



Working time flexibility in European companies



Establishment Survey on Working Time 2004–2005

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Foreword

Working time arrangements and work–life balance are important issues on the EU political agenda. In a diverse and fast-changing economic climate, both companies and workers need flexibility. Working time arrangements can have a significant bearing on the efficiency, productivity and competitiveness of companies, not to mention the health, well-being and motivation of their employees. In order to reach the Lisbon employment objectives of more and better jobs for everyone, governments are being encouraged to implement policies aimed at achieving more harmony between work and family life. In general, it is intended that employment rates for women and older workers should increase and policy debate has focused on the steps needed in order for this to happen.

Against this background, the European Foundation for the Improvement of Living and Working Conditions launched its first Establishment Survey on Working Time (ESWT) in 21 European countries: the 15 ‘old’ Member States of the European Union and six of the new Member States – the Czech Republic, Cyprus, Hungary, Latvia, Poland and Slovenia. The survey was a questionnaire-based, representative sample survey in more than 21,000 establishments, which aimed to analyse working time arrangements and work–life balance issues at the workplace by interviewing personnel managers and, where available, formal employee representatives. It focused on aspects such as flexible working hours, overtime, part-time work, work at unusual hours, such as shift or night work and weekend work, childcare leave or other forms of long-term leave, and phased or early retirement.

This report addresses the issue of working time flexibility in European companies, which is a key issue in the current labour market policy debate. Due to a lack of comparative data on how companies across Europe address the need for more flexibility in the workplace, this study takes a special interest in whether – and how – European countries differ in their application of flexible working time arrangements. The report seeks to explore the main determinants of the different systems for organising working time in the workplace. It analyses the perceived impact on companies with different working time arrangements on their performance in terms of economic success and employment stability or growth.

This report provides unique insight into the various working time flexibility arrangements currently in place in companies across Europe. We trust it will be a useful contribution towards shaping the policies which seek to improve work–life balance for all workers in Europe.

Jorma Karppinen
Director

Willy Buschak
Deputy Director

Country codes

EU21 = EU15 + NMS6

EU15 Member States prior to enlargement 2004

AT	Austria
BE	Belgium
DK	Denmark
FI	Finland
FR	France
DE	Germany
EL	Greece
IE	Ireland
IT	Italy
LU	Luxembourg
NL	Netherlands
PT	Portugal
ES	Spain
SE	Sweden
UK	United Kingdom

NMS6 (Six of the 10 new Member States that joined the EU in 2004)

CZ	Czech Republic
CY	Cyprus
HU	Hungary
LV	Latvia
PL	Poland
SI	Slovenia

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Introduction

The need for more flexibility is a key element in the current policy debate on the present stance and future of the European economy and labour market. The European Commission believes that Europe has to be less rigid in terms of its institutions, regulations, culture and policies in effectively addressing the fundamental impact of accelerated globalisation processes, increased competition and rapid changes in the demand and supply dynamics (European Employment Taskforce, 2003; European Commission, 2005). In particular, the economic and technological contest with the United States and Asia is a major concern in this context. For Europe to prosper in the 21st century, it needs to become much more flexible in its prime economic, social, cultural and entrepreneurial processes. It thus has to redesign its basic work operations. These new challenges will deeply affect European employer–employee relationships, if only because flexibility directly impacts on existing working time regimes and practices, as well as on the various types of employment contracts. This becomes clear by examining the flexibility arrangements that are currently in place: companies aim to gain a competitive advantage by making production time and opening hours more flexible – for example, by means of non-standard working times, overtime and flexible work contracts – while workers wish to have more flexibility in terms of working time through arrangements such as flexitime, part-time work and various leave schemes. Moreover, workers today are expected to permanently maintain and secure their employability through improving the relevant ‘hard’ and ‘soft’ skills, their human capital, thus bringing added value to the organisation. The modern employee, in short, has to become an entrepreneurial employee. Both employers and employees need to take responsibility for their share of flexibility challenges in the workplace. According to the European Employment Taskforce (2003, p. 27): ‘Flexibility is not just in the interest of employers. Modern workers also have a need for flexible working arrangements and modern work organisations to help them combine work and care, to make time for education and to respond to their personal preferences and life styles.’

Labour market flexibility helps companies to increase their ability to respond to changing external conditions. Numerical flexibility (for example, temporary employment contracts, overtime, part-time work and irregular working times), functional flexibility (for example, task and job rotation), outsourcing, and wage flexibility or flexible remuneration are ways in which establishments cope with external demand and supply dynamics. On the other hand, the policy debate on flexibility in Europe is also related to shifts in employees’ working time preferences. Fundamental social and cultural developments such as the de-standardisation and individualisation of life courses, dissolving gender structures of traditional family roles and increasing women’s labour market participation generate a growing diversity in individual life courses and consequently a rising heterogeneity of job career transitions (Ester et al, 2001). This increased diversity is not only regarded as the differences arising between groups of individuals but also as a variation across the different stages of a worker’s individual life course. This creates the need to periodically rearrange time structures (Baaijens et al, 2005). Within such a personalised life course, workers are engaged in a permanent search to find a more suitable balance between ‘work life’ and ‘non-work life’, i.e. between work and private life. The issue of work–life balance is increasingly becoming a topic that concerns the lives of many millions of Europeans. A de-standardised life course requires a higher and different level of individual workers’ influence on and control over the time structures of everyday working life compared with the previously traditional ‘standard working day’.

Company interests and employees’ needs are the main reasons behind flexibilisation of working hours at establishment level, although there may be an asymmetric relationship between the two. The strength of this asymmetry depends on the company’s economic situation (Promberger et al, 2002; Linne, 2004). In times of high unemployment and crowded labour markets, companies are more

likely to enforce their flexibility preferences and policies than in times of low unemployment rates and high demand for workers. In the latter case, flexibility options may be more geared towards employees' needs. Consequently, companies' flexibility measures can be both limited and supported by workers' preferences and requirements.

The need for more flexibility is evident in the way Europe perceives its economic functioning and the lessons Europe draws for its economic future in an era of rapid globalisation. However, this self-perception and self-evaluation is seriously hampered by a remarkable lack of information on actual trends of working time flexibilisation among companies in Europe. Although a significant amount of research exists on flexibilisation, as well as national findings on flexibility trends in individual European countries, there is a surprising lack of comparative data on flexibility trends across Europe (Huys, 2006; Vinken and Ester, 2006). This is particularly true in the case of flexibility trends at company level, and less so for employees' working time preferences for balancing their work and private life. The way establishments across Europe have addressed the need for more flexibility is simply not well known, particularly due to the current lack of cross-national trend data.

Against this background, in 2004–2005, the European Foundation for the Improvement of Living and Working Conditions launched a large-scale survey in 21 European countries to tackle this pressing data deficit: the Establishment Survey on Working Time and Work–Life Balance (ESWT). The survey covered a wide array of working time flexibility arrangements, including flexible working time arrangements; overtime; part-time work; non-standard working hours; family-related leave; other extended leave arrangements; phased and early retirement; and work–life balance options. This study on flexibility seeks to explore and explain the main determinants of the different systems for organising working time in the workplace. More specifically, this research aims first to identify a typology and its correlates of different company 'profiles' in terms of the types of working time arrangements and work–life balance policies in place. Of particular interest in this regard is the degree to which companies combine flexibility measures that aim to improve production operations with employee-oriented work–life balance arrangements. Both types of arrangements and measures increase flexibility in the workplace but in different ways and for quite different reasons. Secondly, this study analyses which of the company characteristics determine the flexibility profile of a company and whether companies with different working time arrangements show variation in their performance in terms of perceived economic success and employment stability or growth. The study takes a special interest in whether – and if so, how – European countries differ in their application of working time flexibility regimes, which is a highly important policy issue.

Establishment Survey on Working Time and Work–Life Balance (ESWT)

The ESWT was launched by the Foundation in 2004 in 21 European countries, namely the 15 'old' Member States of the European Union (EU15) and six of the new Member States (the Czech Republic, Cyprus, Hungary, Latvia, Poland and Slovenia). In more than 21,000 establishments, covering both the private and public sectors, personnel managers and – where available – formal employee representatives (for example, shop stewards and members of works councils) were interviewed about working time arrangements and work–life balance in their companies.

Data obtained from the ESWT are representative for all establishments with 10 or more employees in the aforementioned countries. The survey covers private and public

establishments from virtually all sectors of economic activity, with the exception of 'agriculture', 'forestry', 'private households' and 'extraterritorial organisations'. In these sectors, the number of companies employing 10 or more employees is negligible in the countries surveyed. The sample design provided for a control of the representative distribution of interviews among the two main sectors: 'Industry' (NACE C–F) and 'Services' (NACE G–O). In a finer breakdown, weaknesses with regard to the representation of the subsectors 'education' (NACE M) and 'health and social work' (NACE N) show up in some countries due to deficiencies in the available sampling sources (for details, see Riedmann et al, 2006, p. 57).

Interviews for the survey were carried out via telephone in the autumn of 2004 in the EU15 countries and in the spring of 2005 in the six NMS countries. TNS Infratest Sozialforschung Munich coordinated the fieldwork for the survey. In total, 21,031 personnel managers were interviewed, along with 5,232 employee representatives from the same establishments.

Unless otherwise stated, all figures in this report show the distribution of establishments, not of employees (more details on the survey methodology can be found in Riedmann et al, 2006, pp. 55–66).

Based on the findings of the ESWT, the Foundation aims to produce a series of seven different analytical reports. A consortium of research institutes and experts from different European countries, coordinated by TNS Infratest Sozialforschung, will draft these reports. The analysis consists of three main steps:

- A first analysis of the survey data is presented in the overview report (Riedmann et al, 2006).
- In a second step, a series of four additional reports has been produced, which focus on specific working time arrangements. These reports explore the issues of part-time work (Anxo et al, 2007a), early and phased retirement (Leber and Wagner, 2007), parental leave (Anxo et al, 2007) and extended and unusual working hours (Kümmerling and Lehndorff, 2007).
- In a third step, two reports will be produced which analyse the data in a more comprehensive way. This report focuses on flexibility at company level and analyses the interrelations between the different working time arrangements. The second report will examine the social dialogue at company level in relation to working time and work–life balance issues.

First, the report reviews existing flexibility literature, both in terms of conceptual approaches and core research findings. The review yields a number of important generalisations for the comparative study of labour market flexibility. Working time flexibility should not be studied in isolation; any solid analysis of this type of flexibility has to be embedded into a broader, more comprehensive analysis of establishment flexibility. By testing the framework of flexibility, the main technical features of the ESWT are outlined, including data collection, participating European countries and selected flexibility indicators. Moreover, outcomes of the first data analysis are shown which develops a new framework for categorising working time and work–life balance arrangements within companies. Chapter 2 presents the core elements of the research observations: this includes a typology of companies' working time flexibility, based on a latent class analysis on a range of indicators for working time and contractual flexibility taken from the ESWT. This typology is then used to compare working time flexibility across European countries. The third chapter investigates whether the flexibility profile of an organisation is related to its known characteristics, such as its line of business, the size and composition of its workforce and its geographical location. The analysis in the first

section of this chapter focuses on characteristics that are potential determinants of the flexibility profile adopted by a company. The second section relates a company's flexibility profile to indicators of economic performance and human resources problems. Finally, Chapter 4 presents the main conclusions and policy implications of the research.

Flexibility and work–life balance

1

This chapter looks at the definition of flexibility and the various forms it takes within companies. It examines the possibilities of redefining the flexibility concept with a view to encompassing the potential effects of labour market flexibility on work–life balance issues.

Flexibility definitions and ideal types

Definition of flexibility

Labour market flexibility can be an abstract concept meaning a range of things (Pollert, 1988) and the definition of this term varies according to various authors. In the earlier days of labour market flexibility, the idea was linked with ‘labour market rigidities’ or ‘impediments’ by which various labour market institutions were accused of decreasing labour market flexibility.

By examining some of the current literature on the issue, it seems that labour market flexibility can be defined in several ways. Cazes and Nesporova (2004, p. 25) define labour market flexibility as ‘the degree to which employment and/or working time or wages adjust to economic changes’. Eamets and Masso examine flexibility within the general equilibrium theory, in which flexibility is a means of allocating all resources in a Pareto-efficient way (Hahn, 1998; Eamets and Masso, 2004)¹. In general, labour market flexibility refers to the extent and speed with which labour markets adapt to fluctuations and changes in society, the economy and production cycles (Standing, 1999, p. 49). It can be achieved in a number of ways, and likewise it can also be categorised in different ways. The most widely used definition of labour market flexibility is that identified by Atkinson (1984): flexibility depends on where it takes place – inside or outside the company – and how it is developed – functionally, numerically or financially. Based on this assumption, four different types of flexibility can be determined (Atkinson, 1984; Atkinson and Meager, 1986).

External numerical flexibility refers to the adjustment of the labour intake or, in other words, to the number of workers employed from the external market outside the company. A company can achieve such flexibility by employing workers on temporary or fixed-term employment contracts or through relaxed hiring and dismissal regulations, which enable employers to hire and lay off permanent workers more easily according to the establishments’ needs. Internal numerical flexibility is sometimes known as working time flexibility or temporal flexibility. It is achieved by adjusting working hours or schedules of workers already employed within the organisation. This includes different working time arrangements, such as part-time work, flexible working hours or shift work (including night shifts and weekend shifts), annualisation of working hours, working time accounts, leave from work and overtime. Functional flexibility or organisational flexibility is the extent to which employees can be transferred to different activities and tasks within the company. This type of flexibility depends on the organisation of operations or on the management and training of workers. It can also be achieved by outsourcing company activities. Financial or wage flexibility exists where wage levels are not decided collectively and greater differences emerge between workers’ wages. This type of flexibility is introduced so that pay and other employment costs can be adapted more easily to labour supply and demand. To achieve this, employers will have to look at ‘rate-for-the-job’

¹ Given a set of alternative allocations and a set of individuals, a movement from one allocation to another that can positively affect at least one individual, without negatively affecting any other individual, is called a Pareto improvement. An allocation of resources is considered to be Pareto efficient when no further Pareto improvements can be made.

systems, an assessment-based pay system, or individual performance wages. Apart from the four types of flexibility defined here, other forms of flexibility can be used to enhance adaptability – locational flexibility or flexibility of place (Reilly, 1998; Wallace, 2003). This type of flexibility entails employees working outside of the normal workplace, such as home-based workers, outworkers or teleworkers. It can also cover workers who are relocated to other offices within the same establishment.

Although labour market flexibility has been more or less perceived as a concept devised to satisfy the needs of employers, they are not the only ones who would benefit from a more flexible labour market. The life course of individuals and their corresponding needs are increasingly becoming diversified. Previous policies which were based on a simplified, uniform trajectory of the ‘standard’ life cycle or a standard family norm are no longer sufficient to address the increasing diversity of the population in Europe.

Today, labour markets must enable individuals to adjust their working hours and to take leave from work for education, childcare, a sabbatical or for other reasons according to their changing needs throughout their life course. In other words, labour market flexibility can be considered as a strategy to enable workers to ‘adjust working life and working hours to their own preferences and to other activities’ (Jepsen and Klammer, 2005, p. 157). As companies adapt to economic business cycles, individuals can adapt to changing life cycles by availing of increased flexibility in their work patterns. Working time flexibility has been gaining increased attention as a work–life balance strategy for workers by both trade unions and the European Commission (Fagan et al, 2006; Plantenga and Remery, 2005; Anxo and Boulin, 2006).

However, most studies on labour market flexibility or working time have been rather unbalanced, meaning that they only examine this concept in relation to the companies’ flexibility, such as the flexibility measures used for production needs, or that they only examine the possibility of using working time flexibility to increase workers’ work–life balance. In fact, few studies examine flexibility in a more balanced way by considering both companies’ and workers’ needs. The majority of literature available on flexibility perceives it to be something that is used solely for business objectives, mainly focusing on national employment protection legislation² and the share of temporary employment or fixed-term work in the labour market³. One of the reasons for using these indicators is because of the availability of data from the Organisation for Economic Cooperation and Development (OECD) and Eurostat on these issues.

On the other hand, flexibility is examined as a means by which workers can reconcile work and personal life. Most studies that deal with this issue focus on working time preferences and the actual hours worked.⁴ However, few studies exist that explore the relevance of various working time arrangements for facilitating work–life balance from a cross-national comparative perspective.⁵ In other words, few studies have been carried out to date which deal with the actual flexibility practices of countries based on empirical data that is comparable throughout Europe. Several studies exist

² For example, OECD, 1999; OECD, 2004; Siebert, 1997; Jackman et al, 1996; Lazear, 1990; Salvanes, 1997; Regini, 2000; Tangian, 2004 and 2005; Eamets and Masso, 2004, which uses employment protection legislation as a flexibility measure.

³ For example, Booth et al, 2002; Dolado et al, 2001. See also *The Economic Journal*, Vol. 112, 2002.

⁴ For example, O’Reilly and Fagan, 1998; Anxo and O’Reilly, 2000 and 2002; Schmid, 2002; Gómez et al, 2002; Fagan, 2003; Messenger, 2004; Corral and Isusi, 2003; Bielenski et al, 2001.

⁵ For example, Plantenga and Remery, 2005; Anxo and Boulin, 2006.

which look at various arrangements that can accommodate both the needs of businesses and workers in the framework of ‘flexicurity’ (see Text box 1), but these studies also lack empirical evidence. The analysis in this report uses the ESWT data which offers excellent opportunities to fill in some of these gaps in the existing studies.

The exclusion of ‘employee-centred flexibility’ or ‘worker-oriented flexibility’ when examining labour market flexibility inhibits the development of flexibility arrangements that can be used to accommodate both employers’ and employees’ needs. The latter is one of the central objectives stated in the European Employment Strategy (Gareis and Korte, 2002, p. 1102). The next section draws up a framework in which flexibility can be examined in terms of the possibilities for both companies and workers.

Text box 1 Working time flexibility within the flexicurity context

Working time flexibility can also be examined in the framework of ‘flexicurity’, which has been gaining increasing attention in recent years. Flexicurity is a concept which ‘attempts, synchronically and in a deliberate way, to enhance the flexibility of labour markets, work organisation and labour relations on the one hand, and to enhance security notably for weaker groups in and outside the labour market on the other hand’ (Wilthagen and Rogowski, 2002, p. 250). More specifically: ‘Flexicurity is (1) a degree of job, employment, income and combination security that facilitates the labour market careers and biographies of workers with a relatively weak position and allows for enduring and high quality labour market participation and social inclusion, while at the same time providing (2) a degree of numerical (both external and internal), functional and wage flexibility that allows for labour markets’ (and individual companies’) timely and adequate adjustment to changing conditions in order to maintain and enhance competitiveness and productivity’ (Wilthagen and Tros, 2004). In this definition, ‘flexicurity’ can be seen as a policy strategy, but it can also be applied to the ‘status of the labour market’ where security for workers has been balanced with flexibility for establishments (Wilthagen and Tros, 2004; van Velzen, 2005). In this instance, flexibility is delineated in a similar way to the definition given previously by Atkinson. Job security thus refers to the security an employee has in retaining the same job with the same employer, while employment security refers to the security of holding a job either with the same employer or elsewhere in the labour market. Income security essentially entails the income protection people have while not in paid employment or in a less well-paid job. Combination security enables workers to combine paid work with other responsibilities and commitments, notably those in the private domain (Wilthagen and Tros, 2004; van Velzen, 2005, p. 6) through various leave schemes and work–life balance policies.

Within this framework, the ESWT essentially looks at the internal numerical flexibility in relation to the various types of flexibility security (Table 1). In other words, it investigates how establishments adapt to the needs of numerical flexibility within their organisation through various working time arrangements. The ESWT also explores the extent to which workers are able to combine work and family life through these arrangements. For example, overtime enhances internal numerical flexibility for the company while at the same time improving income and job security for workers. In the case of early retirement, income security is given to workers while external numerical flexibility is given to companies. However, this study excludes this type of flexibility for the following reasons: first, it offers working time flexibility in the form of a trade-off, in which employers receive flexibility while workers receive security. In this regard, a dichotomy of flexibility and security exists, which can restrict workers in using flexibility to fully accommodate their needs, or it conciliates the needs of both

workers and companies through mutual flexibility. Although it is in one way just a wording issue, it is better to use the phrase employers’ and employees’ flexibility rather than ‘combination security’.

Table 1 Flexibility nexus – arrangements covered in the ESWT survey

Flexibility \ Security	Job	Employment	Income	Combination
External numerical	Flexibility for companies	Flexibility for companies	Flexibility for companies	Flexibility for workers
Internal numerical	Flexibility for companies	Flexibility for companies	Flexibility for companies	Flexibility for workers
Functional	-	-	-	-
Wage	-	-	-	-

Source: Authors’ original.

Delineating a new conceptual framework for flexibility

This section outlines a framework on how flexibility options for companies and workers can be examined.

The main reason for which companies introduce flexible working time arrangements relates to the cost benefits that can be derived from such practices. More specifically, companies can reduce costs by quickly adapting to workload as a result of fluctuations in business (Houseman, 2001). Another way of reducing labour costs is to reduce fringe benefits or social security contributions by hiring workers on temporary contracts in countries where these and other types of workers are not covered by the social security system (Atkinson, 1984; Houseman, 2001). Another motive of companies to introduce flexible working time arrangements is to segregate the workforce into core and peripheral workers without repercussions for their operations (Atkinson, 1984; Houseman 2001). Companies make use of this option to adapt to and reorganise the workload while staff are on leave or due to absenteeism among new workers on temporary contracts. Companies may also adapt to fluctuating workloads by using flexible overtime schedules. Flexible working time arrangements can also be used to screen new recruits before offering them open-ended employment contracts (Houseman, 2001). Improving quality and service, along with meeting the needs of customers, are additional reasons why companies introduce various flexibility arrangements, such as extended or varying working hours (Reilly, 2001). Companies can also have indirect motives for introducing flexible arrangements. For example, they may use flexible working time arrangements and leave schemes to accommodate the working hour preferences of workers and to enhance workers’ loyalty to the company or as a recruitment strategy to hire workers with special skills (Houseman, 2001; Plantenga and Remery, 2005).

