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Sustainable Work Over the Life Course: Concept Paper

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Sustainable Work Over the Life Course: Concept Paper

Abstract

Ageing of the population is likely to threaten the ability of states to finance welfare states and social protection systems in the future. A viable solution is to increase employment rates and to lengthen working life. To achieve this dual goal requires devising new solutions for working conditions and career paths that help workers to retain their physical and mental health, motivation and productivity over an extended working life. In other words, work must be made sustainable over the life course. Identifying and analysing the factors and actions underpinning sustainable work throughout working life is a research priority for Eurofound in the 2013–2016 programming period. This paper sets out to clarify and illuminate Eurofound's framework for understanding the rather expansive concept of sustainable work. It can be used as reference point for a range of Eurofound research projects that examine different aspects of sustainable work.

Keywords

Europe, sustainable work, aging, working life

Comments

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Introduction

In its four-year programme for 2013–2016, *From crisis to recovery – Better informed policies for a competitive and fair Europe*, Eurofound identifies demographic change as an important element of the policy context and a driver of change. It observes that keeping workers in employment longer is a necessity born of demographic change, and that this

... requires rethinking new solutions for working conditions and career paths that help workers to retain their physical and mental health – as well as motivation and productivity – throughout an extended working life. Given the pressures of demographic change, a work environment needs to be created that satisfies the needs of different groups of workers – not only older workers but also those with care responsibilities, for example, or people with physical disabilities or mental health problems – to allow for the participation of the largest possible numbers in the labour force.

Eurofound, 2012b, pp. 6–7

Eurofound articulates the broad goal set out by this statement as ‘making work sustainable over the life course’. Identifying and analysing the factors and actions underpinning sustainable work throughout working life is a research priority for Eurofound in the 2013–2016 programming period. As a first step, the rather expansive concept of sustainable work needs to be clarified and illuminated by a framework that explains our approach and that can be used as reference point for a range of Eurofound research projects that examine different aspects of sustainable work.

Increased life expectancy and low fertility rates are rapidly transforming Europe’s age structure in ways that may compromise the sustainability of welfare states and social protection systems. Without a significant surge in immigration or other implausible rapid demographic transformations, the working age population will shrink significantly while the post-retirement age population will expand. With current employment levels, the result will be a rapidly increasing dependency ratio and a need to either reduce social spending or expand taxation significantly to finance pensions and healthcare. A more attractive alternative may be to expand employment rates by a combination of 1) raising the effective retirement age; 2) increasing the proportion of the working age population that is employed. This is the approach taken in the European Union’s Europe 2020 strategy for smart, sustainable and inclusive growth.

Achieving these objectives – specifically, reaching the Europe 2020 target of a 75% employment participation rate for people aged 20 to 64 – demands that more people are brought into employment and that they remain in employment longer, and both of these must be addressed from the perspective of sustainable work over the life course. Expanding participation cannot be done by decree. It requires, firstly, looking at the life course and how availability for work changes depending on life stage. Secondly, it requires that job quality be considered from a life course perspective: we need to acknowledge that the impact of certain working conditions on the well-being of workers can emerge in the long term, and that the impact can be quite different depending on the characteristics and circumstances of the individual. Thirdly, an extended, modern working life is likely to include several transitions between jobs and between employment status, both voluntary and involuntary. This demands attention be given to enabling smooth transitions and reducing the risks associated with them.

Notwithstanding the need to expand employment rates, a policy goal of making work more sustainable over the life course is self-evidently desirable on its own. It necessarily entails improving the conditions of work and adapting them better to the specific and changing needs of workers over their life course. It involves redesigning social and employment policies to, among other things, facilitate a better work–life balance. These transformations will improve workers’ well-being and influence availability for work and thus will ultimately influence employment rates.

Although it is clear that job creation is central to the goals of bringing more people into employment and keeping them in employment longer, the present paper does not address the question of job creation either from the perspective of macroeconomic policy to foster economic growth or from that of policies to redistribute work by means of working time policies.

Issues of social justice

Increasing working life duration is a policy focus in many countries and has triggered changes in social protection systems. Access to early retirement has been made more difficult by either abolishing it altogether or by making conditions more restrictive, including making it financially less attractive. Secondly, the age at which people can retire with a full pension has been pushed out, either through increasing the statutory retirement age or the number of years of contributions to the pension system required.

These developments raise a question of social justice. Workers start working at different ages, and they experience different working conditions without having the same resources to deal with difficulties and exposure to harmful factors. Workers who engage in arduous work with limited chances of moving to a more sustainable career path may be unable to continue working until retirement age and so accept a financial penalty. Or they may continue working but pay a price in terms of ill health and a lower healthy life expectancy.

Furthermore, occupational segregation, differences in work trajectories and the unevenly distributed double burden of combining work and care responsibilities lead to differences in lengths and types of careers. According to Eurostat data, women's working careers are on average eight years shorter than those of men. Inflexible rules on mandatory retirement and access to pensions can also deter those workers who wish to continue working beyond pensionable age, at least part time, from staying in employment longer.

