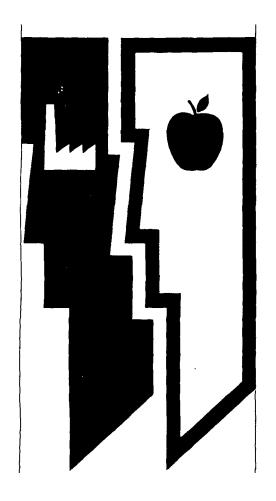


European Foundation for the Improvement of Living and Working Conditions



FIRST EUROPEAN SURVEY ON THE WORK ENVIRONMENT 1991-1992

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PREFACE

The survey presented here was carried out in 1991. It was based on direct interviews with 12.500 workers, both employees and the self-employed, throughout the 12 member states of the European Community. The sample is representative of the distribution of the labour force between sectors, males and females, age groups and by professional status.

As social integration moves forward, and as the number of initiatives dealing with the work environment at Community level increase, more comprehensive and homogeneous data on working conditions in the Community is required. The present survey is a step in this direction.

Clive Purkiss Director Eric Verborgh Deputy Director

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SUMMARY

The context

The European social dimension is growing in importance. It was clearly an issue in 1991 at the Maastricht summit. It is also an everyday reality illustrated by the increasing number of directives which aim at harmonising working conditions and health protection. Finally 1992-93 has been chosen as the European Year of Occupational Health, Safety and Hygiene.

A number of important issues explain the growing focus put on the European social dimension. Fear has been expressed that some companies might take advantage of the imbalances between the levels and standards of protection which might exist between countries. And as the opening of borders will enable- products to 'flow freely between the different EC countries, this might create a conflict between national standards which have set a high level of health protection and imported products designed to lower standards. It is also clear that the mobility of workers within the EC will only be made possible, if workers can find elsewhere the same level of protection and the same quality of working life as they have in their own country.

These developments have highlighted the **need for more comprehensive information on working conditions within the** EC. While on the one hand more initiatives are being developed at the community level, on the other hand, the lack of quantitative data and of comparable data is clearly showing. In fact, information often either does not exist, or is not accessible, or if available, is not comparable because of the differences between the monitoring systems of the various member states. As a result it is difficult to identify priorities and measure results.

The survey methodology

This survey was carried out in March/April 1991 on behalf of the Foundation by INRA, Brussels. The questionnaire was developed by a group of experts from various countries and representatives of trade unions and employer organisations at EC level.

The sample (12,500) workers, 1000 per countries including former East Germany, and 500 from Luxembourg is representative of the workforce distribution according to occupation, gender, age, sectors and company size.

The survey, which is the first of its kind giving comparable information for all EC countries, was carried out through direct interviews and in the context of Eurobarometer No 35.

The European workforce

The total labour force in the twelve EC member states is 137 million'. Of these 111 million (81%) are employed workers and 26 million (19%) are self-employed, 61% of this workforce is male and 39% female.

Main issues

The physical constraints which concern the highest proportion of workers are related to musculo-skeletal problems (15.8%) and work with inadequate equipment (15.2%) or in inadequate premises (17.8%). This clearly points at the need for the improved **design of workplaces.**

On average around 10% of workers are exposed permanently to constraints such as high level of noise (9.7%), air pollution (10.4%), heat or cold (13.1%), moving heavy loads (9.2%).

Manual workers, generally unskilled, are the category which among employees is the most concerned (on average 20% to 25% of them are permanently exposed to the constraints listed above).

Organisational constraints concern an even higher proportion of workers; high time pressure is a permanent feature for 20% of workers, the **lack of influence over one's work** for 35 to 40% of workers and the involvement in repetitive tasks of short duration for nearly a quarter of the workforce (and a part-time feature for 60% of them).

In a time where much emphasis is put on new forms of work organisation based on autonomy and responsibility one can question the extent of changes which affect work organisation in European countries.

Although they are mostly driven by independent workers, **long working hours** are still a common feature for a high proportion of workers. And 5% of people work permanent night shifts in 1991. The consequences of the suppression of the ban on nightwork for women in industry in several EC countries will be worth monitoring in the years to come.

The proportion of workers who complain from organisational constraints, which are in particular conducive to stress, is higher than the proportion of workers complaining from physical constraints. But it is worth noticing that over 80% of the 30% respondents, who declare that their health and safety is at risk, also indicate **exposure to air pollution** (fumes, dust, vapours, toxic substances). The next two most important constraints they indicate are handling of **dangerous substances** and work in painful positions. It can therefore be considered that exposure to chemicals and toxic products is the primary risk concern for workers.

The implication of the survey results is that over 30% of those surveyed consider their health and safety at risk while at work. On a European scale this would be equivalent to almost 42 million people. Of these one in three male workers feels at risk compared to one in five female workers.

^{&#}x27; Labour Force Survey 1988

Groups at risk

The aim of the present survey, and of this type of survey in general, is to provide support to policy-makers in identifying priorities. In fact, one of the main objectives is to help identify which groups are most at risk and the specific problems they are facing.

Multi-factorial analysis provides interesting answers to this question. It shows that the respondents to the survey can be roughly divided into 7 groups (or clusters).

The main finding is that on the one hand more than half the workforce (52.7%) has no problems. The respondents answered all the questions by "never" or "almost never". On the other hand, 8.5% of the workforce is concentrating nearly all the constraints. On each issue the respondents have given answers very significantly more negative than the average. And in between several other groups indicate significant differences with the average, but on a limited number of issues only.