On the other hand, workers’ interests in taking up flexible working arrangements are varied and must be considered as part of this analysis. Work–life balance, such as reconciling care and other responsibilities with work commitments, is one of the main reasons why workers require flexible work arrangements (Reilly, 1998, 2001; Hill et al, 2001; Plantenga and Remery, 2005; Anxo and Boulin, 2005). However, workers also need flexibility for other reasons. Changing lifestyle, work style and schedule preferences are just some reasons why workers might prefer to choose non-standard working hours or employment contracts. The increasing need for lifelong learning, in the form of vocational training or education breaks, can also be another form of motivation for workers to take leave or deviate from the standard work schedule.

However, apart from these direct motives, workers – like companies – also have indirect motives, such as maximising income or improving job security, for taking up certain flexible arrangements such as overtime and unusual working hours. For instance, in companies where the overtime premium is high, workers might have incentives for taking up overtime work. In some cases, when taking up the given arrangement provides more job security, workers may be inclined to take up such arrangements (Reilly, 2001). These are examples where flexibility options for companies provide security for workers. Likewise, the flexibility options for workers may provide staff security and skill maintenance of workers. It is difficult to differentiate which of the arrangements are in fact most beneficial to workers and to employers. In reality, making this distinction is not so easy; country, sector, company, as well as individual differences may emerge in relation to what the exact motive or even consequence is for taking up a certain flexibility arrangement. Nevertheless, in general, various numerical flexibility options such as contractual flexibility and working time flexibility can be categorised in different type of schemes, as shown in Table 2.

Table 2 Numerical flexibility options for workers and companies

Options for workers	Option for companies
Variation in working time	Working time flexibility
Flexible working hours/schedule	Flexible working hours/shifts (variable hours)
Working time accounts	Part-time (reduced/increased) working hours
Part-time (reduce/increased) working hours	Unusual working hours (nights, weekends)
Leave schemes	Overtime
Parental leave (maternity/paternity/adoption)	Temporary work*
Care leave (for family)	Fixed-term contracts
Sabbatical/career breaks	Temporary agency work
Educational/training leave	Other temporary contracts
Retirement schemes	Retirement schemes**
Flexible retirement	Flexible retirement
Early retirement	Early retirement

* In countries where regulations on dismissing workers is less stringent, companies may use permanent workers on shorter working hours instead of temporary workers. However, this can only be examined through job duration and not as a use of a certain arrangement.

** Retirement schemes are included here as many European countries use such schemes to lay off older workers and redistribute work from older to younger workers (see Leber and Wagner, 2007). One could assume that leave schemes may be used for similar purposes, but as there has not been much evidence of this so far, leave schemes are not included here.

Source: Based on Anxo and Boulin, 2005; Monastiriotes, 2003; Plantenga and Remery, 2005; Muffels et al, 2007.

Flexibility at company level

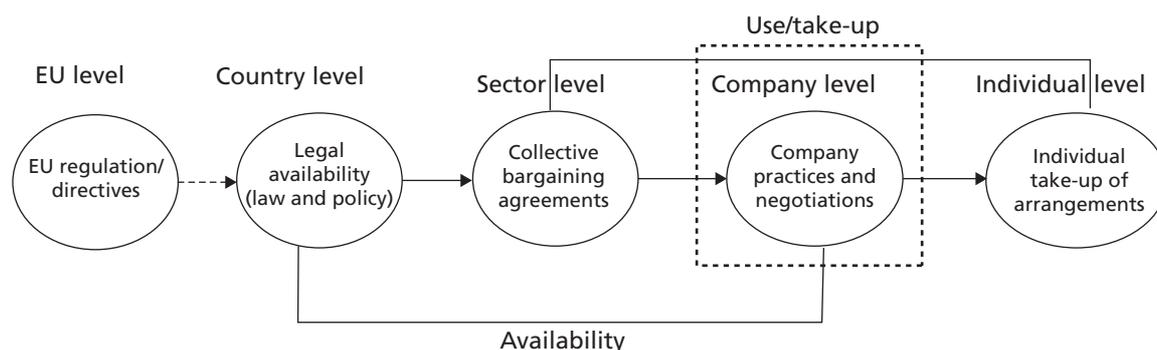
Until now, studies on flexibility have been concentrated on labour market regulations and institutions⁶ especially focused on employment protection legislation (Gareis and Korte, 2002). However, this is just one way and one aspect in which labour market flexibility can be measured. The reason that there were more studies focusing on institutions, especially on EPL, was dependent on the availability of data sources (Cazes and Nesporova, 2004), particularly those that are comparable across countries. Flexibility can be measured at many levels, notably passing from the macro to the micro level, i.e. from the national to the individual level.

⁶ For example, Siebert, 1997; Jackman et al, 1996; Lazear, 1990; Salvanes, 1997; Regini, 2000; Tangian, 2004 and 2005; Cazes and Nesporova, 2004; Eamets and Masso, 2004.

Using employment protection measures to examine flexibility allows for analysis at national and sometimes at sector level based on collective bargaining agreements. This can be different from the actual behavioural patterns at company and/or individual level. In other words, institutional frameworks and establishment-level practices will not necessarily be in accordance with each other. This is particularly the case when it is taken into account that several flexibility measures, which are actually being used by companies in practice, are implemented or taken up as strategic measures to overcome the institutional restrictions within the country⁷.

This research examines the degree to which flexibility options are being used within establishments. Data referring to the establishment level contains information on the take-up and availability of flexibility arrangements in a company. In relation to the level of take-up of flexibility arrangements, the data show whether a company has taken up a certain option available in the overall institutional framework, such as legislation, policies or collective bargaining agreements. However, ESWT data also allow for determining the availability of options for workers. In most cases, employees cannot choose autonomously to take up certain working time arrangements as the option availability depends on the structure of the company they are working for (Riedmann et al, 2006). For instance, even if part-time work is available by law in most countries, it is not available to all workers. If the establishments do not choose to implement these working time options, the option in question cannot be available for the company's employees. In this regard, the take-up rate and availability rate of working time options at establishment level will entail the institutional availability along with the numerous factors that may affect the availability of a working time option for a worker. This can, in turn, be the most determinantal factor that affects individual take-up behaviour. Working time arrangements at the establishment level represent the final availability option, which 'sets out the possibility and limits of the employees to adapt their actual working hours to their personal needs and wishes' (Riedmann et al, 2006, p. 1).

Figure 1 Levels of flexibility analysis and focus of study



Source: Authors' original.

⁷ For example, various literature sources confirm that temporary employment contracts are used more often in countries where there are strict regulations on dismissing regular workers (Dolado et al, 2001; OECD, 1999; Chung, 2005; Polavieja, 2006).

Figure 1 shows the complicated relationship between the availability of flexible working time arrangements and the take-up of such options, and how one sphere affects the next. The EU regulations or directives on working time and leave schemes provide countries with the basic regulation that EU Member States are required to adhere to. However, due to the fact that there are not many directives on various aspects of labour law at EU level and that their regulatory power is still questionable, this idea is inserted in the figure using a dotted line. The figure also highlights the national regulation within each country, which affects the collective agreements made at sector level. In turn, this will affect what practices are introduced by companies in each sector and how they negotiate the use of working time arrangements with their employees. It is the actual availability of these options for workers that will be a major factor in the take-up of various working time arrangements at individual level. As for individual workers, although it is possible to take up only some of the arrangements that are available within the company, it is almost impossible to take up a working time option that is not provided within the company.

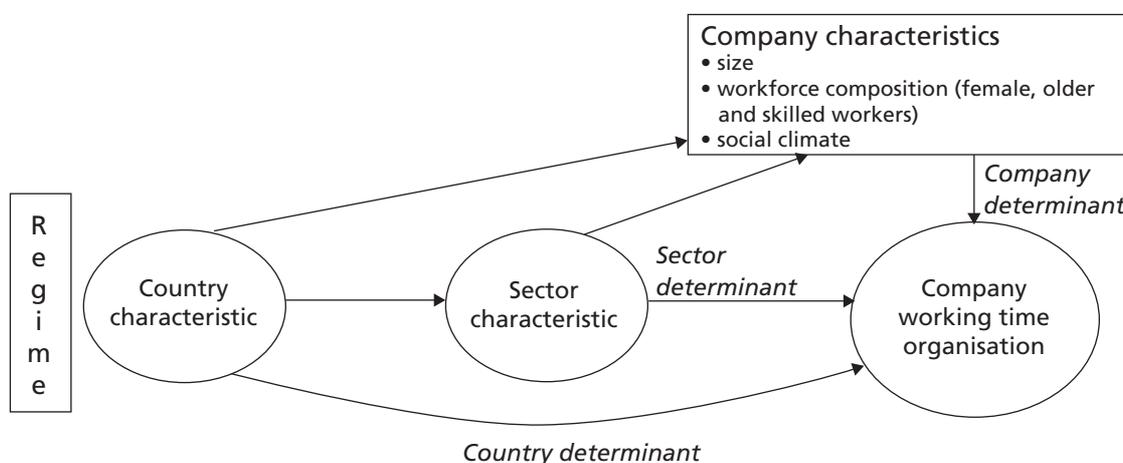
It must be remembered, however, that a regulatory framework affects different working time practices at individual level, but does not necessarily determine these practices. The latter is true for all levels. For example, problems have come to light in the UK concerning the culture of long working hours resulting from individually negotiated opt-out systems, which allow for longer working hours than the collectively agreed working week. Likewise, national regulations in each country affect the collective agreements on working time flexibility in each sector while they do not necessarily define the concept completely. Although national regulations will be quite important in explaining the actual flexibility practices of companies in the EU countries surveyed, the variance of flexibility practices will not always provide the same outcome as that found with regulatory variances. Similarly, Evans (2002) points out how company involvement in implementing work–life balance measures is high in countries where the national regulation or provision is not too lenient while also being not too strict. In countries where regulatory provisions are strict, a crowding-out effect seems to come into play. In other words, company practices may not always reflect the national regulatory framework. This is especially important for the organisation of working time. Although leave schemes are usually decided at national level, the regulatory framework of flexible working time is more often defined at sector level and the specifics of working time arrangements are usually determined at company level.

Determinants of working time organisation at company level

The reason why a company organises working time in a certain way depends on the national institutional and regulatory framework, the sector the business is in or on individual company characteristics, such as workforce size or composition. Based on the discussion in the previous section, Figure 2 shows the connections between the different determinants of working time organisation at company level. Both the country-level and the sector-level features affect the company characteristics. Along with the national context, a certain regime effect may exist, in which clusters of countries show similar outcomes due to similarities in their systems.

This section therefore analyses previous studies and literature on the various determinants that can affect the way in which a company organises its working time arrangements. Based on the analysis of flexibility levels in the previous section, four levels can be distinguished, namely the company level, the sector level, the country level and the regime level.

Figure 2 Determinants of company-level working time organisation



Source: Authors' original.

Country-level and regime typologies

The organisation of working time within companies can be determined by country-level institutional regulations. In other words, the various working time practices of companies and the clusters of companies might be explained by a country's institutions, culture, political legacy, negotiation structures or other aspects that are defined on the basis of the country or regime typology. To date, several studies have examined the country regime typologies that can be relevant here, including studies of welfare and employment regime typology, typologies defined by the gender division of work or care, flexibility typologies and working time typologies.

The most influential and most widely used of all country classifications is the welfare state regime typology, as defined by Esping-Andersen (1990; 1999). He distinguishes between three types of welfare states in Europe, referring to the 15 EU Member States at the time of his research. His typology is based on an evaluation of the country's social stratification and decommodification, namely a country's legal and political measures, such as social security benefits, to reduce a citizen's reliance on work for their well-being. Esping-Andersen maintains that current welfare states have emerged as the result of the political economy and ideological backgrounds of individual countries – for example, liberalism, socialism and social-democracy, and conservatism. He also explains how labour markets are affected by the welfare state regimes, thus forming employment regimes which are products of historical legacies, institutions and welfare structures.

Briefly, the characteristics of the three regime types can be summarised as follows. The Nordic countries – Denmark, Finland and Sweden, which are the social-democratic countries – are geared towards maximising labour supply through enabling women to participate in the labour market by providing generous benefits and easily accessible leave of absence for parental and work–life balance needs. Continental European countries, such as Austria, Belgium, France, Germany, Luxembourg and the Netherlands, or the conservative countries, reduce labour supply by limiting women's labour market participation and by nourishing exit strategies for older workers. In the liberal countries, namely Ireland and the UK, the state does not involve itself much in society, which is maintained more through market powers. Women participate in the labour market by using mainly private

childcare facilities. In the process of many debates and discussions, other typologies or regimes have been put forward. Of these discussions, one additional regime that has gained more ground is the southern European conservative model, comprising countries such as Italy, Greece, Portugal and Spain (Leibfried, 1992; Ferrera, 1993; Bonoli, 1997; Abrahamson, 1999). This regime type can be characterised by a relatively underdeveloped social protection system and strict employment protection for the core workers, while having a high proportion of temporary employment of foreign workers and a focus on early retirement schemes (Muffels and Fouarge, 2002; Dolado et al, 2001; Sapir, 2003). In addition, strong gender roles and a strong reliance on families to provide welfare still exist in these countries (Esping-Andersen, 1999; Bettio and Villa, 1998; Klammer, 2005). Although the main reasoning behind this regime typology clustering was based on the welfare structures of countries, this typology is the basis of many studies which examine regime typologies, including those with labour market flexibility.

Another important aspect of the research is the cross-national variances in the gender division of work (for example, Lewis, 1992; Ostner and Lewis, 1995; Gornick et al, 1998; Sainsbury, 1999; Crompton 2001; Stier et al, 2001; MacDonald, 2004). For example, Crompton (2001) examined the earner–carer divide throughout countries to derive four models that range from traditional to less traditional models depending on who is responsible for income and care. With regard to income, it depends on the extent to which men or women are the breadwinners on a full- and/or part-time basis, while the division of care responsibilities relates to the traditional gender roles in a country and the dual-state market. The Nordic countries have the dual-earner and state-carer model, while the US is an example of a country where there is a dual-earner and market-carer. The gender division of work might be a factor that comes into play when countries are divided into clusters. This is an important element in examining work–life balance. In countries where the dual-earner model is the norm, it is likely that more working time arrangements exist focusing on the needs of workers or more suitable arrangements to balance work and personal life. Conversely, in countries where it is the norm for men to be the breadwinner and for women to be the carer, it can be predicted that companies in these countries do not provide such working time arrangements.

Studies have been carried out more specifically on the types of labour market flexibility regimes that lead to different typologies. Most of these studies focus on the regulatory framework, namely the regulations on employment protection. Regini (2000) considers two labour market flexibility regimes, one in which flexibility is used as a controlled exception, namely in France, Italy, Germany, Norway and Spain, and one in which it is used as a general principle, such as in Denmark, Ireland, the Netherlands, Sweden and the UK. However, in his study, Regini defines flexibility by focusing more on external numerical or contractual flexibility, and its distribution and segmentation are the key points in categorising countries. In this regard, Regini’s study has its limitations when it comes to establishing a working time or overall flexibility typology.

Studies on working time regimes have also been initiated where the distribution of working hours was the focus of the analysis. O’Reilly and Spee (1998) derived a statist, highly government-dependent, negotiated or externally constrained working time regime depending on the negotiation structures of the countries. In a statist working time regime, statutory regulations are the key elements governing the use of flexibility and working time patterns, and collective bargaining only has a restrictive role. Examples of this type of regime can be found in France and Spain. Conversely, negotiated working time regime typologies reflect where there is a strong tradition of negotiation between the social

partners, and the state regulatory system only provides a basic framework. Countries in which these typologies exist include Austria, Denmark, Finland, Germany, the Netherlands and Sweden. Externally constrained working time is synonymous with free collective bargaining and working time that is distributed over a wider spectrum. The countries included here are Ireland and the UK. A wider distribution of working hours may exist in some countries, and thus these countries will show a more general use of various working time arrangements. However, limitations to this approach emerge when it comes to examining various flexible working time options. Although O'Reilly and Spee's typology can provide reasons why discrepancies exist between regulatory aspects of flexibility options and company shop-level practices, it will not explain why one country will have more flexibility options than another.

Lastly, a number of studies analyse flexibility measures combined with employment security or workers' flexibility. Wilthagen and Tros (2004) examine flexicurity in the policy context to determine what types of measures are offered in different countries. Denmark, the Netherlands, Spain, as well as central and eastern European countries are noted as those that use external numerical flexibility, while Belgium and Germany use internal numerical flexibility. In addition, Denmark and Sweden are noted to have combination security, which is comparable with worker-oriented flexibility (see Table 1). Muffels and Luijkx (2005) used individual-level data, going by a case-by-case analysis of behavioural patterns, in order to examine the empirical derived locations of the countries within the flexicurity country group. They use job mobility, which is mobility between different occupational classes and different types of employment contracts, and employment security, by which a person is considered to be in a secure position if they have a permanent job. The outcomes support the hypothesis to some extent. The Nordic, or social-democratic, countries appear as flexicurity countries where both high levels of flexibility and security are achieved. In conservative and liberal countries, a trade-off between these elements seems to emerge. Southern European countries – namely Greece, Italy, Portugal, Spain and Cyprus – can be classified as the 'in-flexicurity' countries where both flexibility and security levels are low. Gareis and Korte (2002) examine flexibility of work arrangements in relation to time, workplace, employment contract and content dimensions in order to see how countries score in terms of worker-centred and company-centred flexibility. The result shows that Denmark, Finland and the Netherlands form one group with high scores for both worker-centred and company-centred flexibility. France and Spain, on the other hand, perform weakly in both indices. The third group mentioned here includes Italy, Germany and Sweden, where labour market flexibility is distributed in favour of workers. Finally, the UK and Ireland are included as one group in which the company-centred flexibility index is high but the worker-centred index is low.

However, the regime studies mentioned above all focus on trends in the EU15, and do not consider the NMS6 of the ESWT. It is still uncertain how all of the new Member States (NMS) can fit into this picture, since not many studies have included the transition countries or any of the NMS in their regime typologies. However, some studies have examined these countries separately. In a study completed by Cazes and Nesporova (2004), in which flexibility and security levels of transition countries were observed, two country clusters were determined. Of the central and eastern European countries, two distinct groups of countries can be defined, namely the central and southeastern European countries (CSEE), including the Baltic countries of Estonia, Lithuania and Latvia, and the Commonwealth of Independent States (CIS) countries. In the CSEE countries, external numerical flexibility has increased through the ease of employment protection regulations, but income security has also increased through social security cover, while in the CIS countries, a reliance on strong

employment protection and a lack of security schemes remains in place (Cazes and Nesporova, 2004, p. 51). Also focusing on the regulatory side of flexibility, Eamets and Masso (2004) examine employment protection regulations within the Baltic countries. They conclude that these countries are homogenous in their overall level of employment protection legislation strictness and have slightly stricter regulations compared with other central and eastern European countries. Furthermore, Wallace (2003) explores flexibility trends in eastern European countries by looking at regulation. She concludes that although the countries under investigation have all been strongly regulated anti-flexibility countries in the 1980s, the Czech Republic, Hungary and Slovenia now have partially regulated flexibility in their labour markets while Bulgaria and Romania have mainly unregulated flexibility. Overall, due to the lack of research on this issue, particularly alongside the other ‘old’ European countries, and the mixed outcomes depending on which countries were under analysis, it is hard to draw any further conclusions. Moreover, most studies have mainly focused on regulatory aspects of flexibility and it is hard to extend these findings to the working time options used by companies. However, it may be the case that there will be some division among the NMS, particularly among those surveyed in the ESWT, and that they may not form a distinct cluster of their own.

In general, countries can form clusters in several ways, depending on what are considered to be the most important aspects of flexibility. However, most of the typologies bear some similarity to Esping-Andersen’s welfare state classification of liberal, social-democratic and conservative regime typologies. Therefore, it could be expected that some of this typology will emerge as the foundation of a typology of working time flexibility profiles across Europe.

Company characteristics and variation in organisation of working time

Other than the country variable, various company characteristics will impact on the way its working time is organised. Although working time regulations in each country shape the organisation of working time of companies, establishments are becoming even more decentralised, thus increasing the variance between companies within the same country and sector (Messenger, 2004; Keune, 2006). The variation of the organisation of working time might be affected by many characteristics. Sector, size, workforce composition, economic situation of the company as well as the country are only some of the factors that might come into play. Due to the different sector characteristics, services sectors (NACE G–O) are usually seen to need and provide more flexibility than industry sectors (NACE C–F). The public sector is also considered to have more arrangements for work–life balance needs of workers than the private sector. Although larger establishments have more scope for introducing different types of flexibility, smaller establishments require various options to adapt to changes. While bigger establishments have formalised arrangements, smaller establishments have informal arrangements which might be more efficient in providing various working time flexibility options. The share of women and older workers as well as the skill composition within the workforce may be additional aspects that need to be examined. For example, some arrangements may be used more often in companies which have a higher proportion of women in their workforce, such as part-time work and parental leave. On the other hand, it is obvious that companies with a higher proportion of older workers will have more retirement-related arrangements. Various working time arrangements could also be introduced to attract skilled workers into the companies.

Examining the results of the first analytical reports of this project, common elements emerge in explaining the use of various working time flexibility arrangements within companies. For example, in the case of part-time work, it appeared that large establishments with a high proportion of women

among the workforce, as well as companies in the public sector and services sector, have a higher incidence of part-time work. On the other hand, age and skill composition of a company's workforce did not appear to be significant when other variables are controlled for. In combination with other working time arrangements, it became evident that companies with temporary contracts, unusual working hours and other flexible working time arrangements, parental leave and assistance for childcare services had higher chances of having part-time workers, while companies that used overtime had lower incidences of part-time work (Anxo et al, 2007a, p. 61).

Similarly, country, sector (both services and public sectors), size (larger companies) and a high number of women in the workforce were all major factors that explained the take-up of parental leave in an establishment. Companies which have shift work, night work, short-term contracts and flexible working time arrangements showed a higher take-up of parental leave (Anxo et al, 2007).