These issues of social justice need to be borne in mind when examining the factors underpinning sustainable work over the life course.

Working definition

Eurofound's working definition of 'sustainable work over the life course' means that working and living conditions are such that they support people in engaging and remaining in work throughout an extended working life. These conditions enable a fit between work and the characteristics or circumstances of the individual throughout their changing life, and must be developed through policies and practices at work and outside of work.

Origins

The concept of sustainability comes from ecology and refers to the capacity of systems and processes to develop and endure. The World Commission on Environment and Development (1987) defined sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. Applying this conceptualisation to sustainable work, it would refer to the conditions that enable the individual to meet their needs through work in the present without compromising their ability to meet their needs through work in the future.

The term 'sustainability' in relation to work was subsequently used by Scandinavian researchers in the book *Creating sustainable work systems – Emerging perspectives and practices* (Docherty et al, 2009). Here, 'sustainable work systems' are contrasted with 'intensive work systems'. The authors argue that intensive work systems will, in the long run, have damaging effects on both individuals and the quality of products and services. They propose an alternative

approach based on the idea that work systems, the way work is organised, should be aiming at ‘regenerating human and social resources’.

This approach remains very influential throughout the Nordic countries, which continue to work and reflect on these issues, not only in the research community but also in dialogue and cooperation with societal institutions and decision-makers, including social partners and public authorities. Similar ideas but with a slightly different focus were developed in other countries; the subject of sustainable work – under different labels – is an issue that has been examined extensively from different perspectives and in different disciplines.¹

Eurofound's approach

Eurofound developed a multidimensional model for analysing the quality of work and employment in 2002 and has since advanced its research on job quality. The concept of sustainable work over the life course presented here builds on this research and especially on the indicators developed for measuring job quality (Eurofound, 2012c). This paper adds a life course perspective to the analysis of job quality and integrates an analysis of the characteristics and circumstances of the individual.

From this, it follows that to understand how work is to be sustainable over the life course, two domains need to be addressed:

- work, specifically the characteristics of the job and the work environment;
- the individual, specifically their characteristics and circumstances.

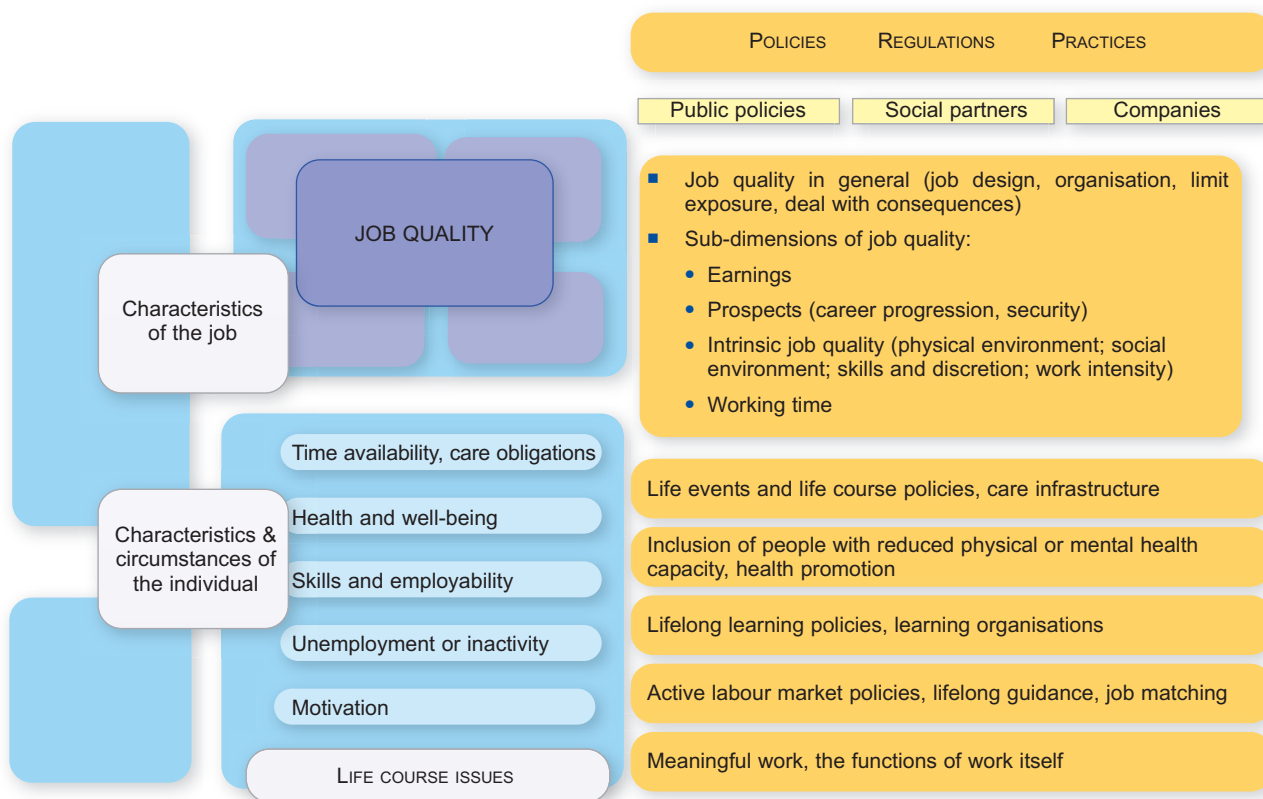
It is the fit between these two domains that we are interested in.

