do our tasks.
- As a team, we can decide what will be our end products or services.
- As a team, we can decide which tasks we do when.
- As a team, we can distribute the work ourselves ('who does what').

**Source:** TNO survey of labour relations 2005

**II. Question:** (Company level) To what extent are the production workers responsible for these?

**Response options:** 1. not at all responsible for; 2. partly responsible for; 3. mainly responsible for

- pricing policy
- investments in technology policy
- innovation of products or services

- own work planning and distribution of work
- own work team

**Source:** TNO/SZW survey of Labour in the Information Society 1998

Finland

**Question:** Are you able to influence a lot, quite a lot, a little, or not at all, any of the following?

**Response options:** A lot/Quite a lot/A little/Not at all/Not applicable

- a. The content of your tasks
- b. The order in which you do your tasks
- c. The pace of your work
- d. Your working methods
- e. The division of tasks between employees
- f. Choice of your working partners
- g. Schedules of projects, goods deliveries and services
- h. Your working hours

**Source:** Quality of Work Life Survey 2003

France

**Question:** In general, when your immediate superiors tell you what to do

**Response options:**

1. do they also tell you how to go about doing it?
2. do they tend to give you an objective and then leave it up to you to choose how to achieve that objective?

**Source:** Organisational changes and computerisation survey, 1997

Italy

**Question:** Do your supervisors involve you in decisions concerning:

**Response options:** yes/sometimes/no

- strategy definition/targets to be reached
- choice of work methods and techniques
- work scheduling

**Source:** Quality of Work Survey 2002

### **Examples of good ways of asking about satisfaction with teamwork**

Netherlands

**Question:** Can you indicate whether you agree or disagree with the following statements?

**Response options:** agree, disagree

- I feel very uncomfortable when something goes wrong in work, even when it is not my fault
- I have this organisation very much at heart
- My job means a lot to me
- I feel very much at home in this organisation
- Compared with most other organisations, working in this organisation is very attractive

**Source:** TNO/SZW survey of Labour in the Information Society 1998

Finland

**Question:** How well do the following statements describe your group work?

**Response options:** Totally true/True to some extent/Only slightly true/Totally untrue/Don't know

- h. I am generally satisfied with a team-based way of working
- i. I am satisfied with the way I can take part in the decision making of the group

**Source:** Quality of Work Life Survey 2003

### **Examples of good ways of asking about connection between teamwork and work intensity**

Netherlands

**I. Question:** Do you work under time pressure?

**Response options:** 1. never; 2. sometimes; 3. often; 4. always; 5. don't know

**Source:** TNO survey of labour relations 2005

**II. Questions:**

- Do you have to work very fast?
- Do you have to do a lot of work?
- Do you have to work extra hard?
- Do you in general have enough time to finish all your work?

- Is your work schedule hectic?

**Response options:** yes, no

**Source:** TNO/SZW survey of Labour in the Information Society 1998

Finland

**Question:** How well do the following statements describe your group work?

**Response options:** Totally true/True to some extent/Only slightly true/Totally untrue/Don't know

e. Work pressure is evenly distributed in the group

**Source:** Quality of Work Life Survey 2003

### **Examples of good ways of asking about connection between teamwork and learning environment**

Netherlands

#### **I. Questions:**

- Does your job demand skills/craftsmanship?
- Is your job varied?
- Does your job require that you learn new things?
- Does your job require creativity?
- Do you have the opportunity to develop your skills/craftsmanship?

**Response options:** yes/no

**Source:** TNO/SZW survey of Labour in the Information Society 1998

**II. Question:** In the past 12 months did you, through your employer, pursue training/education to increase your expertise or skills?

**Response options:** yes/no

**Source:** TNO/SZW survey of Labour in the Information Society 1998

Finland

**Question:** In your current workplace, do you have good, fair or poor opportunities for receiving training to improve your professional skills?

**Response options:** Good/Fair/Poor/Don't know

**Source:** Quality of Work Life Survey 2003

United Kingdom

**I. Question:** What proportion of experienced [workers in the largest occupational group] have been given time off from their normal daily work duties to undertake training over the past 12 months?

**Response options:**

All (100%)

Almost all (80%-99%)

Most (60%-79%)

Around half (40%-59%)

Some (20%-39%)

Just a few (1%-19%)

None (0%)

**Source:** Workplace Employee Relations Surveys 1998 and 2004

**II. Question:** Did any experienced [workers in the largest occupational group] have time off from their normal daily work duties to undertake training over the past 12 months?