The profile of the group whose members (8.5% of the workforce) indicate exposure to most constraints is characterised by an above average representation of:

```
independent workers (26% of the group)
male workers (77.5%)
older workers (25.3%)
farmers (10.9%), skilled employed manual workers (39.9%) and non-
skilled employed workers (18%).
single person companies (64%)
building sector (19.3%), agriculture (16%), transport (10.3%) and
non metal manufacturing (13.7%)
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This group is represented above average in Greece, France and Portugal.

Finally, 72.4% of workers in this group think their health and their safety are at risk (EC: 30%).

Gender

There are very significant differences between the working conditions of men and women in the EC.

Male workers are generally much more exposed to **physical constraints** than female workers. They are more exposed to noise, to air pollution, to contact with dangerous substances, to handling heavy loads, to extremes of temperature and weather. The only notable exception is the exposure to musculo-skeletal constraints where the proportion of female workers complaining is higher than for males. The other area where more females are complaining, and which is linked to the previous one, is the inadequate design of equipment.

Not surprisingly, **long working hours** are generally a male characteristic as in all EC countries part-time work is more common among women than men. in none of the countries the proportion of men who work less than 30 hours

exceeds 11%. On average only 7% of men work under 30 hours a week, while 30% of women do so (57% in the UK and 55% in the Netherlands). And 16% of men work over 50-hour weeks and 7% of women.

The proportion of males working at night is also higher.

More men work under high **time pressure** whether at high speed or to very tight deadlines (except in Denmark and the Netherlands). This might be partly due to the higher proportion of males whose income depends on work rate.

On the one hand less submitted to time constraints, women are on the other hand are not enjoying as much influence over their work situation (possibility to organise work and modulate speed of work) as their male colleagues.

Women have **less autonomy**, but they also more frequently than men find themselves doing short, repetitive tasks (27% of females work permanently short repetitive tasks).

Finally 36.8% of men and 19.7% of women think their health and safety are at risk because of their work.

Age

The survey highlights some important differences on the issues which the different age groups are facing.

The main issues which concern **older workers** (at least more than average) are:

the exposure to weather constraints;

the need to improve the design and the ergonomics of the workplace, in particular with regard to musculo-skeletal problems;

the unavailability of (or inability to use?) new information technology;

the long working hours

the lack of support.

But these problems or constraints are balanced by the fact that older workers benefit from higher autonomy and higher control over their work.

Finally, as a result older workers think more than other age groups that their health is at risk.

The main issues which concern younger workers are:

the exposure to health hazards due to dangerous substances, chemicals, ...

short working hours (part-time week)

the widespread use of information technology, especially in the 25-39 group;

submission to time pressure;

tayloristic profile of jobs and tasks (short cycles, lack of autonomy); lack of training.

Company size

Workers in **small companies**, especially in single workers establishments, are much more exposed to physical constraints, in particular to musculo-skeletal problems. This is due to inadequate design of the workplace and the manutention of heavy loads. Exposure to high level noise and to dangerous products is lower than in large companies.

Small companies work longer hours. But this is compensated by less pressure and more autonomy.

Not surprisingly lack of support is clearly expressed.

Workers in **larger coapames**, mainly over 50 employees, are putting organisational constraints ahead of physical constraints. Working hours are shorter but pressure is higher and short work cycles and repetitive tasks are more common.

Autonomy is also more reduced than in small companies. Finally night work is more widespread.

Workers in small companies or single workers are more inclined to think their health at risk than workers in larger companies.

Countries

A country comparison on the survey indicates a North/South divide within the EC with regard to working conditions.

Broadly speaking, northern Europe benefits a better work environment than southern Europe, insofar naturally as reflected by the respondents' answers to the present survey questionnaire. To explain some of the differences, one has naturally to take into account cultural and socio-economical differences, which make comparisons difficult and not always relevant. A more relevant comparison can be made between countries by wiping away differences between economical structures. Analysis shows that if the member states had the same economical structure (same division of labour force between sectors):

some would fare better on the issues reviewed in the survey (Ireland and former East Germany) or even much better (Spain, Portugal and Greece);

some would not fare as well (Belgium, Denmark, The Netherlands, and the United Kingdom);

some would fare identically (France, former West Germany, Luxembourg and Italy).

This simply shows that some countries benefit from their structure and others are handicapped by theirs. But even if the economic structures were identical, gaps between the various countries would still exist and could be explained by, for example, the policies carried out by the companies, the social partners and the public authorities.

On the basis of the existing survey results, the EC member states can be divided roughly (in some specific issues the clustering can be different) into three groups.

The **first cluster** includes Belgium, Denmark, Germany (WD), Luxembourg. The Netherlands and the United Kingdom. These countries can be characterized by having a good infrastructure which provides support, training and information, as well as appropriate equipment and premises. Use of computer equipment is extensive. Physical constraints are relatively limited, while workers tend rather to point at organisational issues. Working conditions are in fact pulled into two different directions: high autonomy (except in Germany) on the one hand which is influenced by the weight of the services sector (in particular banking and finance, and distribution); time pressure and taylorism on the other hand which are industry-linked (energy, chemical industry and manufacturing).

The **second cluster** includes Greece, Spain and Portugal. The working conditions in these countries are characterized by longer working hours and by physical constraints - heat and cold, heavy loads, weather constraints, painful positions, risks of pollution from dangerous substances. Time pressure is high. Health is seen as being more at risk from work than elsewhere. The proportion of self employed is much higher than EC average in these countries and the weight of agriculture is important.

The **third cluster** includes countries which do not fit in the two above described clusters. These countries - France, Italy and Ireland (and also former East Germany) - are in an in-between situation, sometimes for different reasons. France, Italy and former East Germany are characterized by poor design of workplaces and under average provision for information, training and support. But whereas autonomy is high in France, Italy and Ireland, it is very low in former East Germany. France has a high level of physical constraints. Overall, each of the countries in this cluster is pulled down by some strong features such as poor design or long working hours, which explain their intermediate position.

Sectors

Agriculture (NACE 0), **building** (NACE 5), and **transport** (NACE 7) are clearly the sectors where, overall, the highest amount of constraints appear. This is reflected in the proportion of workers feeling at risk: 51% in agriculture, 46% in construction and 37.5% in transport. Physical constraints come high on the list of constraints in all three sectors, especially due to outdoor work. This is cumulated with long working hours in agriculture, nightwork and high time pressure/low autonomy in transport.

Steel and chemical industries (NACE 1 and 2) come very closely behind in terms of the number and importance of constraints to which workers are submitted. As a result, 37.1% of workers feel their health and safety are at risk. Exposure to dangerous products is a major issue. Nightwork is widespread.

The **manufacturing industry** (NACE 3 and 4) is characterized, more than other sectors, by a tayloristic division of work and by low autonomy, while pressure and intensity of work is higher than average. This is balanced by shorter working hours (among the shortest), in particular in metal manufacturing.

The **distributive trades** sector (NACE 6) on the contrary has long working hours but this is balanced by reduced time pressure and higher autonomy.

Finally, **banking/insurance** (NACE 8) and **other services** (NACE 9) are well below average in terms of physical constraints, though design of work places is causing some concern. Low working hours and high time pressure, and above average autonomy, are characteristics of these branches.

INTRODUCTION

The European social dimension is growing in importance. It was clearly an issue in 1991 at the Maastricht summit. It is also an everyday reality illustrated by the increasing number of directives which aim at improving working conditions and health protection. Finally 1992-93 has been chosen as the European Year of Occupational Health and Safety.

A number of important issues explain the growing focus put on the European social dimension. Fear has been expressed that some companies might take advantage of the imbalances between the levels and standards of protection which might exist between countries. And as the opening of borders will enable products to flow freely between the different EC countries, this might create a conflict between national standards which have set a high level of health protection and imported products designed to lower standards. It is also clear that the mobility of workers within the EC will only be made possible, if workers can find elsewhere the same level of protection and the same quality of working life as they have in their own country.

These developments have highlighted the need for more comprehensive information on working conditions within the EC. While on the one hand more initiatives are being developed at the community level, on the other hand, the lack of quantitative data and of comparable data is clearly showing. In fact, information often either does not exist, or is not accessible, or if available, is not comparable because of the differences between the monitoring systems of the various member states.

As a result it is difficult to identify priorities and measure results.

This is why the Foundation has carried out the present questionnaire-based survey in 1991. The methodology (Chapter 1) and the questionnaire (Annex 1) are inspired by existing national surveys carried out in some EC countries (Annex 2). A working group, including experts from various national institutes carrying similar surveys, and also from representatives from the unions and from employers' organisations, was set up by the Foundation from the outset of the project. This group advised the Foundation all along the process of designing, and implementing the survey, as well as in the phase of analysis.

The methodology is described in detail in the Chapter 2. Basically 12,500 workers (employed and self-employed) were directly interviewed, 1,000 in each country, with the exceptions of Luxembourg (500) and Germany (where 2,000 workers were 'interviewed, 1,000 in former West Germany and 1,000 in former East Germany). The sample is representative of the distribution of the labour force between sectors, genders, age groups, professional status, company size.

The aim of this survey is to highlight the possible contribution of such an instrument to policy making. In the future one would obviously have to increase the number of questions and also increase the sample size. The present sample being limited, as all Eurobarometer samples, to national workers, it would also be necessary to include migrant workers. In fact, migrant workers are in some sectors the workers most at risk and with the worst working conditions.

This is why the present survey should be considered as a starting point. One of the major outcomes of questionnaire-based surveys of this type is to monitor trends and changes over the years by repeating the surveys every 4 to 5 years. The Foundation will examine the various possible developments to achieve this in the future.

CHAPTER 1 - THE METHODOLOGY

1.1 Description of the survey method and the sampling procedure

Between March 4 and April 22, 1991 INRA (Europe) carried out the 35.A wave of the standard Eurobarometer, on request of the Commission of the European Communities. It included a section on behalf of the European Foundation for the Improvement of Living and Working Conditions.

The complete results of all Eurobarometers are made available through the Unit "Surveys, Research, Analyses" of the DG-X of the Commission of the European Communities.

I.I.I Details on sampling

In all 12 countries of the European Communities, in total 12.819 citizens of the respective nationalities, aged 15 and above who are in active employment, were interviewed face-to-face, in their private residence. The specific target of people in active employment was constructed by oversampling in EB35.0 about 500 respondents of the same target per country (250 in Luxembourg, 500 in East Germany and 500 in West Germany). The resulting total NET sample (EB35.A) is as given in Table 2.

The basic sample design applied in all member states is a multi-stage, random (probability) one. In all member states a number of sampling points was drawn with probability proportional to population size. for a total coverage of each member state, and to population density.

For doing so, the points were drawn systematically from all "administrative regional units", after stratification by individual unit and type of area. They thus represent the whole territory of the member states according to the Eurostatnuts II and according to the distribution of the national, resident population in terms of metropolitan, urban and rural areas.

In each of the selected sampling points, a starting address was drawn, at random. That starting address formed the first of a cluster of addresses. The remainder of the cluster was selected as every Nth address by standard random route procedures from the initial address.

In Great Britain, a full random selection of respondents was applied, using electoral registers as sampling basis.

In each household the respondent was selected amongst those in active employment according to a random procedure, such as the first birthday method or the KISJ-grid.

At every such address up to 2 recalls were made to achieve an interview with that respondent. The maximum number of interviews per household is one. All interviews were made face to face.

1.1.2 Realisation of the fieldwork

In all member states, fieldwork was conducted on the basis of detailed and uniform instructions prepared by the European Coordination Office (ECO) of INRA (EUROPE).

Table 1

Country	From	То	Total Labour force
Belgium	04/03	22/04	3,483
Denmark	10/03	22/04	2,683
Germany (ex-BRD)	08/03	15/04	26,999
Germany (ex-RDA)	08/03	16/04	8,531
Greece	07/03	21/04	3,657
Spain	07/03	23/04	11,709
France	11/03	19/04	21,505
Italy	10/03	25/04	21,101
Ireland	07/03	17/04	1,091
Luxembourg	04/03	25/04	152
The Netherlands	04/03	23/04	5,910
Portugal	08/03	16/04	4,453
United Kingdom	06/03	20/04	25.660
Total			136,934

1.1.3 Comparison between samples and universes - weighting of the data

For each of the countries a comparison between the samples and a proper universe description was carried out. This universe description was derived from the Labour Force Survey 1988.

For all EC-member-countries a national weighting procedure, using marginal and intercellular weighting, was carried out based on this universe description. In all countries, minimum sex, age, region NUTS II, size of locality, sector of activity were introduced in the iteration procedure. For some countries extra variables were added, when considered necessary.

For international weighting INRA (EUROPE) applied the official population figures as published by EUROSTAT in the Labour Force Survey 1988. The total population figures for input in this post-weighting procedure are listed above. In summary, the sample of 12,819 respondents can be considered representative of the national workforce in each of the member countries of the EC. In total, 136,934,000 people.

1.2 Limitations of the survey

Before starting to describe the results, it is essential to point out certain reservations that have to be considered in connection with the interpretation of the figures.

First of all, the study was carried out in 12 different countries, among which there are obvious differences. The cultural background differs from one country to another.

The industrial and occupational structure differ a lot and there are visible divergences between countries in the North and in the South. For example the proportion of employed and self-employed people is much larger in the southern countries than in the northern countries, Ireland accepted.

Secondly the sample size of each country is not very large. This means that if you make breakdowns on variables with few events, the number of cases in each group in each country will very easily be too small to draw any conclusions.

This is the case with the profession variable theme where there are many professions with too few events within each country to make any conclusions on a country basis. Generally this is the case for the fishermen in all countries, for professionals, employed professionals, general management and supervisors in many countries and for the farmers in the most industrialised countries.

Thirdly the level of knowledge about the working environment problems and the attitudes and concern about such problems are very different from one country to another. In certain countries the concept of working environment is well-known and accepted, in other countries the working environment is perceived to be part of daily life. and the problems experienced in connection with the working situations are only considered to be a 'natural' part of life conditions, and as such not worth while giving special consideration.

This might influence the way in which the questions are understood in the different countries and must be taken into account when reading the report.

Another point is. that the survey was only carried out on the national population in each country. All foreign workers were thus excluded. This may distort the results of this study especially in countries or sectors where many foreigners are part of the labour force.

Finally the small number of questions of course limits the possibilities of saying something about all aspects of the working environment. This on the other hand was never the intention, but it makes it necessary to stress that the potentiality of the study is thus restricted.

1.3 Positive points

The results of the present survey do, in many ways, confirm the trends of the working environmental conditions that are known from studies in a number of other countries. This makes the argument strong that it is worth while to carry out questionnaire based studies on a European basis which is needed to provide homogenous data for a regular comparison of the working environmental conditions in Europe.

The need for quantitative data is essential not only for the sake of comparison,' but also to establish a monitoring 'instrument' of the development taking place in the working environment. This is considered to be a necessity, because many circumstances are expected to change in the working environment in the near future. This is partly due to the development in the use of new technology which might influence not only the physical working environment, but also the organisational conditions and the psycho-social working environment.

Finally the subjectiveness in the answers, which is part of all questionnaire-based surveys, should not be considered as negative. The way people perceive and experience their working environment provides essential information to policy-makers and preventers.

Table 2

Country	Number of respondents (unweighted)
Belgium	1,209
Denmark	1,161
Germany (ex-BRD)	1,141
Germany (ex-RDA)	1,354
Greece	868
Spain	938
France	1,093
Italy	936
Ireland	894
Luxembourg	492
The Netherlands	871
Portugal	952
Great Britain	1,090
Total	12,819

CHAPTER 2 - THE LABOUR FORCE IN THE EC

2.1 Basic figures

When looking at the results of the survey and discussing them in the following chapters, one has to keep in mind some important quantitative and qualitative facts concerning the EC labour force.

The total labour force in the 12 EC member states (including former East Germany) is **136 million** according to the Labour Force Survey, 1988. Among those around **81%** are employed workers (106 million) and **191** self employed (24 million). Including former East Germany the total civilian employment is **138 million.**

Table 1 (Labour Force Survey 1988)

	ECU
Total labour force	136,934
Independent workers	26,566 (19.4%)
Employed workers	110,368 (80.6%)

X 1000

2.2 Distribution of the labour force

2.2.1 The distribution of the labour force by **sectors** of activity shows that services (59%) employ nearly twice as many people as the industry (34%).

Table 2

Agriculture	(7.5%)
Industry	(33.8%)
Services	(58.7%)

X 1000

But in fact these average figures hide very wide extremes between the different EC countries.

For example agriculture fares 26.6% in Greece and only 2.4% in the U.K. industry fares 40.5% in Germany (WD) and 25.4% in Greece. And services 68.6% in The Netherlands compared to 44.2% in Portugal (Table 3).

A more detailed analysis of the distribution of the labour force between sectors in the different countries shows again the same extremes. The manufacturing industry employs 26.3% of the workforce in Germany (WD) compared to 15.4% in Greece or 17.4% in Denmark. Banking and finance gives 11.6% in Luxembourg compared to 3.1% in Portugal.

One has therefore to keep in mind these important structural differences when comparing countries. We shall later try to provide some indications on how countries compare if their economic structures were identical.

2.2.2 Occupation by country

The south/north divide is very strong when looking at the ratio between employed and self employed. Whereas most of the northern EC countries percentage of employees is around 85%, the figure goes down to around 70% (Spain, Italy, Portugal) and even 50% (Greece). The only exception to the north/south divide is Ireland (73%).

Table 3 — Labour force breakdown per country and sectors (in %)

NACE	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
0 - Agriculture, forestry & fisheries	3.2	5.8	4.5	6.2	26.6	14.3	7.2	15.8	9.8	3.5	4.9	21.2	2.4	7.5
I/- Energy, steel extract. 2 & chemical industry	6.9	2.9	7.3	8.5	3.7	2.6	4.4	4.2	2.5	10.5	4.1	4.3	5.4	5.0
3 - Metal, manufact., mechanic. & electric. industry	8.7	7.3	15.9	13.8	3.2	9.4	9.1	5.9	8.6	3.4	6.5	5.3	10.4	10.5 '
4 - Other manufacturing industry	9.9	10.1	10.4	10.9	12.2	12.0	9.0	10.8	12.3	12.6	11.0	16.5	9.5	10.7
5 - Building & civil engineering	5.9	6.8	6.9	8.8	6.3	8.5	7.5	7.7	8.9	2.7	4.9	8.5	7.5	7.6
6 - Distributive trades, catering	18.0	15.9	16.5	9.5	18.3	22.0	17.1	19.2	21.3	20.8	15.0	16.6	15.5	17.2
7 - Transport &• communication	7.2	7.4	5.8	6.4	6.6	5.4	6.0	4.8	5.6	6.6	9.8	4.3	11.3	7.0
8 - Banking & finance	7.9	9.7	7.6	1.8	4.4	5.1	8.8	7.8	3.9	11.6	10.5	3.1	10.2	7.1
9 - Other services	32.3	34.1	25.1	33.9	18.7	20.7	30.9	23.8	27.1	28.3	33.3	20.2	27.8	27.4

Table 4 — Occupation breakdown per country (in %)

Countries	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
Employed	83.2	90.8	85.4	91.7	50.1	73.3	83.2	73.6	68.1	86.7	87.5	70.7	86.4	80.6
Self employed	16.8	9.2	14.6	8.3	49.9	26.7	16.8	26.4	31.9	13.3	12.5	29.3	13.6	19.4

Table 5 — Gender and NACE sectors (in %)

Sectors (NACE)	0	1/2	3	4	5	6	7	8	9	EC
Males	62.7	79.5	84.1	61.4	86.9	49.4	81.0	55.3	44.7	61.0
Females	37.3	20.5	15.9	38.6	13.1	50.6	19.0	44.7	55.3	39.0

Table 6 — Occupation breakdown per sector

Sectors (NACE) Occupation	0	1/2	3	4	5	6	7	8	9	EC
Employed (%)	29.0	94.5	95. 0	87. 8	80.3	64.5	88.8	88.8	90.0	80.6
Self employed (%)	71 0	5 5	50	12 2	197	35.5	11.2	11.2	10.0	19.4

Table 7 — Breakdown by age group

	-25	25/39	40/54	+55
% of total labour force	17.0	38.8	33.2	11.0

Table 8 — Breakdown by size of company

	1	2-49	50+
% of total labour force Employed	14.7	46.6	38.7
Self employed	57.4	38.0	4.6

Table 9 — Distribution according to gender (in %)

	Males	Females
Total	61.0	39.0
Employed	59.7	40.3
Self employed	66.4	33.6

Table 10 - Percentage of female workforce in EC countries

	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
% of female workers	36.5	45.4	40.0	46.4	34.9	31.5	42.3	32.2	33.5	34.5	37.6	41.2	42.6	39.0

CHAPTER 3 - THEMATIC ANALYSIS

The following chapter provides the main results of the survey to the different questions. A profile of the categories of workers most concerned on each issue is provided.

At the end of chapter 3 the reader will find a set of conclusions on:

- the main issues
- gender and working conditions
- age and working conditions
- company size and working conditions
- groups at risk

Analysis and conclusions regarding branches and countries are provided in chapters 4 and 5.

3.1.A1 NOISE

Question: When at work, are you exposed to noise so loud that you would have to raise your voice to speak to people?

Around 10% of the workers are exposed permanently to high level noise and 27% are exposed at least a quarter of the time to such noise. Not only should it be considered that these workers face inconveniences but that a risk situation for their health also exists as the question was referring to levels of noise so high as to impede communication. This is particularly true of employed manual **workers** and of workers in the **fishing industry.** In both categories the number of people exposed to noise is very much higher than the average (Table 1).

There are significant differences between **countries.** For example, while '19.6% of the respondents in The Netherlands are exposed to noise at least 25% of the time, the figure reaches (Table 2):

- 31.5% in Greece
- 31.5% in Spain
- 31.4% in France

The **manufacturing industry**, especially the metal manufacturing scores very much above the average. At a slightly lesser level so do the building sector and the energy and chemical industries (Table 3).

There is a higher percentage of **men** exposed to noise than of women which, is due to the higher % of males employed in industry, in particular in metal manufacturing (Table 4).

Noise is more a problem for the **40-54 age category** (3 points above overall average). Otherwise there are no significant differences between age groups (Table 6).

Noise is clearly a problem for a high proportion of workers in the EC, but average figures in fact hide wide extremes between categories and sectors.

Workers exposed to loud noise are generally:

manual workers
males
in the age group 40-54
working in big companies
in the manufacturing industry

Table 1

% of workers exposed to noise	Total (12,500)	Employed (10.070)	manual workers (3,637)	Self employed (2,429)	fishermen
All the time or almost all the time	9.7	10.8	20.5	5.2	8.7
At least 50% of the time	17.3	18.5	34.1	12.2	27.5
At least 25% of the time	27	28.2	47.7	21.5	46.9

Table 2

% of workers exposed to noise	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	Р	UK	EC
All the time or almost all the time	8.3	6.8	6.3	8.1	13.2	15.6	13.1	10.5	9.8	14.9	7.3	10.8	8.8	9.7
At least 50% of the time	15.3	14.3	13.8	13.3	22.5	22.1	23	21.5	17.6	19.2	11.5	18.9	16.3	17.3
At least 25% of the time	23.1	25.7	24.2	24.3	31.5	31.5	31.4	31.3	25.3	27.5	19.6	27.7	28.4	27.0

Table 3

% of workers exposed to noise	Agri- culture, forestry & fisheries	Energy steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
Ail the time or almost all the time	6.9	14	19.3	20.6	10.6	5	11.7	3	5.9	9.7
At least 50% of the time	15.1 .	25.5	30.4	29.4	24.9	10.1	20.9	5.2	11.6	17.3
At least 25% of the time	28.4	35.1	44.5	39.7	42.5	17.3	33.1	7.7	19.1	27

Table 4

% of workers exposed to noise	Males	Females	EC
All the time or almost all the time	11.4	7.2	9.7
At least 50% of the time	20.7	12.2	17.3
At least 25% of the time	32.4	18.8	27

Table 5

% of workers exposed to noise	1	2-49	50+	EC
All the time or almost all the time	5.7	8.1	13.1	9.7
At least 50% of the time	12	15.2	21.8	17.3
At least 25 % of the time	19.8	25.8	31.7	27

Table 6

% of workers exposed to noise	-25	25/39	40/54	+55	EC
All the time or almost all the time	10.2	9.9	9.3	10.1	9.7
At least 50% of the time	18.7	17.2	20.1	16.9	17.3
At least 25% of the time	28.6	26.9	30.2	25	27

3.1.A2 BAD WEATHER

Question: When at work, are you exposed to bad weather conditions such as rain, wind, snow, ...?

The concept of bad weather can vary very much from one sector or country to the other: sun in Spain might not be perceived the same way as in Ireland, specially to farmers or construction workers. It is nevertheless an important factor of the working conditions.

It is among independent workers and **farmers** in particular, that one can find the highest population of workers exposed to weather constraints. The average of overall workers exposed permanently to weather constraints is 7.5% as compared to 27% for farmers. One should note that among employees, **manual workers** score significantly higher than average (Table 1).