Characteristics of the job

The characteristics of the job domain (shown in the upper half of Figure 1) is relevant to workers currently employed and focuses on job quality and working conditions over the life course. Policies, regulation and company practices (in the yellow areas on the right-hand side) can influence job quality and its sub-dimensions, such as health and safety, skills development, work organisation and working time practices.

¹ A literature review is in preparation.

Figure 1: A schema for understanding the domains encompassed by sustainable work



Characteristics and circumstances of the individual

The characteristics and circumstances of the individual (shown in the lower half of the diagram) determine their availability for work. Factors that influence availability and can prevent an individual from being employed include care responsibilities; poor health and well-being; lack of skills; spells of unemployment and inactivity; and lack of motivation. Areas of intervention where policies, regulation or practice can influence such factors (in yellow on the right-hand side) include care infrastructure and assistance with life events; inclusion, particularly related to health; lifelong learning; labour market activation; and other areas that influence the motivation to (continue) work.

Policies, regulations and practices

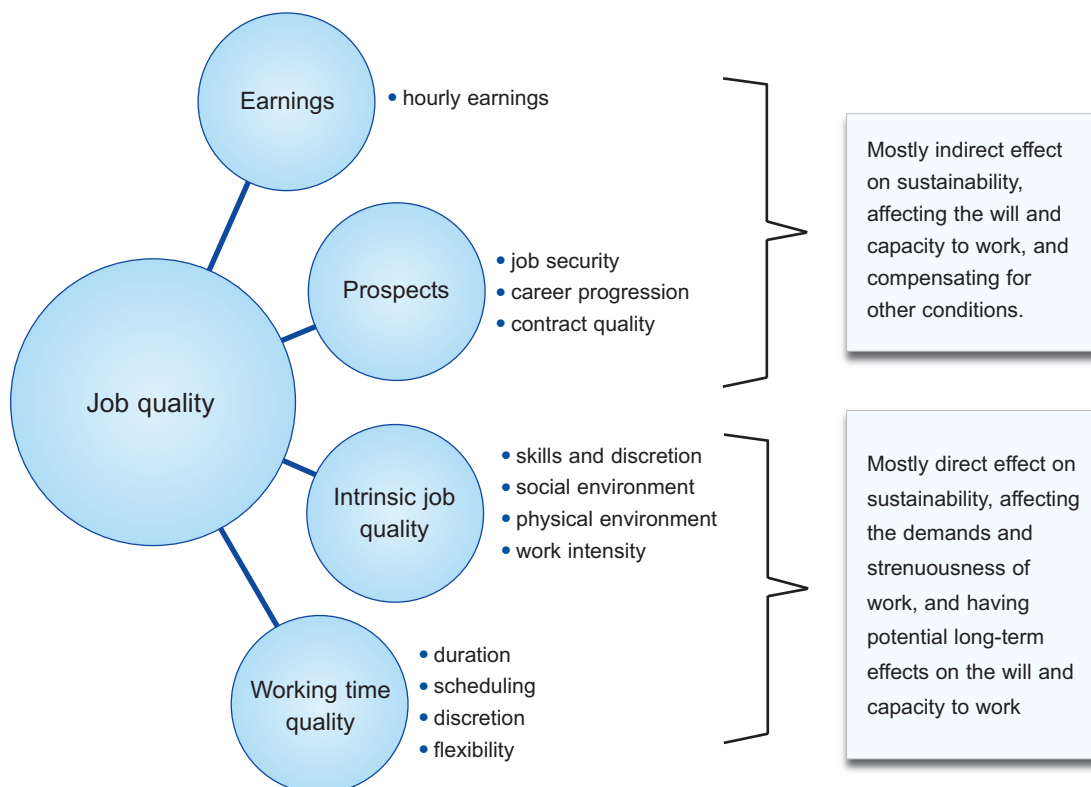
Both the characteristics of the job and the circumstances of the individual are influenced by a set of policies, regulations and practices. Making work sustainable in line with our concept depends on how these support systems intervene at different levels: institutional, company, job and individual. At the highest level (that of institutions) public policies shape the employment system through, for example, provisions for social protection, care arrangements and funding for training programmes. Institutional arrangements differ across countries, but in most European countries social partners have some role in this sphere alongside the public authorities.

At company workplace level, the work climate is shaped by the way in which legislation and collective agreements are applied in practice, workers' voice is heard (or not) and practices of worker participation develop.