**Response options:** yes/no

**Source:** Workplace Employee Relations Surveys 1998 and 2004

### **Examples of good ways of asking about connection between teamwork and work productivity**

#### **Netherlands**

**I. Question:** (Supervisor level) Compare your team to teams who do comparable activities, inside or outside your own organisation. How do you evaluate the performance of your team? Give report marks.

**Response options:** Very bad 1 2 3 4 5 6 7 8 9 10 Very good; not applicable; don't know. (In the Netherlands, the standard norm is that report marks run from 1 to 10, with 1 = very bad, 5 = just insufficient, 6 = just sufficient and 10 = excellent.)

- the extent to which costs are kept low
- the extent to which team goals are realised
- the extent to which my team is financially healthy (high profits and low costs)
- the extent to which we succeed in carrying out our work within budget
- the extent to which services or products are produced without faults

**Source:** TNO survey of labour relations 2005

**II. Question:** (Supervisor level) How do you evaluate the performance of your team? Give report marks.



**Response options:** Very bad 1 2 3 4 5 6 7 8 9 10 Very good; not applicable; don't know. (In the Netherlands, the standard norm is that report marks run from 1 to 10, with 1 = very bad, 5 = just insufficient, 6 = just sufficient and 10 = excellent.)

- the extent to which my workers can be mobilised broadly in different tasks
- the quality of delivered products and/or services
- the extent to which agreements with (internal) customers are kept in a timely manner
- the extent to which new products/services are being developed
- the extent to which (internal) customers are satisfied

**Source:** TNO survey of labour relations 2005

Finland

**Question:** How well do the following statements describe your group work?

**Response options:** Totally true/True to some extent/Only slightly true/Totally untrue/Don't know

f. The productivity of work improves in group work

**Source:** Quality of Work Life Survey 2003

## ***Annex 2: Survey sources***

### **Austria**

New forms of work organisation: Case study Austria (qualitative)

This case study, carried out in 1994 by Jörg Flecker and Manfred Krenn, focused on the implementation process of new forms of work organisation at an Austrian plant of a German auto-industry group. It examined elements of functional integration, teamwork and a continuous improvement process. The case study was based on qualitative interviews with workers at all levels of the plant, from management to group workers and members of the works council.

Virtual teams (qualitative)

Project cooperation on distance in companies, open source groups and e-learning courses, carried out by Hubert Eichmann, Gabriele Grunt, Andrea Mayr, Bernhard Saupe and Maria Schwarz-Wölzl in 2003. The qualitative part of the study consisted of 10 interviews with managers, project leaders, project workers and members of the works council in IT companies, focusing on their experience with virtual teamwork.

### **Bulgaria**

National working conditions survey 2005

Carried out by the **Ministry of Labour and Social Policy** and the Working Conditions Fund.

Sample size: 1,002 people from the working population, aged 18 years and over.

Sampling strategy: Two-stage cluster sample; response rate 95%, after second round, 100%.

For more detail, see **BG0509SR01** .

*TW 05 (qualitative)*

Fieldwork: December 2005. Qualitative teamwork survey carried out by the Institute for Social Analyses and Policies especially for the purposes of this comparative analytical report. About 2,900 people were working in the companies surveyed.

Methodology: Expert interviews; respondents - six managers of companies implementing teamwork; companies - selected by sector, size and type of ownership.

## **Czech Republic**

Measuring the Quality of Working Life 2004

Carried out by the Research Institute for Labour and Social Affairs (Výzkumný Ústav Práce a Sociálních Vecí, **VÚPSV** ).

- Interviews carried out face to face at peoples' homes.
- Sample size: A total of 2,007 complete interviews were conducted.
- Quota sampling, by sex, age, education, region, and size of place of residence.
- The survey population consisted of persons aged 15 to 69 years who were employed and had worked for their current employer for a minimum of three months. The survey sample did not include self-employed persons.

European Working Conditions Survey (EWCS) 2001

The fourth EWCS was conducted in the Czech Republic in the autumn of 2005; the results were not yet available at the time of preparing the national contribution to this report. Instead, reference was made to the third EWCS, from 2001.