In the case of unusual working hours, the services industries, namely the hotels and restaurants as well as health and social work sectors, show high levels of this working time arrangement. Sectors such as financial services, construction and education report the lowest levels of unusual working hours. Furthermore, the interplay between country and sector is the single most important factor in explaining the differences between the incidences of unusual working hours (Kümmerling and Lehndorff, 2007, p. 32).

Early and phased retirement is more widespread in establishments which are larger, and in sectors such as health and social work, education and financial services. Companies with an occurrence of part-time work also seem to be more likely to offer phased retirement schemes. Both retirement schemes are offered more often in establishments with flexible working time arrangements, night shifts or weekend shifts. The use of early retirement is influenced by the overall employment situation of the establishment and the possible need for a reduction in the number of personnel. It appears that establishments offering early retirement arrangements have higher chances of offering phased retirement (Leber and Wagner, 2007).

Overall, it can be concluded that not only country, but sector, size and workforce composition all are deciding factors in whether an establishment uses a certain working time arrangement or not. In addition, as is the case in relation to early retirement, the economic or employment situation of the companies may also be another factor that might affect the organisation of working time. A further element which is examined in this research is the social climate within establishments. Negotiation structures, as already mentioned, are a deciding factor in the way working time is organised, but they might also be important in determining the various options an establishment takes up. Taking into account the fact that working time arrangements can be used to serve the mutual needs of both workers and the company, the negotiation climate within the company may be an important explanatory factor in the analysis of a company's organisation of working time.

Flexible working time arrangements and company performances

The main reason for introducing flexibility into company practices is the cost benefit derived from it (Atkinson, 1984; Houseman, 2001) and changes in working time patterns are still being driven predominantly by the business objectives and strategies of companies (Messenger, 2004, p. 178). In this regard, flexible working time arrangements that are used for a company's production needs will enhance overall performance, although this may not be true for all cases.

However, working time flexibility options that are used for companies' operational purposes but also those that are implemented to enhance workers' work–life balance purposes have also been found to benefit companies in various respects (Dex and Scheibl, 1999; Dex et al, 2001; Plantenga and Remery, 2005). For example, several studies have shown that flexible working time arrangements have positive effects on employees' attitude and morale which, in turn, can lead to enhanced company performance (Hogarth et al, 2001; Gottlieb et al, 1998; Messenger, 2004). Such arrangements can also reduce absenteeism and staff turnover while also increasing effective recruitment and productivity gains (Boston College Center for Work and Family, 2000; Avery and Zabel, 2001; Catalyst, 1997; Hogarth et al, 2001; OECD, 2001; cited in Messenger, 2004a). This is especially true for arrangements where workers' preferences and choices are taken into account (Gottlieb et al, 1998; Messenger, 2004a, p. 180). Plantenga and Remery note that it may be that companies will only introduce work–life balance arrangements when the predicted benefit is higher than the costs involved (2005, p. 77). Or in some cases, it may be that companies with higher returns have the room to introduce these schemes.

However, not all flexible working time options have positive consequences. Establishments with unusual and changing working hours have more difficulties with respect to sickness leave and absenteeism, motivational problems and staff turnover (Kümmerling and Lehndorff, 2007). A reduction in long working hours or frequent requests to work overtime have also been linked to absenteeism and higher staff turnover (Barmby et al, 2002; Kodz et al, 2003). In other words, while some flexible arrangements such as flexible working hours, a reduction of working hours or part-time work might result in good performance outcomes like a decrease in staff turnover, absenteeism and overall heightened productivity, some arrangements, such as unusual working hours and overtime, might have negative outcomes.

Testing the framework of flexibility

ESWT data-set

The ESWT data cover working time flexibility arrangements and work–life balance issues in eight areas: part-time work; work at unsocial hours; flexible working hours; overtime; parental leave; long-term leave; retirement schemes; and measures to facilitate work–life balance. In addition, the survey provides background information on the use of temporary contracts and contractual flexibility by a company. With regard to certain flexibility arrangements, companies were asked about their level of take-up of such arrangements, while for other arrangements they were only asked to provide information on their availability. This is due to the fact that some of the arrangements should be legally available in all countries, such as part-time work or parental leave. For most questions on the usage and take-up of flexibility arrangements, the workers who availed of these options were also surveyed. Questions relating to phased retirement were only asked among establishments with workers who are aged 50 years or older. It should be noted that for certain parts of the survey, the time dimension varies in relation to the take-up of flexibility arrangements. Companies were asked about records of overtime for the period since the beginning of 2004. Information was sought in relation to the take-up of parental leave over the past three years. Data was also requested of companies relating to the use of non-standard labour, such as temporary agency workers, freelancers and workers on fixed-term contracts, over the preceding period of 12 months.

Table 3 Flexibility arrangements and work–life balance issues covered in the ESWT survey

Main category	Subcategories	Information	Proportion	Note
Part-time work	-	Use	O	
Unusual hours	Overall	Use	X	
	Work at night	Use	O	
	Work on Saturday	Use	O	
	Work on Sunday	Use	O	
	Shift system	Use	O	
Flexible working hours	Overall	Use	O	
	Working time accounts	Use	X	Possibility to accumulate hours to take full days off
Overtime	-	Use	O	During the year of survey (2004–2005)
Parental leave	Parental leave	Use	X	In the past three years
Long-term leave	Leave for care of or illness in family	Availability	X	
	Leave for education	Availability	X	
	Leave for other purposes	Availability	X	
Retirement schemes	Early retirement	Availability	X	Only companies with workers aged 50 years and older were asked
	Phased retirement	Availability	X	
Non-standard employment contracts	Fixed-term contracts	Use	X	In the past 12 months
	Temporary agency workers	Use	X	In the past 12 months
	Freelance workers	Use	X	In the past 12 months
Work–life balance facilities	Kindergarten or crèche	Availability	X	
	Professional help for childcare	Availability	X	
	Professional help for household management	Availability	X	
	Others	Availability	X	

Note: O = yes, included in the data. X = no, not in the data.

Source: ESWT, 2004–2005.

Based on the flexibility options available for employees and companies (Table 2), the flexibility arrangements surveyed in the ESWT can be categorised by whether the arrangement is ‘worker oriented’ or ‘company oriented’, as depicted in Table 4. Since the focus is on flexibility arrangements only, services to facilitate employees’ work–life balance are excluded from this analysis. However, the latter element will be included in the following chapters as it plays an important role in providing work–life balance to employees and may have some substitution effects with other arrangements.

Working time arrangements that are seen to improve flexibility for employees but not for the companies include leave schemes for parental reasons, care of a family member or relative, education and leave for other reasons. These arrangements have been developed mainly to help workers improve their work–life balance and to satisfy divergent working hour preferences. Although some of these arrangements can be used by employers at certain stages – for example, to reduce staff for a certain period of time or for other reasons – in most cases these arrangements were generally developed for workers. On the other hand, certain working time arrangements can facilitate employers’ needs for flexibility while not accommodating employees’ needs. Such arrangements include unusual working hours, overtime and temporary employment contracts. Even if some workers might wish to take up these types of arrangements for specific reasons, such as overtime for extra income, these arrangements are on a whole considered to be taken up involuntarily by workers

due to the lack of other options, and can have negative effects on the workers in the long run (Houseman and Polivka, 2000). As it is difficult to differentiate between the individual motives for taking up these types of arrangements, it could be considered a flexibility option used more by employers. Some working time arrangements are used to accommodate the needs of both employers and employees, such as part-time work, a flexible work schedule or early and phased retirement. Debates have centred around whose needs these arrangements accommodate most; the outcome can differ depending on the country and the company.

Table 4 Theoretical classification of flexibility options covered in the ESWT survey

		Worker-oriented flexibility	
		Yes	No
Company-oriented flexibility	Yes	Part-time work (INT) Flexible working time / schedule (INT) Phased retirement (INT) Early retirement (EXT)	Unusual working hours (night shift, Saturday shift, Sunday shift, shift work) (INT) Overtime (INT) Temporary employment (EXT) (fixed-term contracts, temporary agency workers, freelance workers)
	No	Parental leave (INT) Long-term leave for care work, education, other reasons (INT)	-

Note: INT = internal numerical flexibility; EXT = external numerical flexibility.

Source: Authors' original.

In addition, as noted in Table 4, arrangements can also be categorised according to traditional ways, i.e. in relation to internal numerical flexibility and external numerical flexibility. Of all the arrangements referenced, the three different types of temporary employment and early retirement could be regarded as arrangements used to increase flexibility outside of the establishment, while the rest are used internally within the company through working time variations.

Factor analysis outcomes

This section tests the flexibility framework in terms of how working time and contractual arrangements can be clustered into latent factors. First, the result is evaluated using all relevant information given within the ESWT data set regarding flexibility, not only working time but also contractual arrangements. The first analysis uses the most disaggregated variables to see if the workings of the arrangements categorised as being a single type of arrangement correspond with each other. In this case, the variables indicate whether the company takes up a particular arrangement or not. Some arrangements are covered by most companies, such as part-time work and overtime; these arrangements are used by 63% and 78%, respectively, of all European companies. For bigger establishments, it is likely that there will be at least a small proportion of workers who are using a certain type of arrangement. For this reason, companies are surveyed that use a certain working time arrangement for at least 20% of its workforce for those arrangements where this distinction is possible. In this regard, establishment weights are used which make the results from this stratified sample representative for the actual distribution of companies within the population of establishments in the EU21.

Table 5 Rotated component matrix for disaggregated variables

	Component				
	1	2	3	4	5
Part-time workers (>20%)	.144	.001	.652	-.142	.052
Work at night (>20%)	.718	.022	-.084	.029	.012
Work on Saturday (>20%)	.814	-.028	.138	-.045	-.015
Work on Sunday (>20%)	.853	.014	.122	-.037	.017
Shift system (>20%)	.601	.064	-.017	-.131	.096
Flexible working hours (>20%)	-.069	.065	.198	-.079	.710
Overtime (>20%)	.153	-.020	-.001	.087	.629
Parental leave	.024	-.028	.313	.475	.177
Leave for care work or illness in family	.023	.807	.110	.010	.021
Leave for education	.031	.810	.096	.059	.058
Leave for other purposes	.024	.699	.074	-.016	.015
Early retirement possible	-.036	.263	.534	.246	-.075
Phased retirement possible (and relevant)	-.006	.184	.688	.101	.118
Fixed-term contracts	.093	.115	.072	.654	-.196
Temporary agency workers	-.013	-.055	-.094	.639	.134
Freelance workers	.013	.132	-.296	.300	.371

Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalisation.

Establishment weighted.

Source: ESWT, 2004–2005.

In Table 5, the first factor (component) includes all the subcategories of unusual working hours, including night shifts, Saturday and Sunday work, and the existence of shift systems, which is closely related to unusual hours. The second factor includes all the long-leave schemes, including leave for care work, education and other reasons. The fourth factor is the flexible employment contract component, along with parental leave; these two types of working time arrangements are included in the same factor due to the fact that temporary jobs are used to cover workers who are on leave. Among the flexible types of employment, freelance work seems to be slightly different from the other two. This is due to the fact that the correlation between flexible employment contracts and freelance work, the so-called loading on the fourth factor, is weak; freelance work also (weakly) loads on the fifth factor with flexible working hours and overtime. The third factor consists of the retirement arrangements in conjunction with part-time work. An interesting finding is that the highest correlations (loadings) come from phased retirement and part-time work. This may result from phased retirement being a form of part-time work for older workers; thus, any company with phased retirement arrangements will automatically have part-time workers as well. In other words, this factor can be considered as the part-time factor rather than the retirement factor. The last factor includes flexible working time and overtime, each with positive loadings. This may reflect the fact that it is the companies with long working hours that take up flexible working time accounts or annualised working time accounts to avoid paying an overtime premium. For example, in France, when the legal working week was decreased to 35 hours, the working time account (Compte épargne temps, CET) was also introduced at that time to allow for longer working weeks without having to pay out significant overtime compensations (Muffels et al, 2007).

Table 6 Rotated component matrix

	Component		
	1 Worker oriented	2	3 Company oriented
Part-time workers (>20%)	.198	.416	.098
Unusual hours	-.049	.158	.769
Flexible working hours (>20%)	.124	.705	-.399
Overtime (>20%)	-.173	.637	.343
Parental leave	.385	.264	.243
Long-term leave available	.702	.073	-.078
Early retirement possible	.660	.064	-.017
Non-standard workers	.439	-.132	.450

Note: Extraction method: Principal component analysis. Rotation method: Varimax with Kaiser normalisation.

Establishment weighted.

Source: ESWT, 2004–2005.

Three components (factors) emerge from the above results. The first factor includes all of the leave schemes, such as parental leave, other long-term leave and early retirement. The second factor consists of part-time work, flexible working hours and overtime. The third factor consists of unusual hours with non-standard employment. Although the outcomes of the analysis do not completely mirror the theoretical framework hypothesis, the arrangements do seem to divide into those which are more worker oriented, such as the first factor, and those which are more company oriented, such as the third factor.

This implies that companies organise their working time options and flexibility measures by bundling together specific arrangements. For example, companies may take up all types of leave arrangements together, such as parental leave, long-term leave and early retirement, but they will rarely take up one type of leave arrangement without the other. In companies that take up the two company-oriented flexibility arrangements, namely unusual working hours and temporary employment contracts, they usually use both; those companies will have a good chance of also using overtime as a working time arrangement. Companies which use overtime have a higher incidence of using flexible working hours and part-time workers. This thus serves as a basis for deriving clusters of companies, or distinctive types of working time organisation of European companies.

This chapter distinguishes between different types of companies based on the way in which working time flexibility and work–life balance options are organised internally. Such a company typology of working time flexibility is derived from a range of indicators on the issue and related topics from the ESWT data-set. It refers to how companies organise their activities in this respect. First, the method of analysis used is described. Secondly, the flexibility profiles found in the European context are presented. Finally, the differences and similarities between countries are examined by looking at which flexibility profiles regarding working time arrangements are overrepresented or underrepresented in each country.

Latent cluster model

For the purpose of deriving a typology of working time practices, it is important to distinguish between two levels at which the clustering may be directed:

1. clusters of practices;
2. clusters of companies, or more precisely, establishments.

The first type of clustering refers to how certain elements of working time flexibility are combined in practice; for example, the availability of early retirement arrangements will usually coincide with options for phased retirement. Some working time practices will be complementary, while some others might act as substitutes. This type of clustering of working time practices can be studied by performing a factor analysis on a range of indicators and deriving common factors that show which combinations of working time arrangements are commonly used. A specific company can, however, decide to use only some of these arrangements and vary the extent to which these are applied. The clustering of working time practices should therefore be distinguished from a clustering of companies.

The latter type of clustering refers to the complete set of working time options and reflects the combination in which the arrangements are used or not used by establishments or organisations. For the purpose of this research project, it is interesting to derive a typology of establishments. This requires a methodology that exclusively assigns an establishment to one in a range of types to be distinguished. Moreover, the types of establishments that can be distinguished are not known beforehand and will have to be constructed on the basis of the observed working time arrangements and practices in the ESWT data-set.

The flexibility profiles of companies will therefore be modelled as latent classes, which in the statistical model determine the observed patterns in which working time arrangements are used in practice. This way of modelling the observed patterns of flexibility indicators singles out groups of establishments that are quite similar in terms of the working time arrangements they do or do not use, but on the other hand differ substantially from the other establishments. The number of groups or clusters is not known beforehand and is determined on the basis of a ‘goodness of fit’ criterion from statistical decision theory expressing how well the resulting clusters fit the data. This type of analysis is called a latent class analysis and the resulting statistical model is a latent class model.⁸ It actually refers to a relatively general class of models with the advantage that it can deal with very different types of indicators – continuous measures, unordered categories, ordered categories, event histories,

⁸ In statistics and econometrics, this type of model is also referred to as a mixed model or a random effect model. The model is estimated using the LatentGold software. See Vermunt and Magidson (2005) for a more detailed discussion of this type of model and the software used.

or count data – by using the best applicable specifications as submodels for each indicator, and linking their outcomes by referring to the latent class to which an organisation is assigned.

Table 7 shows the indicators in the ESWT data that were used in this analysis. For each topic that was distinguished in the questionnaire, one or more indicators were defined. Most of these were already introduced in the previous chapter, and a more detailed discussion of these variables can be found in Annex 1.

Table 7 Indicators for working time flexibility and work–life balance

Topic	Dichotomous indicators (= 1 if applicable, 0 otherwise)
Part-time work	Part-time workers Part-time workers ($\geq 20\%$ of the employees)
Unusual hours	Unusual working hours Work at night Work on Saturday Work on Sunday Work at night ($\geq 20\%$ of the employees) Work on Saturday ($\geq 20\%$ of the employees) Work on Sunday ($\geq 20\%$ of the employees) Shift system Shift system ($\geq 20\%$ of the employees)
Flexible working time	Flexible working hours Flexible working hours ($\geq 20\%$ of the employees) Working time accounts
Overtime	Overtime Overtime ($\geq 20\%$ of the employees)
Leave arrangements	Parental leave Long-term leave available Leave for care work or illness in family Leave for education Leave for other purposes
Early and phased retirement	Early retirement possible Phased retirement possible (and relevant)
Measures for work–life balance	Measures to facilitate work–life balance
Flexible contract workers	Workers on flexible contracts Fixed-term contracts Temporary agency workers Freelance workers

Source: ESWT, 2004–2005.

For each number of clusters, a model is estimated that associates each cluster with a combination of working time practices and simultaneously assigns companies to these profiles in order to give the best description of the observed patterns of practices in the data. The optimal number of clusters can be determined by comparing the model outcomes on the basis of several available measures summarising how well the model fits the data. Moreover, inspections need to be carried out to determine whether model assumptions are violated, which is usually the case if the number of clusters is too small, and whether each cluster still contains a substantial number of companies. For the comparison of the models that pass this validity check – and that implicitly determine the optimal number of latent classes – the so-called Bayesian Information Criterion is probably the most frequently used ‘goodness of fit’ measure, which will be followed in this research.

To determine the number of latent clusters, a preliminary specification was studied in which the following indicators were used:

- part-time work: whether the establishments have any part-time workers;
- unusual hours: whether there are employees in the establishment who regularly work at night or during the weekend;
- flexible working hours: whether employees can to some extent determine when they begin or finish their working day;
- overtime: whether employees have worked any overtime in the preceding months;
- parental leave: whether employees have been on parental leave in the last three years;
- other leave arrangements: whether other extended leave arrangements are available in the establishment;
- early retirement: whether employees have the possibility to retire before the statutory retirement age;
- work–life balance arrangements: whether the establishment offers special services to support the domestic commitments of employees;
- non-standard employment: whether the establishment currently employs workers on fixed-term contracts, temporary agency workers or freelancers.

On the basis of the Bayesian Information Criterion, the optimal number of latent clusters turns out to be six. The model outcomes for this number of clusters support the assumptions underlying the statistical model and the classes each contain at least 5% of the observed establishments.

Starting from the results of the preliminary analysis, a range of alternative specifications was analysed using various combinations of the indicators in Table 7. The results of these analyses are quite similar. For the final analysis, most of the indicators from the preliminary analysis have been used, but the indicators for part-time work, flexible working hours and overtime have been replaced by indicators denoting whether these apply to at least 20% of the workers in a company. The results show that using the 20% threshold allows for a sharper distinction between companies and profiles while still comparing groups that are sufficiently large in size. A percentage of workers was used as a threshold so that the meaning of the indicators would not otherwise be affected by the company's size. In sectors or countries with few part-time workers, most of the smaller establishments will report no part-time workers, while almost all of the larger establishments will employ some part-time workers even though their number may be relatively small. Applying the 20% threshold accounts for this conceptual bias.

Typology of working time flexibility

The typology of working time flexibility is derived from the latent class analysis using the following set of indicators:

- part-time work: whether 20% or more of the employees are part-time workers;
- unusual hours: whether there are employees in the establishment who regularly work at night or during the weekend;

- flexible working hours: whether 20% or more of the employees can to some extent determine when they begin or finish their working day;
- overtime: whether 20% or more of the employees have worked any overtime in the preceding months;
- parental leave: whether employees have been on parental leave in the last three years;
- long-term leave: whether extended leave arrangements – other than parental leave – are available in the establishment;
- early retirement: whether employees have the option to retire before the statutory retirement age;
- work–life balance arrangements: whether the establishment offers special services to support the domestic commitments of employees;
- non-standard employment: whether the establishment currently employs workers on fixed-term contracts, temporary agency workers or freelancers.

The outcomes of the cluster analysis are summarised in Table 8, which shows the six clusters as columns, ranked by the number of establishments they represent.⁹ For each indicator, this table shows what percentage of that type of establishment has the corresponding property. For the indicator of part-time work, it shows that 33% of establishments in the first cluster have 20% or more part-time workers, whereas this applies to 89% of establishments in the sixth cluster and 25% of all establishments surveyed. The detailed estimation results are included in Table A3 in Annex 2.

Cluster 1 includes 22% of all establishments surveyed, and most of these establishments use all the options for working time flexibility addressed here. However, the data relating to flexible working hours in this case represents the lowest take-up among companies than in all of the other clusters. Cluster 5, which covers 14% of all establishments, consists of establishments that take up most of the arrangements covered, with the notable exception of unusual working hours, for which the proportion of establishments using this option is below average. However, contrarily to Cluster 1, Cluster 5 shows the highest take-up of flexible working hours, while Cluster 1 has in fact the highest proportion of companies with irregular operating hours. Clusters 1 and 5 can be seen as the types of establishments that exhibit the highest level of flexibility regarding working times and work–life balance issues; however, Cluster 1 is more likely to have extended and unusual working hours while Cluster 5 is more likely to have flexible working hours. On the opposite side of the scale to these two clusters is the second cluster, which accounts for 21% of all establishments in the analysis, but consists of companies with a below-average take-up rate of all the flexibility options addressed in this analysis, especially of overtime, which shows a rate of 0%. The other clusters can be interpreted as showing intermediate levels of flexibility and work–life balance measures, differing according to which arrangement is emphasised more than the others.