Characteristics of the job

The most direct and obvious determinant of the sustainability of work is the characteristics of the job. Eurofound's work on job quality identifies the aspects of a job that have the most impact on the sustainability of work (Eurofound, 2012c). In its model, job quality is defined as a measure of the potential impact of the characteristics of jobs on the well-being of workers. The model distinguishes four dimensions of job quality: earnings, prospects, intrinsic job quality and working time quality (Figure 2).

Figure 2: Eurofound's model of job quality



How do these four dimensions affect the sustainability of work over the life course? Although this is basically an empirical question that has to be answered by research, three features of the model of job quality have to be taken into account particularly in order to understand its relationship to the sustainability of work: firstly, each of the four dimensions affect the well-being of workers (and by extension, the sustainability of work) through a different mechanism; secondly, although they are often empirically correlated, the relative importance of the different dimensions can vary across jobs; and finally, high quality in one dimension may compensate for lower quality in another.

This last point is equivocal. It can be true in some cases: for instance, higher earnings can help to compensate for certain working time quality issues as they may allow a worker to buy services, such as afterschool care for children, that can contribute to alleviating the work–life balance issues caused by longer or less flexible working time. However, one dimension can never perfectly substitute for another, and it is questionable whether certain elements of a job can really be compensated for. For instance, certain physical demands cannot be compensated for by earnings as they can have an irreversible negative impact on health and well-being. In practice, workers may combine either negative or positive scores on all or several dimensions.

Earnings probably have the most important indirect effect on the sustainability of work, having a significant impact on the capacity and motivation for work. This is because earnings from work are the main source of income for the vast majority of the population. Therefore they constitute the basis of consumption and the fulfilment of many human needs, affecting crucial aspects such as health, education and the possibility of paying for services that can facilitate labour force participation of some groups.

It is important to note that in a market economy labour earnings play a role of compensation for the unpleasantness of work. This means that in some cases high earnings may be associated with harsh working conditions and, therefore, with jobs that may be intrinsically unsustainable in the long run. For instance, some jobs can involve shift work, extremely long work schedules or very high intensity of work effort, and they may be compensated with high rewards. Such high rewards would explain the willingness of some people to sacrifice other aspects of their lives for doing such jobs, but it does not alter the fact that such conditions may have long-term negative effects on the health of the workers. This is the reason for employment regulation establishing standards and minimum conditions that are to be met in all circumstances, independently of the wage paid for doing a job. In addition, not all workers who endure arduous working conditions are compensated by high wages. Many are low paid and may not be able to move to better jobs, with consequences for their health and healthy life years after retirement. They may not be able to continue working until retirement age, which may have an impact on their income and potentially lead to poverty.

Prospects refers to both the stability of employment and opportunities for career progression. More workers than in the past move through their working lives holding different jobs, with temporary or permanent contracts. While some workers may take a temporary job deliberately and see it as a stepping stone into the world of work, particularly at the beginning of their career, other workers could be trapped in these forms of work against their choice. So while this dimension of job quality has by and large an indirect impact on the sustainability of work, continuing job insecurity has a long-term, direct effect on health. Stability and opportunities for progression, on the other hand, can facilitate career planning and therefore enhance the capacity of individuals to adjust their participation in employment to their needs and to the needs of the labour market.

Intrinsic job quality has the strongest direct effect on health and well-being and is therefore a key determinant of whether work is sustainable. It splits across four sub-dimensions: skills and discretion, social environment, physical environment and work intensity. The physical environment and work intensity have a very strong and direct impact on the sustainability of work from a purely ergonomic perspective, especially in the long run: hazardous or intense conditions cannot be sustained over a long period of time and should be carefully managed throughout the life course. Skills and discretion and the social environment are important determinants of the sustainability of work from a psychosocial perspective: they are known to strongly affect the motivation and satisfaction of workers and so are crucial aspects of a satisfactory long-term attachment to employment. Skills and discretion are crucial elements for sustainability of work in another way, as they allow workers to keep or gain skills that will enhance employability over the life course.

Finally, **working time quality**, which includes the duration, scheduling and flexibility of working time and having discretion over it, also has a two-fold effect on the sustainability of work: it is a measure of the time-intensity of the work effort, and therefore has an important direct and cumulative impact on the sustainability of work; it also determines the amount of time available for non-work activities, which makes it the most important dimension for the reconciliation of work and non-working life.

Accumulated evidence shows that although the different dimensions tend to be correlated, such correlation is never perfect, and sometimes there are very significant differences. What this means is that no individual attribute or dimension

of job quality can be used on its own to make an overall assessment of the quality of a particular job, because a job with poor conditions in one dimension can have good conditions in the other three.² This reflects the richness of the multidimensional concept of job quality: by gathering information on multiple aspects of jobs, we can better understand the specific combinations of attributes that are typical of the different types of jobs, and assess and compare their relative levels of quality. Again, this would also apply by analogy to the sustainability of work. In addition, the different attributes can interact in ways that affect their ultimate impact on the well-being of workers and the sustainability of work.