- Interviews carried out face to face at peoples' homes.
- A total of 2,031 employees and self-employed people addressed.
- Sample size: 1,029 interviews fully completed.
- Multistage random probability sampling.
- Sample is representative according to sex, age, sector (NACE), occupation (ISCO) and region (NUTS2).
- Answers were weighted.

Changes in employment relations 1998

Carried out by Universitas.

- Interviews carried out at enterprises.
- Sample size: 1,419 interviews fully completed with employees.
- Multistage random probability sampling; in the first step of sampling, cities with a predominance of manufacturing companies were chosen.
- Overall, 188 manufacturing companies were surveyed throughout the Czech Republic, except in Prague.

*Quality of Working Life 1994, 2000 (DENKI 2000)*

Carried out by the Research Institute for Labour and Social Affairs (VÚPSV) and the Institute of Sociology of the Academy of Sciences of the Czech Republic.

The Labour Research Council in Tokyo organised this international research, conducted in electronics and telecommunications companies. A total of 15 countries participated in two repeated surveys in 1994 and 2000. Two companies in the electronics and telecommunications industries were surveyed in each country. A selective sample of 100-200 employees was chosen from each company, depending on its size, and the employees were interviewed using a standardised questionnaire.

## **Denmark**

### SARA Baseline 2003

Carried out by the National Institute of Occupational Health (Arbejdsmiljøinstituttet, **AMI** ).

The SARA programme was a government sponsored research programme on the social and welfare consequences of the development of human resources in working life. The research programme started in 1996 and concluded in 2003. AMI conducted the quantitative part of this study from 1996 to 1999, collecting data in four rounds, at different enterprises, applying identical questionnaires. The SARA Baseline data were collected at 71 enterprises in different sectors and comprise 3,010 respondents, representing a response rate of 66%. The results from the SARA study reported here include answers from all of the respondents interviewed. Documents on this research are available at:

<http://www.ami.dk/research/sara/kdebogsarabmhfort.pdf>

[http://www.ami.dk/research/sara/bilaga\\_saraskmrgffin2.pdf](http://www.ami.dk/research/sara/bilaga_saraskmrgffin2.pdf)

### IFKA 1998, 2000, 2004

Carried out by the Institute for Business Cycle Analysis (Institut for Konjunktur-Analyse, **IFKA** ).

In 1998, 2000 and 2004, the privately owned, independent research institute IFKA conducted surveys for the Danish Confederation of Trade Unions (Landsorganisationen i Danmark, LO) on education and skills development activities among Danish employees and at enterprises. Although it has been carried out three times, the study is not a group study, but a random sample of respondents for each survey. The study comprises 414 participating enterprises, with a response rate of 29%, and 659 employees, with a response rate of 36%.

### Literature survey on group organised work (qualitative)

A qualitative study, based on a comprehensive study of Danish and international literature on teamwork, was conducted and published in 2003. The study comprises most sectoral and company-level empirical case studies undertaken in Denmark as well as more theoretical approaches - both national and international. The literature survey includes 144 references and has resulted in the following texts:

- Hvenegaard, H., 'Analyseramme til forståelse af gruppeorganiseret arbejde' [Analytical framework for the understanding of group organised work], in Hvid, H. (ed.), *Ressourcer og velfærd i arbejdslivet*, SARA and Frydenlund grafisk, Copenhagen, 1999.
- Hvenegaard, H., Jessen, H. and Hasle, P., *Gruppeorganiseret arbejde - På vej mod bedre arbejdsmiljø og konkurrenceevne?* [Group organised work - Towards a better work environment and competitive position?], Frydenlund, Copenhagen, 2003.
- Jessen, H. and Hvenegaard, H., *Gruppeorganiseret arbejde og psykisk arbejdsmiljø* [Group organised work and the psychosocial work environment] - Litteraturstudie, Arbejdsmiljørådets Service Centre, Copenhagen, 2000.
- Jessen, H. and Hvenegaard, H., *Arbejdsmiljøfaktorer i gruppeorganiseret arbejde* [Work environment factors in group organised work] - Litteraturstudie Dokumentationsrapport 2, CASA, Copenhagen, 2001.

## Estonia

Working life barometer 1998, 2002, 2005

Carried out by the Finnish Ministry of Labour (**Työministeriö**) in 1998 and 2002, and by the Estonian Ministry of Social Affairs (**Sotsiaalministeerium**) in 2005.