The two most flexible clusters – Clusters 1 and 5 – differ most clearly in their use of flexible working hours and unusual working hours. Looking at the other aspects of working time flexibility, the differences are smaller and take-up rates are above the average for both clusters. By emphasising the difference, it could be concluded that the Cluster 1 shows higher levels of working time arrangements that are more driven by companies’ operational needs, such as unusual working hours and non-

⁹ In the analyses, the observations are weighed by establishment weights to account for sample stratification. Outcomes are therefore representative of the population of establishments in the 21 European countries which participated in the ESWT.

standard employment contracts. On the other hand, Cluster 5 indicates higher levels of flexible working hours and long-term leave arrangements and a rather higher take-up of overtime and parental leave. All of these working time practices, perhaps with the exception of overtime, are arrangements directly aimed at workers' work-life balance needs. For this reason, within the two high-flexibility clusters, it is possible to define Cluster 5 as the *worker-oriented flexibility* cluster and Cluster 1 as the *company-oriented flexibility* cluster.

Table 8 Profiles of company clusters (%)

	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6	Overall
Cluster size (% of companies)	22	21	18	18	14	7	
Indicators							
Part-time work	33	6	0	31	32	89	25
Unusual hours	70	20	42	33	37	56	42
Flexible working hours	14	20	31	37	97	49	37
Overtime	57	0	90	41	66	49	49
Parental leave	76	36	34	44	80	43	53
Long-term leave	70	39	34	89	78	37	59
Early retirement	67	31	30	96	68	37	56
Work-life balance	11	2	3	15	10	9	8
Non-standard employment	95	59	61	66	84	43	70

Source: ESWT, 2004–2005.

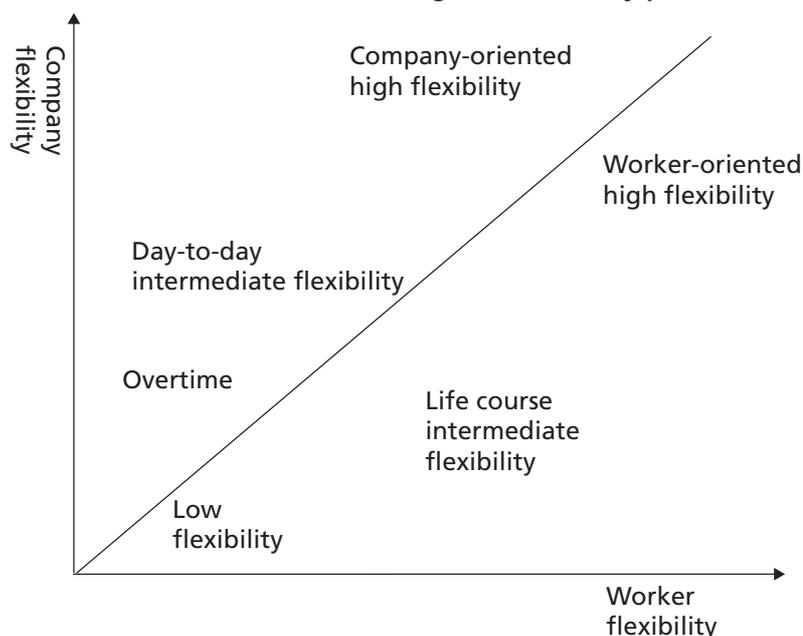
Similarly, it is possible to draw a distinction between the three intermediate-level flexibility clusters based on the working time flexibility practices that are more prevalent and those that figure less prominently in each cluster. First of all, Cluster 4 shows an exceptionally high proportion of companies that have arrangements for early retirement and longer periods of leave and offer various services to facilitate a better work-life balance for workers. This cluster also exhibits significant scores for part-time work, while having comparatively low levels of unusual working hours, overtime and parental leave. For this reason, Cluster 4 can be referred to as the *life course flexibility* cluster, underlining its emphasis on arrangements to improve work-life balance throughout the worker's life course. On the other hand, Cluster 6 shows low percentages of establishments having leave and retirement schemes, but the highest take-up of part-time work, as well as high levels of unusual working hours and overtime. This cluster also has an above-average score for providing measures to facilitate work-life balance, although only 9% of companies within this cluster provide such measures. Looking at the total package of working time arrangements overrepresented in this cluster, it makes sense to assume that Cluster 6 mainly consists of companies facing short-term (within a day or week) variability of the workload, thus needing part-time work and flexible working hours. However, these companies might not use temporary contracts as these are more suitable for dealing with workload variation over longer periods of time. Accordingly, this cluster will be referred to as the *daily or day-to-day flexibility* cluster. Cluster 3 shows very low levels of all arrangements, with the exception of overtime and unusual working hours: 90% of establishments in this cluster have more than a fifth of employees working overtime on a regular basis, and their use of extended and unusual working hours is at the average level of all European companies surveyed. For this reason, Cluster 3 can be referred to as the *overtime* cluster. Cluster 2 is the *low-flexibility* cluster, which reveals the lowest use of unusual working hours, flexible working hours, overtime and work-life balance services out of all of the company clusters. Additionally, scores on all the other flexibility items are far below the average. It is worthwhile noting that the company clustering is consistent with the bundles of working time arrangements that were found in the factor analysis in Chapter 1. The establishment

clusters can therefore be based on which of these bundles a company upholds, rather than on the use or non-use of each of the measures and facilities separately.

Before elaborating on the typology, it should be noted that the typology is based on the available data and therefore depends on the possibilities and the limitations of the data used. Primarily, the typology is a means of compressing or summarising the information on the practices regarding working times in the companies surveyed. However, exploratory as this may be, it also allows an assessment of the flexibility strategies of companies on the dimensions covered by the survey. The scope of such an assessment is, however, limited by the information that was used to carry it out. A wider application would require further scrutiny of the internal and external validity of the typology. In this case, internal validity refers to the robustness of the typology with respect to the use of alternative indicators on the topics covered; external validity refers to its robustness to the use of indicators on a wider range of flexibility themes (such as internal numerical and functional flexibility) and its relation to the outcomes of more theoretical and institutional research. The clusters derived above demonstrate that the observed diversity of company practices on the topics in the ESWT can be successfully captured by a typology distinguishing six types of companies. This typology clearly shows that the company profiles, which can be distinguished in this way, not only differ in the amount of flexibility measures used but also in their focus on the two main reasons for adopting more flexible practices, notably satisfying companies' or workers' needs.

Summarising the points outlined in the previous paragraphs, a synopsis could tentatively be provided as in Figure 3, where each of the six clusters is positioned according to the extent and the focus of working time flexibility. The degree of flexibility is denoted by the distance from the origin. The position relative to the 45-degree line through the origin indicates the focus of the package of flexible practices. Closer towards the horizontal axis are profiles that focus on supporting a better work–life balance for workers, while closer to the vertical axes are profiles that put more weight on flexibility for the purpose of the company's adaptability to external shocks.

Figure 3 Focus and extent of the six working time flexibility profiles



Source: Authors.

Table 9 Typology of working time flexibility and overview of all indicators, by type of company

	Working time flexibility					
	High		Intermediate			Low
	Worker oriented	Company oriented	Life course	Day-to-day	Overtime	
% of companies	14%	22%	18%	7%	18%	21%
Dichotomous indicators (% of companies for which applicable)						
Part-time workers	+	+		++	-	--
Part-time workers (>20%) (*)	++	++	+	++	--	--
Unusual working hours (*)						
Work at night	-	++	-	+	-	--
Work on Saturday	-	++	-	++		--
Work on Sunday		++	-	++	-	--
Work at night (>20%)	-	++	-	++		--
Work on Saturday (>20%)	-	++	-	++		--
Work on Sunday (>20%)		++	-	++	-	--
Shift system	+	++	-			--
Shift system (>20%)	+	++				--
Flexible working hours	++	--		+	-	--
Flexible working hours (>20%) (*)	++	--		++	-	--
Working time accounts	++	--		+	-	--
Overtime	+	+			++	--
Overtime (>20%) (*)	++	+	-		++	--
Parental leave (*)	++	++	-	-	--	--
Long-term leave available (*)	++	+	++	--	--	--
Leave for care work or illness in family	++	+	++	--	--	--
Leave for education	++	+	++	--	--	--
Leave for other purposes	++	+	++	--	--	--
Early retirement possible (*)	+	+	++	--	--	--
Phased retirement possible (and relevant)	++	+	++		--	--
Measures to facilitate work-life balance (*)	++	++	++	+	--	--
Workers on flexible contracts (*)	+	++		--	-	-
Fixed-term contracts	+	++		--	-	-
Temporary agency workers	++	++	-	--		--
Freelance workers	++	+	-	--		-

Notes: (*) indicates that the indicator was included in the estimation of the latent class model, i.e. in the construction of the typology. ++ = 25% or more above the average. + = 10–25% or more above the average. - = 10–25% or more below the average. -- = 25% or more below the average.

Source: ESWT, 2004–2005.

When establishing this working time flexibility typology, only a subset of the indicators given in Table 7 has been used. To summarise the typology and show how the typology relates to the other indicators of working time flexibility, Table 9 outlines the cluster profiles relative to the complete set of indicators.¹⁰ In this table, the clusters are ranked according to the decreasing degree of flexibility. The choice of the indicators which were used to derive the typology is supported by the fact that almost all indicators referring to one aspect of working time flexibility show the same or quite a similar pattern across the clusters. This demonstrates that the use of alternative indicators for a specific topic – for example, with or without applying threshold levels for the proportion of workers to which an arrangement applies – or more disaggregated indicators – for instance, by distinguishing between night shifts and weekend work – would not have led to a qualitatively different typology. This

¹⁰ The percentages for each indicator and establishment type are compiled in Table A4 in Annex 2.

support for the internal validity of the working time flexibility typology is in line with the results of the factor analysis in Chapter 1, in which alternative or disaggregated indicators were continuously showing a high correlation on the same factors.

Company clusters and country differences

As part of this analysis, the distribution of the six different company types within the 21 European countries under investigation will be examined. Based on the typologies of welfare state regimes and flexibility regimes, country differences and clustering of countries may emerge depending on how establishments in the country organise their working time and work–life balance options. This section, therefore, considers how the different types of companies, in terms of working time flexibility and work–life balance issues, are distributed within each country and whether the company typology aggregates to a country typology. This clustering of countries may – among other things – reflect cultural differences as well as differences in institutional settings.

First, the proportion of each of the six company types within each country will be examined. Table 10 shows the percentages of each type of organisation in the EU21 in the ESWT data-set. The countries are ranked according to the type of organisation which is most prominent, i.e. the modal company type in the country (see the shaded percentages). Overall, 36% of all companies surveyed in Europe can be categorised as high-flexibility organisations. This proportion is much higher in Finland and Sweden, where the largest share of companies represents the worker-oriented high-flexibility type and the second largest group comprises the company-oriented high-flexibility organisations. These are the two most flexible organisation profiles regarding working time and work–life balance, and when combined they account for 59% and 57%, respectively, of all establishments in Finland and Sweden. Belgium, the Czech Republic, France and the UK also have large shares of organisations of the company-oriented high-flexibility type, but in these countries the proportions of worker-oriented high-flexibility company types are only slightly above, and even sometimes below, the European average. The next distinctive group of countries are those which have a large share of low-flexibility companies. The southern European countries – Cyprus, Greece, Italy, Portugal and Spain – along with Belgium, Hungary, Luxembourg and Slovenia can be placed in this category. For most of the countries included in this group, the next biggest proportion of companies are those using overtime options and those that are company oriented with high flexibility. Organisations that are of the overtime-flexibility type do not use any working time arrangement more than average except overtime. Most of the other arrangements are used considerably less than in the average European company and this type of organisation could therefore be equally well classified within the low-flexibility type. In this regard, it is not surprising that the two company types go together. It is interesting to note that the next most prevailing type of organisation in these countries is the company-oriented high-flexibility type. This means that, in these countries, most companies do not use many flexibility or work–life balance options, but when they do, they usually take up arrangements which serve the organisation’s flexibility needs rather than the flexibility needs of workers. For the overtime-flexibility company type, Austria, Germany and Ireland have the highest incidence of this type of organisation than any of the other five company types.

A fifth group of countries is characterised by a large proportion of companies belonging to the remaining two intermediate-level types of flexibility, in particular to the life course type of flexibility, since the day-to-day flexibility type is not the dominant kind of organisation in any of the 21 countries

considered. In relation to the life course type of intermediate level of flexibility, Latvia, the Netherlands, Poland and to some degree Denmark and the Czech Republic have large shares of organisations in this category.

Table 10 Distribution of the six types of companies within the EU21 (%)

	Types of working time flexibility						
	High		Intermediate			Low	
	Worker oriented	Company oriented	Life course	Day-to-day	Overtime		
Overall	14	22	18	7	18	21	
Country							
FI	33	26	24	2	8	7	100
SE	32	25	11	7	14	11	100
FR	14	29	16	5	18	19	100
CZ	17	27	26	1	12	16	100
BE	11	26	17	6	14	26	100
UK	17	26	21	12	14	10	100
PL	12	21	35	3	7	22	100
NL	14	24	30	10	11	11	100
LV	13	24	28	5	9	22	100
DK	19	21	23	5	18	14	100
AT	13	13	9	11	32	22	100
IE	12	17	21	10	29	12	100
DE	17	19	15	12	23	13	100
EL	5	17	13	2	13	51	100
HU	7	17	20	3	12	41	100
ES	8	15	15	4	19	40	100
PT	7	24	14	1	15	39	100
IT	11	18	6	5	26	35	100
CY	3	22	15	4	24	33	100
SI	12	23	16	2	22	27	100
LU	13	21	17	4	22	23	100

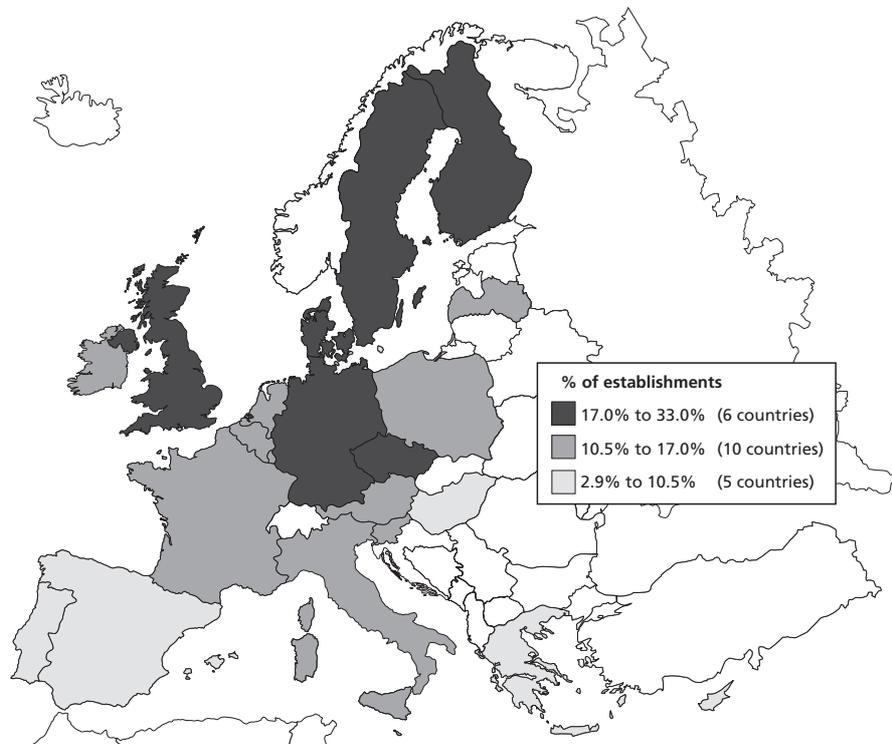
Source: ESWT, 2004–2005.

Focusing on each flexibility type separately, the prevalence of that option in each country is represented graphically in Figures 4 to 9. The first type examined is the worker-oriented high-flexibility company. In Figure 4, Denmark, Finland and Sweden have the highest percentages of companies that can be categorised among this flexibility type. However, the Czech Republic, Germany and the UK also show above-average shares of companies with worker-oriented flexibility arrangements. The southern European countries and Hungary show the lowest share of companies with worker-oriented flexibility. When examining the distribution of companies that are considered to be of the company-oriented high-flexibility type, the Nordic countries, except Denmark, with the Czech Republic and the UK show high proportions, while Germany shows a lower incidence of this type of company. Belgium, France and the Netherlands also show high levels of company-oriented high-flexibility companies, while the southern European countries and Hungary still show low percentages. These outcomes mirror the results for the proportion of companies which have overall low levels of flexibility, where the southern European countries and Hungary now show the highest numbers of this type of company. In addition, Slovenia and, rather surprisingly, Belgium also seem to have higher levels of companies that do not use much or any flexibility measures compared with other countries.

Even for the proportion of companies with arrangements that aim to support work–life balance throughout the life course – the life course flexibility type of company – it is the Nordic countries, namely Denmark and Finland with the exception of Sweden, that show the higher percentages. Along with these countries, the Czech Republic, Latvia, the Netherlands and Poland also show above-average proportions of companies that focus on providing arrangements geared towards the life course, as can be seen in Figure 6.

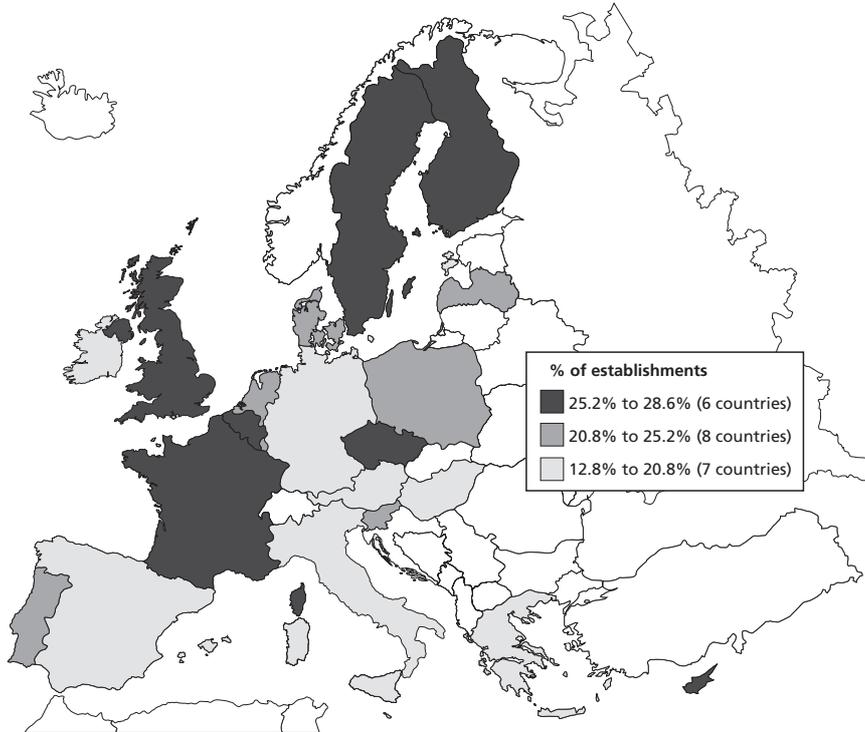
Austria, Germany, Ireland, the Netherlands and the UK have a higher incidence of day-to-day flexibility companies, while Austria, Cyprus, Germany, Ireland and Italy are the countries with higher percentages of companies that use overtime but have overall low levels of flexibility arrangements (see Figures 7 and 8).

Figure 4 Distribution of company flexibility types across Europe: high working time flexibility, worker oriented (%)



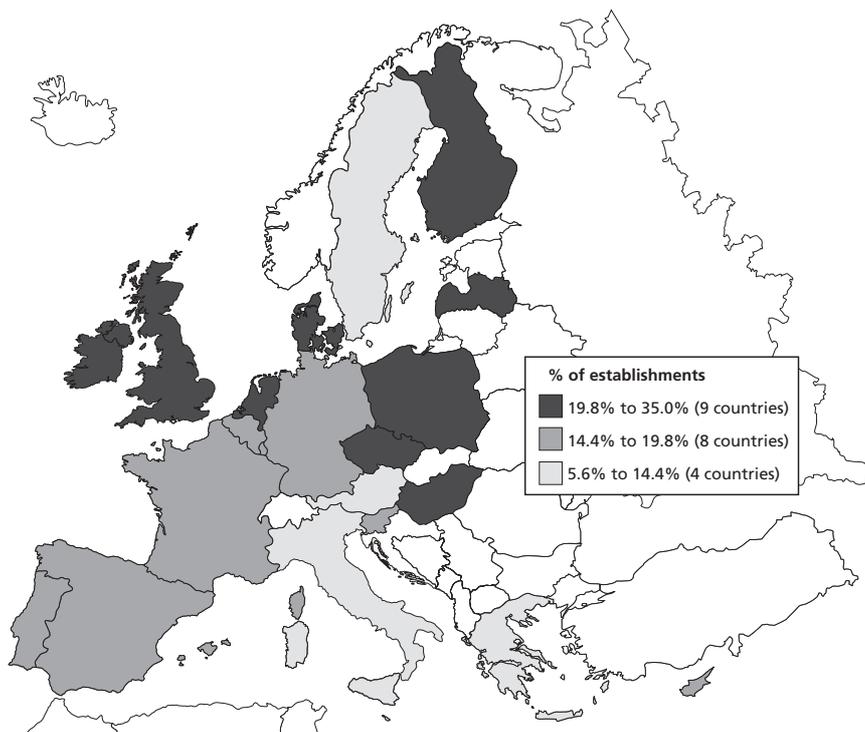
Source: ESWT, 2004–2005.