What determines variation in the levels and attributes of quality of different jobs? Key determinants are the type of goods and services produced and the technologies used in production, but the forms of work organisation also play a role. In other words, the nature of work and the position of each job in the overall division of labour influence the levels and attributes of job quality across different jobs.

The quality of a job is embedded in the organisation of work and the work environment. Employment relations, employee participation and workers' voice at workplace level are important factors. The work environment also influences the degree of autonomy and recognition, the potential for learning, fair treatment and the level of direct involvement of workers, all of which has an impact on well-being and on employability. Of key importance is the extent to which workers are able to develop their own strategies for organising or reorganising work; for example, in the event of the deterioration of certain physical capabilities, this enables them to find solutions other than an early exit from work.

Characteristics and circumstances of the individual

Availability for work can vary significantly between people and will change for an individual over the life course. Different people have different needs and abilities, which significantly affect their employability and capacity to work, as well as their motivation to work. Jobs and the work environment can be adapted to accommodate specific needs. Labour force participation rates, therefore, can be increased by helping people find a job that matches their needs and abilities.

The employment needs and abilities of people change throughout their life course, for very different reasons (Eurofound, 2008). Although increasingly diverse life course trajectories challenge generalisation, looking at a simplified, 'typical' trajectory helps in understanding how these changes affect a person's availability for work. In this, three phases are distinguished: education, work and retirement (Eurofound, 2003), to which activities related to care might also be added. The ability and motivation to work is typically limited initially, until the person has achieved a necessary level of formal education. After leaving education, availability for work is likely to increase considerably. In many cases, it will later drop as the person forms a family, which requires a significant amount of time and effort at home. The availability for work is likely to increase again as children grow up and family responsibilities ease. With retirement, availability for work usually terminates.

There may be other reasons, apart from raising children, why availability for work declines at points over the life course, such as poor health, skills becoming obsolete, losing one's job, responsibilities for the care of dependent relatives or grandchildren, or engaging in education. In addition, retirement no longer necessarily spells the end to availability, as retirees increasingly seek to remain in the labour market, often with reduced working time. The timing of these activities

² Eurofound (2012) used cluster analysis to group jobs according to the four dimensions of the job quality model. Four clusters were identified: high-paid good jobs, well-balanced good jobs, poorly balanced jobs and low-quality jobs.

has become more variable, too; for instance, some start the work phase later due to longer education, while others start it earlier and combine it with education. So while the typical trajectory might help us to identify the different phases of the life course, often nowadays the boundaries are more blurred, and activities related to different phases can be combined, often with reduced time for each of them.

Of specific interest is the question of what ageing does to people's capacity to work. Recent research by the Max Planck Institute for Human Development shows that contrary to common perceptions of continual decline in the factors contributing to productive capacity after a certain age, there are both gains and losses in adult development over time. While 'cognitive mechanics' (such as processing speed) decline with age, 'cognitive pragmatics' (such as experienced-based knowledge) increase up to around the age of 55–60 years and then remain stable until around 85.³ Similarly, while openness to new experiences declines with age, emotional stability, agreeableness and conscientiousness tend to increase. A successful management of ageing over the life course, including managing an ageing workforce at the workplace, will mitigate the decline of some of these factors and exploit the potential of others.

Family circumstances, financial needs and the individual's capacities and abilities are the main driving forces behind the changing availability for work over the life course. Spells of inactivity, both voluntary and involuntary, can be part of the trajectory; so too are changes between jobs, making transitions an important feature of this trajectory. Below are a number of specific issues that may arise for individuals over the life course and that will influence the capacity and motivation to work or continue to work.

Time availability and care obligations

Over the course of a person's life, there are phases when the reconciliation of working life and private life is particularly important. Care needs for children or other dependents may arise, and their duration varies from situation to situation. Accommodating them often leads to a division of work in the household between partners, with women taking up more family responsibilities and decreasing their work availability in this period; both men and women increase their unpaid work, but women do so to a much greater degree (Eurofound, 2013b). Considerations around combining work and care can influence the career choices of men and women differently. This has an impact on the way men and women are attached to the labour market. Other reasons a person might look for a different balance between working life and non-working life could be to engage in education or training outside the workplace or to become more engaged in community activities and volunteering.

How easy or difficult it is for the individual to achieve the desired work–life balance and adjust it according to changing needs over the life course has an impact on participation rates and years worked over the life course. Difficulty in finding the desired balance can lead to complete exit from the labour market or to marginal attachment. Both have an impact on working life duration.

Health and well-being

A very important consideration to ensure participation and retention of workers in the labour market is their health. Health issues, such as disability, chronic diseases, (occupational) accidents and illnesses, can hinder an individual's labour market participation. These health problems may be permanent or temporary, they may be related to work or be independent from it, they may have preceded the individual taking up employment or occur in the course of working life. However, the capacity to work is rarely zero, so health problems should not necessarily lead to a complete exit from the labour market.

³ See Baltes et al (2006) for further discussion of the topic.