The Working life barometer is based on a nationally representative sample of about 1,000 individuals. The sample was formed using the proportional probability sample from the population of working age wage earners and entrepreneurs. The age span of respondents in 1998 and in 2005 was 16-64 years, while in 2002 it was 18-64 years. Data are collected through structured face-to-face interviews.

## Finland

Quality of Work Life Survey 1977, 1984, 1990, 1997 and 2003

Carried out by Statistics Finland (**Tilastokeskus**).

The answers given in the Finnish national report are based on the Quality of Work Life Surveys in 1997 and 2003. In 1997, some 2,979 persons were surveyed and the response rate was 79%. Some 4,104 people responded to the 2003 survey and the response rate was 78%.

## France

*Organisational Change and Computerisation 1997*

Carried out by the research and statistics unit of the **Ministry of Employment, Social Cohesion and Housing** (Dares).

The 1997 **study** includes a company survey, mainly in the manufacturing and food sectors, complemented by employee questionnaires. The two sections of the survey comprise various questions dealing with themes such as working in groups and collective work practices. A total of 4,804 'stable' employees, with at least one year's seniority, were chosen at random from companies with 50 or more employees in the manufacturing and food sectors, with the exception of the energy sector, and were asked questions about their daily work. The sample comprised 621 managerial staff, 1,162 technicians and supervisors, 392 employees, 1,742 skilled workers, 870 unskilled workers, six company directors and 11 workers for whom information on their occupational level was lacking. The employer section of the survey focused on organisational practices. The questionnaire was sent to a representative of the company in question, namely the usual contact person for statistical surveys conducted by the

Ministry of the Economy, Finance and Industry (Ministre de l'Économie, des Finances et de l'Industrie) or the Ministry of Agriculture and Fishing (Ministre de l'Agriculture et de la Pêche) for companies in the food sector. The survey recorded a high response rate, both for the employer section, which was mandatory, at 88%, and for the labour force section, at 71%.

## Germany

### German Socioeconomic Panel Study (GSOEP)

Carried out by the German Institute for Economic Research (Deutsches Institut für Wirtschaftsforschung, **DIW** ).

The **GSOEP** is a wide-ranging representative longitudinal study of private households in Germany. It provides information on all household members, encompassing Germans living in the old and new German states, foreigners and recent immigrants to Germany. The Panel was started in 1984 and is conducted on a yearly basis. In 2003, more than 12,000 households participated, and nearly 24,000 persons were sampled.

The GSOEP provides broad information on diverse aspects of household composition, occupational biographies, employment trends, earnings, health and satisfaction indicators.

Subjects covered so far in topical modules of the survey include personal values, preferences and expectations, social security, education and training, and allocation of time.

### BIBB/IAB/BAuA surveys

Carried out by the Federal Institute for Vocational Education and Training (Bundesinstitut für Berufsbildung, **BIBB** ) and the Institute for Employment Research (Institut für Arbeitsmarkt- und Berufsforschung, **IAB** ).

The BIBB/IAB surveys are representative surveys of 34,000 persons in the working population. The surveys have been funded by the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, **BMBF** ). The first BIBB/IAB survey was carried out in 1979. Further surveys were conducted in 1985/86 and 1991/92. Each of the four surveys focused on a specific topic. The fourth and last survey was carried out in 1998/1999.

A new BIBB/BAuA survey was conducted in 2005/2006 as a joint initiative of BIBB and the Federal Institute for Occupational Safety and Health (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin, **BAuA** ). New features of the BIBB/BAuA survey include:

- computer assisted telephone interviewing (CATI) instead of computer assisted personal interviewing (CAPI);
- 15,000 persons from the working population instead of 34,000 persons.

### Ad hoc survey 'What is good work?' 2004

Carried out by the New Quality of Work Initiative (Initiative Neue Qualität der Arbeit, **INQA** ) and the International Institute for Empirical Social Economics (Internationales Institut für Empirische Sozialökonomie, **INIFES** ).

The population of the representative survey conducted at the end of 2004 included gainfully employed people, and the sample comprised 5,200 persons. **The questionnaire (in German, 592Kb PDF)** focuses on the quality of work-related issues.