Countries where the agriculture has a higher weighting (Greece, Spain, Portugal, Ireland) have the highest proportion of workers indicating weather constraints (Table 2).

The EC average figure of workers exposed to weather constraints is clearly pulled upwards by 3 sectors: **agriculture**, **building and transport**, where more than half of the workforce declare it being an issue (Table 3).

The above mentioned sectors employ a higher proportion of males, which explains the higher proportion of **males** indicating weather constraints (Table 4).

Small companies are mostly concerned (Table 5).

Young workers face less problems than **older workers** (Table 6).

Workers exposed to bad weather conditions are generally:

fanners and employed manual workers males in the age group +55 working in small companies (single person companies) in agriculture, building industry and transport in countries with large agricultural workforce (Greece, Spain, Portugal. Ireland)

Table 1

% of workers exposed to bad weather	Total (12,500)	Employed workers (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
All the time or almost all the time	7.5	6.58	12.4	11.4	27
At least 50% of the time	14.8	12.38	22.6	25.1	65.6
At least 25% of the time	27.7	19.09	31.8	38.04	83.8

Table 2

% of workers exposed to bad weather	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
All the time or almost all the time	5.7	2.2	3.3	7	17.6	15.9	9.1	10.3	5.7	7.6	7	13.7	6.9	7.5
At least 50% of the time	11.5	6	8.9	12.5	35.8	25.1	15.5	23.3	13.9	13.1	13.2	24.7	14.2	14.8
At least 25% of the time	18.2	14.5	17.6	21.8	42.8	34.3	24.7	30.5	21.2	16	19.1	32.8	22.3	22.7

Table 3

% of workers exposed to bad weather	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	26.6	7	2.4	3.3	19.7	3	17.6	1.6	4.4	7.5
At least 50% of the time	56.9	13.4	5.8	6.5	38.8	5.8	28.5	3.8	8.6	14.8
At least 25% of the time	73.5	22.9	10.9	10.8	59.7	10.1	42.3	8	14.5	22.7

Table 4

% of workers exposed to bad weather	Males	Females	EC
All the time or almost all the time	10.3	3.2	7.5
At least 50% of the time	20.1	6.6	14.8
At least 25% of the time	30.9	9.9	22.7

Table 5

% of workers exposed to bad weather	1	2-49	50+	EC
All the time or almost all the time	12.1	6.8	6.4	7.5
At least 50% of the time	25.8	14.4	11.1	14.8
At least 25% of the time	37.5	22.4	17.1	22.7

Table 6

% of workers exposed to bad weather	-25	25/39	40/54	+55	EC
All the time or almost all the time	5.7	7.1	7.7	11	7.5
At least 50% of the time	12	13.3	15.8	21.7	14.8
At least 25% of the time	18.6	21.1	24.1	31	22.7

3.1.A3 HEAT AND COLD

Question: When at work, are you exposed to heat or cold either indoors or outdoors?

Heat and cold constraints may be found obviously outdoors (agriculture and building) but also in industries such as steel and metal (heat) or food processing (cold).

A quarter of the workforce is exposed either to heat or cold at least half the time. But some categories are much more exposed: more than 40% of **employed manual workers**, and 65% of **farmers** (Table 1).

Extremes between countries are big: on the one side countries with large agriculture population score higher than average (Spain, Greece, Portugal); on the other side **countries** like Denmark, Germany and the UK are significantly lower (Table 2).

In line with above comments the **agriculture/fishing/forestry** sector is on the front line with 32% of workers permanently exposed, while the **building** industry (25% permanently exposed) comes a close second (Table 3).

Males are on average twice more exposed than females (Table 4).

Smaller companies (single worker companies) are mostly concerned, reflecting the influence of agriculture on this issue (Table 5).

No significant age differences are shown (Table 6).

Workers exposed to heat or cold are generally:

employed manual workers and fanners males working in single person companies in the agriculture/fishing industry and in the building industry in countries with a relatively large agricultural population (Spain, Greece). but also in France

Table 1

% of workers exposed to heat or cold	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
All the time or almost all the time	13.1	12.6	24	14.65	324
At least 50% of the time	24.3	23.1	41.5	28.8	64.1
At least 25% of the time	33.1	32.3	53.3	40.3	78 8

Table 2

% of workers exposed to heat or cold	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	Р	UK	EC
All the time or almost all the time	10.6	6.1	6.7	12.3	21.8	22.7	16.5	11.2	13.7	15.7	12	21.4	10.9	13.1
At least 50% of the time	18.9	13.6	14.6	22.6	41.7	35.9	28.5	27.1	23.9	24.2	21.8	34	24.8	24.3
At least 25% of the time	26.7	24.1	24.3	34.9	51	42.8	38.1	36.2	31.9	28.7	29.4	43.9	36.8	33.9

Table 3

% of workers exposed to heat or cold	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	32.4	16.2	9.2	14.7	25.8	9	18.9	2.8	8.2	13.1
At least 50% of the time	59.9	28.9	19.5	26.3	45.6	16.8	33.4	8	15.4	24.3
At least 25% of the time	75.6	40.7	29.6	35.1	64.7	23.2	44.8	12.4	23.4	33.9

Table 4

% of workers exposed to heat or cold	Males	Females	EC
All the time or almost all the time	16	8.4	13.1
At least 50% of the time	29.4	16	24.3
At least 25 % of the time	40.8	22.9	33.9

% of workers exposed to heat or cold	1	2-49	50+	EC
All the time or almost all the time	14.6	12.3	13.3	13.1
At least 50% of the time	29.2	23.6	23.3	24.3
At least 25% of the time	40	32.9	32.7	33.9

% of workers exposed to heat or cold	-25	25/39	40/54	+55	EC
All the time or almost all the time	12.5	13.3	12.9	13.5	13.1
At least 50% of the time	24.3	24.1	23.2	28.3	24.3
At least 25% of the time	34.6	33.6	32.5	38.1	33.9

3.1.A4 AIR QUALITY

Question: When at work, are you exposed to breathing in vapours, fumes, dust or dangerous substances?

The quality of air is an important issue from the point of view both of well being (dust, fumes, odours, etc.) and health (toxic products). Answers to this question may highlight the need for more collective protection (ventilation, use of non toxic products) and where no collective and at the source protection is possible, for more individual protective equipment.

While there are no significant differences between employed and self employed (10% of the workforce constantly exposed to air pollution), employed **manual workers** are significantly more exposed (22% permanently) (Table 1).

Most **countries** give similar results, close to the EC average. Germany (WD) and The Netherlands show significantly lower figures (Table 2).

Major differences between the various sectors can be showed. Services are understandably well below average (particularly banking and finance) while **industry branches** score well above average (Table 3).

Twice as many **males** as females are on average exposed to pollution (Table 4).

Slightly higher scores are shown by the large companies (Table 5).

Younger workers are more exposed (3 points above average) (Table 6).

Workers exposed to breathing vapours, fumes, dust or dangerous substances are generally:

employed manual workers
males
younger workers
working in large companies
in industry (chemical, manufacturing and building)

Table 1

% of workers exposed to breathing in vapours	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
All the time or almost all the time	10.4	10.7	22.1	8.7	7.0
At least 50% of the time	16.5	16.75	33.1	15.4	17.9
At least 25% of the time	24.4	23.75	44.1	26.9	40.8

% of workers exposed to breathing In vapours	В	DK	WD	OD	GR	Е	F	IRL	I	L	ML	Р	UK	EC
All the time or almost all the time	8.5	8.1	6.9	11.9	20.3	14.3	10.8	8.8	11	13.3	7.4	12.4	10.3	10.4
At least 50% of the time	13.3	13.5	12.1	18.6	34.2	18.1	16.1	15.7	17.5	18.7	11.5	19.8	17.9	16.5
At least 25% of the time	20.5	21.3	17.9	28.4	43.8	25.8	23.1	26	26.1	23.6	19.6	28.6	27.1	24.4

Table 3

% of workers exposed to breathing In vapours	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	9.5	18.4	15.4	18.3	16.3	7.7	11.6	1.7	6.1	10.4
At least 50% of the time	19	26.8	24.5'	25.7	25.5	10.9	23.5	3.3	9.9	16.5
At least 25 % of the time	38	36.4	34.3	32.6	39.4	16.2	33	4.5	15.4	24.4

Table 4

% of workers exposed to breathing in vapours	Males	Females	EC
All the time or almost all the time	13.1	6.1	10.4
At least 50% of the time	21	9.3	16.5
At least 25% of the time	30.8	14.2	24.4

% of workers exposed to breathing in vapours	1	2-49	50+	EC
All the time or almost all the time	8.9	9	12.7	10.4
At least 50% of the time	15.9	14.7	19.1	16.5
At least 25% of the time	26.8	22.8	26	24.4

% of workers exposed to breathing in vapours	-25	25/39	40/54	+55	EC
All the time or almost all the time	12.8	10.4	9.2	10	10.4
At least 50% of the time	19.7	16.6	15	15.6	16.5
At least 25% of the time	26.9	24.7	22.5	25	24.4

3.1.A5 DANGEROUS SUBSTANCES AND MATERIALS

Question: when at work, are you exposed to handling and/or touching dangerous substances or materials?

The notion of danger is in this case linked not only to the subjective appreciation of the worker but also to the possible labelling of products and information/awareness of the users. It has to be kept in mind that numerous new substances and materials are being produced each year and that big issues are at stake concerning the assessment of new substances and the link between a number of substances and diseases (cancers in particular).

Employed and self employed give identical answers (5% of the workforce permanently exposed to handling dangerous substances and materials). But the **employed manual workers** and the **fanners** are twice as much exposed (Table 1).

Figures for Greece and to a lesser extent for Spain indicate a higher than average proportion of workers concerned, while Northern European countries (Denmark, Germany and The Netherlands) are significantly below average (Table 2).

The **chemical industry** (15% of permanently exposed workers) pushes the average figure upwards. **Agriculture** also scores higher figures, in particular for occasional exposure (36% of farmers exposed at least 1/4 of the time), probably due to seasonal use of pesticides and fertilisers (Table 3).

Male workers are twice more exposed on average than female workers (Table 4).

There are no significant differences between companies according to size (Table 5).

There is a very slight decrease of exposure as years go by, younger workers being more exposed (Table 6).

Workers exposed to handling/touching dangerous substances or materials are generally:

employed manual workers and fanners males younger workers either working in single person companies (farmers), or in large companies (manual workers) in chemical industry and agriculture

Table 1

% of workers handling dangerous substances	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
All the time or almost all the time	5.1	5	10.2	5.3	8.3
At least 50% of the time	8.9	8.6	16	10.1	18.4
At least 25% of the time	15.6	14.4	25.6	20.1	44

Table 2

% of workers handling dangerous substances	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
All the time or almost all the time	5.2	2.6	3.8	3.8	12.4	8.9	5.3	4.8	5.2	7.2	3.7	5.1	4.4	5.1
At least 50% of the time	8.6	6.3	7.3	6.4	22.3	13.5	10	9.2	8.8	9.9	6.7	8.7	7.6	8.9
At least 25% of the time	14.2	12.7	14.4	12.4	33.1	17.8	16.7	16.8	14.5	13.8	10.7	14.9	16.1	15.6

Table 3

% of workers handling dangerous substances	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	9.2	15	5.1	6.7	6.9	2.9	4.0	0.3	3.7	5.1
At least 50% of the time	17	19.8	10.1	10.9	11.7	5.5	8.2	0.3	7.1	8.9
At least 25 % of the time	35.7	28.4	18.4	16.2	23.9	8.7	14.2	1.5	12.2	15.6

Table 4

% of workers handling dangerous substances	Males	Females	EC
All the time or almost all the time	6.4	3	5.1
At least 50% of the time	11.2	5.3	8.9
At least 25% of the time	19.8	8.9	15.6

% of workers handling dangerous substances	1	2-49	50+	EC
All the time or almost all the time	5.5	4.7	5.5	5.1
At least 50% of the time	9.2	8.4	9.5	8.9
At least 25% of the time	18.9	14.5	16.1	15.6

% of workers handling dangerous substances	-25	25/39	40/54	+55	EC
All the time or almost all the time	5.7	5.5	4.4	4.8	5.1
At least 50% of the time	9.2	9.5	8.3	8.1	8.9
At least 25% of the time	16.9	16.4	14.3	14.3	15.6

3.1.A6 POSTURES

Question: Does your work involve painful or tiring positions?

Muscular skeleton disorders are certainly a main issue today. And the consequence, which can be measured in particular in sickness absence, are costly. Preventing painful positions or tiring positions helps reduce muscular skeleton disorders. It can be achieved trough improved workplace design.

More than a **quarter of the workforce** indicates painful or tiring positions at work for at least half the working time. **Employed manual workers** are particularly concerned (42%), while 17% of **office employees** complain about these constraints. Among self employed workers, **fanners** (1/3 are declaring to be permanently exposed) are the most concerned (Table 1).

Denmark and The Netherlands are very much below the average while France, Spain, Portugal and Greece show a significantly higher proportion of permanently exposed workforce (Table 2).

On the one hand **agriculture** (31% permanently exposed), **building** (21%), **transport** (19%) and **non metal manufacturing** (18%) are the most concerned. On the other hand banking and finance score very low (4.7%). Painful positions are mostly an agriculture and industry driven issue (Table 3).

Females (17.5%) exposed permanently are relatively more affected than males (14.8%) (Table 4).

Workers from the bigger companies report less complaints (Table 5).

Older workers (+ 55) and **younger workers** (- 25) report over average constraints from painful and tiring positions (Table 6).

Workers having painful or tiring positions at work are generally:

employed manual workers and office employees females (who are more permanently exposed than males) both younger and older workers working in smaller companies in agriculture, building industry, transport and non metal manufacturing

Table 1

% of workers working in painful positions	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
All the time or almost all the time	15.8	14.9	24.9	19.3	32.9
At least 50% of the time	28.9	27.3	42.2	35	54.4
At least 25% of the time	42.2	40.1	58	50.4	74.5

Table 2

% of workers working in painful positions	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	Р	UK	EC
All the time or almost all the time	11.3	6.3	13.8	15.4	27.2	19.9	20.1	9.5	18.4	10.9	5.5	26.3	10	15.8
At least 50% of the time	22.6	17.1	28.9	29.4	58.3	33.1	33.2	24.2	32	18.6	11.2	41.5	20.7	28.9
At least 25% of the time	34 6	35	46.6	48.4	68.9	43.1	46.3	39.1	42.1	27.2	22.1	55.8	31.9	42.2

Table 3

% of workers working In painful positions	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	31.6	16.8	13.6	18.3	21	15.6	19	4.7	11.9	15.8
At least 50% of the time	50	27.7	29.8	31.9	44.3	26.6	29.8	10.5	23.4	28.9
At least 25% of the time	70.1	36.3	44.3	45.5	59.8	40.1	40.6	20.7	35.7	42.2

Table 4

% of workers working in painful positions	Males	Females	EC
All the time or almost all the time	14.8	17.5	15.8
At least 50% of the time	28.4	29.8	28.9
At least 25% of the time	42.5	41.8	42.2

% of workers working in painful positions	1	1-49	50+	EC
All the time or almost all the time	22.3	15.3	14	15.8
At least 50% of the time	38.7	28.1	26.5	28.9
At least 25% of the time	52.7	42.4	39	42.2

% of workers working in painful positions	-25	25/39	40/54	+55	EC
All the time or almost all the time	17.1	14.9	15	19.5	15.8
At least 50% of the time	30.3	26.4	28.4	32.8	28.9
At least 25% of the time	45.6	39.8	41.4	43.2	42.2

3.1.A7 HANDLING LOADS

Question: Does your work involve carrying or moving heavy loads?

9% of the workforce declares carrying or moving heavy loads on a permanent basis, but the percentage reaches 17% of **employed manual workers** and 22% for **fanners** (Table 1).

France, Spain and Greece score worse than the average, while Italy joins North European countries Denmark, Germany, Luxembourg and The Netherlands to fare better than the average (Table 2).

Agriculture and building industry give a high proportion of workers handling heavy loads (more than 20% permanent exposure) while banking produces an almost nil result (Table 3).

Male workers are more exposed than female workers (Table 4).

Handling heavy loads is clearly more an issue in the **smaller companies** than for in bigger ones (Table 5).

Older workers are more concerned than other age groups (Table 6).

Workers carrying heavy loads are generally:

employed manual workers and farmers
males
older workers
working in small companies, in particular in single
person companies
in agriculture and building industry

Table 1

% of workers carrying heavy loads	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
All the time or almost all the time	9.2	8.7	17.2	11.2	22.4
At least 50% of the time	17.6	16.1	30.9	24.1	47.1
At least 25% of the time	30.7	28.1	50.5	41.7	77.1

Table 2

% of workers carrying heavy loads	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
All the time or almost all the time	8.4	5.3	5.9	9.8	14.7	14.5	13.8	9.2	6.6	7.4	7.0	11.2	8.1	9.2
At least 50% of the time	15	13.2	12.7	17.5	28.5	25.6	22.6	19.9	14.2	13.4	11.5	21.3	17.4	17.6
At least 25% of the time	25.7	28.9	26.7	33.8	42.8	32.8	37.9	35.6	25.2	22.1	21.6	32	32	30.7

Table 3

% of workers carrying heavy loads	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport ft communi- cation	Banking ft finance	Other services	EC
All the time or almost all the time	21.2	10.7	8.5	9.6	22.2	7.1	9.5	0.1	5.7	9.2
At least 50% of the time	41.1	18.5	17.8	18.6	38.1	14.7	18.5	1.9	10.5	17.6
At least 25% of the time	65.6	32.6	32.1	32.6	55.2	29.7	28.8	4.6	20.6	30.7

Table 4

% of workers carrying heavy loads	Males	Females	EC
All the time or almost all the time	10.7	6.9	9.2
At least 50% of the time	20.7	12.8	17.6
At least 25 % of the time	35.1	23.9	30.7

% of workers carrying heavy loads	1	2-49	50+	EC
All the time or almost all the time	11.8	8.9	8.5	9.2
At least 50% of the time	24.2	17.4	15.6	17 6
At least 25% of the time	40.8	32	26.4	30 7

% of workers carrying heavy loads	-25	25/39	40/54	+55	EC
All the time or almost all the time	10.2	9.5	8	9.9	9.2
At least 50% of the time	17.4	18.1	16.1	20.1	17.6
At least 25% of the time	32.8	31	28.2	33.6	30.7

3.1.B1 MACHINES AND TOOLS

Question: In order to carry out your work, do you have appropriate machines and tools?

The design of machines and tools has consequences both on performance and workload. The ergonomical design of equipment is enhanced by end-user involvement. It is also an issue where regulations and norms play an important role, both at national and international levels.

Around 15% of the workforce does not consider having appropriate equipment. The highest dissatisfaction rates are given by **non office employees** (19.1%) by **employed professionals** (18.6%) and by **middle management** (17%) (Table 1).

Highest scores of dissatisfaction are found in former East Germany, France, Portugal and Italy, while former West Germany, The Netherlands and Ireland show lowest dissatisfaction figures (Table 2).

The "other services" (mostly public administrations, health services and education) provide 19.8% of negative answers, as well as does agriculture (18.8%). The highest proportion of positive answers is provided by the metal manufacturing industry and the banking sector (Table 3).

Females are more inclined than males to be concerned by the non.-appropriateness of equipment.

women employed in the "other services" (Table 4).

Smaller (one person) companies are more concerned than the bigger ones: (Table 5).

There is progressive and regular increase of dissatisfaction from the younger to the **older age groups** (Table 6).

Workers who indicate inappropriate equipment are generally:

non office employees and employed professionals females in older age groups working either in small companies or in larger ones in public administration, health services and education, and also in agriculture

Table 1

% of workers having appropriate machines	Total (12,500)	Employed (10.070)	manual workers (3,637)	non office/non manual employees (1,527)	Self employed (2,429)
YES	79.4	78.9	81	71.2	81.3
NO	15.2	15.7	15.5	19.1	13.3

% of workers having appropriate machines	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	Р	UK	EC
YES	77.4	83.5	86.5	61.3	80.9	86.6	72.1	87.8	74.5	81.2	80.7	76.1	84.3	79.4
NO	12	11.3	9.1	29.4	17.3	11.1	20:4	7.5	21.4	13.4	7.8	20.3	11.2	15.2

Table 3

% of workers having appropriate machines	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	77.2	84.9	87.6	83.2	85	78.8	81.4	85.8	71	79.4
NO	18.8	11.6	10.9	13.6	12.7	14.5	14.1	10.8	19.8	15.2

Table 4

% of workers having appropriate machines	Males	Females	EC
YES	81.4	76.3	79.4
NO	14.2	16.9	15.2

% of workers having appropriate machines	1	2-49	50+	EC
YES	76.7	81.2	80	79.4
NO	16.9	13.9	15.9	15.2

% of workers having appropriate machines	-25	25/39	40/54	+55	EC
YES	81.1	79.8	78.6	77.7	79.4
NO	14.3	15	15.7	16	15.2

3.1.B2 PREMISES AND FURNITURE

Question: In order to carry out your work, do you have appropriate premises and furniture?

Nearly 18% of the workforce gives negative answers to the appropriateness of premises and furniture. Among employees, **manual workers** show more dissatisfaction (22%) than average, and among self employed so do 1/3 of the **fanners** (Table 1).

The highest rates of dissatisfaction are expressed in Italy, France, Portugal and Greece (from 27 to 29%), while Germany (WD), Ireland, the UK and The Netherlands score better than the average (from 9 to 12%) (Table 2).

In decreasing order **agriculture**, **building** and **transport/communication** are the sectors with highest negative answers. **Banking** and **trade/catering** show the highest levels of satisfaction (Table 3).

Male workers are slightly less satisfied than female workers (Table 4).

Smaller companies (one person) are more concerned with the lack of appropriateness than the bigger ones (Table 5).

Younger workers (- 25) are the most satisfied (80%) among the age groups (Table 6).

Workers who indicate inappropriate premises are generally:

employed manual workers and fanners males working either in smaller (one person) or in bigger companies in agriculture, building industry and transport

Table 1

% of workers having appropriate premises	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
YES	77.7	78	71.6	76.1	59.1
NO	17.8	17.7	22.2	18.3	32.9

% of workers having appropriate premises	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
YES	81.1	78.2	87.9	72	66.3	85.9	69.2	87	67	76.1	79.2	68.4	82.8	77.7
NO	14.9	17.8	8.9	23.8	29.4	11.9	26.2	8.8	27	16.7	13.3	26.5	12.2	17.8

Table 3

% of workers having appropriate premises	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. Industry	Metal manufact. mechanic. & electr. Industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	62	80.6	82.1	79.8	66.1	85	73.4	89.1	75.7	Tin
NO	31.2	16.8	16.2	16.5	25.1	11	20.2	10.5	19.1	17.8

Table 4

% of workers having appropriate premises	Males	Females	EC
YES	76.6	79.3	77.7
NO	18.8	16.4	17.8

% of workers having appropriate premises	1	2-49	50+	EC
YES	70.8	79.7	78.9	77.7
NO	22	16.2	18.2	17.8

% of workers having appropriate premises	-25	25/39	40/54	+55	EC
YES	80.7	76.8	77.2	77.3	77.7
NO	15.1	19.2	18.3	16.1	17.8

3.2.A WORKING TIME

The survey examined 2 issues dealing with working time:

duration of work; nightwork.

Duration of work is an important issue as **long working hours** might have an incidence on health and safety. So has nightwork which has health consequences and social/family life consequences.

More detailed data on working time can be found in Eurostat publications, in the Labour Force survey in particular. On the contrary there is little data available on nightwork and shiftwork at EC level. The present data provides therefore useful information, especially in the light of the ban on night work for women being lifted in several countries.

3.2.A1 WORK DURATION

Question: How many hours a day/a week do you work?

The average working time is 7.9 hours per day and 40.8 per week in the EC. This average incorporates all types of work schedules such as part-time, weekend work, etc. This explains the wide differences between **males and females** (8 hours difference on a week) as more females work part-time.

3.1% of males work less than 20 hrs/week 9.9% of females work less than 20 hrs/week

19.1% of males work less than 35 hrs/week 38.8% of females work less than 35 hrs/week

The survey clearly points at the **self employed** as the main category concerned by long hours: 40% of them work more than 10 hours a day, 36% more than 50 hours a week. One should nevertheless notice that a quarter of the employees in the EC still work over 40 hours a week (Table 1).

Differences between **countries** are impressive when looking at the working week (45.5 hours in Ireland and Portugal, 37 hours in The Netherlands). The gap is even bigger when one looks at very long weeks, 16% of the workforce works over 60 hours in Greece and Ireland; only 2 to 3% in Denmark and France (Table 2). But the gap between countries is much reduced when considering the employees only (Table 3).

Not surprisingly the **sectors** most concerned are those where independent workers are more numerous (agriculture, trade and distribution, transport). Nearly a quarter of the workforce works more than 50 hours a week in the distribution branch, and more than a third in agriculture and fishing (Table 4).

With regard to **company size**, single workers are those who work longer hours: 1/3 of the workers in these settings work over 50 hours a week (6% in companies over 50) (Table 5).

Finally **older workers** are working longer hours than other age groups (Table 6).

Long hours are mostly a concern for independent workers. 40% of whom work over 10 hours a day and 18% more than 60 hour weeks.

But 25% of the EC employees still work over 40 hours a week and 15% work over 45 hours a week.

Workers working long hours are generally:

independent workers; in the agriculture, trade and transport sectors; in smaller companies especially single worker companies; males

Table 1

Working time	EC	Employed	Self employed	Males	Females
Average/day (hrs)	7.9	7.7	8.8	8.4	7
Average/week (hrs)	40.8	38.8	49.4	44.1	35.8
>10 hrs/day (%)	16.3	10.6	40	20.8	9.4
>40 hrs/week (%)	32	24.5	62.8	39.2	20.7
>45 hrs/week (%)	22,5	14.9	54	28.5	13.1
>50 hrs/week (%)	10.4	6.8	36.7	16	7.4
>60 hrs/week (%)	5.3	2.1	18.2	6.7	3.1

Table 2

Working time	В	DK	WD	OD	GR	Е	F	IRL	1	L	NL	P	UK	EC
Average/day (hours)	8	7.8	7.9	8.2	8.5	8.3	8	8.3	7.6	7.9	7.8	8.3	7.7	7.9
Average/week (hours)	39.6	38.7	40.1	41.5	47.8	44.2	40.9	45.7	41.3	41	37.3	45.6	38.5	40.8
>- 10 hrs/day (%)	16.1	10.5	16.3	10.3	31.3	19	16.7	25.3	14.6	10.4	11.9	16.3	16.8	16.3
> 40 hrs/week (%)	21.9	19.7	25.7	36.9	46	38.1	29.1	41.3	36.9	20.2	16.5	55.9	32.4	32
> 45 hrs/week (%)	17.9	14	19	13	41.9	27	20.9	34	29.2	15.7	12.7	29.5	22.4	22.5
> 50 hrs/week (%)	9.9	6.8	11.5	7.3	29.4	16.8	10.9	24	13.1	8.2	8.2	17.5	12.7	10.4
> 60 hrs/week (%)	4	2.4	4.7	2.3	16.8	8.1	3.2	15.8	4.9	4	5	7.1	5.8	5.3

Tab'e 3

Employed workers	В	OK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
Average/week (hours)	37.4	37.3	382	406	41.6	41.5	39.5	39.8	38.7	39.0	35.8	42.3	37.4	38.8
> 45 hrs/week (%)	10.5	9.8	12.2	9.3	19.8	17.3	14.4	32.4	17.1	7.6	7.5	17.3	19.7	148

Table 4

Sectors (NACE) Working time	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
Average/day (hours)	8.3	8.2	8.1	8	8.3	8.2	8.3	7.9	7.2	7.9
Average/week (hours)	48.3	41.6	40.7	40.5	42.2	43.3	43	39.7	36.6	40.8
>- 10 hrs/day (%)	31.5	13	11	12.1	15	27.5	21.4	15.7	9.4	16.3
> 40 hrs/week (%)	54.7	24.7	23.9	28.7	37.2	45.7	39.5	28.8	20.3	32
> 45 hrs/week (%)	46.5	16.4	13.9	16.7	22	36.7	28.5	18.8	13.2	22.5
> 50 hrs/week (%)	34.3	10	5.7	8.7	8.5	22.9	14.3	9.2	6.4	10.4
> 60 hrs/week (%)	17.4	4.1	1.2	2.5	3.2	10.2	7	3.1	2.5	5.3

Table 5

Company size Working time	1	2-49	50+	EC
Average/day (hours)	8.2	7.9	7.8	7.9
Average/week (hours)	46.4	40.7	39.4	40.8
>- 10 hrs/day (%)	32.2	16.8	10.9	16.3
> 40 hrs/week (%)	55	33.9	23.2	32
> 45 hrs/week (%)	45.9	23.8	13.4	22.5
> 50 hrs/week (%)	31	12.9	6.2	10.4
> 60 hrs/week (%)	14.5	5.7	1.6	5.3

Table 6

Age groups	-25	25/39	40/54	+55	EC
Average/day (hours)	8.0	7.8	7.9	7.8	7.9
Average/week (hours)	40.5	40.4	41.4	41.5	40.8
>- 10 hrs/day (%)	11.7	15.0	19.1	20.1	16.3
> 40 hrs/week (%)	17.2	20.7	25.0	28.8	22.5
> 60 hrs/week (%)	3.3	4.5	6.5	7.4	5.3

3.2.A2 NIGHTWORK

Question: Does your work involve working at night?

The issue of nightwork is important as nightwork has both health and social/family consequences. In order to assess the reality of night and shiftwork many other questions should be asked, in particular on the different shift patterns.

The questionnaire also left open the definition of nightwork. The people interviewed were free to define nightwork as they wished. But one has to keep in mind the big differences which exist between the different member states when it comes to defining nightwork.

Figure 1 highlights some of those differences. The future EC directive on working time might change this by imposing a common concept.

More than 20 million workers in the EC are somehow working at night at least a quarter of the time and 6 million work permanent night shifts.

Some categories are more affected than others, **manual workers** in the employee category and **fishermen** among the self employed (Table 1).

Nightwork appears to be an Anglo-Saxon phenomenon. Nearly one-fifth of the workforce works at least 50% of the time at night in Ireland, and 16% in the U.K. At the other end of the spectrum **Denmark** and **Italy** have the lowest rates of nightwork (Table 2).

One would have to look at the regulations governing nightwork to have a clearer understanding of these differences

The 2 sectors which have the highest percentage of nightwork are:

energy and chemical industries; transport and communication.

Energy and chemical industries are dominated by process industries which run 24 hours a day and 365 days a year. Nearly 10% of people work permanently at night in this sector.