Employability and skills

Individual skills and competencies are crucial to entering the labour market and to remaining at work. Lack of skills can result from initial low-level qualifications, changing requirements, obsolescence of skills over time or simply structural changes in the demand for labour. Keeping skills updated throughout the life course in a changing labour market is challenging. Continuous development of competencies and acquisition of qualifications depends both on lifelong learning opportunities and a person's life and work circumstances. However, a high level of employability is one prerequisite for achieving employment security, the other being a sufficient supply of jobs. Conversely, low levels of employability put individuals in danger of losing attachment to a labour market where job security cannot be guaranteed.

Unemployment and inactivity

People change jobs willingly or unwillingly over their life course. Indeed, society has moved away from the 'job for life' paradigm. Technological change and globalisation have increased the need for companies to adapt and restructure. More flexibility with regard to contracts also leads to more turnover of workers. The likelihood of an individual experiencing a spell of unemployment or inactivity over the life course has increased. Getting the first job is often the first challenge, as the transition from education to work is not always smooth. In a buoyant labour market and with good support mechanisms for job search and matching in place, short spells of unemployment may be unproblematic, but substantial delays in entering the labour market after education or re-entering it after a period of unemployment will have a scarring effect. Long-term unemployment not only affects employability, but also engagement with society and social inclusion. Transitions between jobs are important for other reasons too – workers may want or need to change jobs throughout their working life for a variety of reasons including physical, cognitive or motivational reasons.

Motivation

Motivation to work is shaped by individual (and family) circumstances and preferences, and by the 'pull' – economic and social – of work. Work is the main source of income for most people, and financial considerations are a primary motivation for working. For workers who are eligible for their pension, the financial calculus is different, and other things remaining equal, the financial motivation to work might be reduced. Reforms to pensions systems in many European countries may (as explicitly intended) limit this effect, thereby increasing the financial motivation to work among this segment of the population. But other motivations are also important. Work is a social environment, where people have human contact, form friendships, cooperate and learn. The wish to share in these experiences is a strong motivation for many to seek or remain in work, at whatever stage of life they may be. This is evident in the wish of some retired workers to return to employment – albeit on a part-time basis or in different roles than in their prior career. Conversely, there are those who on reaching statutory retirement age consider that 'their work is done' and wish to embark on a different phase of life. Motivation is also shaped by ideas related to the intrinsic value of work and its place in society: having the feeling of doing meaningful or useful work. Finally, though perhaps more properly linked to the work domain and job quality, being valued for one's work, workplace climate, trust, communication, workplace participation and voice can all contribute to motivation.

Policies, regulations and practices

We have seen that two domains need to be addressed in seeking to make work sustainable over the life course: the characteristics of the job and the characteristics and circumstances of the individual. Next we examine how both domains can be influenced by policies, regulations and practices.

Policies and regulation on conditions of work and employment

In all European countries, legislation and collective agreements regulate the conditions of work and employment. Regulations establish minimum conditions, standards and rules explicitly aimed at improving working conditions and protecting workers' health. For instance, health and safety legislation makes certain provisions with respect to physical and psychosocial conditions of work. Such regulation directly affects the physical environment and work intensity; it

also addresses working time. Well-designed and properly enforced labour legislation can have a very significant effect on the sustainability of work. Public policies similarly influence job quality. Certain policies might be directed at specific risks associated with certain jobs (such as exposure levels for particular physical risks).

The existence and extent of collective representation and collective bargaining coverage can also significantly alter the job quality attributes of any given job and therefore its impact on work sustainability. In general, collective bargaining and social dialogue on the conditions of work and employment, since they reinforce the position of workers and give them voice, will tend to improve those conditions and be positive for the sustainability of work over the life course. For example, some work arrangements can be negotiated collectively, such as working hours and schedules, their organisation and particular working time arrangements for workers with care responsibilities.

Policies and regulation on life course issues

Legislation and public policies also intervene at points outside of the workplace across a life course. Social protection systems assist with critical life events (providing, for instance, income support for transition periods, sickness insurance, child benefits, unemployment benefits and pensions). Quality services, for example a comprehensive care infrastructure, provide support, ideally in a coordinated and integrated way. Through legislation, rights to certain working time and leave options (such as part-time work and parental leave) are guaranteed. A range of policies are aimed at creating inclusive labour markets through labour market activation, tackling labour market segregation, and improving access to employment for the disadvantaged. Legislation establishes rights to non-discrimination, including the adaptation of workplaces to workers with special needs, and to lifelong learning. Social partners are involved in the shaping and implementation of these policies and legislative initiatives.

Practices at company level

In addition to the institutional framework, shaped by regulation and public policies, company practices play a crucial role. In fact, the translation of regulations and policies into concrete actions and practices is, in many cases, done at company level. This is the case for measures affecting job quality but also with regard to achieving a better fit between the needs and abilities of the individual and the requirements of the job, and to improving the overall work environment.