Figure 5 Distribution of company flexibility types across Europe: high working time flexibility, company oriented (%)



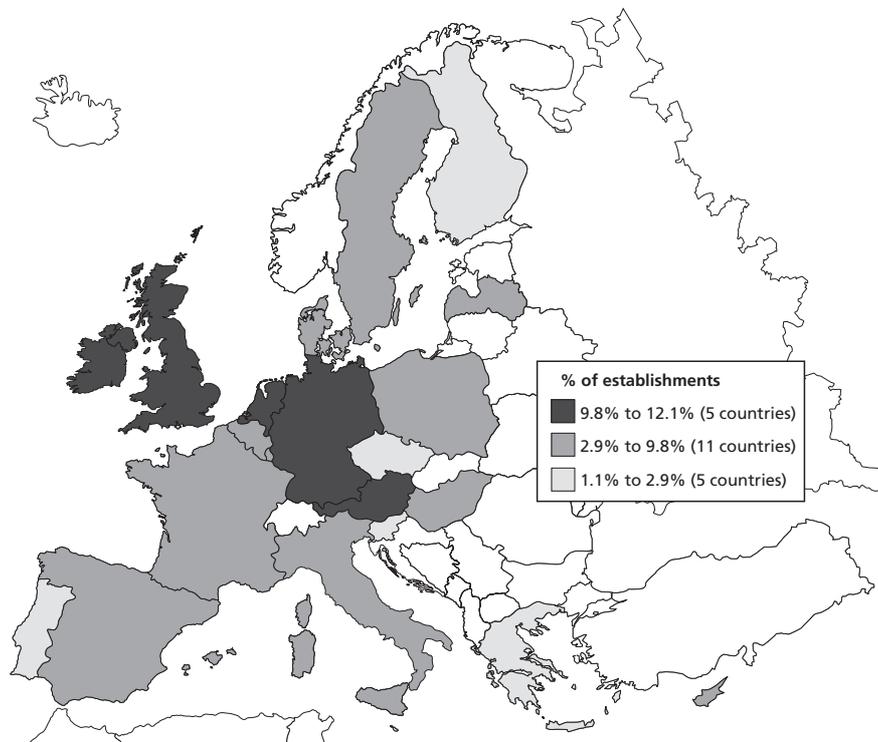
Source: ESWT, 2004–2005.

Figure 6 Distribution of company flexibility types across Europe: intermediate working time flexibility, life course oriented (%)



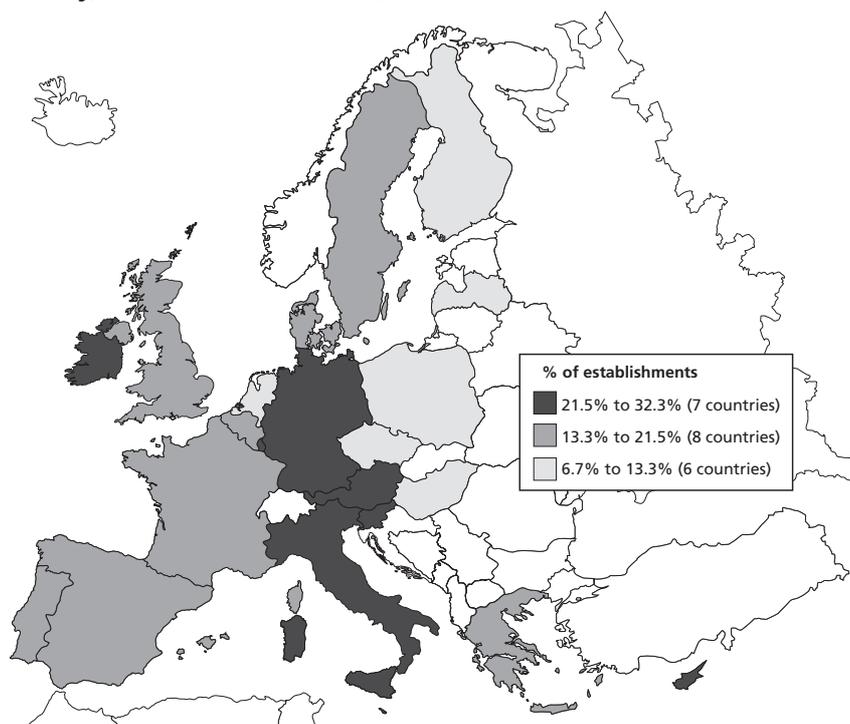
Source: ESWT, 2004–2005.

Figure 7 Distribution of company flexibility types across Europe: intermediate working time flexibility, day-to-day oriented (%)



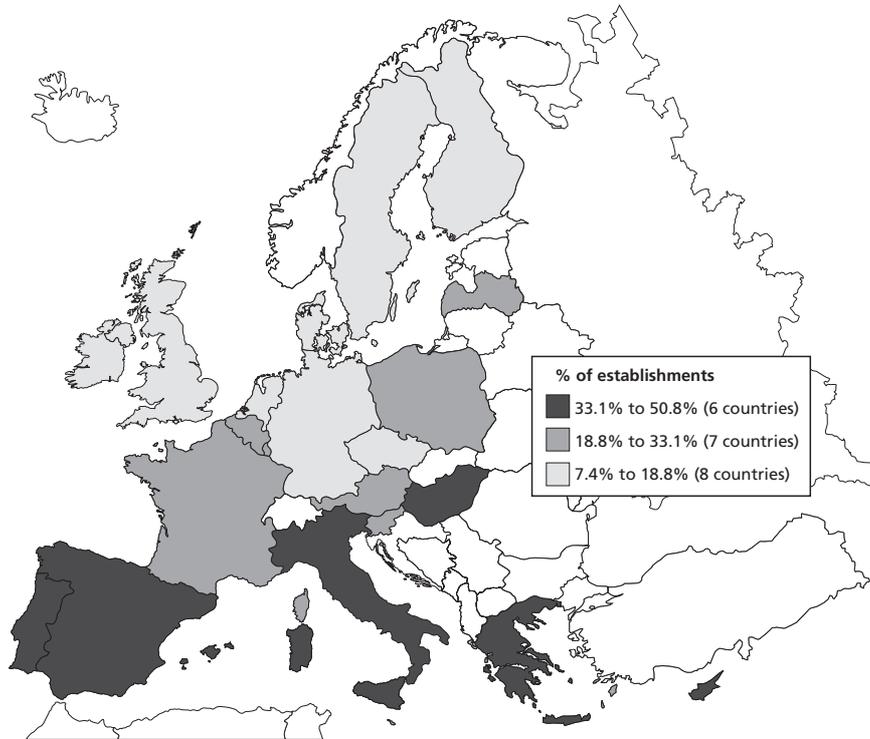
Source: ESWT, 2004–2005.

Figure 8 Distribution of company flexibility types across Europe: intermediate working time flexibility, overtime oriented (%)



Source: ESWT, 2004–2005.

Figure 9 Distribution of company flexibility types across Europe: low working time flexibility (%)



Source: ESWT, 2004–2005.

Table 10 and Figures 4 to 9 look at the distribution of each type of company and their prevalence. As the day-to-day flexibility type accounts for only 7% of the companies, the number of this type of company will even be low in countries that have substantially more of these establishments than other countries. To compare countries on the basis of where the distribution of companies differs from the European average, the prevalence of establishments relative to the distribution across all European establishments could be examined. In presenting this idea, Table 11 reveals whether the amount of each of the company types in every country are significantly above or below the European average. Shading indicates which type of company is the most overrepresented in a country compared with the distribution throughout Europe. Like in Table 10, the countries are ranked by the most prevalent type of company, but the ranking is now based on the relatively highest prevalence of the company types.

Looking at the distribution of companies in this way results in a rather different ranking and grouping of countries than in Table 10. The main reason for this difference relates to the fact that the number of establishments within each category is not the same, with one category having a higher share of one company type (such as the company-oriented high-flexibility company type and low-flexibility company type) than others which have only small proportions (such as the day-to-day intermediate-flexibility company type). For example, although Germany and the UK can be regarded as the countries that relatively have the highest percentages of day-to-day intermediate-flexibility companies within Europe, this does not necessarily mean that there are more day-to-day flexibility companies than any of the other types of companies, such as the company-oriented high-flexibility type, in these countries (see Table 10). In fact, the 'day-to-day flexibility' type of company makes up the

smallest proportion of all companies in Germany (12%) and also a very small number in the UK (also 12%). However, as this type of company accounts for only 7% of all establishments surveyed in Europe, the proportion of such companies in these two countries is almost twice as high as numbers in the rest of the European countries.

Table 11 Relative prevalence of the six company flexibility types, EU21

Country	Working time flexibility					
	High		Intermediate			Low
	Worker oriented	Company oriented	Life course	Day-to-day	Overtime	
FI	++	+	++	--	--	--
SE	++	+	--		-	--
FR		++	-	--		-
CZ	+	++	++	--	--	-
DK	++		++	--		--
LV	-		++	--	--	
NL		+	++	++	--	--
PL	-		++	--	--	
DE	+	-	-	++	++	--
UK	+	+	+	++	-	--
AT	-	--	--	++	++	
IE	-	-	+	++	++	--
LU	-			--	+	
BE	-	+		-	-	++
CY	--		-	--	++	++
EL	--	-	--	--	--	++
HU	--	-	+	--	--	++
IT	--	-	--	--	++	++
PT	--		-	--	-	++
SI	-		-	--	+	++
ES	--	--	-	--		++

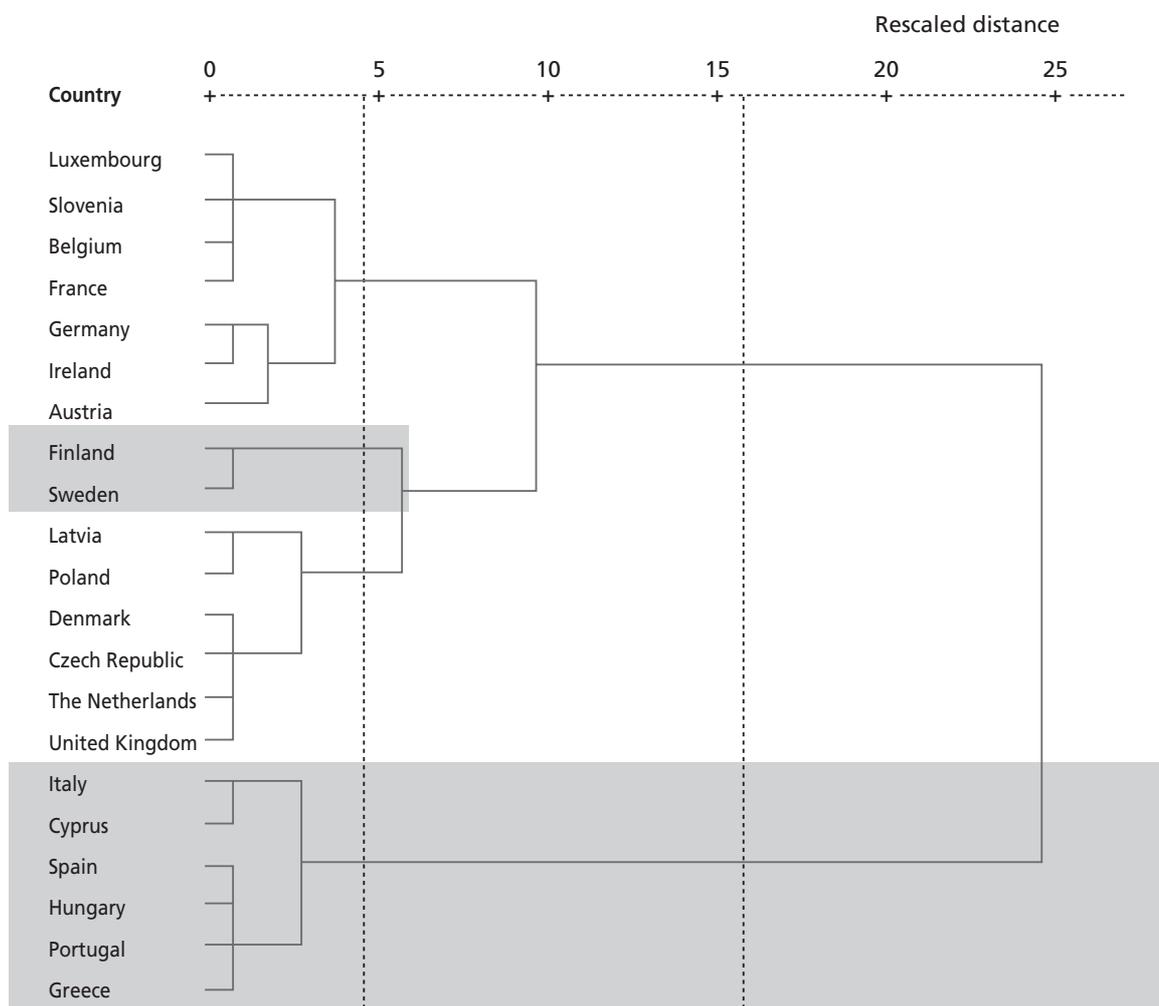
Notes: Shading indicates the modal type of establishment in a country, i.e. the relatively most prevalent type of establishment in a country. ++ = 25% or more above the average. + = 10%–25% or more above the average. - = 10%–25% or more below the average. -- = 25% or more below the average.

Source: ESWT, 2004–2005.

Two countries, Finland and Sweden, have the highest prevalence of worker-oriented flexibility compared with other countries. Denmark also has high numbers of worker-oriented flexibility establishments, but the relative prevalent company type is the life course-oriented company. The Netherlands also shows a high relative prevalence of this type of company along with three of the NMS, namely the Czech Republic, Latvia and Poland. France shows the highest incidence of the company-oriented establishments, although there are many countries where this type of company is prominent, as mentioned previously. An interesting point to note is that the liberal countries are grouped together with the corporatist continental European countries. Germany and the UK are grouped together in Table 11 due to the fact that both have a high relative prevalence of day-to-day flexibility-oriented companies, and Austria, Ireland and Luxembourg are grouped as having high levels of overtime-type companies. Lastly, all of the southern European countries, as well as Hungary, have a strong prevalence of low-flexibility companies. It is notable that, other than these countries, Belgium and Slovenia are also categorised as having a relatively high percentage of low-flexibility companies, although Belgium also shows high levels of company-oriented high-flexibility companies, as noted before.

Looking at the most prevalent type of companies in absolute and relative numbers in a country bears the risk of ignoring differences and similarities with respect to the other types of companies. It is therefore useful to have another look at the country differences by comparing the entire distribution of the companies in a country. This can be done by performing a so-called hierarchical cluster analysis.¹¹ In this way, it is possible to see which countries are closest in terms of a similar distribution of companies across the six company types and how countries can be grouped accordingly. The results of this analysis are summarised by the dendrogram in Figure 10.

Figure 10 Grouping of countries according to the distribution of companies across the six working time flexibility profiles (dendrogram)



Depending on what is defined as ‘close’, this allows a grouping of countries to resemble each other in terms of company types when it comes to the use of working time flexibility measures. Allowing a considerable distance (25 or higher in Figure 10) between members of the same group, the 21 countries form one large group. By reducing the distance that is allowed between countries that are

¹¹ The hierarchical cluster analysis used both the Ward cluster-analysis method, which provides an analysis of variance approach to evaluate the distances between clusters, and also the squared Euclidean distance measure.

grouped together, more groups appear following the bifurcations in the dendrogram. The first bifurcation separates the southern European countries and Hungary from the rest of the group. This separation is mainly driven by the first group of countries with a relatively high amount of low-flexibility companies. A further reduction of the maximum distance within groups splits the other countries into two groups, separating the three countries with the highest proportion of the ‘overtime’ company type (Austria, Germany and Ireland) along with the countries with high shares of the company-oriented high-flexibility company type (Belgium, France, Luxembourg and Slovenia) from the other countries. The remaining countries are then split into two groups: Finland and Sweden form a group of their own and so does the UK along with the countries that, according to Table 10, have a large proportion of the life course intermediate-flexibility type of companies (the Czech Republic, Denmark, Latvia, the Netherlands and Poland). Reducing the maximum difference leads to a further fragmentation of the groups, eventually leading to 21 single-country groups. The division into four groups reflects the main differences between countries without going into too much detail. The characteristics of these four groups are summarised in Table 12, labelling them generally by geographical position.

This country grouping shows some resemblance to the welfare state regimes, with the exception of the fact that there is not a separate liberal cluster (as Ireland and the UK are not in the same group), and Denmark and the Netherlands are not included in the Nordic cluster.

Table 12 Summary of country profiles

Group	Characteristics	Countries included
Nordic	High flexibility and worker oriented	FI and SE
Central 1	High/intermediate flexibility and worker oriented	CZ, DK, LV, NL, PL and UK
Central 2	Low/intermediate flexibility and company oriented	AT, BE, FR, DE, IE, LU and SI
South	Low flexibility and company oriented	CY, EL, ES, HU, IT and PT

Source: ESWT, 2004–2005.

Both Finland and Sweden are countries included in Esping-Andersen’s welfare regime typology as socio-democratic countries (1990; 1999) and are regarded as the typical dual-earner and state-carer models in the debate on the gender division of work. These countries represent those with developed social policies to facilitate various social risks. In these countries, it is typical for women to work on a full-time basis throughout their careers while the state takes comparatively more responsibility for the care of children and other dependent family members. This explains the high level of working time arrangements provided in companies that are considered to be more focused on workers’ needs. Why Denmark is not included in this model is not clear; however, it may be due to the relaxed employment protection legislation in this country. In other words, when considering working time options as an alternative method of increasing labour market flexibility in environments where there are restrictions on flexibility, it can be predicted that companies in countries with relaxed regulations for external flexibility – that is, if the cost of dismissing workers is low – may not have the need to use other types of flexibility measures that increase flexibility options for companies. For this reason, although companies in Denmark provide various options to adapt to the work–life balance needs of workers, the other flexibility options are not used as much as in the remaining two Nordic countries. The influence of legislative effects may also be the reason why the liberal countries such as Ireland and the UK do not appear to be the countries with the most flexible establishments, contrasting with

the results shown in the previous sections. The low-flexibility character of the southern European countries is also in line with the gender division of labour theory and with the welfare regime typologies, as mentioned in Chapter 1. Of the 21 countries examined in the ESWT, the southern European countries are considered to be the conservative countries, with a strong reliance on family to provide services and the division of work represented by the male breadwinner and female carer roles. In conjunction with the relatively underdeveloped characteristic of the welfare state, this division of labour makes them the group of countries where few options exist at company level to facilitate the work–life balance of workers, while their use of company-oriented flexibility arrangements are not limited by comparison. The division of the two central European clusters may also be explained by the debate on the gender division of work. The second central European group includes those countries, such as Austria, Belgium, France, Germany, Ireland, Luxembourg and Slovenia, which are perceived to be part of the conservative regime types. In these countries, the culture of a male breadwinner and to some extent of female part-time work prevails compared with the other central European cluster and, even more so, when compared with the Nordic cluster. For the first central European group, it is harder to explain the group characteristics with regards to existing theories. While considering the various types of flexibility, such as internal and external numerical flexibility, the discrepancies between the legislative aspects of flexibility and company practices are also reasons why the clusters do not mirror previous studies. In addition, it may be the case that the company and sector compositions of the countries come into play in the relative positioning of the countries.

From the analysis presented in this chapter, six prevailing types of companies exist in Europe regarding the way in which they organise working time and work–life balance options. These companies can be divided into high-, intermediate- and low-flexibility organisations. More specifically, they represent organisations that are worker oriented with high flexibility, company oriented with high flexibility, life course oriented with intermediate flexibility, day-to-day oriented with intermediate flexibility, overtime oriented with intermediate flexibility (although it could be argued that this is actually a low-flexibility type of organisation) and low-flexibility types. This typology is based on the working time arrangements and options that are used in the various companies. The company-oriented high-flexibility and low-flexibility types of establishments are the two most prevalent establishment types within Europe, covering 43% of all establishments surveyed. The smallest category is that of the moderately flexible companies profiled as having day-to-day flexibility. Overall, only 7% of this type of company exists in Europe. Although each country has some companies within each of the six company types, the numbers of each type of company differ substantially between countries. Whereas Scandinavian countries like Finland and Sweden show high levels of both the worker-oriented and company-oriented types of organisations, southern European countries, as well as Hungary, have high shares of companies that can be categorised as low-flexibility companies. For the other countries, the outcomes can be summarised in several ways, but they can essentially be categorised as belonging to one of two further groups of countries, depending on their level of flexibility and their focus. Interestingly, the NMS do not show up as being one cluster. The Czech Republic, Latvia and Poland are placed in the high-intermediate worker-oriented flexibility group, whereas Slovenia and Hungary are more similar to the southern European countries, having a relatively high amount of low-flexibility companies.

Some resemblance exists between these country clusters and the frequently used typologies based on welfare states regimes, as well as in relation to the discussion on the gender division of work, yet

this resemblance is far from a perfect match. The liberal welfare regime countries do not make up a distinguishable cluster, and some social-democratic Nordic countries are now divided.

Although country differences can account for some of the variation in organisational flexibility profiles, this does not indicate that the country in which the company is located determines the types of working time and work–life balance options that the company uses. In fact, each of the six types of organisations can be found in each of the 21 countries. To examine this further, other factors that might also play a role will have to be investigated and additional studies will need to be carried out to determine which of these organisational characteristics have the highest explanatory power.

This chapter examines the relationship between the flexibility profile of a company and its characteristics, such as size, sector or workforce composition. Based on the latent class analysis, each establishment can be uniquely assigned to one of the company clusters. In that way, it is possible to explore the background characteristics of the highly flexible companies and compare those to less-flexible companies. Conversely, for specific groups of companies, it is possible to examine how the proportion of each flexibility type differs from the average. Such analyses are exploratory and a correlation should not be interpreted as a causal relationship going one way or the other.¹² The presence of more flexible working time arrangements in a company may attract different types of workers. On the other hand, the existing workforce composition may also require a company to have arrangements that better suit the needs and capacities of its current employees.

The following section presents the multivariate analysis to get an overall picture of the relationship between the flexibility typology and a range of further characteristics, such as country, size, sector, workforce composition, workload variations, the length of the normal working week, the presence of collective agreements related to working time and the extent to which a company feels responsible for encouraging the work–life balance of its employees. The ESWT data also contain some indicators of establishment performance and personnel problems. As these variables are more likely to be affected by the company’s decisions regarding working time flexibility, these are considered separately. The distinction between the characteristics as determinants or effects is only suggestive and is a distinction in degree, rather than a distinction in kind.