Transport and communications, for obvious reasons, also shows much higher than average figures as nearly 40% of the workers work at least a quarter of the time at night (Table 3).

Overall nightwork concerns **males** more than females (Table 4).

Larger **companies** definitely resort more to nightwork than the smaller ones (Table 5).

Interestingly, and contrary to the general accepted statement, there are **no significant differences between age groups.** One would have thought that older workers would be fewer to work at night which is not the case (Table 6).

Nightwork is a permanent feature for 6 million workers in the EC, while 20 million workers are working part of the time at night.

Nightworkers are generally:

in the energy and chemical industries and in the transport sector; males; employed in larger companies.

Figure 1

ITALY	GERMANY	FRANCE	PORTUGAL
	20.00pm		20.00pm
	20.00pm	22.00pm	20.00pm
24.00pm			
		05.00am	
06.00am	06.00am		07.00am

WHAT IS A NIGHT?

Table 1

% of workers working at night	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	fishermen (80)
All the time or almost all the time	4.9	5	5.9	4.3	21.7
At least 50% of the time	9.5	9.6	12.5	9.1	23.7
At least 25% of the time	17.6	16.9	21.2	20.4	53.6

Table 2

% of workers working at night	В	DK	WD	OD	GR	Е	F	KL	I	L	NL	P	UK	EC
All the time or almost all the time	3.5	1.5	4.9	4.4	5.5	6.6	4.9	5.9	2.2	4.3	2.7	3.6	7.4	4.9
At least 50% of the time	7.4	4.8	7.9	7.5	12.8	8.8	9.1	17.6	6.2	9	6.1	8.9	16.2	9.5
At least 25% of the time	14.2	9.8	15.1	17.2	24.7	15.3	17.9	32.6	11	15.8	13.3	15.9	27.6	17.6

Table 3

% of workers working at night	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	2.3	9	3.9	4.3	0.9	4.6	12.4	4.9	4.8	4.9
At least 50% of the time	5.6	16.6	8.4	9.4	1.7	9.5	22.6	6.6	9.4	9.5
At least 25% of the time	17.5	31.2	15.9	16.7	5.2	14.6	39.6	11.3	17.5	17.6

Table 4

% of workers working at night	Males	Females	EC
All the time or almost all the time	5.5	3.9	4.9
At least 50% of the time	11.4	6.7	9.5
At least 25% of the time	21.4	11.8	17.6

% of workers working at night	1	2-49	50+	EC
All the time or almost all the time	4.1	3.6	6.6	4 9
At least 50% of the time	8.2	7.1	12.7	9.5
At least 25 % of the time	17.9	12.7	23.5	17 6

% of workers working at night	-25	25/39	40/54	+55	EC
All the time or almost all the time	4.7	5.6	3.9	5.3	4.9
At least 50% of the time	10.5	10.7	7.8	8.6	9.5
At 'east 25% of the time	17.3	19.3	16.3	15.6	17.6

3.2.B COMPUTER EQUIPMENT

Question: Does your work involve using computer equipment?

The use of computer equipment is an indicator of the spread of new technology in the workplace and provides hints on the changes which affect job profiles and work organisation.

While computer equipment is a constant feature of their work for 14% of the workers, very wide extremes can be found. Only 4% of employed manual workers use computers constantly, while 30% of **office employees** do so and 29% of **independent professionals** (Table 1).

The same extremes can be found between countries. One the one hand, in The Netherlands and the UK computers are widespread. In Greece and Portugal on the other hand they are used on a more limited basis (Table 2).

In the **banking and finance** sector computers are standard instruments (40% of people use them permanently). Process industries such as **energy and the chemical industry** also score high, closely followed by **metal manufacturing** (Table 3).

Female workers tend to use slightly more computers, though the differences are not big (Table 4).

It is very clearly the bigger companies which make the bigger use of computers (Table 5).

Older workers (+ 55) are definitely those who least use computer equipment (Table 6).

Workers using computer equipment are generally:

office employees and independent professionals younger workers, especially the 25/39 age group working in the bigger companies in banking and finance, in process industries (energy and chemical industry)

Table 1

% of workers using computer equipment	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	independent professionals (307)
All the time or almost all the time	13.9	15.8	4.3	5.9	19
At least 50% of the time	21.6	24.5	6.9	9.2	31.3
At least 25% of the time	31.5	35.1	11.2	16	45.4

Table 2

% of workers using computer equipment	В	DK	WD	OD	GR	Е	F	IRL	I	L	•NL	P	UK	EC
All the time or almost all the time	14.9	18.8	13.2	6.6	6.2	11	16.8	12	9.1	20	23.6	6.2	19.7	13.9
At least 50% of the time	23.6	29	22.4	10	10.3	14.5	24.7	20.5	17.1	27.2	30.8	11.6	29.1	21.6
At least 25% of the time	32	39.5	35.9	19 8	13	18.9	34.2	28.9	26	34.1	41.3	15.8	41	31.5

Table 3

% of workers using computer equipment	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	2.7	21.3	16.8	11.8	6.5	8.5	20.1	39.8	12.5	13.9
At least 50% of the time	4.8	31.5	28.9	17.8	12.4	13.1	27.1	57.9	20.1	21.6
At least 25% of the time	6.7	43	41.8	25.5	21.8	20.2	36.6	77	31.2	31.5

Table 4

% of workers using computer equipment	Males	Females	EC
All the time or almost all the time	13.7	14.2	13.9
At least 50% of the time	20.6	23	21.6
At least 25% of the time	31	32.1	31.5

% of workers using computer equipment	1	2-49	50+	EC
All the time or almost all the time	4.1	11.4	20.4	13.9
At least 50% of the time	6.6	18.1	30.7	21.6
At least 25% of the time	11.1	27.3	43.6	31.5

% of workers using computer equipment	-25	25/39	40/54	+55	EC
All the time or almost all the time	14.6	15.6	13.6	7.8	13.9
At least 50% of the time	23.6	24.7	19.6	13.5	21.6
At least 25% of the time	31.5	35.9	30.4	19.2	31.5

3.2.C1 TIME PRESSURE

Question: Does your work .involve working at a very high speed?

Employees and self employed score identically (18% work permanently at high speed). Significantly higher scores are given by **manual workers** and **supervisors** among the employees, and by **fishermen** among independent workers.

The groups indicating least high speed constraints are **middle managers** and **office/non office (non manual) employees** (Table 1).

The smaller proportions of workers working under high time pressure are to be found in Ireland, France, Belgium and the UK. The highest proportions are in The Netherlands, Greece and Germany (OD) (Table 2).

More workers declaring to be submitted to high speed constraints are to be found in the **manufacturing** industry (other than metal manufacturing) and in the **building** industry.

Workers from **services** are overall less submitted to these speed constraints (Table 3).

More **male** workers are indicating high speed pressure than female workers (Table 4).

Workers from the **larger companies** (50+) are more concerned (Table 5).

The differences between the various age groups are not really significant (Table 6).

Workers exposed to high speed are generally:

employed manual workers and supervisors male workers working in the bigger companies in the building industry and non metal manufacturing industry

Table 1

% of workers working at high speed	Total (12,500)	Employed (10.070)	manual workers (3,637)	Self employed (2,429)	
All the time or almost all the time	18.4	17.8	23.8	19.5	
At least 50% of the time	35	34.5	41.4	34.8	
At least 25% of the time	47.3	46.6	55.8	46.9	

Table 2

% of workers working at high speed	В	DK	WD	OD	GR	Е	F	IRL	I	L	-NL	P	UK	EC
All the time or almost all the time	14.9	17.8	20.1	22.5	25.5	18.4	15	10.4	19.2	14.8	26.1	19	14.2	18.4
At least 50% of the time	31.6	41.3	41.3	44.2	50.8	29.4	27	24	33.2	26.8	46.9	36.7	30.3	35
At least 25% of the time	43.8	59.7	55.5	57.9	68	37	38.9	38.5	43.2	35.6	56.8	55.7	42.3	47.3

Table 3

% of workers working at high speed	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	21.6	22.2	17.4	25.8	23.1	16.6	21	15.7	13.5	18.4
At least 50% of the time	41.4	38.9	37	41.8	42.4	33.4	39.5	34.5	26.6	35
At least 25% of the time	54.2	51.8	50.9	52.9	55.8	46.4	51.7	45.5	37.9	47.3

Table 4

% of workers working at high speed	Males	Females	EC
All the time or almost all the time	19.5	16	18.4
At least 50% of the time	36.7	31.8	35
At least 25% of the time	50.1	42.3	47.3

% of workers working at high speed	1	2-49	50+	EC
All the time or almost all the time	15.7	17.4	20.3	184
At least 50% of the time	31.3	33.5	38.7	35
At least 25% of the time	43.8	46.7	50	4" ?

% of workers working at high speed	-25	25/39	40/54	+55	EC
All the time or almost all the time	18.1	18.9	17.6	17.5	184
At least 50% of the time	36.4	36	34.2	30.4	35
At least 25% of the time	49.9	48	46.6	41.3	47.3

3.2.C2 DEADLINES

Question: Does your work involve working to tight deadlines?

Employees feel they have to work more to .tight deadlines then self employed workers. Overall a quarter of the total workforce is considering to be under permanent tight deadline constraints.

Among employees, 38.9% of **supervisors** and 37.1% of **managers** indicate they are working permanently to tight deadlines.

Independent workers appear to have less deadline constraints than employees (Table 1).

Germany (especially former OD) and the UK have the highest proportion of workers working with tight deadlines, while Portugal, Ireland and Belgium-have the lowest proportions (Tabl

Agriculture and trade indicate significantly lower deadline constraints than. **transport** and **industry** in general (Table 3).

Male workers are much more then female workers under tight deadline press-re (Table 4).

Tight deadline pressure increases with company size (Table 5).

There are no significant differences between age groups (Table 6).

Workers exposed to tight deadlines are generally:

employed supervisors and managers male workers in the 25/39 age bracket in the bigger companies in industry and transport

Table 1

% of workers working to tight deadlines	Total (12.500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	
All the time or almost all the time	22.9	24	25	17.9	
At least 50% of the time	37.4	38.3	39	33.4	
At least 25 % of the time	48.9	49.4	50.1	46.6	

Table 2

% of workers working to tight deadlines	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
All the time or almost all the time	14.1	24.7	26.4	37	21.8	19.2	20.6	19.6	12.5	21.3	21.7	8.4	30.6	22.9
At least 50% of the time	26.3	45.2	44.1	51.4	44.4	27.4	33	35.9	21.1	29	31.9	22.6	50.8	37.4
At least 25% of the time	34.3	61.6	59.7	63.6	•62.9	35.1	42.1	48.8	30.2	39.4	37.4	33.6	64	48.9

Table 3

% of workers working to tight deadlines	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	12.7	29.8	27.7	29.3	29.2	17.2	33.6	23.6	18.9	22.9
At least 50% of the time	14.1	47	45.6	43.5	47.7	27.8	51.2	45.4	30.4	37.4
At least 25% of the time	32.7	57.7	59.7	53.7	63.4	37.1	62.3	57.6	39.9	48.9

Table 4

% of workers working to tight deadlines	Males	Females	EC
All the time or almost all the time	26.5	17.1	22.9
At least 50% of the time	42.4	29.4	37.4
At least 25 % of the time	54.6	39.8	48.9

% of workers working to tight deadlines	1	2-49	50+	EC
All the time or almost all the time	13.5	21.9	28.2	22.9
At least 50% of the time	27.7	35.3	44.6	37.4
At least 25% of the time	39.9	46.5	57	48.9

% of workers working to tight deadlines	-25	25/39	40/54	+55	EC
All the time or almost all the time	21.9	24.7	22	20.2	22.9
At least 50% of the time	36.6	39.8	36.2	37.2	37.4
At least 25% of the time	48	51.3	47.6	49.3	48.9

3.2.C3 REPETITIVE WORK

Question: Does your work involve carrying out short repetitive tasks?

Repetitiveness of tasks is generally considered as a useful indicator of workload and of the degree of autonomy workers are having.

A higher proportion of employees carry out short repetitive tasks than do self employed workers. On average a quarter of the workforce does carry out short repetitive tasks on a permanent basis.

Among employees, **non office non manual employees** and **manual workers** (32%) are the categories most concerned with this pattern (Table 1).

Short repetitive tasks are a more common feature of the work organisation in the Netherlands, Spain and Germany (OD) while it is more limited than average in Belgium, Denmark, Italy and Portugal (Table 2).

Tayloristic organisation is more widespread in **industry** (energy, chemical and non metal manufacturing) than in services and in agriculture (Table 3).

Short and repetitive tasks are a feature significantly more common for **female** workers (27% of them experience it on a permanent basis) than for males (Table 4).

Larger companies more than small companies are adopting tayloristic work organisation patterns (Table 5).

Younger workers are significantly more concerned by short repetitive tasks (Table 6).

Workers carrying out short repetitive tasks are generally:

non office non manual employees and employed manual workers female workers younger workers in the - 25 age group working in the larger companies in energy, chemical industry and non metal manufacturing

Table 1

% of workers doing short repetitive tasks	Total (12,500)	Employed (10,070)	manual workers (3,637)	non office/non manual employees (1,527)	Self employed (2,429)
All the time or almost all the time	23.3	24.3	31.9	28.7	18.7
At least 50% of the time	39	40	48.9	41.6	34.4
At least 25 % of the time	50.9	51.8	60.1	51.3	47.0

Table 2

% of workers doing short repetitive tasks	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
All the time or almost all the time	14.5	15.6	23.3	36.7	29.1	31.6	21.7	20.8	18	23.1	31.5	18.3	21	23.3
At least 50% of the time	27.4	29.3	42.8	52.8	46.9	43.2	33.8	37.6	31.6	32.9	43.9	38.3	39.5	39
At least 25% of the time	37.3	40.4	58.1	63 1	60.1	52.1	43.1	50.4	42.3	38	51.1	52.2	53.7	50.9

Table 3

% of workers doing short repetitive tasks	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
All the time or almost all the time	21.3	28.4	23.8	29.7	25.5	24.2	24.8	18.6	19.9	23.3
At least 50% of the time	40.3	42.7	40.7	45.5	43.8	38.7	30.9	38.6	33.6	39
At least 25% of the time	55.9	56.4	55.1	54.4	57.5	49.9	50.4	51.8	44.3	50.9

Table 4

% of workers doing short repetitive tasks	Males	Females	EC
All the time or almost all the time	21	26.8	23.3
At least 50% of the time	36.6	42.6	39
At least 25% of the time	49.2	53.3	50.9

% of workers doing short repetitive tasks	1	2-49	50+	EC
All the time or almost all the time	18	22.8	26.4	23.3
At least 50% of the time	33.6	38.3	42.9	39
At least 25 % of the time	44.7	50.7	54.7	50.9

% of workers doing short repetitive tasks	-25	25/39	40/54	+55	EC
All the time or almost all the time	25.7	23	22.8	21.9	23.3
At least 50% of the time	44.4	39.1	36.5	37.6	39
At least 25% of the time	57.6	51.3	47.3	49.6	50.9

3.2.C4 AUTONOMY

Question 1: Are you able to choose or change your order of tasks or your method of work?

The possibility to organise one's own work is an important indicator of autonomy in work. The capacity to regulate and influence one's own work and speed of work is a strong stress reducing factor.

Overall 37.6% of the total workforce declares having no possibility to modify the order of tasks or the method of work.

Employees have clearly less autonomy (1.7% negative answers) than self employed (20.8%).

Among **employees** there are wide differences between the higher levels of management (84% of general managers are able to influence their work process) and the shop floor workers (50% of non office non manual employees and 58% of manual workers indicate impossibility to influence their work process) (Table 1).

Countries where autonomy is highest are The Netherlands and the UK; while those where it is lowest are Germany (WD + OD), Greece, Spain and Portugal (Table 2).

Among the sectors the lowest autonomy is to be found in the **transport/communication** sector and the **non metal manufacturing** industry where half the respondents have given a negative answer.

Both the **banking** and the **agriculture** on the opposite give higher than average positive answers (Table 3).

The proportion of **female workers** lacking autonomy is slightly higher than the proportion of male workers (Table 4).

Autonomy decreases with the increase in company size. The single person companies logically are those with the highest leeway (Table 5).

The **younger workers** (- 25) indicate fewer possibilities to influence their tasks and methods of work (Table 6).

Workers who are least able to choose or change their order of tasks or methods of work are generally:

employed manual workers and non office non manual employees female workers younger workers in the - 25 age group in larger companies in transport and non metal manufacturing

Table 1

% of workers able to change tasks/work method	Total (12,500)	Employed (10,070)	manual workers (3,637)	non office/non manual employees (1,527)	Self employed (2,429)
YES	60.4	56.4	40.2	48.3	77
NO	37.6	41.7	57.9	48.6	20.8

Table 2

% of workers able to change tasks/work method	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
YES	63	64.9	54.5	52.5	55.2	55.1	63.8	63.1	61.4	57.3	69.2	55.6	66.9	60.4
NO	34.6	34.4	43.4	45.3	43.9	44.4	35.5	33.4	36.9	41.3	25.7	41.9	30.4	37.6

Table 3

% of workers able to change tasks/work method	Agri- culture, forestry & fisheries	Energy, steel • extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	67.2	59.4	57.6	50.6	56.8	62.7	47.7	75.5	62.7	60.4
NO	30.4	39.6	42.1	48.1	41.3	35.7	50.8	23.4	34	37.6

Table 4

% of workers able to change tasks/work method	Males	Females	EC
YES	61.4	589	60.4
NO	36.9	38.8	37.6

% of workers able to change tasks/work method	1	2-49	50+	EC
YES	74.8	59.5	57.5	60.4
NO	22.8	38.9	41.1	37.6

% of workers able to change tasks/work method	-25	25/39	40/54	+55	EC
YES	53.9	61.3	62.5	61.3	60.4
NO	44	37.1	35.8	35.4	37.6

Question 2: Are you able to choose or change your speed or rate of work?

Overall 35% of the total workforce declares having no possibility to choose or change speed or rate of work.

Employees, as on the previous question, clearly indicate less autonomy (32.4% negative answers) than the self employed (18.3%).

Among **employees** there are again large differences between the higher levels of management (78% of general managers are able to choose) and the shop floor workers (45% of non office non manual employees and 49.5% of manual workers indicate impossibility to change or choose their rhythm of work) (Table 7).

Again the countries where autonomy is the highest are The Netherlands, Ireland, Italy and the UK. Countries where it is lowest are Germany (both WD and OD) and Luxembourg (Table 8).

Sectors where autonomy to change speed or rate of work is higher are again banking and agriculture and those where it is lower are manufacturing and transport/communications (Table 9).

Female workers have relatively less autonomy than male workers.

Autonomy decreases with the increase in company size (Table 11).

The **younger workers** (- 25) indicate fewer possibilities to influence their rhythm of work, while the older workers (+ 55) indicate more autonomy than the average in this area (Table 12).

Workers who are least able to choose or change their order of tasks or methods of work are generally:

employed manual workers and non office non manual employees female workers younger workers in the - 25 age group in larger companies in transport and non metal manufacturing

Table 7

% of workers able to change speed/rate of work	Total (12,500)	Employed (10,070)	manual workers (3,637)	non office/non manual employees (1,527)	Self employed (2.429)
YES	62.5	58.5	48.4	51.2	44.1
NO	35.2	39.3	49.5	45.2	54.7

% of workers able to change speed/rate of work	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	Р	UK	EC
YES	63.6	68.6	53.7	51.6	59.3	61.1	61.5	69.5	69	57.8	72.4	62.4	68.7	62.5
NO	33.4	29.4	44.4	45.8	40.1	38.4	36.6	27.1	28.6	38.8	22	35.3	28.5	35.2

Table 9

% of workers able to change speed/rate of work	Agri. culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	72.2	59.9	56.6	54.9	61.6	63.9	57.2	73.1	63.5	62.5
NO	24.7	39.3	42.4	43.2	36.4	34.6	41.2	25.6	32.5	35.2

Table 10

% of workers able to change speed/rate of work	Males	Females	EC
YES	64	60.1	62.5
NO	33.8	37.4	35.2

% of workers able to change speed/rate of work	1	2-49	50+	EC
YES	77.6	62.7	57.4	62.5
NO	19.4	35.2	41.2	35.2

% of workers able to change speed/rate of work	-25	25/39	40/54	+55	EC
YES	58.5	63.6	62.5	64.8	62.5
NO	39.3	34.4	35.1	32.1	35.2

3.2.D WAGE PAYMENT SYSTEMS

Question: Do your wages or income depend on your own work rate?

Rate related income is a very important indicator of stress and workload though the answers can cover very different situations (partly rate related incomes through productivity bonuses; totally rate related incomes for some independent categories of workers, etc.).

A little over 25% of the workforce declares work rate dependent income, with the highest scores, as one would expect, for **self employed** workers (61%).

Among the employees both **office** and **non office employees** show significantly lower scores (10%) than average (20%) (Table 1).

Lowest proportion of rate related incomes are found in The Netherlands and Germany (WD), while the highest are in Portugal, Greece, Ireland and Denmark (Table 2).

Nearly as many people in **agriculture** declare work related incomes as people who don't. The **building** industry scores significantly above average (33.5%), ahead of **trade and catering** (30%) (Table 3).

Male workers' incomes are more rate related than female workers' incomes (Table 4).

More than half of the **one person companies** indicate rate related incomes, while workers in larger companies score below average (Table 5).

The proportion of work rate related incomes **increases with age:** one third of the + 55 group declares such incomes (Table 6).

Workers whose income depends on work rate are generally:

self employed and employed manual workers male workers older workers (+ 55) working alone or in smaller companies in construction, distribution and agriculture

Table 1

% of workers, whose income Is depending on work rate	Total (12,500)	Employed (10,070)	manual workers (3,637)	office and non office employees (3,387)	Self employed (2,429)
YES	25.6	21	24.2	10.8	61
NO	72.3	81.2	74.1	87.3	35.4

% of workers, whose Income is depending on work rate	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
YES	19.9	31	18.8	32.6	52.3	30	24.4	31,4	29.7	26.3	13	36.4	23.4	25.6
NO	76.8	68.3	79.3	66.1	47.5	69.3	72.8	64.9	68.3	71.9	83.1	61.8	74.3	72.3

Table 3

% of workers, whose income Is depending on work rate	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	46.7	24.3	24.1	27.2	33.5	30	28.4	26.3	14.2	25.6
NO	49.8	73.6	74.5	71.6	64.2	68.4	70.4	72.8	82.8	72.3

Table 4

% of workers, whose income is depending on work rate	Males	Females	EC
YES	30.3	18.3	25.6
NO	67.8	79.5	72.3

% of workers whose income is depending on work rate	1	2-49	50+	EC
YES	58	23.6	17.2	25.6
NO	38.6	74.8	81.3	72.3

Table 6-20

% of workers whose income is depending on work rate	-25	25/39	40/54	+55	EC
YES	21.1	24.2	27.3	32.8	25.6
NO	77.4	74	70.8	63.2	72 3

3.2.E1 INFORMATION

Question: In order to carry out your work, do you have clear and adequate information?

Comprehensive and sound information, whether it deals with the definition of tasks and obligations, the clarification of procedures, or the everyday working life, is a strong contributing factor to the quality of working life and the facilitation of work.

Clear and adequate information enables to enhance performance, reduces stress and improves safety.

Overall only 11.5% of the total workforce expresses lack of clear and adequate information.

Among employees scores are very similar between management (around 10%), supervisors (11%) and shop floor workers (12%).

It is the farmers who, among independent workers, give the higher rate of negative answers (16.8%) (Table 1).

Differences between countries are significant from maxima of 94% positive answers in Germany (WD), 89.8% in The Netherlands and 89.1% in Denmark to minimums in the UK (81.6%) and Italy (76.6%) (Table 2).

Agriculture and metal manufacturing show the highest scores for inadequate information, while **banking** provides the highest score of adequate information (Table 3).

There are no significant gender differences (Table 4).

The highest proportion of positive respondents is found in **medium sized undertakings** (1/50 employees) (Table 5).

Information inadequacy is highest among **older workers** (Table 6).

Workers lacking clear and adequate information are generally:

farmers older workers (+ 55) in medium sized undertakings in agriculture and metal manufacturing

Table 1

% of workers having clear and adequate Information	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
YES	85.2	85.8	84.4	82.6	73.8
NO	11.5	.11.6	12.6	11.3	16.8

% of workers having clear and adequate information	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
YES	86.5	89.1	94.5	84	85.8	86	84.2	91.3	76.6	91.6	89.8	84.4	81.6	85.2
NO	9.5	9.1	3.8	13.2	12	10.3	13.2	5.9	18.3	7.4	5.2	11.9	14.7	11.5

Table 3

% of workers having clear and adequate Information	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	77.3	89	85.4	86.8	84.4	86.4	84.5	91.2	84.1	85.2
NO	15.4	9	13.6	10	11.7	10.8	12.9	7.5	11.9	11.5

Table 4

% of workers having clear and adequate information	Males	Females	EC		
YES	85.5	84.7	85.2		
NO	11.3	11.9	11.5		

% of workers having clear and adequate information	1	2-49	50+	EC
YES	79	.87.9	84.5	85.2
NO	14.6	9.4	13.3	11.5

% of workers having clear and adequate information	-25	25/39	40/54	+55	EC
YES	87.8	84.9	85.3	81.8	85.2
NO	10.1	11.9	11	14	11.5

3.2.E2 TRAINING

Question: In order to carry out your work, do you have sufficient training and experience?

Training and experience influence the way people perform at work and the way they can cope with their tasks, whether planned or unexpected. Training also enhances implementation of safety procedures. Research has highlighted the clear relationship between the lack of training and experience and the occurrence of accidents.

Nearly 90% respondents declare having sufficient training and experience to carry out their work.

Among employees, the lowest scores of positive answers are given by **office employees** and by **manual workers** (86%).

Among self employed, **fanners** give the lowest scores of positive answers (83%) (Table 1).

Countries with most positive answers are Germany (WD), Luxembourg, Spain and Ireland. Countries with less positive answers are Denmark, France and Portugal (Table 2).

Agriculture and **non metal manufacturing** have the highest rates of respondents claiming insufficient training (Table 3).

More **female workers** report insufficient training than male workers (Table 4).

There are no significant differences according to company size (Table 5). Differences between age groups are significant: the percentage of; **younger workers** reporting insufficient training is nearly double in comparison. with the other age groups (Table 6).

Workers lacking training and experience are generally:

office employees and employed manual workers (non skilled) and farmers female workers younger workers in the - 25 age group in agriculture and non metal manufacturing

Table 1

% of workers having sufficient training	Total (12,500)	Employed (10,070)	manual workers (3,637)	office employees	Self employed (2,429)
YES	88.8	88.3	86.8	86.4	86.7
NO	8.5	9	10.2	11.3	6

% of workers having sufficient training	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
YES	90.7	83.6	94.2	85.4	88.2	93.1	84.7	92.3	87.8	94	91.4	84.3	86.8	88.8
NO	5.9	13.7	3.5	11.1	10.1	5.7	12.8	4.2	9.8	4.6	5.0	11.9	9.6	8.5

Table 3

% of workers having sufficient training	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. Industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	84.5	91.3	89.4	88.4	91.3	89.7	91.5	89.2	87.2	88.8
NO	11.2	6.6	8.8	10	7.1	7	5.9	9.7	9.1	8.5

Table 4

% of workers having sufficient training	Males	Females	EC
YES	90.3	86.4	88.8
NO	7.3	10.4	8.5

% of workers having sufficient training	1	2-49	50+	EC
YES	87.5	89.7	88.9	88.8
NO	8.3	7.9	9.3	8.5

% of workers having sufficient training	-25	25/39	40/54	+55	EC
YES	82.1	89	91.8	89.3	88 8
NO	14.5	8.7	5.7	7.1	85

3.2.E3 SOCIAL SUPPORT

Question: In order to carry out your work, do you have sufficient support from superiors or colleagues?

75% of the total labour force estimates having sufficient support from superiors and colleagues and 18% report insufficient support.

Among employees, supervisors (85%) and managers indicate higher positive rates than shop floor workers.

The proportion of **self employed** indicating lack of support (from colleagues rather than superiors one would suppose) is very much higher (26.9%) if compared with employees (18.2%).

Fishermen and farmers are those most concerned among the self employed (Table 1).

Countries where lowest support was indicated were Italy, Greece and France and those with highest support were The Netherlands, Ireland and Germany (WD)(Table 2).

Agriculture is the sector which indicates lowest support, while banking and manufacturing indicate highest levels of support (Table 3).

Workers in medium sized companies indicate a higher level of support than those in larger companies.

One person companies (due to absence of colleagues?) have a high rate of; negative answers (Table 5).

Lack of support increases regularly with age, and 21.7% of the + 55 age group declare lack of sufficient support (Table 6).

Workers lacking support from superiors or colleagues are generally:

independent workers older workers (+ 55) working alone in agriculture

Table 1

% of workers having support from colleagues or superiors	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
YES	75	79.1	76.9	57.9	46.3
NO	18.2	16.1	17.3	26.9	33.6

Table 2

% of workers having support from colleagues or superiors	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	Р	UK	EC
YES	73.3	82.3	84.7	75.5	86.6	81.8	64.7	80.6	' 64.3	77.9	81.7	73.9	77.7	75
NO	14.4	13.3	10.5	17.7	26.6	14.1	24.3	10.5	28.6	12.6	8.5	21.3	16.6	18.2

Table 3

% of workers having support from colleagues or superiors	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	54	83.7	80.3	75.5	76	73.7	74.4	82.3	75.8	75
NO	30.7	12.9	16.1	18.6	17.1	18.5	17.6	14.8	17.5	18.2

Table 4

% of workers having support from colleagues or superiors	Males	Females	EC
YES	74.9	75.1	75
NO	18.5	17.8	' 18.2

% of workers having support from colleagues or superiors	1	2-49	50+	EC
YES	50.8	80.1	78.3	75
NO	33.4	14.8	17.5	18.2

% of workers having support from colleagues or superiors	-25	25/39	40/54	+55	EC