- Working time arrangements at company level can facilitate the reconciliation of working life and private life. Examples of this are shorter working hours (voluntary part-time work), employee-friendly flexible hours (such as flexitime, where the worker can adapt their working hours within certain margins, as well as being able to take time off at short notice to take care of private needs) and predictable working hours. A mix of measures is possible, and the best solution will depend on the worker's circumstances and preferences as well as the company's needs. Individual preferences might be shaped by the availability of care facilities.
- Adaptation of the workplace to workers with special needs is done at workplace level. Special arrangements for the physical layout of the workplace, changes in job content or different working time arrangements may be needed to allow these workers to start or continue working. Also, specific policies can support the return to work of workers with health issues after long-term absence.
- Company-level health management is also mentioned in the research literature, not least in connection with the negative impact of chronic stress. The literature emphasises the importance of a holistic approach. This can include company-level initiatives targeting the general health of workers – for example, in relation to diet or physical activity.

- Age management in companies helps to prevent the premature exit of workers. Apart from adapting the job and the workplace, a possible revision of the role of older workers may be helpful. As the strength of the productive characteristics of the old and the young may differ considerably, there is great potential for diversity management to exploit the complementarities of these characteristics and to widen the scope for mutual learning between generations. Some examples are age-awareness training for young and old workers, lifelong learning strategies, and mentoring and coaching initiatives to foster intergenerational transfer of knowledge. Also, an organisational climate that promotes an appreciation of the value of older workers is crucial, not least for the self-image of older workers themselves.
- Motivation can be enhanced through practices that lead to better engagement and commitment of workers and through good leadership, including clarification of roles and recognition for work well done.
- Work organisation and workplace participation are very important determinants of sustainability of work. The way work is organised is important for the further development of skills and employability of workers throughout the life course: indeed, autonomy, collective learning (through teamwork) and participation can contribute to lifelong learning of workers.

None of these interventions functions in isolation: it is the combination of policies, regulation through legislation and collective agreements, and company practices that determine the outcomes for individuals. Changes introduced in some part of this complex system will have an impact on others and on the final outcome. The degree to which interventions of different actors at different levels are aligned and coordinated is likely to have an impact on the overall success of making work sustainable over the life course.

Integrating the domains

We have examined two domains that shape the sustainability of work:

- the characteristics of the job;
- the characteristics and circumstances of the individual throughout the life course.

How can we bring these two domains together in an integrated model?

There is, on the one side, the labour market, with different jobs available. These jobs are of different quality and, as described above, their characteristics have an impact on workers' motivation, health and well-being, skills development and employability, and reconciliation of working time and private life; thus they affect workers' ability to engage and remain in work throughout an extended working life.

On the other side, there are individuals with different characteristics and circumstances that change over the life course. Their changing health, skills, time needs and motivation affect their availability for work and determine the jobs they are able to do. There is therefore a reciprocal influence of each domain on the other.

Making work sustainable requires a match between job quality and availability for work. The individual faces the challenge of reconciling their needs and abilities with the characteristics of the job, without compromising their future ability to work. However, within a life course trajectory, there are points when there are constraints within one or both domains, and external intervention will usually be needed to address them. For example, if the working time quality of jobs on offer is low, individuals whose availability for work is limited due to care responsibilities will not achieve a match. People with low skills levels or particular skills might not find a match in labour markets that require different

skills and where acquiring new skills on the job and enhancing employability is difficult. Jobs with low intrinsic job quality and harsh physical conditions will not be a match for people with health issues and disabilities, and might not be tenable over the long-term for any worker. Not being able to achieve a match can lead to temporary or even permanent exit from the labour market or can prevent entry or re-entry into work.

To increase the chances of achieving a match, two levers can be used: the improvement of job quality (to match better a person's availability for work) and improving availability for work (to match better the demands of the labour market). A range of interventions can influence job quality, on the one hand, and increase availability for work, on the other.

- Health and safety regulation should, in principle, make jobs less physically and psychologically demanding, improving intrinsic job quality and facilitating easier matching between the availability for work and job demands.
- Education enhances an individual's availability for work. While being in education can initially decrease availability, it will increase availability later by developing the abilities of workers and their capacity to deal with demanding tasks. Engaging in lifelong learning will help workers maintain their employability in an environment of innovation and constant technological change.
- Affordable care facilities can increase the availability for work for those with care responsibilities. The possibility to reduce working time for those individuals and the provision of flexible working time arrangements in companies will improve working time quality of jobs.
- Many workers exit the labour force from their mid-50s onwards. While it is important to consider job quality for workers of all ages, phased retirement schemes and the adaptation of workplaces to the requirements of older workers can extend their availability for work over time.

As outlined earlier, different actors at different levels – governments, social partners and companies – have or share responsibility for the types of interventions that enhance sustainability of work over the life course. There is no default formula to design this interaction between individual, the job and the support system – multiple permutations are possible.