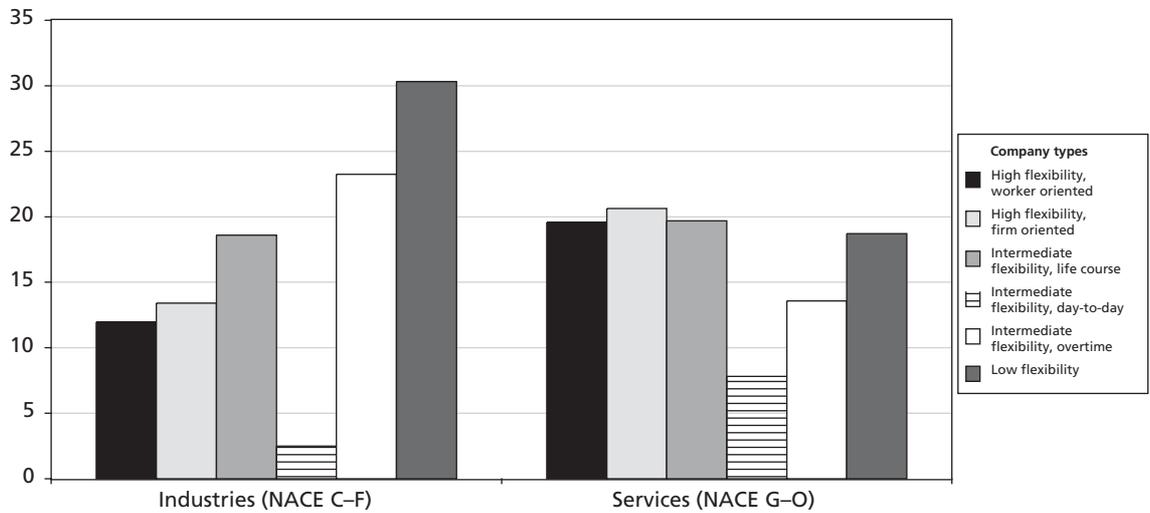
Multivariate analysis of the typology of working time flexibility

Based on the factor analysis in Chapter 1, it can be assumed that in addition to the country in which an organisation is located, sector, size and workforce composition are all important determinants in explaining how working time and work–life balance options are organised by a company. To investigate this further, this section examines the distribution of company types across sectors, company size and also the degree of responsibility a company has for its employees’ work–life balance. Subsequently, an analysis is presented of the controlled effects of these variables through a multivariate analysis.

As shown in Figure 11, the services sector has higher numbers of the high-flexibility types of companies, both worker and company oriented. This sector also has some degree of the life course and day-to-day types of moderately flexible companies. Conversely, the industry sector shows a higher proportion of companies with less flexibility, namely the overtime and low-flexibility type of companies. This may have to do with the fact that establishments in the services sector, which have less standardised work processes, have more opportunities to reorganise their working times. This distribution of flexibility types between the services and industry sectors could also be due to the fact that some forms of working time flexibility – such as unusual working and opening hours – are needed in the services sector to suit customer needs.

¹² A causal interpretation of such relationships requires analysis based on longitudinal data or the availability of suitable instrumental variables.

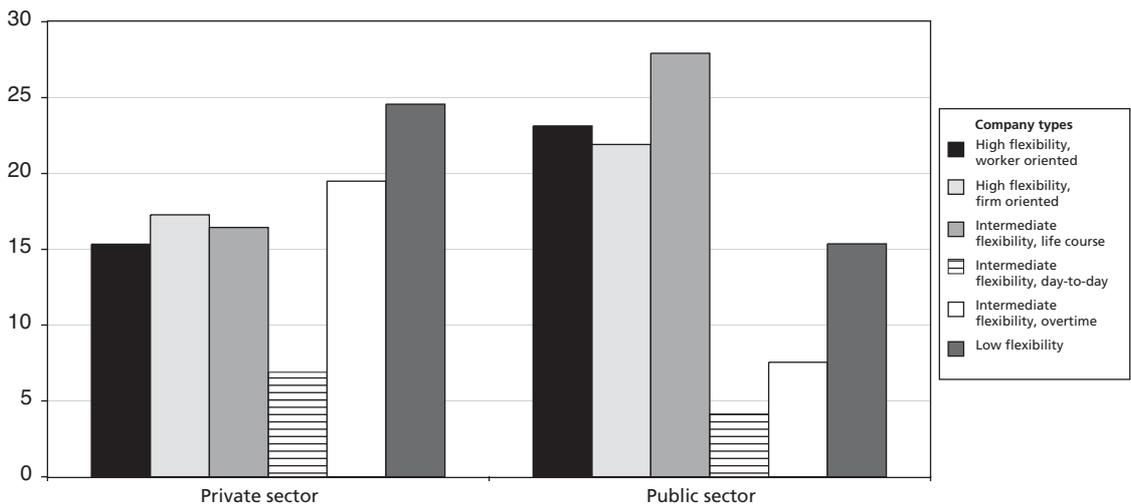
Figure 11 Distribution of company types, by sector (based on NACE classification) (%)



Source: ESWT, 2004–2005.

When comparing the private and public sectors (Figure 12), it seems that the public sector has higher proportions of the three more flexible types of organisations: the two high-flexibility types and the life course-oriented moderately flexible type of company. The differences are largest for the two flexibility profiles in which organisations focus on working time arrangements to facilitate employees’ work-life balance needs. This means that public sector companies appear to fare better in facilitating work-life balance options, by providing more flexible working time arrangements for their workers than private sector companies.

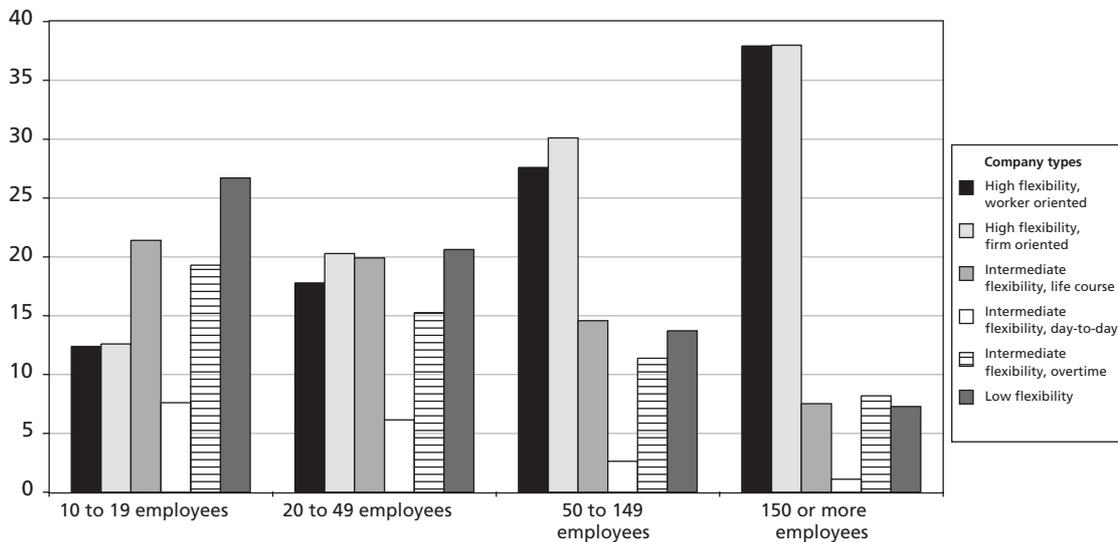
Figure 12 Distribution of company types, by private and public sectors (%)



Source: ESWT, 2004–2005.

The distribution of company types for various company sizes is also examined as part of the research. A comparison is drawn between four different company sizes, namely those with 10 to 19 employees, 20 to 49 employees, 50 to 149 employees and 150 or more employees.¹³ According to Figure 13, the share of companies which are classified as either of the two high-flexibility types is greater among larger establishments. Only a quarter of all small companies with 10 to 19 workers can be classified as highly flexible, whereas more than three-quarters of the larger companies with 150 or more employees can be categorised as being one or the other high-flexibility company types. On the other hand, the numbers of other company types fall as company size increases. The low-flexibility company type accounts for approximately 27% of all companies with 10 to 19 employees, while it accounts for only 8% of all establishments with 150 or more employees. The same applies to all of the intermediate flexibility company types, where the numbers of low-flexibility companies are substantially larger in the smaller company categories.

Figure 13 Distribution of company types, by company size (%)

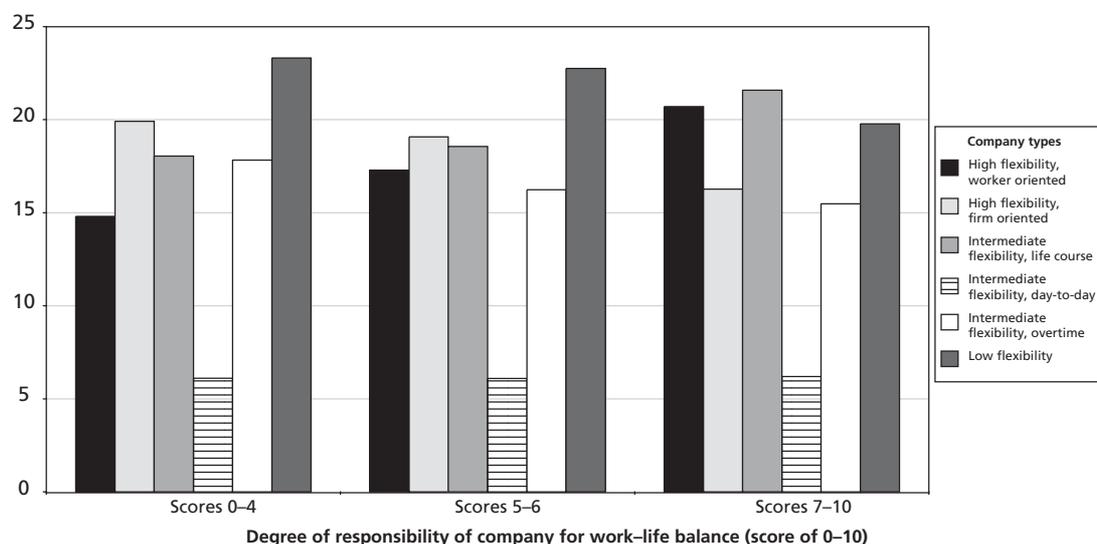


Source: ESWT, 2004–2005.

In addition, the distribution of company types is examined in relation to the extent to which the company management feels responsible for the work–life balance of their employees. In the survey, managers could choose from a scale of 0 to 10, with 10 representing the opinion that companies should organise their working time to encourage the work–life balance of their employees and 0 confirming that this is not the task of the company. In companies where the management assumes less responsibility for the quality of the work–life balance of their workers, they are less likely to be of the worker-oriented high-flexibility type or the life course-oriented moderately flexible type (Figure 14). On the other hand, if a company’s management assumes a considerable amount of responsibility for the work–life balance of their workers, the company is less likely to have a low-flexibility profile, to mainly use overtime for working time flexibility or to have a company-oriented high-flexibility profile.

¹³ Companies with fewer than 10 employees were not included in the survey.

Figure 14 Distribution of company types, by degree of management responsibility for employees' work-life balance (%)



Source: ESWT, 2004-2005.

To better understand how these and other company characteristics are related to the company's flexibility profile, a multinomial logistic model has been estimated. This model provides the analytical framework to describe how the probability that a company belongs to one of the six clusters depends on a range of company characteristics. The following characteristics are included in this analysis:

- country: 20 dummy variables, one for each country, except France, which is the reference category;
- sector of economic activity: 11 dummy variables, one for each sector, except for the manufacturing industry, as well as mining and quarrying, which are the reference categories;
- number of employees: three dummy variables for size classes, except for the reference category of establishments with 20 to 49 employees¹⁴;
- percentage of female workers: two dummy variables for the categories of establishments with less than 20% of women in the workforce and establishments with 60% or more female employees;
- percentage of skilled workers: two dummy variables for the categories of establishments with less than 20% of skilled employees and establishments with 20% to 79% of skilled employees in the workforce;
- percentage of young employees: two dummy variables for establishments with 20% to 39% and 40% or more employees aged younger than 30 years, respectively;
- percentage of older employees: two dummy variables for establishments with 20% to 39% and 40% or more employees aged 50 years or older, respectively;

¹⁴ The categories were chosen so that each category would contain a sufficiently large number of establishments. Various alternatives – varying both the number and the ranges of the categories – were considered to make sure that the outcomes would be sufficiently robust. The same procedure was followed for the other categorical variables.

- length of the normal working week: one dummy variable for working weeks of less than 40 hours and one for working weeks of more than 40 hours;
- collective agreement: one dummy variable indicating whether a collective agreement related to working time is present;
- degree to which establishments consider employees' work-life balance as a company responsibility (score of 0 to 10): two dummy variables, for scores of four or lower and for scores of seven or higher, respectively;
- workload variations: one dummy variable for workload variation within a working week or even within a working day, one indicating whether these fluctuations are to some extent unexpected, one indicating seasonal fluctuations or other long-run fluctuations within a year and one indicating whether the latter are unforeseeable;
- organisational structure: one dummy variable indicating whether the establishment is part of a multi-site organisation.

Table 13 summarises the results of that analysis (detailed estimation results are in Table A5 in Annex 2). The figures in Table 13 reflect the marginal effects of the independent variables – as indicators of company characteristics – on the probability that a company is of the specified flexibility type. For each indicator, this denotes the scope by which the probability will increase (in percentage points) if it takes on value 1 rather than 0. An establishment in Belgium will therefore be seven percentage points more likely to be of the 'life course intermediate flexibility' type but four percentage points less likely to be of the 'overtime flexibility' type than if the establishment would have been located in France (holding all the other company characteristics the same).

The size of the marginal effects corresponds to the country averages reflected in Table 10, but are on average lower. This indicates that the other characteristics in the multivariate analysis shown in Table 13 can help to explain some of the differences between countries, but this still leaves a substantial amount of variation unexplained.

The marginal effects for the sector of economic activity show that flexibility profiles also vary considerably between sectors. The manufacturing industries and the mining and quarrying sector are the reference categories for this set of indicators. The construction sector can be characterised by an overrepresentation of the low-flexibility type of companies. The typical worker-oriented high-flexibility sectors include public administration, financial intermediation, real estate, renting and business activities, electricity, gas and water supply and other community, social and personal services. Health and social work stands out as the company-oriented high-flexibility sector, with a higher probability of 20 percentage points of companies being of this type than in the manufacturing industries and mining and quarrying. However, the transport, storage and communication sector and the hotels and restaurants sector also show a relatively large percentage of this type of company. The life course-oriented moderately flexible type of companies are overrepresented in the education sector. The day-to-day flexibility type accounts for the lowest amount of all establishments. Therefore, the variation across sectors is also lower than for the other types of companies. Nevertheless, the day-to-day flexibility type of company is overrepresented in the hotels and restaurants sector, and in the other community, social and personal services sector. The type of companies for which working time flexibility mainly concerns overtime is most frequently found in the manufacturing industries and the

transport, storage and communication sector. Overall, more organisations with a higher-flexibility profile operate in the services sector, while more companies with a lower-flexibility profile are in industry. After controlling for the differences between sectors, the variation between public and private companies is small, showing only a clearly smaller proportion of establishments with overtime arrangements in the public sector. It should be added that the main difference between the public and the private sector is captured by the sector differences.

Company size is an important factor in the analysis: larger companies are more often the most flexible organisations, both in terms of those that are more focused on company needs and those that are more focused on workers' needs. The other four types of establishments are therefore more likely to represent smaller-sized companies. This relationship with company size is particularly strong in relation to the probability that a company belongs to the low-flexibility category. A similar relation to the flexibility of companies is seen for whether or not a company is part of a multi-site – usually larger – organisation. Companies that are part of multi-site organisations more often belong to one of the two most flexible types of establishments.

Table 13 Determinants of types of working time flexibility (marginal effects) (%)

	High		Intermediate			Low
	Worker oriented	Company oriented	Life course	Day-to-day	Overtime	
Country (reference category: France)						
BE	-4	0	7	1	-4	0
DK	5	-6	8	0	1	-8
DE	6	-9	-1	5	7	-9
EL	-14	-6	8	-2	-2	16
ES	-9	-11	5	0	3	11
IE	1	-5	10	0	4	-11
IT	-2	-2	-10	0	7	7
LU	0	2	3	-1	1	-5
NL	1	-3	16	3	-3	-13
AT	3	-13	-4	4	14	-4
PT	-7	-6	10	-3	-2	8
FI	19	2	4	-2	-7	-16
SE	26	-8	-9	1	0	-9
UK	5	-3	5	1	2	-11
CZ	5	9	10	-3	-8	-13
CY	-17	-2	2	-1	7	11
LV	-5	1	18	-1	-8	-5
HU	-10	-5	19	-1	-6	4
PL	-3	2	26	-2	-10	-12
SI	-2	-7	6	-2	3	3

Table 13 (continued)

	High		Intermediate			Low
	Worker oriented	Company oriented	Life course	Day-to-day	Overtime	
Sector (reference categories: Manufacturing industries (NACE D); Mining and quarrying (NACE C))						
Electricity, gas and water supply	5	2	1	0	-4	-5
Construction	-7	-3	4	1	-1	7
Retail, repair	1	2	-4	2	-2	1
Hotels and restaurants	-3	5	-4	6	-4	-1
Transport, storage and communication	-3	7	0	-1	2	-5
Financial intermediation	8	-10	5	2	-6	2
Real estate, renting and business activities	8	-5	-3	3	-1	-2
Public administration	10	-3	2	0	-4	-6
Education	-2	3	6	1	-8	-1
Health and social work	-5	20	-2	2	-6	-10
Other community, social and personal services	6	3	-4	4	-1	-9
Public sector	0	1	2	-1	-3	1
Size (reference category: 20 to 49 employees)						
10 to 19 employees	-4	-7	4	1	2	4
50 to 149 employees	5	8	-4	-1	-2	-6
150 or more employees	13	18	-10	-2	-6	-13
Percentage of female employees (reference category: 20%–59%)						
0%–19%	-9	2	3	-2	5	2
60%–100%	-4	5	1	1	-4	0
Percentage of employees in skilled jobs (reference category: 80%–100%)						
0%–19%	-11	6	0	2	-1	4
20%–79%	-5	4	-1	0	0	2
Percentage of employees younger than 30 years of age (reference category: 0%–19%)						
20%–39%	0	4	-1	0	-1	-3
40%–100%	0	4	-2	0	0	-3
Percentage of employees older than 49 years of age (reference category: 0%–19%)						
20%–39%	1	0	-1	1	0	-2
40%–100%	-1	-1	1	1	0	1
Length of working week (reference category: 40 hours)						
0–40 hours	3	2	-1	0	-1	-2
>40 hours	3	1	-1	1	2	-4
Agreements on working times	3	5	0	-1	-2	-4
Responsibility of company for work–life balance (reference category: scores 5–6)						
Scores 0–4	-3	0	0	0	1	3
Scores 7–10	4	-2	1	0	-1	-2
Short-run variation of workload	0	5	0	0	0	-6
Unforeseeable short-run variation of workload	0	-1	-1	0	2	0
Long-run variation of workload	2	4	0	0	0	-6
Unforeseeable long-run variation of workload	1	-3	-1	0	1	2
Multi-site establishment	3	2	0	0	-2	-4

Notes: Marginal effects of company characteristics show how much the probability of belonging to a certain cluster is affected by a unit change in the value of the characteristic. The marginal effects are computed from estimates of a multinomial logistic model. The parameter estimates are included in Table A5 in Annex 2. Shading signifies that the effect is statistically significant at a 5% level.

Source: ESWT, 2004–2005.

The larger the proportion of women in the workforce, the smaller the probability that the company is of the moderately flexible ‘overtime’ type. All other types of establishments show no relation to the proportion of female workers or the relationship is non-monotonous. The latter most clearly holds true for the probability that a company is of the worker-oriented high-flexibility type. The probability of belonging to this category of establishment is largest if the percentage of women in the workforce is between 20% and 59%. However, the probability of being a company-oriented high-flexibility type of establishment is highest when the proportion of women in the workforce amounts to 60% or more. This result deviates from the idea that organisations with a worker-oriented flexibility profile would have more women among their workforce or attract more female workers, as these organisations offer more opportunities to facilitate a better work–life balance. Although this reasoning may still be valid, it could be the case that the organisations in which the majority of the employees are women are typically in a line of business with poorer working conditions, making it less likely to have a worker-oriented flexibility profile.

Flexibility options that are geared more towards the needs of workers exist to a greater extent in companies with a large proportion of skilled workers, while company-oriented flexibility and low flexibility are more common in companies in which the percentage of skilled workers is low. This complies with the hypothesis that organisations providing more worker-oriented working time arrangements perform better in attracting and maintaining a skilled workforce.

The age composition of the workforce has little relation to the flexibility profile of the establishment. Companies with a larger percentage of young workers are, however, significantly more likely to have a company-oriented high-flexibility profile and less likely to be low-flexibility organisations. Organisations for which the length of the standard working week is 40 hours are more likely to have a low-flexibility profile. On the other hand, companies for which the standard working week is less than 40 hours are slightly more likely to have a worker-oriented high-flexibility profile than those with a 40-hour working week.

Companies for which a general agreement dealing with working time issues applies are more often one of the two high-flexibility types of companies and less often low-flexibility organisations. In addition, as Figure 14 showed, companies where managers perceive the work–life balance needs of their workers as a company responsibility are more likely to be a worker-oriented high-flexibility organisation, and less likely to have a low-flexibility profile or a company-oriented high-flexibility profile. The relationship between workload variations and the type of working time flexibility is also interesting. Establishments that experience variations of workload – whether these are short-run or long-run fluctuations – are more likely to have a company-oriented high-flexibility profile and less likely to have a low-flexibility profile. This effect vanishes, however, if it concerns long-term fluctuations that are not foreseeable. If short-term variations are unforeseeable, this raises the probability of being a company with overtime arrangements.