YES	80.3	75.8	73.5	68.7	75
NO	14.9	17.9	19.1	21.7	18.2

3.3 THE CONSEQUENCES

Two questions were asked, the first one to measure the health and safety risks which respondents think might result from work and the second one examining to which extent bad working conditions might lead to change job or try to do so.

Question 1: Do you think your health or safety is at risk because of your work?

Nearly a third of the total labour force (30.1%) thinks their health and safety is at risk because of their work. The proportion is higher with self employed (35.7%) and among them particularly with **fanners** (53.8%) and fishermen (58.2%).

Among employees **supervisors** (35.9%) and manual workers (35.7%), especially the **skilled manual workers** (47.9%) are the categories which think their health is the most at risk (Table 1).

Countries which have the highest number of respondents fearing for their health or safety are Spain and Greece while the lowest numbers are found in The Netherlands and Belgium (Table 2).

Agriculture (51%), **building** (46%), **transport** (37.5%) and **energy, extraction, steel** and **chemical industries** (37.1%) are the sectors with highest levels of respondents declaring they think their health is at risk.

Banking comes in last position (13%) (Table 3).

Male workers definitely feel more concerned (36.8%) than female workers (19.7%) (Table 4).

Older workers (+ 55) feel more concern than younger workers about work effects on health (Table 6).

Workers who think their health and safety are at risk because of their work are generally:

self employed farmers and fishermen, skilled employed manual workers male workers older workers (+ 55) in agriculture, construction, transport and chemical industries

Table 1

% of workers thinking their health Is at risk	Total (12,500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	farmers (608)
YES	30.1	28.8	44.2	35.7	53.8
NO	64.8	66	49.6	59.7	40.9

% of workers thinking their health Is at risk	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	P	UK	EC
YES	18.2	21.4	26.4	31.2	44.3	62.6	31.9	19.4	24.9	33.6	15.1	31.6	25.8	30.1
NO	76.6	74.5	65.6	61.5	54.5	35.7	65.1	75.7	68.8	61,1	78	66.1	70.2	64.8

Table 3

% of workers exposed to noise	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. Industry	Other manu- facturing Industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES	51	37.1	32.6	31.8	46	21.5	37.5	13	25.1	30.1
NO	43.8	57.8	62.5	62.2	49.4	74.8	56.9	83.4	69	648

Table 4

% of workers thinking (heir health is at risk	Males	Females	EC
YES	36.8	19.7	30.1
NO	57.8	75.9	64.8

% of workers thinking their health is at risk	1	2-49	SO+	EC
YES	34.5	28.7	31.2	30.1
NO	61	66.8	63.7	64.8

% of workers thinking their health is at risk	-25	25/39	40/54	+55	EC
YES	27.6	30.6	30.2	32.3	30.1
NO	66.7	65	64.7	61.6	64.8

Question 2: Over the past 10 years, have you changed job in order to seek a healthier or safer job?

Problems within the work environment may motivate people to seek other jobs, but changing job may be more difficult due to high unemployment and low mobility within the labour market.

Employed **manual workers** and **fishermen** are those who indicate highest rates in job changes. **Fanners**, together with employed manual workers, are those who tried most to change but did not succeed. Altogether more than 20% of employed workers and over 26% of employed manual workers changed or tried to change jobs (Table 1).

Countries with highest rates of people who changed jobs are Germany (both WD and OD), Luxembourg, and France. Countries with highest rates of people who tried unsuccessfully are Italy, Portugal, and Spain. Belgium, Denmark, Ireland and the UK are the countries where the smallest proportion of workers changed and tried to change jobs.

Sectors where changes occured above average are **transport** and **metal manufacturing.**

Males were slightly more inclined to change job and, finally, the 25/39 was the group where more changes took place.

Workers who changed or wanted to change job were generally:

fanners and employed manual workers male workers in the 25/39 age group in transport and metal manufacturing

Table 7

% of workers who changed Job	Total (12.500)	Employed (10,070)	manual workers (3,637)	Self employed (2,429)	fishermen (80)
YES, I have	12.4	13	15.5	9.6	14.7
NO, but I tried	7.1	7.2	10.8	6.5	9.1
NO, and did not try	77.6	76.9	71.2	80.2	74

% of workers who changed Job	В	DK	WD	OD	GR	Е	F	IRL	I	L	NL	Р	UK	EC
YES, I have	8.8	9.2	14.4	15	9.4	13.6	13.9	5.9	11	14.5	13.4	10.8	10	12.4
NO, but I tried	4.1	2.6	5.9	8.7	10.4	10.6	8	3.7	12.3	9.8	4.9	11.6	1.7	7.1
NO, and did not try	81	87.4	77.5	73.6	79.5	74.6	72.1	86.6	75.8	72.4	74.7	74.9	85.5	77.6

Table 9

% of workers who changed Job	Agri- culture, forestry & fisheries	Energy, steel extract. & chem. industry	Metal manufact. mechanic. & electr. industry	Other manu- facturing industry	Building & civil engineer- ing	Distri- butive trades, catering	Transport & communication	Banking & finance	Other services	EC
YES, I have	7.9	12.4	14.1	12.8'	12.4	13.7	16.1	10	11.5	12.4
NO, but I tried	10.4	6.9	8.2	6.8	10.8	6	8.4	4.8	5.8	7.1
NO, and did not try	79.3	78.6	76.4	78.4	75.1	77.5	73.7	80.4	78.1	77.6

Table 10

% of workers who changed job	Males	Females	EC
YES, I have	13.6	10.4	12.4
NO, but I tried	7.4	6.5	7.1
NO, and did not try	76.7	79	77.6

% of workers who changed job	1	2-49	50+	EC
YES, I have	9.8	12.9	13.2	12.4
NO, but I tried	7.3	7.1	6.9	7.1
NO, and did not try	78.3	77.6	77.6	77.6

% of workers who changed job	-25	25/39	40/54	+55	EC
YES, I have	12.1	15.4	11	6.3	12.4
NO, but I tried	7.5	7.6	6.4	6.3	7.1
NO, and did not try	76.8	74.1	79.9	84.1	77.6

3.4 CONCLUSIONS

Several sets of conclusions are presented in the following pages. Some describe the main issues highlighted by the survey. Some desbribe who are the workers most at risk. Some highlight the main findings on such issues as gender, age, company size.

Conclusions regarding sectors and countries are presented in chapters 4 and 5.

3.4.1 MAIN ISSUES

The physical constraints which concern the highest proportion of workers are related to rnusculo-skeletal problems (15.8%) and work with inadequate equipment (15.2%) or in inadequate premises (17.8%). This clearly points at the need for improved **design of workplaces.**

On average around 10% of workers are exposed permanently to constraints such as high level of noise (9.7%), air pollution (10.4%), heat or cold (13.1%), moving heavy loads (9.2%).

Manual workers, generally unskilled, are the category which among employees is the most concerned (on average 20% to 25% of them are permanently exposed to the constraints listed above).

Organisational constraints concern an even higher proportion of workers: high time pressure is a permanent feature for 20% of workers, the **lack of influence over one's work** for 35 to 40% of workers and the involvement in repetitive tasks of short duration for nearly a quarter of the workforce (and a part-time feature for 60% of them).

In a time where much emphasis is put on new forms of work organisation based on autonomy and responsibility one can question the extent of changes which affect work organisation in European countries.

Although they are mostly driven by independent workers, **long working hours** are still a common feature for a high proportion of workers. And 5% of people work permanent night shifts in 1991. The consequences of the suppression of the ban on nightwork for women in industry in several EC countries will be worth monitoring in the years to come.

The proportion of workers who complain from organisational constraints, which are in particular conducive to stress, is higher than the proportion of workers complaining from physical constraints. But it is worth noticing that over 80% of the 30% respondents, who declare that their health and safety is at risk, also indicate **exposure to air pollution** (fumes, dust, vapours, toxic substances). The next two most important constraints they indicate are handling of **dangerous substances** and work in painful positions. It can therefore be considered that exposure to chemicals and toxic products is for workers the primary risk concern.

% of workers reporting Constraints	all the time	at least half the time
Noise	9.7	17.3
Extremes of weather	7.5	14.4
Heat/cold	13.1	24.3
Air pollution	10.4	16.5
Handling dangerous substances	5.1	8.9
Painful positions	15.8	28.9
Heavy loads	9.2	17.6
Inadequate equipment	15.2	
Inadequate premises	17.8	
Long working hours: > 45 hrs/week >- 10 hrs/day	22.5 16.3	
Night work	4.9	9 5
Work with computers	13.9	21.6
Time pressure: very high speed very tight deadlines	18.4 22.9	350 37 4
Repetitive short cycles	23.3	39.0
Lack of autonomy: on task on rhythm	37.6 35.2	
Rate related income	25.6	
Non provision of information	11.5	
Non provision of training	8.5	
Non provision of support	18.2	
Health at risk	30.1	

3.4.2 GROUPS AT RISK

The aim of the present survey, and of this type of survey in general, is to provide support to policy makers in identifying priorities. In fact, one of the main objectives is to help identify which groups are most at risk and the specific problems they are facing.

Multi-factorial analysis provides interesting answers to this question. It shows that the respondents to the survey can be roughly divided into **7** groups (or clusters). Table 1 shows the emphasis put by each of these groups on the various issues.

The main finding is that on the one hand more than half the workforce (52.7%) has no problems. The respondents answered all the questions by "never" or "almost never". On the other hand, 8.5% of the workforce is concentrating nearly all the constraints. On each issue the respondents have given answers very significantly more negative than the average. And in between several other groups indicate significant differences with the average but on a limited number of issues only.

This group accounts for 11% of the workforce. It is characterized by having mainly organisational constraints:

high time pressure: 40% work constantly at very high speed (EC: 18.2%) and to tight deadlines (EC: 23%)

low autonomy: 82.2% cannot change the order of tasks (EC: 37.6%) and 80.1% cannot change the speed (EC: 35.2%)

short repetitive tasks: 51% carry out permanently short repetitive tasks (EC: 23%)

nightwork: 9.1% work on permanent nightshifts (EC: 4.9%) and 28.8% at least 25% of the time (EC: 17.6%).

The profile of this group is:

employees (91% of the group)
female workers (over average representation at 46%)
young workers (over-representation of the - 25 years old
group at 22%)
manual workers (45%) both skilled and non skilled
large companies (> 500 employees)
the manufacturing industry
Germany (both WD and OD. presumably due to manufacturing
industry predominance) has above average proportion of workers
belonging to this group

Finally, 35% of workers in this group think their health and safety are at risk (EC: 30%).

This group accounts for 52.7% of the workforce. It is characterized by low exposure to physical and organisational constraints.

On all issues workers in this cluster have provided answers well below average or close to average. Level of autonomy is high, short repetitive tasks are limited, there is little nightwork.

The profile of this group is:

employed/self employed ratio identical to average female workers (44.7%) are represented above average age distribution close to average general and middle management, office employees are represented above average in this group services (except transport) are in general represented above average

Finally, 15.7% of workers in this group think their health and safety are at risk (EC: 30%).

This group accounts for 7.1% of the workforce. It is characterized by having mainly **physical constraints** linked to exposure to toxic substances and noise:

breathing in vapours, fumes, dust and dangerous substances; 52.3% of workers in this group are exposed permanently (EC: 10.4%)

handling and/or touching dangerous substances or materials: 47.8% are exposedpermanently (EC:5.1%)

noise: 21.6% are exposed to permanent high level noise (EC: 9.7%)

nightwork is a strong feature of this group: 10.7% work permanent nightshifts (EC: 4.9%).

The profile of this group is:

no significant differences with the average employed/self employed ratio predominance of male workers (75%) young workers (over-representation of the - 25 years old group at 20%) employed manual workers (mostly skilled manual workers - 40% of the cluster) distribution according to company size is identical to average (with slight over-representation in the 50-500 empl. category manufacturing and chemical industries

Finally, 66% of workers in this group think their health and safety **are** at risk (EC: 30%).

This group accounts for **8.6%** of the workforce. It is characterized by having high **physical constraints** linked to:

bad weather: 49.5% are permanently exposed to bad weather (EC: 7.5%)

heat or cold (whether indoors or outdoors): 55.5% are permanently exposed (EC: 13.1%)

carrying or moving heavy loads: 24.8% are permanently moving heavy loads (EC: 9.2%)

long working hours are a characteristics of this group: 24.6% work 10 hours or more per day (EC: 16.3%) and 35% work more than 45 hours a week (EC: 22.5%). This might be due to higher than average **dependence of income on work. rate** (37.7%).

The profile of this group is:

over-representation of independent workers who account for 35% of the group male workers (84%) older workers are over-represented: 28.6% of the group is over the age of 50 fanners (20%) and employed manual workers (42%)

- distribution according to company size is identical to average agriculture (26.3%), construction industry (19.3%) and transport (13.7%)

Mediterreanean countries

Finally, 52% of workers in this group think their health and safety **are** at risk (EC: 30%).

This group accounts for 7.5% of the workforce. It is characterized by:

time pressure: 42.4% are permanently working to tight deadlines (EC: 22.9%)

use of **new information technology:** the whole group (100%) makes permanent use of computers

lower dependence of income on work rate: only 16.3% indicate rate related income (EC: 25.6%)

The profile of this group is:

employees (91.5%)
distribution according to gender is identical to average
distribution
young workers (20%): this group has the lowest ratio of older
workers with only 12% over 50
office employees (35%) and management (34%)
companies between 50 and 500 employees are more represented
than average
banking and finance sectors
The Netherlands and the UK have above average proportion of
workers belonging to this group

Finally, a significantly lower than average proportion of workers in this group (20%) think their health and safety are at risk (EC: 30%).

This group accounts for **8.5%** of the workforce. It concentrates nearly every possible constraint listed in the survey. Workers in this group have answered very significantly over (or under) average on all issues. They face nearly all **physical constraints:**

noise: 40.6% are exposed permanently to loud noise (EC: 9.7%)

heat or cold: 51.5% are exposed permanently to it either indoors or outdoors (EC: 13.1%)

bad weather: 28.8% are exposed permanently to bad weather conditions (EC: 7.5%)

breathing in vapours, fumes, dust or dangerous substances: 48.4% are exposed permanently (EC: 10.4%)

handling dangerous substances or materials: 16.7% are exposed to the."" permanently(EC:5.1%)

painful/tiring positions: 63% are having them permanently (EC: 15.8%)

carrying/moving heavy loads: 50.3% are doing it permanently (EC: 9.21)

inadequacy of workplaces: 40.4% find their premises inappropriate (EC: 17.8%)

long working hours: 23.5% work over 10 hours a day or more (EC: 16.31) and 35.2% work over 45 hours per week (EC: 22.5%). Therefore, not: only are they exposed permanently to many constraints but for **long** periods of time.

Organisational constraints are also numerous:

working at very high speed: 46% permanently do so (EC: 18.2%)

working to tight deadlines: 40.1% permanently do so (EC: 22.9%)

short repetitive tasks: 41.2% are involved in carrying out permanent short repetitive tasks (EC: 23.3%)

nightwork: 13.7% are working permanent nightshifts (EC: 4.9%)

autonomy is low: 63% cannot choose or change the order of their tasks (EC: 37.6%) and 53.3% cannot change the speed of work (EC: 35.2%)

support is low: 42.6% find support from colleagues or hierarchy insufficient (EC: 18.2%) and **information is lacking** for 27.3% (EC: 11.5%)

It is also the group where **income is most dependent on work rate** (48.4%).

The profile of this group is:

over-representation of independent workers (26% of the group) male workers (77.5%) are over-represented older workers' proportion is higher (25.3) than average fanners (10.9%), skilled employed manual workers (39.9%) and non skilled employed workers (18%) single person companies (64%) building sector (19.3%), agriculture (16%), transport (10.3%) and non metal manufacturing (13.7%) this group is represented over average in Greece, France and Portugal

Finally, 72.4% of workers in this group think their health and safety are at risk (EC: 30%).

This group accounts for 4.6% of the workforce and it characterized by:

shorter working hours. This group includes a higher proportion of part time workers as 27.3% work 6 hours a day or less (EC: 17.9%) and 34.9% work 30 hours a week or less (EC: 16.8%).

less organisational constraints than the average. This group has less time pressure; 6.6% work permanently at high speed (EC: 18.2%) and 7.9% are working permanently to tight deadlines (EC:22.9%). It also has more autonomy: 72.6% can choose or change the order of tasks and work methods (EC: 60.4%), and 74% their speed rate/rate of work (EC: 62.5%). And work organisation is less tayloristic than average; 60.8% never have to carry out short repetitive tasks.

more limited nightwork: only 2% work permanent night shifts.

inappropriate design of workplace: 51.6% of workers in this group find the equipment inappropriate (EC: 15.6%) and 52.1% find the premises/furniture inappropriate (EC: 17.8%).

lack of training, information and support: information is found lacking 55.9% (EC: 11.5%), training is found insufficient for 48.5% (EC: 8.5%) and support from colleagues/hierarchy insufficient for 52.4% (EC: 18.2%).

The profile of this group is:

slightly over-average proportion of independent workers (25.6%) female workers (over-average representation at 47.8%) older workers: 28.1% are in the 50+ age group fanners (11.5%) and non office employees (17.6%) single person companies (63%), but also companies between 50 and 500 employees (6.2% compared to the EC average of 3.6%) public administration and health services (43.8%), agriculture (14.1%) countries where this group is represented over average are Italy and France, and countries where this group is represented! well below average are Germany (WD), The Netherlands and Spain

Finally, 26% of workers in this group think their health and safety are at risk (EC: 30%).

Groups at risk				
Constraints	1 (11%)	2 (52.7%)	3 (7.1%)	(8.6%)
Noise	+		++	
Extremes of weather				++++
Heat/cold			+	++++
Air pollution	; ; ;		++++	
Handling dangerous substances			++++	
Painful positions	++	_	++	+
Heavy loads			- - -	++
Inadequate equipment	+			}
Inadequate premises	+	_		
Long working hours		- -		+++
Night work	+		++	
Work with computers				
Time pressure	++			•
Repetitive short cycles	+++		+	•
Lack of autonomy	+++			-
Rate related income				* *
Non provision of information	+	_		-
Non provision of training	++	_		
Non provision of support			+	-
Health at risk	+		+++	++

⁺ denotes more than average exposure to constraints.- denotes less than average exposure to constraints.

Groups at risk	5 (7.5%)	6 (8.5%)	7 (4.6%)	
Noise		+++		
Extremes of weather		+++		
Heat/cold	_	+++		
Air pollution		++++		
Handling dangerous substances		++		
Painful positions		+++		
Heavy loads		+++	1	
Inadequate equipment	_	/ ++	++++	
Inadequate premises		+++	++++	
Long working hours	_	+++		
Night work		+++		
Work with computers	++++			
Time pressure	++	+++		
Repetitive short cycles		++	-	
Lack of autonomy		++		
Rate related income		+++		
Non provision of information		++	++++	
Non provision of training			++++	
Non provision of support		++	+++	
Health at risk		+++		

 ⁺ denotes more than average exposure to constraints.
 — denotes less than average exposure to constraints.

3.4.3 WORKING CONDITIONS AND GENDER

1. Background

The average proportion of females in the labour force in the EC is 39%. But there are considerable differences between countries, going from a maximum of 45.4% in Denmark and 46.4% in the former East Germany, to a minimum of 31.5% in Spain and 32.2% in Ireland (Table 10, page 12, chapter 2).

The distribution between sectors (Table 5, page 11, chapter 2) might explain some of the differences between genders with regard to working conditions. On the one hand, the proportion of females is very low in industry, especially in metal manufacturing and construction. It only nears the average in the non-metal manufacturing. On the other hand, the proportion of female workers is much higher than average in services. There are in fact more females than males in both distributive trades and in the "other services" (public administration, health services, education).

2. Main findings

There are very significant differences between the working conditions of men and women in the EC.

Male workers are generally much more exposed to **physical constraints** than female workers. They are more exposed to noise, to air pollution, to contact with dangerous substances, to handling heavy loads, to extremes of temperature and weather. The only notable exception is the exposure to musculo-skeleton constraints where the proportion of female workers complaining is higher than for males. The other area where more females are complaining, and which is linked to the previous one, is the inadequate design of equipment.

Not surprisingly, **long working hours** are generally a male characteristic as in all EC countries part-time work is more common among women than men. In none of the countries the proportion of men who work less than 30 hours exceeds 11%. On average only 7% of men work under 30 hours a week, while 30% of women do so (57% in the UK and 55% in The Netherlands). And 16% of men work over 50 hour weeks and 7% of women.

The proportion of males working at night is also higher.

More men work under high **time pressure** whether at high speed or to very tight deadlines (except in Denmark and The Netherlands). This might be partly due to the higher proportion of males whose income depends on work rate.

On the one hand less submitted to time constraints, women are on the other hand not enjoying as much influence over their work situation (possibility to organise work and modulate speed of work) as their male colleagues.

Women have **less autonomy,** but they also more frequently than men find themselves doing short, repetitive tasks (27% of females work permanently short repetitive tasks).

Finally 36.8% of men and 19.7% of women think their health and safety are at risk because of their work (Table 1).

Table 1. Percentage of men and women who consider their health and safety at risk

Gender Constraints	Females	Males
Noise	_	+
Extremes of weather		+
Heat/cold		+
Air pollution	_	+
Handling dangerous substances	_	+
Painful positions	+	_
Heavy loads	_	,
Inadequate equipment	+	_
Inadequate premises	_	+
Long working hours		+ +
Night work	-	~
Work with computers		+ +
Time pressure	++	-
Repetitive short cycles	+	-
Lack of autonomy		+ +
Rate related income		-
Non provision of information	+	-
Non provision of training		
Non provision of support		
Health at risk		+++

⁺ denotes more than average exposure to constraints.- denotes less than average exposure to constraints.

3.4.4 WORKING CONDITIONS AND AGE

1. Context

The distribution of the labour force according to age is as follows;

Age groups	-25	25/39	40/54	+55
	16.9%	38.8%	33.2%	11.1%

The ageing of the population, which is a general trend in all EC countries, is conducive to an ageing of the workforce. This process is raising a number of important issues. At present workplaces are generally designed for young and fit male workers. If older workers are to be kept at work and perform well, which will be a necessity, the design of the workplace will have to be adapted and improved in order to accommodate their physical and mental capacities.

2. Main findings

The survey highlights some important differences on the issues which the different age groups are facing (Table 2).

The main issues which concern **older workers** (at least more than average) are:

the exposure to weather constraints;

the need to improve the design and the ergonomics of the workplace, in particular with regard to musculo-skeleton problems;

the unavailability (or inability to use?) of new information technology;

the long working hours;

the lack of support.

But these problems or constraints are balanced by the fact that older workers benefit from higher autonomy and higher control over their work.

Finally, as a result older workers think more than other age groups that their health is at risk.

The main issues which concern younger workers are:

the exposure to health hazards due to dangerous substances, chemicals,

short working hours (part-time work); the widespread use of information technology, especially in the 25-39 group; submission to time pressure; tayloristic profile of jobs and tasks (short cycles, lack of outcomes);

autonomy);

lack of training.

Age groups Constraints	-25	25/39	40/54	+55
Noise			+	
Extremes of weather	_		+	+++
Heat/cold				
Air pollution	++			,
Handling dangerous substances	+	+		
Painful positions	++			++
Heavy loads			_	+
Inadequate equipment				+
Inadequate premises	· –	+		-
Long working hours			+	+++
Night work		+	-	
Work with computers	+	++		
Time pressure	+	++		_
Repetitive short cycles	+++			
Lack of autonomy	+++		~	_
Rate related income	_			+++
Non provision of information	-			++
Non provision of training	+++			
Non provision of support	,			++
Health at risk	_			+

 ⁺ denotes more than average exposure to constraints.
 — denotes less than average exposure to constraints.

3.4.5 WORKING CONDITIONS AND COMPANY SIZE

1. Context

The distribution of the labour force according to company size is as follows:

Company size	1	2-49	50+
	14.7%	46.6%	38.7%

2. Main findings

Workers in **small companies**, especially in single worker establishments, are much more exposed to physical constraints, in particular to musculo-skeletal problems. This is due mostly to inadequate design of the workplace and to the manutention of heavy loads. Exposure to high level noise and to dangerous products is lower than in large companies.

Small companies work longer hours. But this is compensated by less pressure and more autonomy.

Not surprisingly lack of support is clearly expressed.

Workers in **larger companies**, mainly over 50 employees, are putting organisational constraints ahead of physical constraints. Working hours are shorter but pressure is higher and short work cycles and repetitive tasks are more common.

Autonomy is also more reduced than in small companies. Finally night work is more widespread.

Workers in small companies or single workers are more inclined to think their health at risk than workers in larger companies.

Company size Constraints	1	2-49	50+	
Noise	_		++	
Extremes of weather	++			
Heat/cold	++			
Air pollution			+	
Handling dangerous substances	+			
Painful positions	++		-	
Heavy loads	+++			
Inadequate equipment	+	_		
Inadequate premises	++	_		
Long working hours	+++			
Night work			++	
Work with computers	 -	_	+++	
Time pressure			++	
Repetitive short cycles			++	
Lack of autonomy	+++			
Rate related income	++++		- -	
Non provision of information	++	-		
Non provision of training				
Non provision of support	+++	_	_	
Health at risk	++			

⁺ denotes more than average exposure to constraints.- denotes less than average exposure to constraints.

CHAPTER 4 - SECTOR ANALYSIS

This chapter intends to give a quick overview of the main characteristics regarding the work environment in each of the 10 main branches of the economic activity.

Due to the sample size it was not possible to go into a more detailed sector analysis (e.g. car manufacturing, food processing, health services, ...). Such detailed analysis would nevertheless be essential in the future. It is particularly obvious in the case of some groupings such as the NACE 9 category, which covers nearly 40 million workers in the EC, and includes sectors which are very different from a work environment point of view such as hospitals or public administrations.

The sector referencing adopted is the NACE classification system.

Please note that when we are stating that a given issue is a major issue in. a given sector, it is done by comparison with other sectors and with the EC average. Therefore because a sector may come last on a given issue does not mean that this issue is to be discarded, as it might be a major one for all (or most of all) sectors in the EC.

More detailed figures on each issue are available in chapter 3.

4.1 AGRICULTURE, FORESTRY AMD FISHING

4.1.1

Branch employment: 10,3 million (7.5% of total EC workforce)

(employed & self employed)

Self employed: 7,3 million (71.0%)

Employed: 3,0 million (29.0%)

% of female workers: 37.3 (EC: 39.0%)

4.1.2 The main issues concerning the agriculture, forestry and fishing industry are:

bad weather heat or cold heavy loads musculo-skeletal problems handling dangerous substances lack of appropriate premises long working hours

As one would expect working outdoors does expose workers more to **weather conditions** such as rain, wind, snow, sun, etc. A third of the workers are permanently exposed to either heat or cold, and a quarter of them are permanently exposed to bad weather.

Handling dangerous substances concerns 35% of the sector's workforce for at least a quarter of the time, certainly due to the use of products such as pesticides in agriculture.