### SOFI study (qualitative)

The Sociological Research Institute (Soziologisches Forschungsinstitut, **SOFI** ) at the University of Göttingen

carried out a study on concepts of an innovative work policy (Kuhlmann, Sperling, and Balzert, 2004). This study provides an insight into work practices and effects of such practices. The research was funded by BMBF within the framework of the research programme **Innovative work structuring - the future of work** (in German). **(DE0407NU05)**

The study is based on qualitative company case studies in the engineering, electrical goods, automobile and chemical sectors. The studies included:

- work analysis;
- interviews with representatives of different job functions at all levels;
- interviews with members of works councils;
- interviews with employees in addition to a standardised written questionnaire.

The companies were selected for their experience in conceptualising and implementing innovative work forms. They represent typical good practice cases rather than exceptionally successful cases.

## **Hungary**

### Regional Innovation System 1996 (REGIS)

Carried out as part of an international project to assess regional innovation systems in 11 European regions.

Target population: Companies.

Sampling method: Random selection.

Number of respondents: 75 companies.

Level: Regional - Székesfehérvár, southwest of Budapest.

### Manpower and knowledge use in Dunaújváros region 2001

Carried out by the Institute of Sociology of the Hungarian Academy of Sciences.

Target population: Companies.

Sampling method: Multistage random selection.

Number of respondents: 230 companies.

Level: Regional - Dunaújváros, south of Budapest.

### *Regional model of cooperation between economic and vocational training institutions 2003*

Carried out by the Institute of Sociology of the Hungarian Academy of Sciences.

Target population: Companies employing more than nine persons.

Sampling method: Random selection.

Number of respondents: 200 companies.

Level: Regional - Dunaújváros, south of Budapest.

## Italy

### Quality of Work Survey 2002

Carried out by the Institute for the Development of Vocational Training (Istituto per lo Sviluppo della Formazione dei Lavoratori, **Isfol** ).

The 2002 Isfol **Quality of Work Survey** (in Italian 1.1Mb PDF) (*La qualità del lavoro in Italia* ) is the first national survey in Italy that covers all sectors, including self-employed people and entrepreneurs. It provides, therefore, a representative cross-sample of the entire working population. The study is based on computer assisted telephone interviews (CATI) with a sample of 2,000 workers. The third European Working Conditions Survey (EWCS), conducted in 2000 by the European Foundation for the Improvement of Living and Working Conditions, provided the reference model for the sample design (multistage random sampling) and for the questionnaire structure, with some modifications added to suit the telephone interview method.

ER2002, RE2004, RE2006

Local-level surveys carried out according to the model of the UK's Workplace Industrial Relations Survey 1980-1990 in two industrialised provinces of northern Italy:

- food sector in Emilia-Romagna (ER) (Pini et al, 2002);
- Reggio Emilia (RE) 2004 and 2006 (Pini et al, 2004; **Pini and Delsoldato, 2006** (in Italian, 953Kb PDF)).

ER2002 includes all food companies with more than 50 employees. RE2004 includes all manufacturing companies with more than 50 employees, and RE2006 includes a sample of 192 manufacturing companies with over 20 employees, representative of the 376 manufacturing enterprises of the province having a work council.

The interviews were carried out both with senior management in companies (human resource (HR) manager or the manager/owner) and with members of work councils.

## Netherlands

### TNO survey of Labour relations 2005 (TNO AA 2005)

Carried out by TNO Work and Employment, part of the Netherlands Organisation for Applied Scientific Research (Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek, **TNO** ).

Sample size: Surveys of 1,525 supervisors and 1,613 employees in companies of two employees or more; 931 supervisors and 1,225 employees in companies with 30 employees or more; 149 supervisor-employee pairs in companies with two employees or more; 89 supervisor-employee pairs in companies with 30 employees or more.

Response rate: Employer/supervisory response: 29%.

Method: Supervisors: web questionnaire. Employees: web questionnaire.

Representative sample of the Dutch labour force, except for the supervisor-employee pair level.

TNO/SZW survey of Labour in the Information Society 1998 (TNO/SZW AidI 1998)

Carried out by TNO and the Ministry of Social Affairs and Employment (Ministerie van Sociale Zaken en Werkgelegenheid, **SZW** ).

Sample size: Company level: 3,618 companies (establishments) with two employees or more; 1,094 companies with 20 employees or more. Employee level: 11,351 employees, of whom 9,154 were in companies with 20 staff or more.