Working time flexibility and company performance

Flexibility is generally seen as a ‘good practice’ measure, raising adaptability and thereby productivity, profitability and growth. The truth of this common perception and particularly its applicability in specific situations is still open to debate. Although consistent empirical evidence exists in relation to the macro level – comparing economic performance of countries and flexibility on the basis of legal and institutional settings – these results are not easily translated to the level of

individual companies and company-specific arrangements, such as the take-up of various working time practices examined in this report.

On the basis of the discussion in Chapter 1, it is clear that flexibility of working times serves various purposes. Flexible opening hours may serve customers or improve business relations and would – provided costs and benefits are traded off correctly – be beneficial for the company's economic performance. This is also the case for overtime arrangements. Leave arrangements aim to facilitate a better work–life balance for employees. By attracting high-quality workers, raising workers' motivation and long-run productivity, a positive effect on the company's performance should also be observed. It could be argued that flexible working time practices, bearing organisational and financial costs, will only be adopted if these costs are outweighed by benefits. However, this line of reasoning fails if these practices are imposed by laws or binding general agreements.

A direct causal relationship between flexibility and performance at company level may be hard to measure in practice. Both the cause and the consequence are in this case concepts that are typically hard to measure. Moreover, flexible working conditions are part of the complete mix of employee benefits, making it difficult to separate variations in working time flexibility from variations in other facilities and forms of compensation. In addition, the adoption of flexible working time arrangements is usually a decision taken by the company management; such a decision is influenced by the company-specific characteristics which are, in turn, related to the company's economic performance. In highly competitive surroundings, profit margins are typically low and workload variations will encourage establishments to make more extensive use of flexibility measures such as flexible employment contracts – for example, fixed-term contracts, temporary agency workers and freelancers. Comparing these organisations to those that operate in a more stable and shielded market environment, it could be falsely concluded that flexible contracts negatively affect profitability. In order to avoid this fallacy, companies' idiosyncrasies should be accounted for; although this is easier said than done and in fact hardly possible on the basis of cross-sectional data for a heterogeneous population of establishments like those analysed through the ESWT. When studying the relationship between flexibility and establishment performance, interpreting this relation as a causal effect going one way or the other should be carried out with caution.

The ESWT data contain some indicators for economic performance and problems regarding personnel management, such as difficulties in hiring or retaining staff.

This section looks at the following indicators:

- economic situation: includes the establishment's own assessment as 'very good', 'quite good', 'quite bad' or 'very bad';
- workforce growth: whether the number of employees has increased, decreased or remained relatively stable over the past three years;
- difficulties in finding staff for skilled jobs;
- difficulties in finding staff for low-skilled or unskilled jobs;
- difficulties in retaining staff;
- low motivation of staff;
- problems with high absenteeism and/or high sickness rates;

Working time flexibility in European companies

- social climate: relationship between the management and the employee representatives assessed as 'very cooperative', 'quite cooperative', 'quite strained' or 'very strained' by employee representatives;
- work–life balance: assessment by employee representatives of whether combining work with other obligations is in general 'very easy', 'quite easy', 'quite difficult' or 'very difficult' for employees.

According to Table 14, the share of companies that consider the economic situation of the establishment to be 'very good' is higher for high-flexibility establishments than for the other types of establishments. On closer inspection, those high-flexibility establishments that focus more on workers' needs perform better than those that are company oriented. In particular, the moderately low-flexibility establishments using only overtime options score lower than all the other company types. Nevertheless, the differences between the company types are small; they are even more or less balanced out if both establishments are considered to have a 'very good' or 'quite good' economic situation.

Table 14 Economic situation of establishments, by type of working time flexibility (%)

Type of establishment	Economic situation				Total
	Very good	Quite good	Quite bad	Very bad	
High flexibility, worker oriented	19	64	14	2	100
High flexibility, company oriented	17	66	14	3	100
Intermediate flexibility, life course	15	69	13	2	100
Intermediate flexibility, day-to-day	16	68	12	4	100
Intermediate flexibility, overtime	13	69	16	2	100
Low flexibility	15	69	14	2	100
All establishments	16	68	14	2	100

Source: ESWT, 2004–2005.

A similar picture emerges when looking at the growth rate of a company's workforce (Table 15). The proportion of companies for which the number of employees has increased over a period of three years is largest for establishments with a high-flexibility profile and for intermediate-flexibility establishments focusing on life course aspects of working time flexibility. However, companies with a below-average working time flexibility do not show a higher rate of a shrinking workforce, but tend to remain about the same size.

Table 15 Workforce growth, by type of working time flexibility (%)

Type of establishment	Growth of workforce			Total
	Increased	Stayed about the same	Decreased	
High flexibility, worker oriented	37	37	27	100
High flexibility, company oriented	37	40	23	100
Intermediate flexibility, life course	35	42	23	100
Intermediate flexibility, day-to-day	32	44	24	100
Intermediate flexibility, overtime	32	42	26	100
Low flexibility	32	43	25	100
All establishments	34	41	25	100

Source: ESWT, 2004–2005.

Table 16 summarises some indicators for problems that companies may experience in the field of human resource management (HRM). On all five categories of the HR problems listed in the table, the least flexible type of establishment reports experiencing fewer problems than the average establishment. This difference is most notable for problems concerning sickness absenteeism. The percentage of low-flexibility companies reporting problems related to high sickness absenteeism is only half that of the company-oriented high-flexibility companies. One possible explanation for this unexpected pattern is that flexibility may be adopted to deal with already existing problems. Establishments that do not experience problems do not need such a solution, making it an indicator of the existence of problems which are hopefully somewhat reduced by this choice of solution. More importantly, the figures show that it may not be the extent of flexibility that makes the difference, but rather the way flexibility is implemented within companies. Sickness absenteeism, low staff motivation and difficulties in finding and retaining employees are the most noted problems facing company-oriented high-flexibility establishments. This group ranks second in relation to difficulties faced in finding low-skilled and unskilled staff, after the day-to-day intermediately flexible establishments. In addition, the organisations that use relatively few working time flexibility arrangements, but use overtime intensively – which arguably reflects one of the most company-oriented flexibility profiles – can be seen to have experienced more than average problems regarding HRM, specifically related to staff recruitment, both skilled and unskilled, and low motivation of the staff. In the other high-flexibility organisations, in which the flexibility profile is geared more towards workers’ needs, the number of the companies reporting any of the problems considered in Table 16 is about average.

Table 16 Personnel management problems, by type of working time flexibility (%)

Type of establishment	Types of problems				
	Finding skilled staff	Finding low-skilled/unskilled staff	Retaining staff	Low staff motivation	High sickness absenteeism
High flexibility, worker oriented	36	11	8	16	17
High flexibility, company oriented	42	17	12	22	22
Intermediate flexibility, life course	28	10	8	12	11
Intermediate flexibility, day-to-day	32	20	6	13	12
Intermediate flexibility, overtime	42	15	8	17	13
Low flexibility	31	12	8	13	11
All establishments	35	13	9	16	15

Source: ESWT, 2004–2005.

In the course of the interviews with the employee representatives, the respondents were asked to evaluate the relationship between themselves and the company’s management (Table 17). On average, for one in five establishments, this relationship is characterised as being ‘quite strained’ or ‘very strained’. In this regard, the largest share of 26% corresponds to the least flexible establishments and the establishments in which working time flexibility reflects mainly the use of overtime. Of the other four types of companies, the percentage is highest for the most flexible companies in which flexibility focuses more on company needs, with a reported strained relationship in 20% of the companies. On the other hand, life course intermediate-flexibility and worker-oriented high-flexibility establishments show relatively high numbers of companies for which the employee representative considers the relationship with the management to be ‘very cooperative’. In relation to both the ‘very cooperative’ and ‘quite cooperative’ categories, the day-to-day flexibility companies perform slightly better.

Table 17 Working time flexibility and social climate (%)

Type of establishment	Relationship between management and employee representatives				Total
	Very cooperative	Quite cooperative	Quite strained	Very strained	
High flexibility, worker oriented	30	53	14	2	100
High flexibility, company oriented	24	55	16	4	100
Intermediate flexibility, life course	39	45	13	3	100
Intermediate flexibility, day-to-day	16	69	12	2	100
Intermediate flexibility, overtime	19	56	16	10	100
Low flexibility	20	54	22	4	100
All establishments	27	53	16	4	100

Source: ESWT, 2004–2005.

Employee representatives also had to indicate how difficult it is for employees of the establishment to combine their work with other activities and obligations outside the workplace (Table 18). The percentage of establishments for which this was reported to be ‘hard’ or ‘quite hard’ is highest for the moderately flexible establishments mainly using overtime and the highly flexible establishments in which the working time flexibility profile is more focused on company needs. The percentage of the least flexible companies in which work–life balance is considered to be problematic is almost equal to the average for all companies. Again, the worker-oriented high-flexibility and the life course-oriented intermediate-flexibility establishments show the highest amount of companies where it is considered ‘very easy’ to reconcile work and private life. Furthermore, the real difference is not between a higher and lower amount of flexibility, but rather between the different types of flexibility.

Table 18 Working time flexibility and work–life balance of employees (%)

Type of establishment	Combination of work with activities outside workplace				Total
	Very easy	Quite easy	Quite hard	Very hard	
High flexibility, worker oriented	15	64	18	4	100
High flexibility, company oriented	10	53	28	8	100
Intermediate flexibility, life course	13	63	18	6	100
Intermediate flexibility, day-to-day	4	80	16	1	100
Intermediate flexibility, overtime	8	52	31	9	100
Low flexibility	11	59	25	5	100
All establishments	12	60	23	6	100

Source: ESWT, 2004–2005.

The working time flexibility typology which was developed in Chapter 2 is clearly related to a range of company characteristics. Apart from differences between countries – reflecting legal, institutional and cultural differences – and variations between sectors, company size is the factor showing the most pronounced diversity, with large companies more often having a higher flexibility profile than small companies. Differences in workforce composition also account for some differences between companies, but to a much lower extent.

The figures in the section on ‘working time flexibility and company performance’ in this chapter show that the differences are small in terms of the economic situation and level of workforce growth between the more and the less flexible establishments, although this is most often in favour of the more flexible types of establishments. The differences are greater in terms of the difficulties faced by

companies in finding and retaining staff, problems with staff motivation and sickness absenteeism. This is also true for the social climate and the ability of workers to combine work and other activities; in this case, it appears that worker-oriented flexibility profiles fare much better than those that are company oriented. These differences underline that flexibility should not be treated as a one-dimensional concept, but that the most interesting differences are related to the type of flexibility a company adopts and not so much to the amount of flexibility.

Working time flexibility is a topic of crucial importance in relation to European labour market policy. It is a key issue in the labour market reform of European welfare states, which requires the elimination of non-productive social and economic rigidities and time stringencies. However, the concept of flexibility has other causes and effects. It may be a popular and even fashionable concept like the closely related notion of 'flexicurity', but it is certainly not a politically harmless concept. Flexibility can be directed at better equipping European companies to face globalisation, increased competition and demand dynamics. But it can also be focused on facilitating work and activities in other domains of life for European workers, particularly during the most active period of their life course. The relationship between these two types of flexibility is not intrinsically harmonious. By definition, flexibility cannot be both advantageous to the workers and beneficial to the company's financial results. Making establishments more 'lean and mean', tailoring them to rapid changes on the external market, is quite different – also from a managerial point of view – than a company responding to the demand for working time flexibility from its workforce. Both types of flexibility demands are of course legitimate in their own right. Reconciling these different demands is a major challenge to the European social model, especially in terms of combining competitiveness and social protection. Flexibility covers a wide range of arrangements and practices, with very different effects that can be positive and negative, for very different groups. The ease with which flexibility is being proposed as a cure-all is an oversimplification of ideas that does not advance policy debate. Arguing that Europe needs 'more flexibility' does not enhance the transparency and constructiveness of the policy discussion, if only that few participants will be in favour of 'more rigidity'.

Key European flexibility policy issues include questions relating to the kind of working time flexibility arrangements applied by European companies; the mix of operational and employee-oriented measures; how successful these arrangements are; the differences that can be observed among European countries; how social dialogue in companies affects flexibility options; and whether flexible establishments perform better, in terms of both market demands and workforce needs. When looking at flexibility practices and arrangements in Europe, a lack of knowledge exists about how European companies address the issue of flexibility in strategic policies. Europe has an astonishing lack of data infrastructure as far as policy and performance of its companies are concerned. Rather a lot of data exists in relation to the European employee, but less is known concerning the European employer. In view of the Lisbon agenda on the future of Europe as a knowledge economy, this reflects an astounding deficit in the availability of such information. In light of this, the Foundation launched this comprehensive comparative company survey, the European Establishment Survey on Working Time and Work–Life Balance (ESWT), on these vital policy topics. This study aimed to investigate whether it is possible to develop a typology of establishments and organisations to characterise their use of flexible working time arrangements and measures that may facilitate and improve employees' work–life balance. More specifically, the central objective of the ESWT is to construct and validate an overarching typology of such practices and arrangements in European companies in order to examine its cross-national variation, determine its main correlates and explore whether distinct flexible working time profiles can be seen to have different performance outcomes.

The ESWT, which was conducted in 2004 and 2005 in 21 European countries and involved over 21,000 companies, covers a wide variety of flexibility indicators, including part-time work; irregular working hours; flexible working hours; overtime; parental leave; long-term leave arrangements; early and phased retirement; work–life balance options; and flexible employment contracts. Separate reports on these specific flexible working time schemes were published in the first phase of this

project and served as a starting point for the more integrative and comprehensive research in the second phase, of which this report is part. By applying an advanced statistical modelling technique called latent class analysis (Vermunt, 2003; Magidson and Vermunt, 2004), it was found that six types of flexibility profiles for establishments and organisations can be distinguished in Europe. This typology refers to the amount of flexibility as well as the characteristics of the options used. The results show that the observed clustering is quite lucid and instructive. The first two types of companies are characterised by a high degree of flexibility in their working time practices, covering parental leave and other long-term leave arrangements, part-time work, as well as early and phased retirement. The first of these types, however, puts more emphasis on the needs and preferences of the employees, for instance by giving workers some control over the time at which their working day starts and ends. Instead of this, the second type of organisation focuses more on flexible working time practices that serve the company's operational needs and the preferences of its customers. Examples of these are irregular or non-standard working hours and overtime.

The next three types of organisations use less of the flexible working time practices that were considered in the survey. The first of these three 'moderately flexible' types of establishments supports a package of working time arrangements that accommodates workers' needs for flexibility over the course of their working life; in the second of these organisational types, working time flexibility increases through the use of part-time work, irregular working hours and flexible working hours, which in this report were seen as those that accommodate workload variation within a day or shorter periods of time. In the third type of moderately flexible organisations, working time flexibility mainly consists of overtime and only low usage of the other arrangements outlined in this report.

The sixth and last type of organisation uses low levels of all the flexible working time practices covered by the survey.

In all, the study distinguishes between six different types of flexible companies in Europe: two that are very flexible, albeit focused on different needs; three that are moderately flexible; and one with low flexibility. Interestingly, the two high-flexibility types of companies, which reflect the company-oriented and worker-oriented flexibility profile, and the low-flexibility type of companies are found in countries throughout Europe; each of these company types accounts for a substantial share of companies overall: 14%, 22% and 21%, respectively. These findings imply that European companies are rather diverse in terms of flexibility practices. No flexibility profile seems to dominate among companies, which signifies that companies in Europe do not tend to favour one form of flexibility in particular. Table 19 outlines and summarises the clustering of working time flexibility practices and arrangements in European companies.

Table 19 Typology of working time flexibility, by company profiles

	Working time flexibility profile					
	High		Intermediate			Low
	Worker oriented	Company oriented	Life course	Day-to-day	Overtime	
% of establishments	14%	22%	18%	7%	18%	21%
Part-time workers	++	++	+	++	--	--
Unusual working hours	-	++	-	++		--
Flexible working hours	++	--		++	-	--
Overtime	++	+	-		++	--
Parental leave	++	++	-	-	--	--
Long-term leave available	++	+	++	--	--	--
Early retirement possible	+	+	++	--	--	--
Measures to facilitate work-life balance	++	++	++	+	--	--
Workers on flexible contracts	+	++		--	-	-

Notes: ++ = 25% or more above the average; + = 10%–25% or more above the average; - = 10%–25% or more below the average; -- = 25% or more below the average.

Source: ESWT, 2004–2005.

An important feature of this typology is that it reflects different amounts of flexibility, while also distinguishing between different types of flexibility options. These types of profiles correspond to the different purposes for which flexibility may be adopted by an establishment. Using this framework, the six company profiles regarding working time flexibility can be graphically illustrated, as in the focus-extent diagram in Figure 3 (see p. 28).

The company typology concerning the amount and focus of working time flexibility shows that different companies opt for various strategies. Each of the flexibility profiles represents a considerable percentage of European establishments. The distribution of the companies over these six flexibility profiles differs considerably between the 21 European countries in the ESWT. Finland and Sweden have the largest incidence of high-flexibility companies in which the focus is on workers' needs. The high-flexibility type of establishment for which the focus is on the company's operational needs is most prominent in Belgium, the Czech Republic, France and the UK. In Denmark, Latvia, the Netherlands and Poland, the prevailing type of company is the moderately flexible type of establishment for which the focus of working time flexibility is on accommodating the varying needs for flexibility of work during a worker's life course. The organisation profile in which working time flexibility mainly aims to accommodate short-term workload fluctuations – labelled as day-to-day flexibility – is not the prevailing type of establishment in any of the EU21; in Germany and the UK, however, the amount of these establishments is two-thirds higher than the average for all EU21 countries. In Austria, Germany and Ireland, the type of company for which working time flexibility is mainly achieved through overtime is the prevailing type of establishment. In the southern European countries and in Belgium, Hungary and Slovenia, the low-flexibility type of establishment is the most common, ranging from 23% of the overall number of companies in Luxembourg and 26% in Belgium to 51% of all establishments in Greece.

When looking at the differences between the European countries in this way, the emphasis is on which flexibility profile corresponds to the largest number of companies in the country. This ignores

differences and similarities in the proportions of the other types of establishments. Various alternative ways of grouping similar countries are possible, but the aim of this analysis is to distinguish company profiles, not country profiles. Using a hierarchical cluster analysis, the entire distribution of establishments over the six profiles can be compared. Following the results of that analysis, the country differences can be summarised by the four country groups set out in Table 20. The country grouping can to some extent be related to the welfare state regimes and the gender division of work, but each of the six profiles occurs in each of the EU21 countries. In addition, a considerable amount of variation within countries remains when analysing the strategies that companies adopt regarding working time flexibility and work–life balance.

Table 20 Country grouping, by flexibility profile of companies

Group	Characteristics	Countries included
Nordic countries	High flexibility and worker oriented	FI and SE
Central European countries 1	High/intermediate flexibility and worker oriented	CZ, DK, LV, NL, PL and the UK
Central European countries 2	Low/intermediate flexibility and company oriented	AT, BE, FR, DE, IE, LU and SI
Southern European countries	Low flexibility and company oriented	CY, HU, EL, IT, ES and PT

Source: ESWT, 2004–2005.

Other company characteristics, apart from the country in which the establishment is located, that are determinants of a company’s flexibility profile must also be looked at. In this regard, a multivariate analysis is undertaken which models how the membership probability of each of the six types of companies is related to a range of company characteristics. This analysis shows that the country in which a company is located, reflecting differences in legal, cultural and institutional surroundings, is one of the two most important determinants of an organisation’s flexibility profile. The second of the two strongest determinants is the company’s size, as measured by the number of employees. The sector to which a company belongs ranks third as a determinant of the company’s flexibility profile. Table 21 summarises how flexibility profiles are related to some company characteristics.

Table 21 Typology of working time flexibility, by determinants

Cluster	Sector	Size	Other
High flexibility Worker oriented	Commercial services, public administration	50+ employees	Foreseeable variation of workload, more high-skilled employees More low-skilled and more young employees
	Health services, transport	50+ employees	
Intermediate Life course oriented Day-to-day Overtime	Education	10–19 employees	Unforeseeable variation of workload, more men employed
	Hotels and restaurants	10–49 employees	
	Industry, transport		
Low flexibility	Construction, industry	10–19 employees	Little variation of workload, less young employees

Source: ESWT, 2004–2005.

Further research is required on the important role of the country as a determinant of a company’s flexibility strategy. The differences between countries may reflect how institutional and cultural differences affect the ability of establishments to respond to the various needs of people for working

time flexibility. Another explanation of the differences between countries may be that institutional and cultural differences determine which features of working time flexibility are reasonable for a company to implement. National childcare provisions may alleviate the demand for specific parental leave arrangements within companies. The observed differences between the flexibility strategies adopted by establishments in the countries surveyed may therefore be affected by differences in the scope within which companies have control or discretion over these arrangements, as well as by differences in the demands for these provisions among employees.

The question also arises as to whether or not flexible companies perform better, for example in terms of their economic situation, workforce growth, social climate or staff motivation. Table 22 summarises how the six types of establishments differ with respect to performance levels and HRM bottlenecks, based on the information collected by the ESWT. Some evidence suggests that social and economic problems particularly arise in high-flexibility companies which prioritise operational needs and in intermediate-flexibility companies which adopt irregular working hours and overtime; the least problems were observed in worker-oriented high-flexibility companies and in low-flexibility companies. Thus, it is the type and not so much the level of flexibility that seems important, but differences are generally small and the issue of causality needs clarification.

Table 22 Working time flexibility, by company performance and bottlenecks

Type of establishment	Economic situation very good	Personnel size increased	Problems finding skilled staff	Problems retaining staff	Low staff motivation	Social climate very strained	Work-life balance very difficult
High flexibility							
- worker oriented	19	37	36	8	16	2	4
- company oriented	17	37	42	12	22	4	8
Intermediate flexibility							
- life course	15	35	28	8	12	3	6
- day-to-day	16	32	32	6	13	2	1
- overtime	13	32	42	8	17	10	9
Low flexibility	15	32	31	8	13	4	5
All establishments	16	34	35	9	16	4	6

Source: ESWT, 2004–2005.