The **design of equipment and premises** is certainly a major issue. The highest levels of workers having painful positions, carrying or moving heavy loads and who consider having inadequate premises and equipment are to be found in this sector.

Considering that around 10 million people are employed EC-wide in this branch, it is certainly worth considering how machinery could be improved and more user and environmentally friendly products be used.

On the one hand autonomy and flexibility to organise one's work are higher than in most other sectors. On the other hand agriculture has the **longest working hours** with an average working week of 48 hours and 17% of the workers having 60+ hours working weeks. This may have to do with the fact that income is to a large extent related to the work rate.

Finally this is reflected by the proportion of respondents who think their health and safety is at risk (51%) and the proportion of those who tried to change job for a more healthy one, but failed to do so (10%).

	Agriculture, forestry and fishing (NACE 0)	EC
Average working day (hours)	8.3	7.9
Average working week (hours)	48.3	40.8
% of workers working >- 10 hours a day	31.5	16.3
% of workers working > 45 hours a week	46.5	22.5
% of workers working > 60 hours a week	17.4	5.3

Agriculture, forestry &		% of workers					
fishing (NACE 0)	exposed to weather constraints	exposed, to heat or cold	working in painful positions	carrying heavy loads	handling dangerous substances		
Permanently	26.6	32.4	31.6	21.2	9.2		
At least 50% of the time	56.9	59.9	50.0	41.1	17.0		
EC average/ at least 50% ' of the time	14.8	24.3	28.9	17.6	8.9		

	% of workers		
	not having appropriate equipment	not having appropriate premises	
Agriculture, forestry & fishing (NACE 0)	18.8	31.2	
EC	15.2	17.8	

4.2 ENERGY. STEEL, EXTRACTION, PROCESSING OF NON-ENERGY PRODUCING MINERALS. CHEMICAL INDUSTRY

4.2.1

These branches are classified under the NACE codes 1 and 2 and have been grouped together for the purpose of this survey. Note that the processing of non-energy producing mineral includes in particular steel and iron industry, glass, cement and clay manufacturing.

Branch employment: 6,9 million (5.0% of total EC workforce)

(employed & self employed)

Self employed: 0,4 million (5.5%)

Employed: 6,5 million (94.5%)

% of female workers: 20.5 (EC: 39.0%)

4.2.2 The main issues concerning this branch are:

air pollution and dangerous substances noise and heat/cold nightwork and time constraints (deadlines, speed) lack of autonomy

Energy production, steel manufacturing and chemical industry are to a great extent process industries, based on computer controlled production processes and running 24 hours a day. This explains the highest rate among industry for **computer use** and the second one overall behind banking.

Among the physical constraints **air pollution** (vapours, fumes, dust and dangerous substances) and the handling of **dangerous substances and materials** come top of the list, which should not be a surprise considering the activities covered.

Time constraints and the lack of autonomy are certainly major issues with regard to the organisational and psychosocial environment. Tight deadlines and high speed work are frequently mentioned. **Nightwork** is certainly also a major issue with a third of the workers experiencing it for at least a quarter of the time. The **lack of autonomy** is reflected by a relatively high number of respondents who mention difficulties in modifying and controlling the speed of their work and describe their job as dominated by short repetitive tasks.

The availability of training, information and support for the organisation is seen very positively and rates higher than in most other branches.

Finally 37% of the respondents consider their health and safety at risk which is notably higher than the average.

	Energy, extraction, processing minerals, chemical industry (NACE 1 & 2)	EC
Average working day (hours)	8.2	7.9
Average working week (hours)	41.6	40.8
% of workers working >. 10 hours a day	13.0	16.3
% of workers working > 45 hours a week	16.4	22.5
% of workers working > 60 hours a week	4.1	5.3

Enorgy outn	% of workers					
Energy, extr. processing minerals and chem. ind. (NACE 1x2)	exposed to breathing in toxic fumes	handling dangerous substances	working to tight dead- lines	working at high speed	carrying out repetit. tasks	working at night
Permanently	18.4	15.0	29.8	22.2	28.4	9.0
At least 50% of the time	26.8	19.8	47.0	38.9	42.7	16.6
EC average/ at least 50% of the time	16.5	15.6	37.4	35.0	39.0	9.5

4.3 METAL MANUFACTURE, MECHANICAL, ELECTRICAL AND INSTRUMENT ENGINEERING

4.3.1

This branch coded 3 in the NACE classification covers a very wide range of industries which include in particular the car industry, aerospace, ship building, machine manufacturing, electrical household appliances.

Branch employment: 14,4 million (10.5% of total EC workforce)

(employed & self employed)

Self employed: 0,7 million (5.0%)

Employed: 13,7 million (95.0%)

% of female workers: 15.9 (EC: 39.0%)

4.3.1 The main issues concerning metal manufacturing are:

autonomy rhythms and time constraints air pollution

Physical constraints are less prominent in the metal manufacturing compared to other branches. In fact the only area where manufacturing differentiates itself is air pollution. Otherwise on most issues the sector provides answers either identical or more positive than the EC average. This is particularly the case with the design of equipment and premises.

It is mostly on **work organisation** related issues that things deteriorate. On the one hand the sector provides among the shortest working hours not only in the industry but also among all sectors.

On the other hand this is compensated by **high intensity of work** (tight deadlines and to a lesser extent high rhythms) and **lower autonomy** (42% of the workers cannot change either the speed and rate of work or the order of their tasks and methods of work). And work is still very much organised on a tayloristic model even though it stays more or less within EC average: nearly a quarter of the respondents described their tasks as permanently short and repetitive and 55% of them as being short and repetitive at least a quarter of the time.

	Metal manufacture (NACE 3)	EC
Average working day (hours)	8.1	7.9
Average working week (hours)	40.7	40.8
% of workers working >. 10 hours a day	11.0	16.3
% of workers working > 45 hours a week	13.9	22.5
% of workers working > 60 hours a week	1.2	5.3

Metal manufacture (NACE 3)	% of workers		
	working to tight deadlines	breathing in toxic fumes	
Permanently	27.7	15.4	
At least 50% of the time	47.0	24.5	
EC average/at least 50% of the time	37.4	16.5	

	% of workers		
	unable to change task order	unable to change work speed	not having appropriate equipment
Metal manufacture (NACE 3)	39.6	41.4	10.9
EC average	37.6	35.2	15.2

4.4 NON METAL MANUFACTURING INDUSTRIES

4.4.1

These industries coded 4 in the NACE classification cover mainly the food and drink industry, the textile, leather and shoe industry, wood, furniture and paper industries and the plastic and rubber industry.

Branch employment: 14,7 million (10.7% of total EC workforce)

(employed & self employed)

Self employed: 1,8 million (12.2%)

Employed: 12,9 million (87.8%)

% of female workers: 38.6 (EC: 39.0%)

4.4.2 Non metal manufacturing is facing major issues, both in relative and absolute terms. The sector is on the front line both on physical and organisational issues. In fact it provides the highest negative scores on several issues.

The main issues are:

dangerous substances noisemusculo-skeletal problems autonomy high rhythms and time constraints

Over 20% of the workforce is permanently exposed to very loud **noise** and nearly half the workforce is part of the time (at least 25% of the time) exposed to such noise.

Exposure to **dangerous substances** whether handling them or breathing them in is very high: 18.3% of the respondents declare to be permanently exposed to breathing in vapours, dust, fumes or dangerous substances and 32.6% for at least 25% of the time.

Painful positions affect permanently 18% of the respondents.

Non metal manufacturing industries are also highly concerned by organisational issues. Work Organisation has to a large extent **tayloristic features**; 29.7% of respondents declare doing short repetitive tasks on a permanent basis. This is being coupled with high **time pressure**: a third of respondents work permanently under tight deadlines and a quarter at very high speed.

The sector also provides the lowest scores on **autonomy:** 43% of respondents are not able to change their speed or rate of work and 48% are not able to modify their order of tasks or method of work.

	Non metal manufacturing (NACE 4)	EC
Average working day (hours)	8.0	7.9
Average working week (hours)	40.5	40.8
% of workers working >. 10 hours a day	12.1	16.3
% of workers working > 45 hours a week	16.7	22.5
% of workers working > 60 hours a week	2.5	5.3

Non motal	% of workers					
Non metal manufacturing (NACE 4)	exposed to breathing in toxic fumes	handling dangerous substances	working to tight dead- lines	working at high speed	carrying out repetit. tasks	having painful posit.
Permanently	18.3	6.7	29.3	25.8	29.7	18.3
At least 50% of the time	25.7	10.9	43.5	41.8	45.5	31.9
EC average/ at least 50% of the time	16.5	8.9	37.4	35.0	39.0	28.9

	% of workers		
	unable to change work speed	unable to change task order	
Non metal manufacturing industry (NACE 4)	43.2	48.1	
EC average	35.2	37.6	

4.5 BUILDING AND CIVIL ENGINEERING

This sector, coded 5 in the NACE classification, includes demolition work, building construction, civil engineering, building installation and completion.

4.5.1

Branch employment: 10,4 million (7.6% of total EC workforce) (employed & self employed)

Self employed: 2,0 million (19.7%)

Employed: 8,4 million (80.3%)

% of female workers: 13.1 (EC: 39.0%)

4.5.2 The main issues concerning the building industry have to do, one is hardly surprised, with the following physical constraints:

heat and/or cold bad weather musculo-skeletal problems carrying or moving heavy loads noise

Compared to other branches the construction sector has very little night work and rates above the average for satisfaction concerning appropriate training (which is quite surprising for a sector often considered hampered by an insufficient skilled workforce!) and equipment.

Complaints about the lack of appropriate **premises** are higher than average. This might have to do with the specificity of the sector and must reflect the lack of appropriate facilities, such as toilets, changing rooms, showers, etc. on the building sites.

Building is also the sector which indicates highest (together with agriculture) wage dependency on work rate. This might be related to the higher proportion of SMES and independents.

Finally all this is reflected by the fact that nearly half the workforce (46%) thinks that their health and safety is at risk because of their work.

	Building and civil engineering (NACE 5)	EC
Average working day (hours)	8.3	7.9
Average working week (hours)	42.2	40.8
% of workers working >- 10 hours a day	15.0	16.3
% of workers working > 45 hours a week	22.0	22.5
% of workers working > 60 hours a week	3.2	5.3

Building and civil engineering (NACE5)	% of workers					
	exposed to heat or cold	exposed to weather constraints	having painful positions	carrying heavy loads	exposed to noise	working at night
Permanently	25.8	19.7	21.0	22.2	10.6	0.9
At least 50% of the time	45.6	38.8	44.3	38.1	25.0	1.7
EC average/ at least 50% of the time	24.3	14.8	28.9	17.6	17.3	9.5

	% of workers			
	whose income depends on work rate	health and safety at risk		
Building & civil engineering (NACE 5)	33.5	46.0		
EC average	25.6	30.1		

4.6 DISTRIBUTIVE TRADES, HOTELS, CATERING AND REPAIRS

4.6.1

This sector coded 6 in the NACE classification includes wholesale and retail distribution, hotels, public houses, restaurants and repairs of consumer goods and vehicles.

Branch employment: 23,6 million (17.2% of total EC workforce)

(employed & self employed)

Self employed: 8,4 million (35.5%)

Employed: 15,2 million (64.5%)

% of female workers: 50.6 (EC: 39.0%)

4.6.2

The **physical environment** somehow creates less constraints in the distribution branch than it does elsewhere, which does not mean that there are no problems. For example 15.6% of respondents indicated permanent painful or tiring positions. This is very close to the average, but can still be considered as a high figure.

One would have expected the design of equipment and premises to be more of an issue in this sector where small outlets and shops are numerous. In reality this is not the case and a higher than average number of respondents declared the premises as appropriate.

Not surprisingly in a sector where one third of the workforce is made up of independent workers, income is directly linked to the work rate for 28% of workers. This might explain the **long working hours**, among the highest of all sectors. The average working week is 43.3 hours, 37% of people over 45 hours/week and 27% over 10 hours a day.

Autonomy is higher than average and time constraints are lower than average. Short repetitive tasks, while being identical to average, still concern permanently a quarter of the respondents.

The introduction of **computer technology** has been relatively slow as only 8% of respondents declared permanent use of computers, while the EC average is 14%.

	Distributive trades (NACE6)	EC
Average working day (hours)	8.2	7.9
Average working week (hours)	43.3	40.8
% of workers working >. 10 hours a day	27.5	16.3
% of workers working > 45 hours a week	36.7	22.5
% of workers working > 60 hours a week	10.2	5.3

Distributive	% of workers					
trades (NACE6)	ha vine painful positions	working at high speed	working to tight deadlines	carrying out repetitive tasks	using computer equipment	
Permanently	15.6	16.6	17.2	24.2	8.5	
At least 50% of the time	26.6	33.4	27.8	38.7	13.1	
EC average/ at least 50% of the time	28.9	35.0	37.4	39.0	21.6	

	% of workers			
	having appropriate premises	whose income depends on work rate	unable to change task order	
Distributive trades (NACE 6)	85.0	30.0	35.7	
EC	77.7	25.6	37.6	

4.7 TRANSPORT AND COMMUNICATIONS

These activities are coded 7 in the NACE classification and include all transport systems (railways, road and urban transport, sea and air transport) as well as supporting services to transport, travel agents and warehousing. It also includes the communications branch which employs over 2 million workers.

4.7.1

Branch employment: 9,6 million (7.0% of total EC workforce)

(employed & self employed)

Self employed: 1,1 million (11.2%)

Employed: 8,5 million (**88.8%**)

% of female workers: 19 (EC: 39.0%)

4.7.2 The main issues concerning the sector are:

weather constraints, heat/cold long working hours and nightwork low autonomy time constraints

As can be expected for transport activities, **weather constraints** and heat/cold come significantly in the frontline among the physical constraints which workers are facing. Respondents also indicate higher than average musculo-skeletal problems (19%) and exposure to noise.

Working time is characterized by **long working hours**, notably higher than average. Over 21% of respondents indicated working over 10 hours a day, and 28% over 45 hours a week. **Nightwork** is clearly an issue as 12,4% of workers permanently work night shifts, and 40% at least a quarter of the time.

Transport and communications have the **lowest autonomy** (over half of respondents are not able to change the order of tasks or their method of work), and the **highest time pressure** (a third of workers are permanently working to tight deadlines) among all sectors.

Finally 37.5% of the respondents in these activities think their health and safety is at risk because of their work.

	Transport & communications (NACE 7)	EC
Average working day (hours)	8.3	7.9
Average working week (hours)	43.0	40.8
% workers working > 10 hours a day	21.4	16.3
% workers working > 45 hours a week	28.5	22.5
% workers working > 60 hours a week	7.0	5.3

Transport & communications (NACE7)	% of workers					
	exposed to weather constraints	exposed to heat or cold	having painful positions	working to tight dead- lines	using computer equipment	working at night
Permanently	17.6	18.9	19.0	33.6	20.1	12.4
At least 50% of the time	28.5	33.4	29.8	51.2	27.1	22.6
EC average/ at least 50% of the time	14.8	24.3	28.9	37.4	21.6	9.5

	workers unable to change task order health and safety at risk		
Transport & Communications (NACE 7)	50.8	37.5	
EC	37.6	30.1	

4.8 BANKING AND FINANCE

These activities are coded 8 in the NACE classification and include banking, finance and insurance, as well as business, real estate, and renting services.

4.8.1

Branch employment: 9,7 million (7.1 % of total EC workforce) (employed & self employed)

Self employed: 1,1 million (11.2%)

Employed: 8,6 million (88.8%)

% of female workers: 44.7 (EC: 39.0%)

4.8.2

Banking and finance produce the lowest negative figures of all *sectors* with... regard to the physical environment and to physical constraints. Some issues, such as toxic and dangerous substances or heavy loads, are in {fact; hardly worth mentioning.

Working times are also among the lowest (39.7 hours per week on average' but-' are compensated by higher than average time pressure, in particular due to. tight deadlines. Also 4.9% of the workers are on permanent night shifts.

The sector is **highly computerised** (40% of respondents indicate permanent use of computers), while a very high proportion (the highest in fact.) is satisfied with training and information.

Work organisation is also characterised by well above average autonomy.

Finally the sector has the lowest proportion of respondents who think that their health and safety is at risk, and the lowest proportion of workers seeking another job because of bad working conditions.

	Banking and Finance (NACE 8)	EC
Average working day (hours)	7.9	7.9
Average working week (hours)	39.7	40.8
% workers working >- 10 hours a day	15.7	16.3
% workers working > 45 hours a week	18.8	22.5
% workers working > 60 hours a week	3.1	5.3

Banking & Finance	% of workers			
(NACE 8)	using computer equipment	working to tight deadlines	working at night	
Permanently	39.8	23.6	4.9	
At least 50% of the time	57.9	45.4	6.6	
EC average/at least 50% of the time	21.6	37.4	9.5	

	% of workers			
	unable to unable to having change change sufficient task order work speed information			
Banking & finance (NACE 8)	23.4	25.6	91.2	
EC	37.6	35.2	85.2	

4.9 OTHER SERVICES

This category coded 9 in the NACE classification includes a very wide range of activities: public administration, social security, national defence, sanitary services, education, research, medical health services, cultural services. It is in reality the category with the largest employment and highest proportion of female workers. Considering the very wide diversity of situations (there is little in common between work situations in hospitals and in education services for example), it is particularly obvious that a more precise analysis differentiating the various sectors within NACE 9 would be required.

4.9.1

Branch employment: 37.5 million (27.4% of total EC workforce)

(employed & self employed)

Self employed: 4.2 million (11.2%)

Employed: 33.3 million (88.8%)

% of female workers: 55.3 (EC: 39.0%)

4.9.2

On most issues related to physical environment and physical constraints, the proportion of negative answers is below average. The only exception regards the **design of workplaces**, whether the equipment (20% of the respondents are not satisfied, which is the highest score recorded among all sectors) or the premises (19% of negative answers).

Working time is significantly lower than average (average working week of 36.6 hours). The proportion of workers whose income is linked to the work rate is also the lowest recorded.

Time pressure (working to tight deadlines and work at high speed) is notably lower than average.

	Other Services (NACE 9)	EC
Average working day (hours)	7.2	7.9
Average working week (hours)	36.6	40.8
% workers working >- 10 hours a day	9.4	16.3
% workers working > 45 hours a week	13.2	22.5
% workers working > 60 hours a week	2.5	5.3

Other services (NACE 9)	% of workers							
	working to tight deadlines	working at high speed	carrying out repetitive tasks					
Permanently	18.9	13.5	19.9					
At least 50% of the time	30.4	26.6	33.6					
EC average/ at least 50% of the time	37.4	35.0	39.0					

		% of workers						
	not having appropriate equipment	not having appropriate premises	whose income depends on work rate					
Other services (NACE 9)	19.8	19.1	14.2					
EC	15.2	17.8	25.6					

4.10 CONCLUSIONS

Agriculture (NACE 0), building (NACE 5), and **transport** (NACE 7) are clearly the sectors where, overall, the highest amount of constraints appear. This is reflected in the proportion of workers feeling at risk: 51% in agriculture, 46% in construction and 37.5% in transport. Physical constraints come high on the list of constraints in all three sectors, especially due to outdoor work. This is cumulated with long working hours in agriculture, nightwork and high time pressure/low autonomy in transport.

Steel and chemical industries (NACE 1 and 2) come very closely behind in terms of the number and importance of constraints to which workers are submitted. As a result, 37.1% of workers feel their health and safety are at risk. Exposure to dangerous products is a major issue. Nightwork is widespread.

The **manufacturing industry** (NACE 3 and 4) is characterized, more than other sectors, by a tayloristic division of work and by low autonomy, while pressure and intensity of work is higher than average. This is balanced by shorter working hours (among the shortest), in particular in metal manufacturing.

The **distributive trades** sector(NACE 6) on the opposite has long working hours but this is balanced by reduced time pressure and higher autonomy.

Finally, **banking/insurance** (NACE 8) and **other services** (NACE 9) are well below average in terms of physical constraints, though design of work places is causing some concern. Low working hours and high time pressure, and above average autonomy, are characteristics of these branches.

NACE sectors Constraints	1	1/2	3	4	5	6	7	8	9
Noise		+	+++	+++		_			
Extreme weather	+++			_	++	_	++		
Heat/cold	+++				++		+		
Air pollution		++	+	++	+				-
Handling dangerous substances	+	++							
Painful positions	+++			+	++				_
Heavy loads	++				++				_
Inadequate equipment	+		_					_	+
Inadequate premises	++				+	-		-	
Long working hours	+++					++	+		
Nightwork		++					, +++		
Computers		+					+	+++	
Time pressure	+	+		++	+	_	+		_
Repetitive short cycles		+	<u> </u> 	++				-	
Lack of autonomy	_		+	++			++		
Rate related income	+++				++	+			~
Lack of information	+	ì						-	
Lack of training	+	_							
Lack of support	++							-	
Lack of support	+++	+			+++		+		_

 ⁺ denotes more than average exposure to constraints.
 — denotes less than average exposure to constraints.

CHAPTER 5 - COUNTRY ANALYSIS

The following chapter intends to give a very short and condensed summary of the main findings of the survey for each country.

Each country's description includes a short overview of the national context, and highlights the main issues and how each country fares in the EC.

It was not possible to go into explanatory analysis given the scope of the present report. We therefore advise the reader to go back to Chapter 3 for more information or to ask the Foundation for more data in order to interpret the results.

The fact that on a given issue a country fares betters than others does not necessarily mean that the situation is good (or bad). The reader will also consider that the cultural context may differ from one country to the other, which might induce a different perception over an issue or the understanding of a question. The wide differences between economic and social structures also have to be considered.

5.1 BELGIUM (B)

5.1.1

The Belgian (B) labour force is 3,5 million, of whom 83% are employees. The proportion of female workers is significantly lower than the EC average.

	Belgium	EC
Labour force (x 1000)	3,483	136,934
Employed (% of labour force)	83.2	80.6
Self employed (% of labour force)	16.8	19.4
Females (% of labour force)	36.5	39.0

The distribution of the labour force between sectors reflects the importance of services, and one of EC lowest agricultural workforce.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		6.9	8.7	9.9		18.0	7.2	7.9	32.3
Belgium	3.2		25.5		5.9		6	5.4	
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5		26.2		7.6	'	5	8.7	

Distribution of labour force by sectors (in %)

5.1.2 Main characteristics regarding working conditions

The **physical work environment** in Belgium is characterized by less constraints and better design when compared to EC averages. This is particularly true on musculo-skeletal issues.

Working times can be described as within the EC average for average daily and weekly hours, but the proportion of workers doing long hours is significantly lower. Nightwork is also below average.

Work organisation is characterized by a significantly lower time pressure. In fact, work to tight deadlines is reported as one of EC's lowest. It might be linked to the relatively low dependency of wages on work rate (EC's lowest with The Netherlands and Germany-WD). Autonomy at work is slightly above average. But the most striking characteristic has to do with the repetitiveness of work: the proportion of workers doing short repetitive tasks is the lowest in the EC.

Finally this is reflected by one of the lowest proportion of workers (18.2%) who feel their health and safety are at risk because of their work (EC: 30%).

Belgium (B)		Belgium		EC			
	E'+SE ²	E	SE	E+SE	E	SE	
Average working day (hours)	8.0	7.8	9.3	7.9	7.7	8.8	
Average working week (hours)	39.6	37.4	52.1	40.8	, 38.8	494	
% workers working S 10 hours/day	16.1	9.4	50.3	16.3	10.7	40.0	
% workers working > 45 hours/week	17.9	10.5	54.6	22.5	14.8	54 0	
% workers working > 60 hours/week	4.0	1.1	18.6	5.3	2.1	18.3	

¹Employed workers

²Self employed workers

Belgium (B)		ring nful tions		ing at ght	worki high	ing at speed	worl to to dead	ight
	В	EC	В	EC	В	EC	В	EC
% of E ¹ & SE ² at least 50% of the time	22.6	28.9	7.4	9.5	31.6	35.0	26.3	37.4
% of E at least 50% of the time	21.5	27.3	8.1	9.6	30.7	34.5	25.2	38.3
% of SE at least 50% of the time	27.9	35.0	3.7	9.0	36.6	36.3	32.0	33.5

Belgium (B)	carrying out repetitive tasks				
	В	EC			
% of E' & SE ² at least 50% of the time	27.4	39.0			
% of E at least 50% of the time	27.3	40.1			
% of SE at least 50% of the time	27.2	34.6			

Belgium (B)	whose income depends on work rate		unable to change task order		unable to change work speed		
	В	EC	В	EC	В	EC	
% of E' & SE ²	19.9	25.6	34.6	37.6	33.6	35.2	
% ofE	9.5	17.1	39.8	41.7	37.4	39.3	
%ofSE	71.6	61.0	8.8	20.9	13.5	18.4	

'Employed workers ^elf employed workers

5.2 DENMARK (DK)

5.2.1

The Danish (DK) labour force is approximately 2,7 million with the highest proportion of employed workers (90.8%).

	Denmark	EC
Labour force (x 1000)	2,683	136,934
Employed (% of labour force)	90.8	80.6
Self employed (% of labour force)	9.2	19.4
Females (% of labour force)	45.4	39.0

The distribution of the labour force between sectors reflects the importance of the services (the third most important in proportion after The Netherlands and Luxembourg).

NACE sectors	0	1/2	3	4	5	6	7	8	9
		2.9	7.3	10.1		15.9	7.4	9.7	34.1
Denmark	5.8		20.3		6.8		6	7.1	
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5		26.2		7.6		5	8.7	1

Distribution of labour force by sectors (in

5.2.2 Main characteristics regarding working conditions

Physical constraints reported by the respondents are among the lowest (for example concerning handling dangerous substances or heavy loads) among EC countries. The only noticeable exception deals with the design of premises where 17.8% of the workers find them inappropriate.

Working times is characterized by the lowest working hours in the -EC. Denmark has both the lowest average working week (38.7 hrs) and the smallest proportion of people having long working hours. This is due partly to the particularly high proportion of employed workers. Denmark also has the lowest nightwork rate (1.5% permanent nightworkers).

This is partly paid by **higher pressure:** reporting of work at high speed and to tight deadlines is higher than average. So is it with rate related incomes. On the other hand, autonomy is above average and the proportion of workers having short repetitive tasks is significantly below average.

It is worth noticing the relatively high rate of respondent complaining from lack of proper training.

Finally, some 21.4% of workers think their health and safety are at risk because of their work (EC: 30%).

Denmark (DK)		Denmark			EC		
	E ¹ SE ²	E	SE	E+SE	E	SE	
Average working day (hours)	7.8	1.1	9.0	7.9	7.7	8.8	
Average working week (hours)	38.7	37.3	52.8	40.8	38.8	44 4	
% workers working >- 10 hours/day	10.5	6.6	49.4	16.3	10.7	40.0	
% workers working > 45 hours/week	14.0	9.8	55.8	22.5	14.8	54.0	
% workers working > 60 hours/week	2.4	0.4	22.0	5.3	2.1	18.3	

^{&#}x27;Employed workers ²Self employed workers

Denmark (DK)	using computer equipment		working at night		working at high speed		working to tight deadlines	
	DK	EC	DK	EC	DK	EC	DK	EC
% of E' & SE ² at least 50% of the time	29.0	21.6	4.8	9.5	41.3	35.0	45.2	374
% of E at least 50% of the time	30.4	24.5	4.9	9.6	42.7	34.5	45.3	38.3
% of SE at least 50% of the time	16.1	9.4	3.0	9.0	27.6	36.3	43.6	33.5

Denmark (DK)	carrying out repetitive tasks				
	DK	EC			
% of E' & SE ² at least 50% of the time	29.3	39.0			
% of E at least 50% of the time	30.5	40.1			
% of SE at least 50% of the time	26.0	34.6			

Denmark (DK)	whose income depends on work rate		unable to change task order		unable to change work speed		not having sufficient training	
	DK	EC	DK	EC	DK	EC	DK	EC
% of E' & SE ²	31.0	25.6	34.4	37.6	29.4	35.2	13.7	8.5