Response rate: Company response: 56%. Employee response: 25%.

Method: Companies: survey respondent was a HR professional through a postal paper and pencil interviewing (PAPI) questionnaire or computer assisted telephone interviewing (CATI). Employees: postal questionnaire.

Sample: Representative sample of companies in the Netherlands, excluding government and education; non-representative sample of employees in these companies.

TNO/NIPO survey of Labour in the Information Society 2002 (TNO/NIPO AidI 2002)

Carried out by TNO and **TNS NIPO** .

Sample size: Companies: 1,020 companies (establishments with 10 employees or more); 506 companies with 20 employees or more.

Response rate: Company response: 24%.

Method: Companies (respondent was company manager/owner): computer assisted telephone interviewing (CATI).

Sample: Representative sample of companies in the private sector in the Netherlands: manufacturing, construction, trade, transport and communication, commercial services (agriculture, government, healthcare and education not included).

## **Portugal**

Survey of Workers' Working Conditions 1999-2000

Carried out by the Departamento de Estatística do Trabalho, Emprego e Formação Profissional (DETEFP) of the Ministry of Work and Social Solidarity (Ministério do Trabalho e da Solidariedade Social, **MTS** ).

This survey is based on a sample of 5,000 workers from a population of 2,346,031 workers of all economic activities except sections L, P and Q of NACE: public administration and defence, compulsory social security, and other services. A total of 4,252 employees were included in the data, representing an 85% response rate. Face-to-face interviews were conducted in the workplace.

## **Romania**

Riding the waves of culture; Understanding cultural diversity in business 2004

Carried out by Fons Trompenaars and Charles Hampden-Turner.

The authors adopted the approach of collecting a large dataset with extensive internal variety that enables deductive analysis. In seeking to enhance the estimates of the subjects' average characteristics in a given national culture, significant efforts have been made to extend the size of the samples, reduce measurement errors and maintain homogeneity. The atypical process of data gathering started several years ago and still continues.



The raw dataset counts almost 50,000 cases from over 100 countries. By restricting the analysis to multinational and international corporations, some 30,000 comparative valid cases, drawn from 55 countries, were selected. In order to gather comparable samples, a minimum of 100 subjects with similar backgrounds and occupations were selected in each of the countries in which the companies operate. About 75% of the subjects belong to the management tier, for example in operations, marketing and sales, while the remaining 25% represent general administrative staff.

The survey uses a structured questionnaire and analyses the impact of local cultural differences on management practices along seven dimensions: universality or particularity; individualistic or collective behaviour; sentimentality or neutrality; degree of overlap between private and professional life; attributed status or acquired status; attitude towards time; and desire to control nature. The authors combined the responses from different questions of the questionnaire to give a scale along each dimension and the data were analysed according to this seven-scale perspective.

Investigation of organisational structures' effects on a qualitative index of human resources

The research was carried out in 2005 by Romeo Cretu, lecturer at the Psychology and Educational Sciences Faculty in the University of Bucharest. The research aimed at determining the distinct effects of organisational structures on several HR-related issues: satisfaction, stress, locus of control, and informal relations.

Seven samples were investigated totalling 116 persons from seven different socioeconomic organisations. The sampling method was multistage random probability sampling, which means indirect selection of the persons through selection of the groups to which they belong.

## Spain

Survey of Quality of Life in the Workplace

The **Survey of Quality of Life in the Workplace** (Encuesta de Calidad de Vida en el Trabajo) 1999, 2000, 2001, 2002, 2003, 2004 has been carried out by the Spanish Ministry of Labour and Social Affairs (**Ministro de Trabajo y Asuntos Sociales** ).

Geographical coverage: All Spanish territory except Ceuta and Melilla (Spanish autonomous cities in northern Africa).

Surveyed population: Working people aged over 16 years old, living in family households.

Sample: 6,020 people surveyed.

Characteristics of data classification: Occupation (Occupation National Classification), economic activity (NACE classification) and other variables, namely sex, age, level of studies, size of enterprise and size of living municipality. The sample design is carried out according to three main variables: region, size of municipality and number of inhabitants in each census section. The first two variables are used as stratification variables, whereas the last one is used in the sample selection phase.

Data collection methodology: Interviews are carried out face to face at households of selected workers, at an hour previously agreed between the interviewer and the interviewee.

Publication periodicity: Annual.