Overall, it can be concluded that flexibility is not an unproblematic concept and most certainly it is not a one-dimensional linear concept ranging from low to high flexibility. It is essential to strip the policy debate from the notion that more flexibility is always better. In reality, the situation is much more complicated. Distinguishing between flexibility strategies aimed at workers' needs and strategies aimed at establishments' operational demands appears crucial in this context. The results of this research also indicate that increasing flexibility is not necessarily a conflictual issue: the high-flexibility profiles, although labelled 'worker oriented' and 'company oriented', share a range of flexible practices that serve both the employees' and the companies' needs. Moreover, countries that have a large proportion of high worker-flexibility establishments also have a high share of company-oriented high-flexibility establishments.

The ESWT represents a significant step forward to increase knowledge of what companies do with respect to flexibility strategies. From this analysis, it can be concluded that flexibility is a multi-dimensional concept, that it does not run from low to high levels or from bad to good provisions, and

that European establishments and countries differ markedly in their flexibility strategies. These outcomes are essential elements for the European policy debate on working time flexibility. Considering the role that flexibility plays in the socioeconomic policy debate in Europe, it is therefore important to develop flexibility concepts that, first, do justice to the variety of flexible working time practices; secondly, allow monitoring of flexibility trends in European countries; and thirdly, encourage a more rigorous study of the effects when such practices are adopted by companies. The present study has shown the strength, both scientifically and in relation to policy, of comparative company surveys. In order to monitor Europe's performance on a global and highly competitive market, with a workforce that wants to balance work and private life, it is important to know how European companies are doing on a comparative basis. This requires a much more sophisticated European data infrastructure, including repeated comparative company surveys (preferably on a panel basis) in all EU countries, that allows researchers to make cross-national comparisons and trace the development of companies over time. If not, the debate on flexibility of European economies will remain rather speculative. Flexibility is too important and complex an issue that requires sound empirical research.

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Annex 1:

Definition of variables

Table A1 Indicators for working time flexibility and work–life balance arrangements

Indicators for working time flexibility	Name	Description	Question
Part-time workers	Part	Part-time workers	mm200
	Part20	20% part-time workers or more	mm200
Unusual hours	Unusual	Unusual working hours	mm250
	Unus_ngt	Work at night	mm250a
	Unus_sat	Work on Saturday	mm250b
	Unus_sun	Work on Sunday	mm250c
	Unus_ngt20	Work at night (>20%)	mm250a
	Unus_sat20	Work on Saturday (>20%)	mm250b
	Unus_sun20	Work on Sunday (>20%)	mm250c
	Shift	Shift system	mm255
Shift20	Shift system (>20%)	mm255	
Flexible working time	Flexible	Flexible working hours	mm300
	Flex20	Flexible working hours (>20%)	mm300
	Wtacc	Working time accounts	mm305
Overtime	Overtime	Overtime	mm350
	Overti20	Overtime (>20%)	mm350
Leave arrangements	Parental	Parental leave	mm400
	Longleave	Long-term leave available	mm410
	Careleave	Leave for care purposes or illness in family	mm410a
	Education	Leave for education	mm410b
Otherleave	Leave for other purposes	mm410c	
Early and phased retirement	Earlyret	Early retirement possible	mm457
	Phaseret	Phased retirement possible (and relevant)	mm452
	Epret	Early or phased retirement possible	
Measures for work–life balance	Wlbal	Measures to facilitate work–life balance	mm500
Non-standard employment	Temporary	Non-standard employment	mm106
	Fixedterm	Fixed-term employment contracts	mm106a
	Tempagency	Temporary agency workers	mm106b
	Freelance	Freelance workers	mm106c

Source: ESWT, 2004–2005.

Table A2 Company characteristics

Independent variables	Name	Description	Questions
Country	Country	21 countries (see p. vi for list of country codes): 1: BE 2: DK 3: DE 4: EL 5: ES 6: FR 7: IE 8: IT 9: LU 10: NL 11: AT 12: PT 13: FI 14: SE 15: UK 16: CZ 17: CY 18: LV 19: HU 20: PL 21: SI	
Sector	Sector 2	1: Industries 2: Services	
	Sector 13	13 sectors: 1: Mining and quarrying (NACE C) 2: Manufacturing industries (NACE D) 3: Electricity, gas and water supply (NACE E) 4: Construction (NACE F) 5: Retail and repair (NACE G) 6: Hotels and restaurants (NACE H) 7: Transport, storage and communication (NACE I) 8: Financial intermediation (NACE J) 9: Real estate, renting and business activities (NACE K) 10: Public administration (NACE L) 11: Education (NACE M) 12: Health and social work (NACE N) 13: Other community, social and personal services (NACE O)	
Public sector	Public	Dummy variable	mm112

Table A2 (continued)

Independent variables	Name	Description	Questions
Establishment size	Size10	Number of employees, 10 categories: 1: 10 to 19 employees 2: 20 to 49 employees 3: 50 to 99 employees 4: 100 to 149 employees 5: 150 to 199 employees 6: 200 to 249 employees 7: 250 to 299 employees 8: 300 to 399 employees 9: 400 to 499 employees 10: 500 and more employees	mm102
	Size4	Number of employees, 4 categories: 1: 10 to 19 employees 2: 20 to 49 employees 3: 50 to 149 employees 4: 150 or more employees	
% of female employees	pfemale3	Percentage of female employees: 1: 0%–19% 2: 20%–59% 3: 60%–100%	mm103
% of employees in skilled jobs	pskill3	Percentage of skilled employees: 1: 10%–19% 2: 20%–79% 3: 80%–100%	mm104
% of employees aged younger than 30 years	pyoung3	Percentage of young employees: 1: 0%–19% 2: 20%–39% 3: 40%–100%	mm450
% of employees aged 50 years and older	pold3	Percentage of older employees: 1: 0%–19% 2: 20%–39% 3: 40%–100%	mm451
Length of normal working week	wwEEK	Weekly working hours: 1: 0–40 hours 2: 40 hours 3: >40 hours	mm109
Collective agreement with respect to working time arrangements	wtagree	Working time agreement	mm108
Work–life balance as task of the company (score on 10-point scale)	wltask3	Work–life balance as task of company: 1: score 0–4 2: score 5 or 6 3: score 7–10	mm501
Variability of workload	fluct_short ufluct_short	Variation of workload within day or week Unforeseeable variation of workload within a day or week	mm150a,b mm151
	fluct_year ufluct_year	Variation of workload within a year Unforeseeable variation of workload within a year	mm150c mm153
Multiple establishments	Multisite	Establishment is part of organisation with more than one establishment	mm100

Table A2 (continued)

Further indicators: performance and personnel problems	Name	Description	Questions
Economic situation of establishment	ecosit	Economic situation: 1: Very good 2: Quite good 3: Quite bad 4: Very bad	mm110
Growth of number of employees in last three years	persgr	Growth of workforce: 1: Increased 2: Decreased 3: Stayed about the same	mm111
Problem: High absenteeism/sickness Problem: Finding staff for skilled jobs Problem: Finding staff for low-skilled and unskilled jobs Problem: Retaining staff Problem: Need to reduce staff Problem: Low motivation of staff Problem: Any			mm107a mm107b mm107c mm107d mm107e mm107f mm107h
Social climate	Climate	Relationship between management and employee representatives: 1: Very cooperative 2: Quite cooperative 3: Quite strained 4: Very strained	er550
Work-life balance (employee representatives)	Balance	Combination of work with activities outside work: 1: Very easy 2: Quite easy 3: Quite hard 4: Very hard	er502
Personnel problems from perspective of employee representatives: Problem: High absenteeism/sickness Problem: Finding staff for skilled jobs Problem: Finding staff for low-skilled and unskilled jobs Problem: Retaining staff Problem: Need to reduce staff Problem: Low motivation of staff Problem: Other Problem: Any	er_sick er_skill er_lowskill er_retstaff er_redstaff er_lowmotiv er_other er_problem	High sickness absenteeism Difficulties in finding skilled staff Difficulties in finding low-skilled and unskilled staff Difficulties in retaining staff Need to reduce staff Low motivation of staff Other problems Any of the problems	er551a er551b er551c er551d er551e er551f er551g er551h

Source: ESWT, 2004–2005.

Annex 2:

Detailed results

Table A3 Parameter estimates of latent cluster model of working time flexibility indicators

Models for indicators (mixed logistic specification)									
	Part20	Unusual	Flex20	Overti20	Parental	Longleave	Earlyret	Wlbal	Temporary
Intercept	-0.702 (3.8)	0.858 (2.8)	-1.832 (0.6)	0.265 (1.2)	1.164 (3.8)	0.832 (4.7)	0.697 (5.0)	-2.142 (11.1)	2.853 (2.6)
Cluster1 (reference category)	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -	0 -
Cluster2	-2.114 (3.2)	-2.220 (2.0)	0.416 (0.1)	-5.765 (2.9)	-1.742 (4.9)	-1.278 (5.1)	-1.501 (4.7)	-1.673 (3.9)	-2.508 (2.5)
Cluster3	-7.721 (11.8)	-1.170 (3.0)	1.035 (0.3)	1.927 (0.2)	-1.823 (6.1)	-1.500 (6.3)	-1.540 (6.7)	-1.446 (2.5)	-2.421 (2.2)
Cluster4	-0.113 (0.3)	-1.559 (3.0)	1.284 (0.3)	-0.634 (2.0)	-1.411 (3.1)	1.266 (1.3)	2.459 (0.7)	0.376 (0.9)	-2.196 (2.0)
Cluster5	-0.057 (0.1)	-1.409 (1.2)	5.334 (1.3)	0.388 (1.0)	0.211 (0.3)	0.453 (1.1)	0.075 (0.3)	-0.051 (0.2)	-1.223 (0.8)
Cluster6	2.753 (0.5)	-0.617 (1.5)	1.788 (0.6)	-0.301 (0.5)	-1.441 (3.6)	-1.366 (3.4)	-1.239 (2.2)	-0.209 (0.4)	-3.116 (2.8)
R ²	0.276	0.124	0.308	0.346	0.147	0.195	0.246	0.030	0.123
Wald-statistic	373.1	28.7	19.6	41.8	76.1	96.9	69.3	35.3	27.1
p-value	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000
Marginal probability of cluster membership (multinomial logit specification)									
	Intercept	t-value							
Cluster1 (reference category)	0	-							
Cluster2	-0.034	-0.1							
Cluster3	-0.176	-0.2							
Cluster4	-0.213	-0.3							
Cluster5	-0.410	-0.4							
Cluster6	-1.082	-1.7							
Standard R-squared				0.4526					
Number of observations				15391					
Number of parameters (Npar)				59					
Log-likelihood (LL)				-83410.9					
Bayesian Information Criterion (based on LL)				167390.6					

Notes: Robust asymptotic t-values between parentheses (absolute values).

Wald-statistic for test of differences between clusters.

Source: ESWT, 2004–2005.

Table A4 Typology of working time, overview of flexibility indicators by types (%)

	Working time flexibility						Overall
	High		Intermediate			Low	
	Worker oriented	Company oriented	Life course	Day-to-day	Overtime		
Cluster size	14	22	18	7	18	21	
Dichotomous indicators (% of establishments for which applicable)							
Part-time workers	76	75	69	94	49	48	54
Part-time workers (>20%)	32	33	31	89	0	6	20
Unusual working hours	37	70	33	56	42	20	37
Work at night	17	35	15	22	17	10	17
Work on Saturday	34	64	30	53	38	17	34
Work on Sunday	23	42	19	35	20	9	21
Work at night (>20%)	8	16	8	12	10	4	8
Work on Saturday (>20%)	21	42	19	40	24	10	22
Work on Sunday (>20%)	14	25	12	26	12	5	13
Shift system	28	34	22	25	23	14	20
Shift system (>20%)	20	26	16	19	17	9	15
Flexible working hours	98	32	50	57	42	32	34
Flexible working hours (>20%)	97	14	37	49	31	20	23
Working time accounts	75	22	36	38	30	18	23
Overtime	85	83	71	72	95	48	63
Overtime (>20%)	66	57	41	49	90	0	39
Parental leave	80	76	44	43	34	36	41
Long-term leave available	78	70	89	37	34	39	48
Leave for care of or illness in family	56	49	66	27	22	27	34
Leave for education	58	49	64	26	23	24	33
Leave for other purposes	40	35	47	20	15	18	24
Early retirement possible	68	67	96	37	30	31	46
Phased retirement possible (and relevant)	49	41	48	38	22	19	28
Measures to facilitate work–life balance	10	11	15	9	3	2	6
Workers on flexible contracts	84	95	66	43	61	59	58
Fixed-term contracts	70	80	57	37	48	47	49
Temporary agency workers	29	32	20	11	23	17	19
Freelance workers	24	22	16	10	17	13	14

Source: ESWT, 2004–2005.

Table A5 Estimation results of the multinomial logistic model of the type of working time flexibility in an establishment

Reference category: High working time flexibility, worker oriented	Working time flexibility									
	High		Intermediate						Low	
	Company oriented		Life course		Day-to day		Overtime			
	estimate	t-value	estimate	t-value	estimate	t-value	estimate	t-value	estimate	t-value
Country (reference category: France)										
BE	0.195	1.3	0.614	3.4	0.398	1.1	-0.225	-1.1	0.212	1.3
DK	-0.517	-3.7	0.172	1.0	-0.415	-1.1	-0.201	-1.1	-0.825	-4.5
DE	-0.766	-6.3	-0.369	-2.3	0.961	3.6	0.207	1.4	-0.885	-5.8
EL	0.735	3.6	1.652	7.4	0.284	0.6	1.121	4.7	2.013	9.6
ES	-0.035	-0.2	1.001	5.6	0.870	2.6	1.027	5.6	1.362	8.3
IE	-0.272	-1.4	0.467	2.1	0.004	0.0	0.187	0.8	-0.900	-3.6
IT	0.052	0.4	-0.758	-3.5	0.328	1.0	0.729	4.2	0.555	3.5
LU	0.087	0.4	0.162	0.6	-0.840	-1.1	-0.004	0.0	-0.356	-1.3
NL	-0.177	-1.3	0.684	4.2	0.714	2.2	-0.438	-2.3	-1.095	-5.7
AT	-0.908	-5.3	-0.359	-1.7	0.955	3.1	0.794	4.5	-0.279	-1.6
PT	0.146	0.8	1.051	4.7	-1.833	-1.8	0.327	1.3	0.967	4.7
FI	-0.672	-5.3	-0.760	-4.5	-3.030	-4.0	-1.813	-8.2	-2.660	-10.9
SE	-1.348	-9.8	-1.943	-9.0	-0.686	-2.1	-1.123	-6.0	-1.880	-10.0
UK	-0.357	-2.6	0.016	0.1	0.215	0.7	-0.129	-0.7	-1.139	-6.1
CZ	0.088	0.6	0.150	0.8	-3.544	-3.4	-1.425	-6.2	-1.480	-7.5
CY	1.485	3.8	1.908	4.5	1.117	1.8	2.299	5.6	2.415	6.1
LV	0.317	1.6	1.124	5.0	-0.004	0.0	-0.775	-2.3	-0.042	-0.2
HU	0.430	2.3	1.661	8.1	0.311	0.7	0.118	0.5	1.067	5.3
PL	0.235	1.5	1.210	6.6	-1.100	-2.3	-1.385	-5.0	-0.843	-4.2
SI	-0.209	-0.9	0.568	2.2	-1.906	-1.8	0.476	1.8	0.413	1.7
Sector (reference categories: Manufacturing industries (NACE D); Mining and quarrying (NACE C))										
Electricity, gas and water supply	-0.159	-0.8	-0.234	-0.9	-0.392	-0.4	-0.744	-2.1	-0.682	-2.2
Construction	0.300	2.3	0.752	5.7	0.713	2.2	0.489	3.6	0.906	6.9
Retail, repair	0.012	0.1	-0.343	-3.5	0.661	3.6	-0.278	-2.7	-0.018	-0.2
Hotels and restaurants	0.317	2.0	-0.156	-0.8	1.469	5.8	-0.287	-1.4	0.025	0.1
Transport, storage and communication	0.395	3.2	0.122	0.8	-0.345	-0.8	0.228	1.5	-0.232	-1.5
Financial intermediation	-0.832	-5.2	-0.061	-0.4	0.163	0.5	-1.062	-4.5	-0.229	-1.3
Real estate, renting and business activities	-0.609	-6.1	-0.652	-5.7	0.422	2.0	-0.525	-4.5	-0.552	-4.9
Public administration	-0.578	-4.6	-0.434	-3.0	-0.427	-1.3	-0.942	-4.8	-0.976	-6.1
Education	0.233	1.6	0.474	3.1	0.499	1.6	-0.858	-3.2	0.042	0.2
Health and social work	0.854	6.8	-0.066	-0.4	0.725	2.7	-0.670	-2.8	-0.699	-3.3
Other services	-0.212	-1.4	-0.728	-3.9	0.732	2.7	-0.511	-2.5	-1.076	-5.1
Public sector	0.027	0.3	0.110	1.1	-0.289	-1.5	-0.360	-2.8	-0.009	-0.1
Size (reference category: 20 to 49 employees)										
10 to 19 employees	-0.116	-1.3	0.553	6.4	0.747	5.4	0.525	5.7	0.578	6.7
50 to 149 employees	0.058	0.8	-0.644	-7.8	-0.921	-5.4	-0.635	-7.0	-0.820	-9.8
150 and more employees	0.054	0.8	-1.504	-16.7	-1.867	-8.8	-1.460	-14.5	-1.808	-19.5
Percentage of female employees (reference category: 20%–59%)										
0%–19%	0.601	8.7	0.743	9.5	-0.558	-2.9	0.976	12.2	0.731	9.5
60%–100%	0.374	5.7	0.269	3.4	0.665	5.1	-0.192	-2.0	0.164	2.0
Percentage of employees in skilled jobs (reference category: 80%–100%)										
0%–19%	0.878	11.0	0.676	7.5	1.279	8.1	0.603	6.3	0.958	10.8
20%–79%	0.426	7.3	0.173	2.5	0.372	2.7	0.250	3.3	0.396	5.7

Table A5 (continued)

Reference category: High working time flexibility, worker oriented	Working time flexibility									
	High		Intermediate						Low	
	Company oriented		Life course		Day-to day		Overtime			
	estimate	t-value	estimate	t-value	estimate	t-value	estimate	t-value	estimate	t-value
Percentage of employees aged younger than 30 years (reference category: 0%–19%)										
20%–39%	0.163	2.7	-0.130	-1.9	-0.160	-1.1	-0.122	-1.6	-0.235	-3.3
40%–100%	0.148	2.0	-0.228	-2.7	-0.043	-0.3	-0.036	-0.4	-0.240	-2.9
Percentage of employees aged 50 years or older (reference category: 0%–19%)										
20%–39%	-0.066	-1.1	-0.152	-2.1	0.169	1.2	-0.069	-0.9	-0.197	-2.7
40%–100%	-0.024	-0.3	0.113	1.3	0.298	1.8	0.012	0.1	0.080	0.9
Length of normal working week (reference category: 40 hours)										
0–40 hours	-0.080	-1.1	-0.241	-2.9	-0.269	-1.9	-0.324	-3.8	-0.357	-4.3
>40 hours	-0.098	-0.6	-0.265	-1.6	0.020	0.1	-0.051	-0.3	-0.470	-2.6
Collective agreements with respect to working time arrangements	0.065	1.0	-0.234	-3.3	-0.594	-4.7	-0.425	-5.5	-0.487	-6.9
Responsibility of company for work–life balance (reference category: scores 5 or 6 on 10-point scale)										
Score 0–4	0.136	2.2	0.145	2.0	0.237	1.7	0.234	2.9	0.339	4.6
Score 7–10	-0.267	-4.1	-0.128	-1.7	-0.325	-2.3	-0.261	-3.2	-0.314	-4.2
Short-run variation of workload	0.175	2.5	-0.047	-0.6	-0.038	-0.3	-0.103	-1.1	-0.431	-4.9
Unforeseeable variation of workload in the short term (within a day or week)	-0.050	-0.6	-0.063	-0.6	-0.135	-0.7	0.213	2.0	0.037	0.3
Variation of workload within a year	0.092	1.6	-0.147	-2.2	-0.176	-1.4	-0.193	-2.6	-0.559	-8.1
Unforeseeable variation of workload within a year	-0.197	-2.5	-0.092	-1.0	-0.204	-1.0	0.067	0.7	0.056	0.6
Multi-site establishment	-0.062	-1.1	-0.177	-2.7	-0.265	-2.1	-0.375	-5.1	-0.436	-6.5
Constant	-0.350	-2.2	0.034	0.2	-1.895	-5.1	0.389	2.0	1.257	6.9
Number of observations	14322									
LR chi2(265)	8408.51									
Pseudo R2	0.1764									
Log likelihood	-19635.3									

Source: ESWT, 2004–2005.

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Flexibility is a key issue in the European debate on the future of the European economy and labour market. If companies want to maintain and improve their competitiveness, they have to be able to react flexibly to market demands. Workers are interested in company policies that support work-life balance. Working time arrangements can have a significant bearing on the efficiency and productivity of companies as well as the health, wellbeing and motivation of their employees.

This report provides unique insight into the various working time flexibility arrangements currently in place in companies across Europe. It is based on analysing the findings of a large-scale, representative survey carried out in establishments with 10 or more employees in 21 European countries in 2004-5. The report looks at whether and how countries differ in their application of flexible working time systems. It analyses the perceived impact of such arrangements on company performance in terms of economic success and employment stability or growth.

The European Foundation for the Improvement of Living and Working Conditions is a tripartite EU body, whose role is to provide key actors in social policymaking with findings, knowledge and advice drawn from comparative research. The Foundation was established in 1975 by Council Regulation EEC No 1365/75 of 26 May 1975.



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