% ofE	26.3	17.1	37.3	41.7	31.2	39.3	13.8	9.1
% of SE	77.8	61.0	6.2	20.9	11.2	18.4	12.5	6.0

^{&#}x27;Employed workers
²Self employed workers

5.3 GERMANY (WD)

5.3.1

The German (WD) labour force is slightly above 27 million workers, out of which 85% are employees.

	Germany (West)	EC
Labour force (x 1000)	26,999	136,934
Employed (% of labour force)	85.4	80.6
Self employed (% of labour force)	14.6	19.4
Females (% of labour force)	40.0	39.0

The distribution of the labour force between sectors reflects the predominance of industry in the German economy.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		7.3	15.9	10.4		16.5	5.8	7.6	25.1
WD	4.5	33.6			6.9	55.0			
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5		26.2			58.7			

Distribution of workforce by sectors (in

5.3.2 Main characteristics regarding working conditions

On the one hand **organisational constraints** are at the forefront of the issues mentioned by the respondents, by the employees more particularly. The organisation of work seems to offer relatively less autonomy than elsewhere in the EC. Nearly half the employees indicate no possibilities to modify work methods or speed. Time constraints are also more often mentioned (high speed and tight deadlines). The division of work also indicates a more tayloristic approach to work organisation (short repetitive tasks). All this should be mitigated by the fact that the link between income and work rate is one of the EC's lowest.

On the other hand Germany scores the highest levels of satisfaction with regard to the **quality of equipment and buildings**, as well as to the effectiveness of support from colleagues and hierarchy. Germany also scores above EC average level with regard to the quality of information and training provided to workers. Finally, probably as a result of having more adapted machinery and premises, the **physical constraints** linked in particular to air pollution, exposure to chemicals and manutentions are reduced in comparison to other countries.

Germany (WD)	W	est Germar	ny	EC			
	E ¹ SE ²	E	SE	E+SE	E	SE	
Average working day (hours)	7.9	7.7	9.2	7.9	7.7	8.8	
Average working week (hours)	40.1	38.2	51.4	40.8	38.8	49.4	
% workers working >- 10 hours/day	16.3	10.0	52.5	16.3	10.7	40.0	
% workers working > 45 hours/week	19.0	12.2	59.3	22.5	14.8	54.0	
% workers working > 60 hours/week	4.7	1.6	22.9	5.3	2.1	18.3	

^{&#}x27;Employed workers
²Self employed workers

Germany (WD)	carrying out repetitive tasks		_	working at high speed		working at night		
	WD	EC	WD	EC	WD	EC		
% of E' & SE ² at least 50% of the time	42.8	39.0	41.3	35.0	7.9	9.5		
% of E at least 50% of the time	43.5	40.1	42.4	34.5	8.1	9.6		
% of SE at least 50% of the time	38.9	34.6	35.6	36.3	7.9	9.0		

Germany (WD)	unable to change task order		change	unable to change work speed		not having appropriate equipment		aving cient ning
	WD	EC	WD	EC	WD	EC	WD	EC
% of E' & SE ²	43.4	37.6	44.4	35.2	9.1	15.2	3 5	8 5
% of E	46.4	41.7	47.4	39.3	9.4	15.7	4 1	4 1
% ofSE	25.7	20.9	26.4	18.4	7.6	13.4	0 0	60

^{&#}x27;Employed workers
²Self employed workers

5.4 GERMANY (OD)

5.4.1

The East German (OD) labour force is 8,5 million workers, of which 91.7% are employed, which is the highest proportion in the EC.

	Germany (East)	EC
Labour force (x 1000)	8,531	136,934
Employed (% of labour force)	91.7	80.6
Self employed (% of labour force)	8.3	19.4
Females (% of labour force)	46.4	39.0

The distribution of the labour force between sectors reflects the very strong predominance of industry.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		8.5	13.8	10.9		9.5	6.4	1.8	33.9
OD	6.2		. 33.2		8.8		5	1.6	
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5		26.2		7.6		5	8.7	

Distribution of workforce by sectors (in %)

5.4.2 Main characteristics regarding working conditions

Physical constraints, as reported by the respondents, are very close to EC average, with the exception of exposure to air pollution. The issue where very big differences appear is the **design of workplaces,** both equipment and machinery. East Germany has the highest proportion of negative answers in this area.

Working time is characterized by slightly larger average working weeks, but fewer people having long working hours (over 10 hours a day or 45 a week).

In return, **time pressure** is reported very much higher than average. East Germany in fact provides the highest figures among EC countries.

The **organisation of work** is also more than anywhere else based on a tayloristic method and **autonomy** is the lowest among countries surveyed.

Finally, 31% of the workers consider their health and safety are at risk because of their work (EC: 30%).

Germany (OD)	E	ast German	ny	EC			
	E ¹ +SE ²	E	SE	E+SE	E	SE	
Average working day (hours)	8.2	8.0	9.4	7.9	7.7	8.8	
Average working week (hours)	41.5	40.6	51.3	40.8	38.8	49.4	
% workers working >- 10 hours/day	10.3	7.0	47.4	16.3	10.7	40.0	
% workers working > 45 hours/week	13.0	9.3	53.5	22.5	14.8	54.0	
% workers working > 60 hours/week	2.3	0.9	18.2	5.3	2.1	18.3	

^{&#}x27;Employed workers

²Self employed workers

East Germany (OD)	using computer equipment		working at night		working at high speed		working to tight deadlines	
(OD)	OD	EC	OD	EC	OD	EC	OD	EC
% of E' & SE ² at least 50% of the time	10.0	21.6	7.5	9.5	44.2	35.0	51.4	37.4
% of E at least 50% of the time	10.2	24.5	7.9	9.6	43.8	34.5	50.3	38.3
% of SE at least 50% of the time	7.3	9.4	1.6	9.0	51.1	36.3	63.0	33.5

East Germany (OD)	carrying out repetitive tasks		exposed to breathing in toxic fumes			
(62)	OD	EC	OD	EC		
% of E' & SE ² at least 50% of the time	52.8	39.0	18.6	16.5		
% of E at least 50% of the time	52.8	40.1	19.0	16.7		ı
% of SE at least 50% of the time	51.7	34.6	15.4	15.4		

East Germany (OD)	not having appropriate equipment		not having appropriate premises		unable to change task order		unable to change work speed	
	OD	EC	OD	EC	OD	EC	OD	EC
% of E' & SE ²	29.4	15.2	23.8	17.8	45.3	37.6	45.8	35.2
% of E	29.7	15.7	23.3	17.7	46.6	41.7	46.9	39.3
% of SE	26.1	13.4	28.3	18.3	31.3	20.9	34.0	18.4

^{&#}x27;Employed workers
²Self employed workers

5.5 GREECE (GR)

5.5.1

The Greek (GR) labour force is approximately 3,6 million, half of it only being employed workers, which is the lowest proportion in the EC.

	Greece	EC
Labour force (x 1000)	3,657	136,934
Employed (% of labour force)	50.1	80.6
Self employed (% of labour force)	49.9	19.4
Females (% of labour force)	34.9	39.0

The distribution of the labour force between sectors reflects the very strong predominance of agriculture.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		3.7	3.2	12.2		18.3	6.6	4.4	18.7
Greece	26.6		19.1		6.3		4	8.0	
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5		26.2		7.6		5	8.7	

Distribution of labour force by sectors (in %)

5.5.2 Main characteristics regarding working conditions

The work environment is characterized by a very much higher than average proportion of workers exposed to **physical constraints**. This is not only the case for issues linked to outdoors activities, such as weather constraints, heat and cold, but also to issues such as breathing/handling dangerous substances, or the design of workplaces. These figures can be partly explained by the specific economic structures of Greece, in particular the high proportion of agricultural workforce. But if economic structures were to be identical to the EC average, big differences would still subsist.

Although the gap is not as big on **organisational issues**, an important differential can be found: overall, a significantly higher than average proportion of respondents declares lacking autonomy or being submitted to time constraints.

This is aggravated by **long working hours**, mostly for independent workers, who account for half the Greek labour force.

Finally, 44.3% of the respondents have declared their health and safety at risk because of their work (EC: 30%).

Greece (GR)		Greece			EC			
	$\mathbf{E}^{1}\mathbf{S}\mathbf{E}^{2}$	Е	SE	E+SE	E	SE		
Average working day (hours)	8.5	7.9	9.0	7.9	7.7	8.8		
Average working week (hours)	47.8	41.6	54.0	40.8	38,8	49.4		
% workers working >. 10 hours/day	31.3	11.2	49.6	16.3	10.7	40.0		
% workers working > 45 hours/week	41.9	19.8	64.1	22.5	14.8	54.0		
% workers working > 60 hours/week	16.8	3.5	30.2	5.3	2.1	18.3		

^{&#}x27;Employed workers
²Self employed workers

Greece (GR)	having painful positions		working at high speed		exposed to weather constraints		exposed to heat/cold	
	GR	EC	GR	EC	GR	EC	GR	EC
% of E' & SE ² at least 50% of the time	58.3	28.9	44.2	35.0	35.8	14.8	41.7	24.3
% of E at least 50% of the time	48.0	27.3	51.8	34.5	18.1	12.4	27.0	23.2
% of SE at least 50% of the time	68.5	35.0	49.9	36.3	53.5	25.2	56.5	28.9

Greece (GR)	carrying out repetitive tasks		using computer equipment		exposed to breathing in toxic fumes		handling dangerous substances	
	GR	EC	GR	EC	GR	EC	GR	EC
% of E' & SE ² at least 50% of the time	46.9	39.0	10.3	21.6	34.2	16.5	22.3	8 9
% of E at least 50% of the time	52.7	40.1	14.7	24.5	31.2	16.7	15.1	h 7
% of SE at least 50% of the time	41.2	34.6	5.8	9.4	36.9	15.4	29 8	10 2

Greece (GR)	whose income depends on work rate		chang	unable to change task order		not having appropriate premises		th & Cety risk
	GR	EC	GR	EC	GR	EC	GR	EC
% of E' & SE ²	52.3	25.6	43.9	37.6	29.4	17.8	44.3	30.1
% ofE	27.4	17.1	57.9	41.7	21.6	17.7	35.6	28.8
% of SE	77.3	61.0	29.8	20.9	32.8	18.3	53.1	35.8

^{&#}x27;Employed workers
²'Self employed workers

5.6 SPAIN (E)

5.6.1

The Spanish (E) labour force reaches 12,3 million workers, out of which 73.3% are employees.

	Spain	EC
Labour force (x 1000)	11,709	136,934
Employed (% of labour force)	73.3	80.6
Self employed (% of labour force)	26.7	19.4
Females (% of CE)	31.5	39.0

The distribution of the labour force between sectors shows the importance of both agriculture and distributive trade/catering, the sectors where the percentage of independent workers is highest.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		2.6	9.4	12.0		22.0	5.4	5.1	20.7
Spain	14.3		24.0		8.5		5	3.2	
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5		26.2		7.6		5	8.7	

Distribution of workforce by sectors (in %)

5.6.2 Main characteristics regarding working conditions

Physical constraints as reported by the respondents are higher generally in Spain than the EC average. Not only is it the case for outdoors activities (weather conditions, heat and cold) but also for indoor ones. Musculoskeletal problems concern 20% of the workers (EC 16%). Heavy loads is also an issue and more than 15% of the employees for at least half their working time are handling dangerous substances.

Considering the high proportion of workers reporting physical constraints, it is paradoxical that the design of workplaces is found adequate by a significantly higher than EC average proportion of workers.

Working time is overall characterised by longer than average working hours. It is not only the case for independent workers but also for employees. In fact, 17.3% of them are working over 45 hours per week (EC: 14.8%).

Work intensity and time pressure appears to be significantly lower in Spain than elsewhere in the EC, while 30% of the workforce (20% of employees) have their income dependent on their work rate.

Work organisation is characterized by lower **autonomy** mainly due to employees declaring fewer possibilities to modulate tasks and speed. It is also more tayloristic as 31.6% of the respondents have permanent repetitive tasks of short duration to perform (EC: 23.3%).

This is counterbalanced by the significantly higher than average provision of training, information and support.

Finally, and one would have to investigate further the reasons, twice as many repondents (62%) as the EC average (30%) think their health and safety are at risk.

		Spain			EC			
	E1+SE2	E	SE	E+SE	E	SE		
Average working day (hours)	8.3	8.0	9.1	7.9	7.7	8.8		
Average working week (hours)	44.2	41.5	51.7	40.8	38.8	•49.4		
% workers working >: 10 hours/day	19.0	11.9	38.2	16.3	10.7	40.0		
% workers working > 45 hours/week	27.0	17.3	54.0	22.5	14.8	54.0		
% workers working > 60 hours/week	8.1	3.3	21.5	5.3	2.1	18.3		

'Employed workers

2Self employed workers

Spain (E)	exposed to noise		wea	exposed to weather constraints		handling dangerous substances		ying loads
	Е	EC	Е	EC	Е	EC	Е	EC
% of E' & SE ² at least 50% of the time	22.1	17.3	25.1	14.8	13.5	8.9	25.6	17.6
% of E at least 50% of the time	26.2	18.7	21.9	12.4	15.4	8.7	23.3	15.9
% of SE at least 50% of the time	11.1	12.3	33.5	25.2	8.0	10.2	31.9	24.2

Spam (E)	using computer equipment		repe	carrying out repetitive tasks			
	Е	EC	Е	EC			
% of E' & SE ² at least 50% of the time	14.5	21.6	43.2	39.0			
% of E at least 50% of the time	18.5	24.5	45.8	40.1			
% of SE at least 50% of the time	3.3	9.4	36.6	34.6			

Spain (E)	not having appropriate premises		unable to change task order		unable to change work speed		whose income depends on work rate	
	E	EC	E	EC	E	EC	E	EC
% of E' & SE ²	11.9	17.8	44.4	37.6	38.4	35.2	30.0	25.6
% ofE	13.4	17.7	53.1	41.7	46.6	39.3	20.4	17.1
% of SE	7.9	18.3	20.5	20.9	15.9	18.4	56.4	61.0

Spain (E)	health & safety at risk				
	Е	EC			
% of E' & SE ²	62.6	30.1			
% of E	62.8	28.8			
% of SE	61.9	35.8			

^{&#}x27;Employed workers
2 Self employed workers

5.7 FRANCE **(F)**

5.7.1

The French (F) labour force is slightly over 21 million workers, out of which 83.2% are employees.

	France	EC
Labour force (x 1000)	21,505	136,934
Employed (% of labour force)	83.2	80.6
Self employed (% of labour force)	16.8	19.4
Females (% of labour force)	42.3	39.0

The distribution of the labour force between sectors reflects the relative importance of the services in the French economy.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		4.4	9.1	9.0		17.1	6.0	8.8	30.9
France	7.2		22.5		7.5		6	2.8	
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5		26.2		7.6		5	8.7	

Distribution of labour force by sectors (in %)

5.7.2 Main characteristics regarding working conditions

As far as the **physical work environment** and **physical constraints** are concerned, the percentage of negative answers is generally significantly higher than the EC average. This is particularly the case with musculo-skeletal problems; more than 20% of the respondents indicate permanent tiring and painful positions (EC: 16%), which is probably linked to the design of workplaces. In fact France scores some of the highest negative results in the EC with regard to the **design of equipment and premises:** 20% of respondents consider their equipment and 26% their premises as inadequate.

Working times are very close to the EC averages, in particular average day and average week durations. It is worth noting that a lesser proportion of workers are submitted to long hours (over 45 or 60 hour weeks). Nightwork figures are identical to EC figures.

Intensity of work and **time pressures** are either near average or lower. The proportion of respondents indicating for example permanent work at high speed is significantly lower than average.

The organisation of work along tayloristic lines is significantly less widespread than elsewhere. This still leaves nearly 22% of respondents with permanent, short, repetitive tasks. On the other hand, the **autonomy** to organise one's own tasks is higher than average.

The area where France is definitely trailing, as it scores highest among EC countries, is the provision of **information**, **training and support** (from colleagues and hierarchy). In fact a quarter of the respondents declare having insufficient support (EC: 18%).

Overall some 32% of worker think their health and safety are at risk because of their work (EC: 30%).

France (F)		France		EC			
	E'+SE2	E	SE	E+SE	E	SE	
Average working day (hours)	8.0	7.8	8.4	7.9	7.7	8.8	
Average working week (hours)	40.9	39.5	47.7	40.8	38.8	49.4	
% workers working >- 10 hours/day	16.7	12.8	36.1	16.3	10.7	40.0	
% workers working > 45 hours/week	20.9	14.4	53.2	22.5	14.8	54.0	
% workers working > 60 hours/week	3.2	2.1	8.7	5.3	2.1	18.3	

Employed workers
Self employed workers

France (F)	exposed to noise		exposed to heat/cold		having painful positions		carrying heavy loads	
	F	EC	F	EC	F	EC	F	EC
% of E' & SE ² at least 50% of the time	23.0	17.3	28.5	24.3	33.2	28.9	22.6	17.6
% ofE at least 50% of the time	24.6	18.7	27.0	23.2	31.7	27.3	20.4	15.9
% of SE at least 50% of the time	14.6	12.3	35.8	28.9	40.2	35.0	33.2	24.2

France (F)	working at night			working at high speed			
	F	EC	F	EC			
- % of E' & SE ² at least 50% of the time	9.1	9.5	27.0	35.0			
% of E at least 50% of the time	9.3	9.6	24.7	34.5			
% of SE at least 50% of the time	8.5	9.0	38.2	36.3			

^{&#}x27;Employed workers
²Self employed workers

^{&#}x27;Employed workers
²Self employed workers

France (F)	not having appropriate equipment		e appropriate		not having sufficient training		unable to change task order	
	F	EC	F	EC	F	EC	F	EC
% of E' & SE ²	20.4	15.2	26.2	17.8	12.8	8.5	35.5	37.6
% ofE	20.9	15.7	26.9	17.7	13.4	9.1	39.2	41.7
%ofSE	17.6	13.4	22.6	18.3	9.8	6.0	17.4	20.9

France (F)	not having sufficient support					
	F	EC				
% of E' & SE ²	24.3	18.2				
% of E	25.5	16.1				
% of SE	18.5	26.9				

5.8 IRELAND (IRL)

5.8.1

The Irish (IRL) labour force is slightly over 1 million workers, of whom 73.6% are employed.

	Ireland	EC
Labour force (x 1000)	1,091	136,934
Employed (% of labour force)	73.6	80.6
Self employed (% of labour force)	26.4	19.4
Females (% of labour force)	32.2	39.0

The distribution of the labour force between sectors reflects the relative importance of the agriculture.

NACE sectors	0	1/2	3	4	5	6	7	8	9	
		4.2	5.9	10.8		19.2	4.8	7.8	23.8	
Ireland	15.8		20.9		7.7		55.6			
		5.0	10.5	10.7		17.2	7.0	7.1	27.4	
EC	7.5		26.2		7.6		5	8.7		

Distribution of labour force by sectors (in %)

5.8.2 Main characteristics regarding working conditions

Long working hours characterize working conditions in Ireland. This is particularly due to the independent workers: 78% of them working over 45 hours a week, and half of them over 65 hours a week. **Nightwork** is also a striking feature: nearly a quarter of the labour force do work at least half of the time at night (EC: 9.5%).

But for weather conditions, **physical constraints** are around EC average. The physical setting seems to provide higher- than average satisfaction: in fact the design of both equipment and premises provide the highest rate of satisfaction in the EC, which might explain lower than average reporting of musculo-skeletal problems.

Probably, as a counterpart for long working hours, **time pressure** is lower: 24% of the respondents declare work at very high speed (EC: 35%). **Autonomy** is also higher than average.

Finally the infrastructure provide much better than average **training** and **support** to workers. In fact the scores in Ireland are among EC's best.

As a result, less than 20% of workers feel their health and safety are at risk because of their work (EC: 30%).

Ireland (IRP)		Ireland		EC			
	E ¹ +SE ²	E	SE	E+SE	E	SE	
Average working day (hours)	8.3	7.8	9.7	7.9	7.7	8.8	
Average working week (hours)	45.7	39.8	62.2	40.8	38.8	49.4	
% workers working >- 10, hours/day	25.3	13.1	59.4	16.3	10.7	40.0	
% workers working > 45 hours/week	34.0	32.4	78.2	22.5	14.8	54.0	
% workers working > 60 hours/week	15.8	2.9	51.8	5.3	2.1	18.3	

¹Employed workers ²Self employed workers

Ireland (IRL)	exposed to weather constraints		working at night		having painful positions		carrying heavy loads	
	IRL	EC	IRL	EC	IRL	EC	IRL	EC
% of E' & SE ² at least 50% of the time	23.3	14.8	23.5	9.5	24.2	28.9	19.9	17.6
% of E at least 50% of the time	15.8	12.4	17.5	9.6	23.5	27.3	16.9	15.9
% of SE at least 50% of the time	44.1	25.2	18.1	9.0	26.3	35.0	28.3	24.2

Ireland (IRL)	working at high speed				
	IRL	EC			
% of E' & SE ² at least 50% of the time	24.0	35.0			
% of E at least 50% of the time	24.7	34.5			
% of SE at least 50% of the time	21.4	36.3			

Ireland (IRL)	not having appropriate equipment		e appropriate		not having sufficient training		unable to change work speed	
	IRL	EC	IRL	EC	IRL	EC	DUL	EC
% of E' & SE ²	7.5	15.2	8.8	17.8	4.2	8.5	27.1	35.2
% ofE	9.1	15.7	10.2	17.7	4.1	9.1	30.5	39.3
%ofSE	3.2	13.4	4.9	18.3	4.7	6.0	17.5	18.4

Ireland (IRL)	suffic	aving cient port	safe	th & ty at sk		
	IRL	EC	IRL	EC		
% of E'& SE ²	10.5	18.2	19.4	30.1		
% o f E	8.9	16.1	21.2	28.8		
% of SE	14.8	26.9	14.6	35.8		

^{&#}x27;Employed workers
²Self employed workers

^{&#}x27;Employed workers
²Self employed workers

5.9 ITALY (I)

5.9.1

The Italian (I) labour force is approximately 21 million, of which 68.1% are employed workers, one of EC's lowest proportions. The proportion of female workers is also among the lowest.

	Italy	EC
Labour force (x 1000)	21,101	136,934
Employed (% of labour force)	68.1	80.6
Self employed (% of labour force)	31.9	19.4
Females (% of labour force)	33.5	39.0

The distribution of the labour force is very near EC average for services, while agriculture and construction compensate smaller figures in industry.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		2.5	8.6	12.3		21.3	5.6	3.9	27.1
Italy	9.8		23.4		8.9	57.9			
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5	26.2			7.6	58.7			

Distribution of labour force by sectors (in %)

5.9.2 Main characteristics regarding working conditions

Physical constraints are very close to EC average in general, but on two issues they are much below: painful positions and handling of heavy loads.

The most important issue in the physical environment is the lack. of adequate design for equipment and premises.

The **work organisation** is characterized by lesser than average time pressure. Autonomy is also greater than average with regard the ability to modulate one's speed or rate of work. And the proportion of workers doing short repetitive tasks is also smaller.

The main issues for concern are the lack of a dynamic environment capable of providing information and support. Nearly a third of the respondents have indicated insufficient support.

Overall **working time** figures do not show significant differences with EC figures. Finally **nightwork** is one of the most reduced.

Italy (I)		Italy			EC			
	E'+SE ²	E	SE	E+SE	E	SE		
Average working day (hours)	7.6	7.2	8.4	7.9	7.7	8.8		
Average working week (hours)	41.3	38.7	47.0	40.8	38.8	49.4		
% workers working >. 10 hours/day	14.6	5.7	33.6	16.3	10.7	40.0		
% workers working > 45 hours/week	29.2	17.1	54.6	22.5	14.8	54.0		
% workers working > 60 hours/week	4.9	1.2	12.6	5.3	2.1	18.3		

^{&#}x27;Employed workers
2 Self employed workers

Italy (I)	having painful positions		working at night		handling heavy loads		working to tight deadlines	
	I	EC	I	EC	I	EC	I	EC
% of E' & SE ² at least 50% of the time	32.0	28.9	6.2	9.5	14.2	17.6	29.0	37.4
% ofE at least 50% of the time	27.0	27.3	5.1	9.6	10.2	15.9	19.8	38.3
% of SE at least 50% of the time	42.6	35.0	8.4	9.0	22.9	24.2	23.7	33.5

Italy (I)	carrying out repetitive tasks		not having appropriate equipment		not having appropriate premises		
	I	EC	I	EC	I	EC	
% of E' & SE ² at least 50% of the time	31.6	39.0	21.4	15.2	27.0	17.8	
% of E at least 50% of the time	31.5	40.1	23.5	15.7	27.7	17.7	
% of SE at least 50% of the time	32.0	34.6	17.0	13.4	25.4	18.3	

Italy (I)	whose income depends on work rate		suffi	not having sufficient information		unable to change work speed		aving cient port
	I	EC	I	EC	I	EC	I	EC
% of E' & SE ²	29.7	25.6	18.3	11.5	28.6	35.2	28.6	18.2
% ofE	14.0	17.1	17.5	11.6	34.9	39.3	21.9	16.1
% ofSE	63.0	61.0	20.1	11.3	15.4	18.4	43.0	26.9

^{&#}x27;Employed workers
2'Self employed workers

5.10 LUXEMBOURG (L)

5.10.1

The Luxembourg (L) labour force is 152,000, of which 86.7% are employed workers.

	Luxembourg	EC
Labour force (x 1000)	152	136,934
Employed (% of labour force)	86.7	80.6
Self employed (% of labour force)	13.3	19.4
Females (% of labour force)	34.5	39.0

The distribution of the workforce between sectors reflects the importance of services (in particular retailing and banking) and the weight of the steel industry (code NACE 2).

NACE sectors	0	1/2	3	4	5	6	7	8	9
		10.5	3.4	12.6		20.8	6.6	11.6	28.3
L	3.5		26.5		2.7	67.3			
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5	26.2			7.6		5	8.7	

Distribution of labour force by sectors (in

5.10.2 Main characteristics regarding working conditions

Overall, a smaller proportion of workers is reporting **physical constraints**, except for noise and exposure to fumes and dangerous substances. Design of equipment and premises is better than average.

While **autonomy** is lower than average, this is mainly due to the high proportion of independent workers who have reported negatively.

Time **pressure** is well below average: 26% of respondents have indicated working at very high speed (EC: 35%) and 29% to tight deadlines (EC: 37.4%). Long working hours are less widespread than elsewhere, while weekly and daily averages are identical to EC average.

Finally the infrastructure provides support, training and information well above average.

Overall, 33% of workers think their health and safety are at risk because of their work (EC:30%).

Luxembourg (L)	I	Luxembour	g		EC			
	E^1+SE^2	E	SE	E+SE	E	SE		
Average working day (hours)	7.9	7.7	9.0	7.9	7.7	8.8		
Average working week (hours)	41.0	39.0	53.8	40.8	38.8	49.4		
% workers working >: 10 hours/day	10.4	5.7	43.4	16.3	10.7	40.0		
% workers working > 45 hours/week	15.7	7-6	68.6	22.5	14.8	54.0		
% workers working > 60 hours/week	4.0	0.3	28.4	5.3	2.1	18.3		

¹Employed workers

²Self employed workers

Luxembourg	using computer equipment		exposed to noise		working at high speed		having painful positions	
	L	EC	L	EC	L	EC	L	EC
% of E' & SE ² at least 50% of the time	27.2	21.6	19.2	17.3	26.8	35.0	18.6	28.9
% of E at least 50% of the time	29.1	24.5	21.2	18.7	27.6	34.5	19.1	27.3
% of SE at least 50% of the time	14.7	9.4	7.0	12.3	22.0	36.3	15.4	35.0

Luxembourg	exposed to breathing in toxic fumes				
	L	EC			
% of E" & SE ² at least 50% of the time	18.7	16.5			
% of E at least 50% of the time	19.5	16.7			
% of SE at least 50% of the time	12.8	15.4			

Luxembourg	health & safety at risk		unable to change task order		not having sufficient training		not having sufficient information	
	L	EC	L	EC	L	EC	L	EC
% of E' & SE ²	33.6	30.1	41.3	37.6	4.6	8.5	7.4	11.5
% of E	33.4	28.8	40.3	41.7	4.8	9.1	7.5	11.6
% of SE	34.6	35.8	47.2	20.9	3.0	6.0	6.2	11.3

5.11 NETHERLANDS (NL)

5.11.1

The Dutch (NL) labour force is nearly 6 million, out of which 87.5% are employees.

	Netherlands	EC
Labour force	5.910	136,934
Employed (% of labour force)	87.5	80.6
Self employed (% of labour force)	12.5	19.4
Females (% of labour force)	37.6	39.0

The distribution of the workforce by sectors reflects the strong predominance of the services in The Netherlands.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		4.1	6.5	11.0		15.0	9.8	10.5	33.3
NL	4.9		21.6		4.9		6	8.6	
		5.0	10.5	10.7		17.2	7.0	7.1	274
EC	7.5		26.2		7.6		5	8.7	

Distribution of workforce by sectors (in %)

5.11.2 Main characteristics regarding working conditions

The Netherlands, probably and partly due to the fact that it has a lower proportion of its workforce in agriculture and in distribution (where working time is high) and a higher proportion in "other services" (where working time is low), has the lowest average working time among EC countries and the smallest proportion of workers having long working hours. Nightwork is also less widespread.

Shorter working hours are nevertheless paid by a higher work intensity (working at high speed in particular), while paradoxically, the survey indicates the lowest proportion of work rate related incomes in the EC.

Work organisation is characterized by two contradictory results. On the one hand the tayloristic organisation of work is more widespread than anywhere else (nearly a third of respondents declare permanently doing short repetitive tasks) and on the other hand autonomy (possibility to organise one's tasks and rythm) is higher than in any other EC country.

Physical constraints are generally lower than average: sometimes very much so. For example, musculo-skeletal problems, which are a major issue at EC level (and point at improved workplace design), are definitely less of an issue in The Netherlands.

Finally The Netherlands are the country in the EC with fewest respondents (15.1%) claiming their health and safety are at risk because of their work (EC: 30%).

]	Netherlands	S		EC			
	E ¹ SE ²	E	SE	E+SE	E	SE		
Average working day (hours)	7.8	7.5	9.6	7.9	7.7	8.8		
Average working week (hours)	37.3	35.8	47.9	40.8	38.8	49.4		
% workers working >- 10 hours/day	11.9	6.3	51.1	16.3	10.7	40.0		
% workers working > 45 hours/week	12.7	7.5	48.6	22.5	14.8	54.0		
% workers working > 60 hours/week	5.0	0.9	33.2	5.3	2.1	18.3		

Netherlands (NL)	working at night		using computer equipment		working at high speed		carrying out repetitive tasks	
	NL	EC	ML	EC	NL	EC	NL	EC
% of E' & SE ² at least 50% of the time	6.1	9.5	30.8	21.6	46.9	35.0	43.9	39.0
% of E at least 50% of the time	4.7	9.6	31.7	24.5	47.2	34.5	45.5	40.1
% of SE at least 50% of the time	15.6	9.0	24.9	9.4	44.6	36.3	32.4	34.6

Netherlands (NL)	having painful positions				
	NL	EC			
% of E' & SE ² at least 50% of the time	11.2	28.9			
% of E at least 50% of the time	10.6	27.3			
% of SE at least 50% of the time	15.5	35.0			

Netherlands (NL)	unable to change task order		unable to change work speed		whose income depends on work rate		health & safety at risk	
	NL	EC	NL	EC	NL	EC	NL	EC
% of E' & SE ²	25.7	37.6	22.0	35.2	13.0	25.6	15.1	30.1
% ofE	27.1	41.7	23.0	39.3	6.9	17.1	14.8	28.8
% ofSE	15.7	20.9	14.6	18.4	55.0	61.0	17.7	35.8

'Employed workers
'Self employed workers

5.12 **PORTUGAL** (P)

5.12.1

The Portuguese (P) labour force is 4.5 million workers, of whom 29.3% are self employed, which is significantly higher than EC average.

	Portugal	EC
Labour force (x 1000)	4,453	136,934
Employed (% of labour force)	70.7	80.6
Self employed (% of labour force)	29.3	19.4
Females (% of labour force)	41.2	39.0

The distribution of the labour force between sectors reflects the weight: of agriculture. Among EC countries, Portugal has the highest proportion of its labour force in the non-metal manufacturing industry.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		4.3	5.3	16.5		16.6	4.3	3.5	20 2