Social dialogue and collective bargaining play an important role for achieving sustainable work: firstly, by facilitating workplace practices that allow for a better match between jobs and the needs and abilities of workers over their life course; secondly, by developing a shared understanding of the needs of both workers and work organisation, addressing several aspects of job quality. The effect is similar to labour regulation and other support policies in the workplace.

Given that needs, abilities and preferences of individuals change over the life course, achieving an initial match might not be sufficient to maintain a satisfactory balance for an extended working life. Also, jobs that provided a good match could disappear as a consequence of structural change or restructuring. Therefore, measures that facilitate labour market transitions play a crucial role in enhancing the sustainability of work over the life course. This relates to transitions between jobs but also to transitions between employment and unemployment, periods of learning or caring, or transitions back to work after extended illness. The prospect of smooth transitions increases the options available to people and the chances of finding a good match between the life course specific needs of the worker and the demands of the different types of jobs.

Outlook

While some of the elements addressed in this discussion have been examined in previous research by Eurofound and other researchers, the specific interest of this paper is in attempting to provide a more comprehensive outline of the elements that have an impact on sustainability of work over the life course.

The paper has presented a working definition of sustainable work over the life course, which will provide the framework for further work by Eurofound in this area. The starting point is the concept of job quality, operationalised in the four indices of earnings, prospects, intrinsic job quality and working time quality. There is a clear connection between job quality – and between the specific elements comprising the indices – and the capacity and motivation of individuals to stay longer in their jobs as they grow older. Job quality is understood to be a prerequisite for maintaining and extending working life. The implication is that improving the quality of jobs is important in cases where job quality is not high. And even in good-quality jobs, changes to work organisation and improvements in management practice can enhance sustainability. For many workers, but particularly those in low-quality jobs, it may become necessary to change job in order to remain active in the labour market, and this is one of the ways in which effective labour market transitions are relevant.

It is important to note, however, that it is not clear which elements of job quality have the strongest impact on sustainability. The dimension of intrinsic job quality seems to play a key role; working time quality also seems to be of particular relevance. However, it may be that further research shows that these assumptions are wrong and that other dimensions of job quality play a more important role when it comes to making work sustainable. The challenge is to disentangle the different factors that, in combination, affect workers' health, well-being and employability and therefore their ability and motivation to stay in employment longer.

A further dynamic element is provided by considering the life-course perspective on job quality. Not only do many of the interactions discussed in connection with job quality have both positive and negative consequences over the long term, but the availability of individuals for work differs according to life stage and circumstances. Finally, the desire to make work sustainable implies that attention be given to policies and practices to support those who are currently unemployed or inactive in finding sustainable work – and this will often mean taking account of work–life balance issues beyond the job itself, as well as health and skills.

This makes for a complicated agenda, where actions to improve job quality and working conditions should be complemented by policies and actions in a range of fields – to support individual development, individual transitions, services to match labour market demand and supply (including measures geared towards specific groups whose availability for work is constrained), and improved social infrastructure and services, for instance. It follows that a wide range of actors are potentially involved in the process. The ways in which the various players interact will be shaped differently according to the national welfare, employment and industrial relations systems. Gaining greater understanding of how national realities compare is a key objective of current research to explore experience in a number of Member States. And, certainly, there is no one solution that will fit all circumstances. Among the central issues to be explored is that of coherence within countries between the different measures taken by different actors. A great many spheres are of interest – including active ageing policies, occupational health and safety, health inequalities, gender equality, working time and workplace innovation – and actions in one field may have synergistic effects with actions in another. Hence, unintended consequences are possible, even likely, and this may lead to sub-optimal outcomes.

Eurofound will continue to research specific elements of the broad agenda that stems from sustainable work. The issue of working time (itself a very broad field) will be considered from the perspective of sustainability of work over the life course, therefore addressing the influence of working time duration (and its regulation through various instruments), but

also of working time organisation, flexibility and leave arrangements. In this context, the role of tailored solutions adapted to different life stages and circumstances is highly relevant.

In the longer term, some kind of ‘sustainability-proofing’ could be embedded in policies. This could address the interaction between policies in different areas: the sometimes-invisible trade-offs in relation to sustainability of work, the consequences of some choices in participation, and new inequalities between different groups that might be created.

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Ageing of the population is likely to threaten the ability of states to finance welfare states and social protection systems in the future. A viable solution is to increase employment rates and to lengthen working life. To achieve this dual goal requires devising new solutions for working conditions and career paths that help workers to retain their physical and mental health, motivation and productivity over an extended working life. In other words, work must be made sustainable over the life course. Identifying and analysing the factors and actions underpinning sustainable work throughout working life is a research priority for Eurofound in the 2013–2016 programming period. This paper sets out to clarify and illuminate Eurofound’s framework for understanding the rather expansive concept of sustainable work. It can be used as reference point for a range of Eurofound research projects that examine different aspects of sustainable work.

The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite European Union Agency, whose role is to provide knowledge in the area of social and work-related policies. Eurofound was established in 1975 by Council Regulation (EEC) No. 1365/75, to contribute to the planning and design of better living and working conditions in Europe.