National Survey of Working Conditions

The **National Survey of Working Conditions** (Encuestas Nacionales de Condiciones de Trabajo) 1987, 1993, 1997, 1999 and 2002 (the last one) was carried out by the Spanish National Institute of Health and Safety in the Workplace (Instituto Nacional de Seguridad e Higiene en el Trabajo, **INSHT** ).

Geographical coverage: All Spanish territory except Ceuta and Melilla (Spanish autonomous cities in northern Africa).

Surveyed population: Companies with more than one employee and across all activity sectors, except agriculture and mining.

Sample: 9,290 interviews were carried out: 4,054 with managers and 5,236 with workers.

Data collection methodology: There are two questionnaires: a 'company' one, to be completed by a management representative, and a 'worker' one, to be completed by employees. The selection of the establishments where the interviews were carried out was random, based on two main criteria: economic sector and number of workers. The workers to be interviewed were also randomly selected from the entire staff.

Characteristics of data classification: Economic activity (NACE classification).

Publication periodicity: Every three to four years.

## Sweden

Lean production survey 2002

Carried out by the Swedish Metalworkers' Union, now known as **IF Metall** .

The survey was sent to all local union clubs in the manufacturing sector. The response rate was around 70%, which corresponds to about 120,000 metalworkers.

Work environment - qualitative

This report by Håkan Sandberg in 2004 focuses on the connection between the work environment and teamwork in the public sector. The report is based on interviews and focus group interviews, which were conducted during 2001-2002 in the public healthcare sector.

Alternative assembly

Written by Engström et al, 2004.

A book about production technique development focusing on alternative assembly. The book is based on research in the automotive sector and mainly discusses experiences in organising work on the basis of the 'Swedish model' that developed in the 1970s alongside present ways of working.

## United Kingdom

Workplace Employee Relations Surveys 1998 and 2004 (WERS)

Carried out by the Department of Trade and Industry (**DTI** ), the Advisory Conciliation and Arbitration Service (**ACAS**) , the Economic and Social Research Council (**ESRC** ) and the Policy Studies Institute (**PSI** ).

WERS 1998 and 2004 are representative surveys of establishments in Great Britain. They cover most sectors, with the exception of agriculture, forestry and fishing, mining and quarrying, and overseas organisations. The 2004 survey included all workplaces employing five or more persons; the 1998 survey covered establishments with 10 or more employees. A workplace is defined as comprising 'the activities of a single employer at a single set of premises [i.e. location]'. The sample is drawn, on a stratified random basis, from the official register of business and employing organisations.

Fieldwork for the 2004 survey took place from February 2004 until April 2005, and resulted in the self-completion of 22,451 employee questionnaires, corresponding to a 61% response rate, as well as interviews with managers and employee representatives. In keeping with its predecessors, WERS 2004 contains both a cross-section and a panel element. All findings were weighted to adjust for the effects of stratification of the sample and non-response bias.

#### Change in Employer Practices Survey 2002 (CEPS)

The CEPS (2002) consisted of a total of 2,000 telephone interviews with employers in Great Britain. The survey was establishment based, that is, information was collected on an individual site basis irrespective of whether the site formed part of a larger organisation. Only those establishments employing five or more staff were included within the scope of the survey. The sample was drawn from the British Telecommunications Business Database (known as Yell Data), a regularly updated comprehensive list of establishments in Britain with a business telephone line.

The main stage of interviewing was carried out between 23 July and 2 September 2002. The principal respondent was the senior person responsible for HR or personnel issues. Generally, in establishments with 100 employees or more, this was the HR/personnel director or manager. In establishments with fewer than 100 employees, it was typically the owner, proprietor or the site or office manager. The approximate average length of the interview was 30 minutes.

#### EIBS 1992 and WIBS 2000

White et al (2003) analysed the effects of selected high performance work practices with data from two national surveys of British employees: the Employment in Britain Survey (EIBS) in 1992 and the Working in Britain Survey (WIBS) 2000. These two surveys are representative surveys of employed and self-employed persons in Great Britain, with samples restricted to those aged between 20 and 60 years inclusive. The EIBS generated a sample of 3,855 employed people, with a response rate of 72%; the research was conducted in 1992. The WIBS produced a sample of 2,466 employed people, with a response rate of 65%; the research was conducted between June 2000 and January 2001.