Portugal	21.2		25.5		8.5	44.2			
		5.0	10.5	10.7		17.2	7.0	7.1	27 4
EC	7.5		26.2		7.6		5	8.7	

Distribution of labour force by sectors (in

5.12.2 Main characteristics regarding working conditions

The **physical environment** in on almost all issues characterized by higher than average constraints. This is only partly due to the particular economic structure and geographical position (for weather) of Portugal: even if economic structures were identical to the EC average, some significant differences could still be seen.

Working time figures show significantly higher than EC average week duration and slightly above average proportion of workers working long hours.

Time pressure and time constraints are very close to EC averages (though deadline constraints are significantly lower), while the dependence of income on work rate is very much higher than EC level.

Finally, 31.6% of workers consider that their health and safety are at risk because of their work (EC: 30%).

Portugal (P)		Portugal			EC			
	E ¹ +SE ²	E	SE	E+SE	E	SE		
Average working day (hours)	8.3	8.0	9.1	7.9	7.7	8.8		
Average working week (hours)	45.6	42.3	53.4	40.8	38.8	49.4		
% workers working >- 10 hours/day	16.3	6.9	39.2	16.3	10.7	40.0		
% workers working > 45 hours/week	29.5	17.3	59.1	22.5	14.8	54.0		
% workers working > 60 hours/week	7.1	2.0	19.3	5.3	2.1	18.3		

^{&#}x27;Employed workers ²Self employed workers

Portugal (P)	exposed to weather constraints		exposed to heat/cold		having painful positions		carrying heavy loads	
	P	EC	P	EC	P	EC	P	EC
% of E' & SE ² at least 50% of the time	24.7	17.3	34.0	24.3	41.5	28.9	21.3	17.6
% of E at least 50% of the time	19.4	18.7	30.8	23.2	41.2	27.3	20.7	15.9
% of SE at least 50% of the time	37.1	12.3	42.1	28.9	42.4	35.0	22.5	24.2

Portugal (P)	using computer equipment		working at high speed		working to tight deadlines		carrying out repetitive tasks	
	P	EC	P	EC	P	EC	P	EC
% of E' & SE= at least 50% of the time	11.6	21.6	36.7	35.0	22.6	37.4	39.5	39.0
% of E at least 50% of the time	15.5	24.5	37.7	34.5	24.5	38.3	41.1	40.1
% of SE at least 50% of the time	2.4	9.4	34.4	36.3	17.8	33.5	31.2	34.6

Portugal (P)	not having appropriate equipment		appro	not having appropriate premises		not having sufficient training		ole to e task der
	P	EC	P	EC	P	EC	P	EC
% of E' & SE ²	20.3	15.2	26.5	17.8	11.9	8.5	41.9	376
% ofE	16.6	15.7	24.9	17.7	12.4	9.1	51.8	41.7
% of SE	29.2	13.4	30.3	18.3	10.7	6.0	17.8	20.9

'Employed workers
'Self employed workers

Portugal (P)	not having sufficient support		sufficient		change	change work		change work depends on		depends on		
	P	EC	P	EC	P	EC						
% of E' & SE ²	21.3	18.2	35.3	35.2	36.4	25.6						
% ofE	14.1	16.1	43.9	39.3	24.3	17.1						
%ofSE	38.6	26.9	14.5	18.4	65.5	61.0						

'Employed workers
'Self employed workers

5.13 UNITED KINGDOM (UK)

5.13.1

The United Kingdom (UK) labour force is 25,5 million workers, of whom 86.4% are employees.

	United Kingdom	EC
Labour force (x 1000)	25,660	136,934
Employed (% of labour force)	86.4	80.6
Self employed (% of labour force)	13.6	19.4
Females (% of labour force)	42.6	39.0

The distribution of the workforce by sectors reflects the predominance of the services in the UK. The UK also has the EC lowest proportion of its labour force in agriculture.

NACE sectors	0	1/2	3	4	5	6	7	8	9
		5.4	10.4	9.5		15.5	11.3	10.2	27.8
UK	2.4		25.3			64.8			
		5.0	10.5	10.7		17.2	7.0	7.1	27.4
EC	7.5	26.2			7.6	58.7			

Distribution of labour force by sectors (in %)

5.13.2 Main characteristics regarding working conditions

Physical constraints are generally close to the EC average, except on two issues. On the one hand, the respondents complain less about musculo-skeletal problems. This is corroborated by the fact that the quality of the physical setting (machinery and premises) is also rated better than average. This leads to think that the design of workplaces is given higher than average consideration. On the other hand, exposure to fumes, dust and toxic substances is higher than average.

Work organisation is characterized by a well above average autonomy. Time pressure is also relatively low. This could probably be linked to one of EC's highest computer equipment ratio.

The lack of adequate information is also reported by one of the largest proportion of respondents.

Working time is characterized by some of EC's lowest average working days and working weeks durations. The UK is the country where nightwork is most widespread: 7.4% of respondents declare permanent nightwork (EC: 4.9%).

United Kingdom (UK)	Uı	nited Kingdo	EC	EC		
	E1SE2	E	SE	E+SE	E	SE
Average working day (hours)	7.7	7.6	8.3	7.9	7.7	8.8
Average working week (hours)	38.5	37.4	45.8	40.8	38.8	49.4
% workers working >: 10 hours/day	16.8	15.8	30.8	16.3	10.7	40.0
% workers working > 45 hours/week	22.4	19.7	39.9	22.5	14.8	54.0
% workers working > 60 hours/week	5.8	3.9	18.4	5.3	2.1	18.3

'Employed workers 2Self employed workers

United Kingdom (UK)	using computer equipment		working at night		working at high speed		working to tight deadlines	
(CII)	UK	EC	UK	EC	UK	EC	UK	EC
% of E' & SE ² at least 50% of the time	29.1	21.6	16.2	9.5	30.3	35.0	50.8	37.4
% of E at least 50% of the time	31.7	24.5	16.3	9.6	31.5	34.5	51.5	38.3
% of SE at least 50% of the time	12.8	9.4	14.9	9.0	22.7	36.3	47.0	33.5

United Kingdom (UK)	breath	sed to ing in fumes			
(- /	UK	EC			
% of E' & SE ² at least 50% of the time	17.9	16.5			
% of E at least 50% of the time	18.1	16.7			
% of SE at least 50% of the time	16.3	15.4			

United Kingdom (UK)	deper	whose income depends on work rate		unable to change task order		unable to change work speed		not having adequate information	
	UK	EC	UK	EC	UK	EC	UK	EC	
% of E'& SE ²	23.4	25.6	30.4	37.6	28.5	35.2	14.7	11.5	
% of E	16.1	17.1	32.1	41.7	31.0	39.3	15.1	11.6	
% of SE	69.5	61.0	19.5	20.9	12.0	18.4	12.5	11.3	

^{&#}x27;Employed workers
²Self employed workers

5.14 CONCLUSIONS

A country comparison based on the survey indicates a **North/South divide** within the EC with regard to working conditions.

Broadly speaking, northern Europe benefits especially a better physical work environment than southern Europe, insofar naturally as reflected by the respondents' answers to the present survey questionnaire. To explain some of these differences, one has naturally to take into account cultural and socio-economical differences, which make comparisons difficult and not always relevant. A more relevant comparison can be made between countries by wiping away differences between economical structures. Analysis shows that if the member states had the same economical structure (same division of labour force between sectors):

some would fare better on the issues reviewed in the survey (Ireland and former East Germany) or even much better (Spain, Portugal and Greece);

some would not fare as well (Belgium, Denmark, The Netherlands, and the United Kingdom);

some would fare identically (France, former West Germany, Luxembourg and Italy).

This simply shows that some countries benefit from their structure and others are handicapped by theirs. But even if the economic structures were identical, gaps between the various countries would still exist and could be explained by, for example, the policies carried out by the companies, the social partners and the public authorities.

On the basis of the existing survey results, the EC member states can be divided roughly (in some specific issues the clustering can be different) into three groups.

The first cluster includes Belgium, Denmark, Germany (WD), Luxembourg, The Netherlands and the United Kingdom. These countries can be characterized by which a good infrastructure provides support, training information, as well as appropriate equipment and premises. Use of computer equipment is extensive. Physical constraints are relatively limited, while workers tend rather to point at organisational issues. Working conditions are in fact pulled into two different directions; high autonomy (except in Germany) on the one hand which is influenced by the weight of the services sector (in particular banking and finance, and distribution); time pressure and taylorism on the other hand which are industry-linked (energy, chemical industry and manufacturing).

Countries Constraints	В	DK	WD	OD	GR	SP	F
Noise		_	_	_	+	+	+
Extreme weather					+++		
Heat/cold	_		- -		+++	+++	+
Air pollution	_	_		+	+++		
Handling dangerous substances		_	_	_	+++	+	
Painful positions	_		<u> </u>		+++	+	+
Heavy loads		_	_		++	++	+
Inadequate equipment	_	_	- -	++		_	+
Inadequate premises	_			+	++		+
Long working hours					+++	+	
Nightwork	_				+		
Computers		++				_	+
Time pressure	-	++	++	+++	+++		
Repetitive cycles			+	+++	++	+	_
Lack of autonomy	_	-	++	+++	+++	++	
Rate related income	-	++		++	+++	+	
Lack of information		~					
Lack of training	_	+		+	, 	_	+
Lack of support	-	~			++	_	+
Health at risk			_		+++	+++	

⁺ denotes more than average exposure to constraints.- denotes less than average exposure to constraints.

Countries Constraints	IRL	IT	L	NL	P	UK	
Noise	+						
Extreme weather	++				++		
Heat/cold					++		
Air pollution					+		
Handling dangerous substances				_	į		
Painful positions	_				++	-	
Heavy loads	+	_	_		+		
Inadequate equipment		+			+	_	
Inadequate premises		++		_	++	_	
Long working hours	+++	+			++		
Nightwork	++	-		_		++	
Computers		_	++	++		++	
Time pressure		-		++		-	
Repetitive cycles		-	_	+	_		
Lack of autonomy	_	_	+		+		
Rate related income	++	+			++		
Lack of information		++				+	
Lack of training	~-		_		+ :	:	
Lack of support		++	-		+		
Health at risk		_	+			-	

⁺ denotes more than average exposure to constraints.- denotes less than average exposure to constraints.

The **second cluster** includes Greece, Spain and Portugal. The working conditions in these countries are characterized by longer working hours and by physical constraints - heat and cold, heavy loads, weather constraints, painful positions, risks of pollution from dangerous substances. Time pressure is high. Health is seen as being more at risk from work than elsewhere. The proportion of self employed is much higher than EC average in these countries and the weight of agriculture is important.

The **third cluster** includes countries which do not fit in the two above described clusters. These countries - France, Italy and Ireland (and also former East Germany) - are in an in-between situation, sometimes for different reasons. France, Italy and former East Germany are characterized by poor design of workplaces and under average provision for information, training and support. But whereas autonomy is high in France, Italy and Ireland, it is very low in former East Germany. France has a high level of physical constraints. Overall, each of the countries in this cluster is pulled down by some strong features such as poor design or long workin; hours, which explain their intermediate position.

ANNEX 1- THE QUESTIONNAIRE

The order of the questionnaires in the EC languages is as follows:

Danish
German
English
Spanish
French
Greek
Italian
Dutch
Portuguese

DANSK

Vælg venligst mellem følgende svar: Hele tiden/Næsten hele tiden/Ca. 3/4 af tiden/Ca. 1/2 af tiden/Ca. 1/4 af tiden/Næsten aldrig/Aldrig/Ved ikke

Når De er på arbejde, er De så udsat for:

- støj så kraftig, at De bliver nødt til at hæve stemmen, når De skal tale med andre?
- 2 dårlige vejrforhold såsom regn, blæst, sne?
- 3 stærk varme eller kulde indendørs eller udendørs?
- 4 indånding af dampe, røg, støv eller farlige stoffer?
- 5 håndtering og/eller berøring af farlige stoffer eller materialer?

Indebærer Deres arbejde:

- 6 smertefulde og trættende stillinger?
- 7 at bære eller flytte tunge ting?
- 8 at arbejde i et meget højt tempo?
- 9 at arbejde med snævre tidsfrister/deadlines?
- 10 at udføre korte gentagne opgaver?
- 11 benyttelse af dataudstyr?
- 12 natarbeide?

Vælg venligst mellem følgende svar: Ja/Nej/Ved ikke

- Har De mulighed for at vælge eller ændre:
 - a) hvornår og hvordan Deres arbejde skal løses?
 - b) Deres arbejdstempo eller Deres arbejdsindsats?
- 14 For at De kan udføre Deres arbejde, har De så:
 - a) klar og tilstrækkelig information?
 - b) tilstrækkelig uddannelse/efteruddannelse og erfaring?
 - c) passende maskiner og/eller værktøj?
 - d) passende lokaler og møbler?
 - e) tilstrækkelig støtte fra overordnede og kolleger?
- 15 Afhænger Deres løn eller indkomst af Deres personlige arbejdsindsats?
- 16 Tror De, at Deres sundhed eller sikkerhed **er** i fare på grund af Deres arbejde?
- Har De inden for de sidste 10 år skiftet job for at få et job med højere sikkerhed mod ulykker eller et mere sundt job?
 - a) Ja, jeg har
 - b) Nej, men jeg har prøvet
 - c) Nej, og jeg har ikke prøvet
- 18 Hvor mange timer arbeider De normalt om dagen?
- 19 Hvor mange timer arbejder De normalt om ugen?

DEUTSCH

Mögliche Antworten: ständig/fast ständig/ungefähr 3/4 der Zeit/ungefähr 1/2 der Zeit/ungefähr 1/4 der Zeit/fast nie/nie/weiß nicht

Sind Sie bei ihrer Arbeit folgende Bedingungen ausgesetzt?

- 1 Der Lärm ist so laut, daß man sich nur mit sehr lauten Stimme mit anderen unterhalten kann
- 2 Schlechte Wetterverhältnisse wie Regen, Wind, Schnee
- 3 Hitze oder Kälte entweder drinnen oder draußen
- 4 Einatmen von Dämpfen, Rauch, Staub oder gefährlichen Substanzen
- 5 Umgang mit oder Berühren von gefährlichen Substanzen oder Materialien

Schließt ihre Arbeit folgendes ein?

- 6 Schmerzhafte oder ermüdende Haltungen
- 7 Tragen oder Bewegen schwerer Lasten
- 8 Hohes Arbeitstempo
- 9 Sehr kurzfristige Termine, strikte Einhaltung der Termine
- 10 Ausführen kurzer, sich wiederholender Arbeiten
- 11 Arbeiten mit Computern
- 12 Nachtarbeit

Mögliche Antworten: ja/nein/weiß nicht

- 13 Können Sie sich folgendes aussuchen oder ändern?
 - a) Die Reihenfolge der Aufgaben oder die Arbeitsmethode
 - b) Die Geschwindigkeit oder den Arbeitsrhythmus
- 14 Haben Sie, um ihre Arbeit auszuführen:
 - a) Klare und ausreichende Information?
 - b) Ausreichende Ausbildung und Werkzeuge?
 - c) Geeignete Maschinen und Werkzeuge?
 - d) Geeignete Räumlichkeiten und Einrichtungen?
 - e) Ausreichende Unterstützung durch Vorgesetzte und Kollegen?
- 15 Ist ihr Lohn oder Gehalt von Ihrem Arbeitsrhythmus abhängig?
- Glauben Sie, daß Ihre Gesundheit oder Sicherheit durch die Ausübung Ihrer beruflichen Tätigkeit gefährdet ist?
- Haben Sie in den letzten 10 Jahren Ihren Arbeitsplatz gewechselt, um eine gesündere oder weniger gefährliche Tätigkeit auszuüben?
 - a) Ja, habe ich
 - b) Nein, aber ich habe es versucht
 - c) Nein, und ich habe es auch nicht versucht
 - d) Weiß nicht
- 18 Wie viele Stunden arbeiten Sie normalerweise am Tag?
- 19 Wieviele Stunden arbeiten Sie normalerweise in der Woche?

ENGLISH

Possible answers: All the time/Almost all the time/Around 3/4 of the time/Around half the time/Around 1/4 of the time/Almost never/Never/I don't

When at work, are you exposed to:

- Noise so loud that you would have to raise your voice to talk to
- Bad weather conditions such as rain, wind, snow?
- Heat or cold either indoor or outdoor?
- Breathing in vapours, fumes, dust or dangerous substances?
- Handling and/or touching dangerous substances or materials?

Does your work involve:

- Painful or tiring positions
- Carrying or moving heavy loads? 7
- 8 Working at a very high speed?
- 9 working to tight deadlines?
- Carrying out short repetitive tasks? 10
- 11 Using computer equipment?
- Working at night?

Possible anwers: Yes/No/I don't know

- 13 Do you have the possibility to choose or change:
 - a) your order of tasks or your methods of work?
 - b) your speed or rate of work?
- In order to carry out your work do you have: a) clear and adequate information? 14

 - b) sufficient training and experience?
 - c) appropriate machines and tools?
 - d) appropriate premises and furniture
 - e) sufficient support from superiors or colleagues?
- 15 Do your wages or income depend on your work rate?
- 16 Do you think your health or safety is at risk because of your work?
- 17 Over the past 10 years have you changed job in order to seek a healthier or safer work?
 - a) yes, I have
 - b) no, but I tried
 - c) no, and did not try
 - d) I don't know
- 18 How many hours do you usually work per day?
- 19 How many hours do you usually work per week?

ESPAÑOL

Posibles respuestas: Siempre/Casi siempre/Mas o menos las 3/4 partes del tiempo/Mas o menos la mitad del tiempo/Mas o menos 1/4 parte del tiempo/Casi nunca/Nunca/N.s.

¿Cuando esta ud. en su trabajo, esta ud. expuesto a ...?

- Ruidos tan fuertes que tiene que levantar la voz para hablar con la gente
- Malas condiciones climáticas como lluvia, viento, nieve, ...
- 3 Calor o frió, bien en el interior o en el exterior
- 4 Respirar vapores, humos, polvo o substancias peligrosas/tóxicas
- 5 Manejar y/o tocar substancias o materiales peligrosos

¿Le impone su trabajo...?

- 6 Posiciones dorolosas y que fatigan
- 7 Cargar o mover cargas pesadas
- 8 Trabajar a gran velocidad
- 9 Trabajar con fechas tope, muy estrictas y cortas
- 10 Hacer trabajos cortos y repetitivos
- 11 Utilizar ordenadores/material informático
- 12 Trabajar por la noche

Posibles respuestas: Si/No/N.s.

- 13 ¿La posibilidad de elegir o cambiar...?
 - a) El orden de sus trabajos o sus methodos de trabajar
 - b) Su velocidad o ritmo de trabajo
- i.Para poder llevar a cabo su trabajo ... dispone ud. de ...?
 - a) Información clara y adecuada
 - b) Formación y experiencia suficiente
 - c) Máquinas y herramientas apropriadas
 - d) Lugar de trabajo y mobiliario adecuado
 - e) Apoyo suficiente de superiores y/o compañeros
- 15 ¿Depende su salario o remuneración de su ritmo de trabajo?
- 16 ¿Cree ud.: Que arriesga su salud o seguridad en su trabajo?
- in los últimos 10 años, ha cambiado ud. de trabajo por encontrar otro mas sano o menos peligroso?
 - a) Si
 - b) No, pero lo he intentado
 - c) No, ni lo he intentado
 - d) N.s.
- 18 ¿Cuantas horas al dia trabajo ud.?
- 19 ¿Cuantas horas a la semana trabaja ud.?

FRANÇAIS

Réponses possibles: Tout le temps/Presque tout le temps/Environ les 3/4 du temps/Environ la moitié du temps/Environ 1/4 du temps/Presque jamais/Jamais/N.S.P.

A l'occasion de votre travail, êtes-vous exposé à ?

Des bruits si forts que, par exemple, vous devez élever la voix pour parler aux gens ?

Des intempéries telles que pluie, vent, neige, ...?

- 3 La chaleur ou au froid que ce soit à l'intérieur des locaux ou à l'extérieur ?
- 4 Respirer des vapeurs, fumées, poussières ou des substances dangereuses?
- 5 Etre en contact avec, ou manipuler, des substances ou matériaux dangereux ?

L'exécution de votre travail vous impose t-elle :

- 6 Des positions douloureuses ou fatigantes ?
- 7 De soulever ou déplacer des charges lourdes ?
- 8 Des cadences de travail élevées?
- 9 Des délais très stricts et très courts ?
- 10 Des tâches répétitives de faible durée ?
- 11 D'utiliser du matériel informatique ?
- De travailler la nuit ?

Réponses possibles: Qui/Non/NSP

- 13 Avez-vous la possibilité de choisir ou de modifier :
 - a) l'ordre de vos tâches ou votre méthode de travail
 - b) votre cadence ou vitesse de travail?
- 14 Afin de mener à bien votre travail disposez-vous :
 - a) d'informations claires et suffisantes ?
 - b) d'une formation et d'une expérience suffisantes ?
 - c) de machines et outils bien adaptés ?
 - d) de locaux et mobilier bien adaptés ?
 - e) d'un soutien suffisant de la part de vos supérieurs ou collègues?
- Votre salaire ou votre rémunération dépend t-elle de votre rythme de travail personnel ?
- Pensez-vous qu'à l'occasion de votre travail, votre santé ou votre sécurité soit menacée?
- Durant les 10 dernières années, avez-vous changé de votre travail afin de bénéficier de conditions de travail moins dangereuses ou meilleures pour votre santé ?
 - a) oui
 - b) non, mais j'ai essayé
 - c) non et je n'ai pas essayé
 - d) N.S.P.
- 18 Combien d'heures par jour travaillez-vous habituellement ?
- 19 Combien d'heures par semaine travaillez-vous habituellement ?

EAAHNIKA

Πιθανές απαντήσεις: Όλο το χρόνο εργασίας/Σχεδόν όλο το χρόνο εργασίας/Περίπου 3/4 του χρόνου εργασίας/Περίπου 1/2 του χρόνου εργασίας/Περίπου 1/4 του χρόνου εργασίας/Σχεδόν ποτέ/Ποτέ/Δεν γνωρίζω

Στην εργασία σας, είστε εκτεθειμένος/η σε...:

- 1. Θόρυβο τόσο δυνατό που θα χρειαζόταν να υψώσετε τη φωνή σας για να μιλήσετε σε ανθρώπους;
- 2. Ασχημες καιρικές συνθήκες όπως βροχή, αέρας, χιόνι;
- 3. Ζέστη ή κρύο είτε μέσα είτε έξω
- 4. Ατμούς, καπνούς, σκόνη ή επικίνδυνες ουσίες που τις αναπνέετε;
- 5. Επικίνδυνες ουσίες ή υλικά που τα χρησιμοποιείτε και/ή τα αγγίζετε

Η εργασία σας σας υποχρεώνει σε...:

- 6. Επίπονες ή κουραστικές στάσεις;
- 7. Μεταφορά ή μετακίνηση βαρέων φορτίων;
- 8. Εργασία σε πολύ ταχύ ρυθμό;
- 9. Εργασία σε στενά χρονικά περιθώρια
- 10. Διεκπαιρέωση μικρών επαναλαμβανομένων ασχολιών;
- 11. Χρησιμοποίηση ηλεκτρονικών υπολογιστών;
- 12. Εργασία κατά τη διάρκεια της νύχτας;

Πιθανές απαντήσεις: Ναι/Όχι/Δεν γνωρίζω

- Έχετε τη δυνατότητα να διαλέγετε ή να αλλάζετε...;
 α) την σειρά των ασχολιών σας ή τις μεθόδους της εργασίας σας;
 - β) την ταχύτητα ή τον ρυθμό της εργασίας;
- 14. Για να διεκπεραιώσετε την εργασία σας, έχετε...:
 - α) Σαφείς και επαρκείς πληροφορίες;
 - β) Επαρκή εκπαίδευση και πείρα
 - γ) Κατάλληλα μηχανήματα και εργαλεία;
 - δ) Κατάλληλους χώρους και έπιπλα;
 - ε) Επαρκή βοήθεια και ανώτερους ή από συναδέλφους;
- 15. Ο μισθός σας ή οι αποδοχές σας εξαρτώνται από τον ρυθμό της εργασίας σας;
- 16. Νομίζετε ότι η υγεία ή η ασφάλειά σας βρίσκεται σε κίνδυνο εξαιτίας της εργασίας σας;

Στα τελευταία 10 χρόνια, έχετε αλλάξει εργασία για να ψάξετε να βρείτε κάποια άλλη, πιο υγιεινή και πιο ασφαλή; 17.

α) Ναι, έχω αλλάξει

- 18. Πόσες ώρες εργάζεσθε συνήθως την ημέρα;
- 19. Πόσες ώρες εργάζεσθε συνήθως την εβδομάδα;

β) Οχί, αλλά προσπάθησα γ) Οχι, και ούτε προσπάθησα δ) Δεν γνωρίζω

ITALIANO

Risposte possibili: Per tutto il tempo/Quasi tutto il tempo/Circa i del tempo/Circa la metà del tempo/Circa % del tempo/Quasi mai/Mai/Non so

Quando lavora è esposto a:

- 1 Rumori così forti da dover alzare la voce per parlare alla gente
- Intemperie come pioggia, vento, neve
- 3 Caldo o freddo a seconda che si tratti di locali all'interno o all'esterno
- 4 Respirare vapori, fumi, polveri o sostanze pericolose
- 5 Essere a contatto con e/o manipolare sostanze o materiali pericolosi

L'esecuzione del suo lavoro le impone:

- 6 Delle posizioni dolorose o stancanti
- 7 Di sollevare o spostare carichi pesanti
- 8 Dei ritmi elevati di lavoro
- 9 Delle scadenze troppo rigorose e troppo brevi
- 10 Dei compiti ripetitivi di breve durata
- 11 Di utilizzare del materiale informatico
- 12 Di lavorare di notte

Risposte possibili: Si/No/Non so

- Ha la possibilità di scegliere e modificare:
 - a) L'ordine dei suoi compiti/mansioni o il suo metodo di lavoro
 - b) II suo ritmo o velocità di lavoro
- 14 Per svolgere il suo lavoro, lei ha a disposizione ...
 - a) Delle informazioni chiare ed esaurienti
 - b) Una formazione ed esperienza sufficiente
 - e) I macchinari e gli strumenti appropriati
 - d) Locali e arredamento appropriati
 - e) Di un sufficiente supporto da parte dei suoi superiori o colleghi
- Mi può dire se il suo salario o reddito dipende dal suo ritmo di lavoro?
- Lei pensa che la sua salute o la sua sicurezza siano minacciate a causa del suo lavoro?
- Negli ultimi 10 anni, lei ha cambiato lavoro per trovarne uno meno pericoloso o migliore per la sua salute?
 - a) Si
 - b) No, ma ci ho provato
 - e) No e non ci ho mai provato
 - d) Non so
- 18 Quante ore al giorno lavora abitualmente?
- 19 Quante ore alla settimana lavora abitualmente?

NEDERLANDS

altijd/bijna altijd/ongeveer driekwart van antwoorden: tijd/ongeveer de helft van de tijd/ongeveer een kwart van de tijd/bijna nooit/nooit/ik weet het niet

Bent u in uw werk blootgesteld aan ...

- geluiden die zo sterk zijn dat u uw stem moet verheffen om met andere mensen te praten?
- 2 slechte weersomstandigheden, zoals regen, wind, sneeuw. ...?
- 3 hitte of kou - hetzij binnen of buiten?
- 4 inademing van dampen, rook, stof of gevaarlijke stoffen?
- 5 hanteren van en/of contact met gevaarlijke stoffen of materialen?

- Moet u zelf voor de uitvoering van uw werk ... 6 pijnlijke of vermoeiende houdingen aannemen?
- 1 zware lasten tillen of verplaatsen?
- 8 in hoog tempo werken?
- werken met zeer strikte en korte levertijden?
- 10 kortdurende, steeds terugkerende werkzaamheden uitvoeren?
- werken met computers? 11
- 12. 's nachts werken?

Mogelijke antwoorden: ja/nee/ik weet het niet

- Heeft u de mogelijkheid om de volgorde van uw werkzaamheden of uw 13a manier van werken zelf te bepalen of te veranderen?
- 13b Heeft u de mogelijkheid om uw tempo of snelheid van werken zelf te bepalen of te veranderen?
- 14 Beschikt u, om uw werk goed uit te voeren, over ...
 - a) voldoende en duidelijke informatie?
 - b) voldoende opleiding en ervaring?
 - c) goed geschikte machines en instrumenten?
 - d) goed geschikte werkruimte en meubilair?
 - e) voldoende steun van uw meerderen en collega's?
- 15 Is uw loon of inkomen afhankelijk van uw eigen werktempo?
- 16 Denkt u dat uw gezondheid en/of veiligheid bedreigd worden door uw werk?
- 17 Bent u in de afgelopen tien jaar van werk veranderd om werk te hebben dat minder gevaarlijk of beter voor de gezondheid is?

 a) Ja, dat heb ik gedaan

 - b) Nee, maar ik heb het wel geprobeerd
 - c) Nee, en ik heb het niet geprobeerd
 - d) Ik weet het niet
- 18 Hoeveel uur per dag werkt u gewoonlijk?
- 19 Hoeveel uur per week werkt u gewoonlijk?

PORTUGUÊS

Respostas possíveis: Todo o tempo/quase todo o tempo/Cerca de 3/4 do tempo/Cerca de metade do tempo/Cerca de 1/4 do tempo/Quase nunca/Não, nunca/Não sabe

Quando está trabalhar, o/a Senhor/a está exposto/a a ...?

- Ruídos fortes que, por exemplo, tenha que levantar a voz para falar com as pessoas
- Intempéries tal como a chuva, vento, neve, ...
- 3 Ao calor ou ao frio quer seja no interior ou no exterior do local de trabalho
- A respirar vapores, fumos, poeiras ou substâncias perigosas
- 5 Ao contacto e/ou manipulação de substâncias ou matérias perigosas

O desempenho do seu trabalho sujeita-o/a ...?

- A posições dolorosas ou fatigantes
- 7 A levantar ou a deslocar cargas pesadas
- 8 A ritmos de trabalho intensos
- 9 A prazos muito restritos e curtos
- 10 A tarefas repetitivas de curta duração
- A usar equipamento informático 11
- 12 A trabalhar de noite

Respostas possíveis: Sim/Não/Não sabe

- 13 Tem posibilidade de escolher ou de modificar?
 - a) A ordenação das tarefas ou o seu método de trabalho
 - b) A sua velocidade ou ritmo de trabalho
- Para desempenhar bem o seu trabalho, dispõe ...? 14
 - a) De informações claras e suficientes
 - b) Duma formação e experiência suficientes
 c) De máquinas e ferramentas apropriadas

 - d) De locais e mobiliário funcionais
 - e) De apoio suficiente da parte dos seus superiores e colegas
- 15 O seu salário ou a sua remuneração está dependente do seu ritmo pessoal de trabalho?
- 16 Sente que a sua saúde ou a sua segurança esteja em risco devido ao seu trabalho?
- 17 No decorrer dos últimos 10 anos, mudou de trabalho afim de ter um trabalho menos perigoso ou melhor para a saúde?
- 18 Quantas horas trabalha, habitualmente, por dia?
- 19 Quantas horas trabalha, habitualmente, por semana?

ANNEX 2 - QUESTIONNAIRE BASED SURVEYS IN THE EC

The following countries have national questionnaire based surveys: Denmark, Germany, Spain, France and the Netherlands. Table 1 indicates the years the surveys have been run in each country as well as the sample size.

The Foundation has set up a network linking the various organisations running these surveys. For more information the Foundation can be contacted. Direct contact may also be made with the national organisations.

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NATIONAL QUESTIONNAIRE-BASED SURVEYS:

Denmark	1973	SFI	12000 W
	1083	ΔNAI	16000

1983 AMI 16000 1990 AMI + SFI 10000

(Core Q./Nordic Council of Ministers)

Germany 1979 IAB 28000 W

1985 IAB 26500 W

1991

Spain 1987 INSHT 4000 W

1992 (?)

France 1978 Ministry 20000 VV

1984 of Labour

1991

Netherlands Planned



ANNEX 3 - EXPLANATORY NOTES

Country abbreviations

GR Greece E Spain F France IRL Ireland I Italy L Luxembourg NL Netherlands P Portugal UK United Kingdom EC European Community
1 01000 8001

Sectors - MACE classification

0		Agriculture, forestry and fishing
U	1-5	Industry
1	1-3	Energy and water
1	16	Production and distribution of electricity, gas, steam and hot
	10	water
2		Extraction and processing of non-energy-producing minerals,
		chemical industry
	24	Manufacture of non-metallic mineral products
	25	Chemical industry
3		Metal manufacturing, mechanical and electrical industry
	31	Manufacture of metal articles (except for mechanical, electrical
		and instrument engineering and vehicles)
	32	Mechanical engineering
	34	Electrical engineering
	35	Manufacture of motor vehicles and of motor vehicle parts and
		accessories
4		Other manufacturing industries
	41/42	Food, drink and tobacco industry
	43	Textile industry
	45	Footwear and clothing industry
	46	Timber and wooden furniture industry
_	47	Manufacture of paper and paper products; printing and publishing
5	- 0	Building and civil engineering
_	6-9	Services
6		Distributive trades, hotels, catering repairs
	61	Wholesale distribution (except dealing in scrap and waste
	C 1 / C 5	materials)
		Retail distribution
	66	Hotels and catering

Sectors - MACE classification (continued)

7		Transport and communications
	72	Other land transport (urban transport, road transport, etc.)
	79	Communications
8		Banking and finance, insurance, business services, renting
	81	Banking and finance
	83	Activities auxiliary to banking and finance and insurance; real
		estate transactions (except letting of real estate by the
		owner), business services
9		Other services
	91	Public administration, national defence and compulsory social
		security
0-9		Total

Guide to tables in chapter 3

Table 5: 1; 2-49; 50+

These figures refer to the number of staff working in the establishment or enterprise.

Table 6: -25; 25/39; 40/54; +55

These figures refer to the age groups.

ANNEX 4 - COOPERATING AGENCIES AND RESEARCH EXECUTIVES

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