Chapter 1

General introduction
From early retirement towards sustainable employability

Sustainable employability is an important topic in political and societal debates because it is one of the major challenges for industrialised countries nowadays. Sustainable employability is defined as “the situation in which workers throughout their working life have real opportunities and a set of capabilities - and the necessary conditions - that allows them to achieve valuable work functioning in current and future work with preservation of health and welfare. This implies a work situation (task and context) that facilitates them, as well as the attitude and motivation to exploit these opportunities.”

The reason why current debates focus on sustainable employability is the recognition of the fact that the workforce is ageing and shrinking, and will continue to do so. This is partly explained by lower birth rates in the past few decades, causing fewer young workers to enter the labour force. At the same time, despite the increased life expectancy, improved living conditions and better health status, the average time period people spend in paid work during their lifetime has decreased in most European countries. One reason for this is that social security systems have encouraged workers to retire with a pension before the official retirement age of 65. This early retirement pension was implemented in the 70s and 80s of the 20th century, and was caused by high unemployment among the youngest workers. However, post-war baby-boom generations are nowadays still exiting the labour market in great numbers before the official retirement age. As a result, the proportion of economically active people in Europe is shrinking while the relative number of those retired is expanding. Early exits from the labour market are thus no longer affordable from an economic perspective. Because a shrinking working population has serious economic implications in the form of inducing pressure on public finances and social security systems, governments recognise the significance of extending working lives. However, the importance of shifting from early retirement towards sustainable employability has not been recognised by employers and workers to such an extent. Employers in Europe admit that the expected shortages will have serious negative consequences for the labour force. The majority of them, however, are not aware of the importance of keeping workers employed until and after their retirement age in their own organisation. In addition, even though the ability and willingness to continue working have increased in the last few years, half of workers are still neither able nor willing to continue working until the age of 65.
Measures to support sustainable employability

In order to mitigate the adverse effects of an ageing population, industrialised countries are currently encouraging workers to extend their working life through several measures. First, economic incentives to retire early, such as tax benefits, have been restricted making voluntary early retirement from work more expensive. Second, some countries are debating over whether - or have already decided - to raise the retirement age in the upcoming decades. However, the risk of implementing these measures might be that some groups of workers transit into work disability pensions rather than extend their working lives until the official retirement age.

Whether workers actually retire early or not is not only influenced by measures at political and societal level, but also by health and work-related factors. It is evident that self-perceived health and chronic diseases are predictive for the transition to work disability, unemployment, and early retirement. Additionally, work-related factors, such as high physical work demands, work pressure and low job satisfaction, push workers to leave the labour force early. Lower support from supervisors and little challenge at work predict retirement as well.

Retirement is determined by both the ability and the willingness to continue working. While several studies have investigated risk factors related to the ability to continue working, little is known about the factors that influence the willingness to continue working. Therefore, it is of particular interest to gain insight into the ability as well as the willingness to continue working in order to better understand the complex retirement process. To date, only one cross-sectional study on the ability and willingness to work until the retirement age has been published. More insight into the factors that determine the ability and willingness to continue working may contribute to the development of interventions and policies that support the prolongation of working life.

Towards sustainable employability among blue-collar workers

The challenge of sustainable employability is most eminent in industries where the physical work demands are high. Compared to other industries, those with high physical work demands show higher ageing and higher shrinking rates of the working population. Fewer young workers are currently willing to perform physically demanding jobs. In addition, the retirement age of blue-collar
workers is strongly influenced by collective labour agreements that give these workers the opportunity to actually retire earlier than white-collar workers.\textsuperscript{13} The industries with physically demanding jobs face an additional challenge in extending working lives: the majority of blue-collar workers believe that they are not able and are not willing to continue working until the retirement age. Despite this, the self-reported ability to continue working until the age of 65 among workers performing frequently heavy work increased from 19\% in 2005 to 23\% in 2010. Although this is a positive trend, this percentage is still far below the average amongst all workers (45\%).\textsuperscript{8,14} To a lesser extent, the same trend is noticeable for the willingness to continue working until the age of 65: in 2010 39\% of blue-collar workers were willing to work until the age of 65, while 44\% of all workers were willing to do so.\textsuperscript{8}

The reasons for the earlier retirement age and the lower self-perceived ability and willingness to continue working among blue-collar workers can be explained by the fact that these workers run an increased risk of a lower health status as well as work ability. First, the health potential of blue-collar workers is threatened by their high physical workload\textsuperscript{15} and unhealthy lifestyle (i.e., they smoke more, and are less physically active in leisure time)\textsuperscript{16}. Hence, blue-collar workers generally report a lower self-perceived health status than white-collar workers.\textsuperscript{17} Specifically, they more often report musculoskeletal symptoms and chronic health diseases.\textsuperscript{18} Second, workers with physically demanding jobs run relatively higher risks of impaired work ability.\textsuperscript{19,20} The concept of work ability has been developed to measure employability, is defined as how well workers can perform their job at present and in the near future, and is the result of the interaction between the individuals’ capacity and their work demands.\textsuperscript{21,22} The risk of lower work ability among blue-collar workers can be attributed, among others, to their working conditions. In particular, high physical workload (e.g., manual handling and awkward back postures) as well as psychosocial factors (e.g., lack of support and low job control) are recognised as risk factors for lower work ability. Lastly, health and work ability have a reciprocal relation.\textsuperscript{23,24} Workers with a poor health status, such as musculoskeletal symptoms\textsuperscript{25}, have a lower work ability and vice versa.\textsuperscript{19} Because of the impaired health status and work ability of blue-collar workers, they are more susceptible to transition from paid employment to work disability pensions\textsuperscript{24} or early retirement\textsuperscript{9,26} than white-collar workers.
Intervention programmes to support sustainable employability

Since blue-collar workers run an increased risk of work disability pensions and early retirement, raising the retirement age in collective labour agreements, as described previously, is not sufficient to retain these workers in the labour force. For this reason, it is also a matter of improving the ability of workers to continue working until the official retirement age. Thus, industries and companies are compelled to pay attention to policies and interventions in order to extend the healthy and productive working lives of their blue-collar workers.

To successfully implement interventions in companies, tailoring interventions to specific target groups may be a successful strategy because each group of workers shares a common culture and natural social network. When taking this into account, intervention programmes to extend working lives among blue-collars should be tailored to specific target groups as well. Construction workers are an interesting target group for such an intervention because the prevalence of health problems such as musculoskeletal symptoms and cardiovascular diseases among these workers is even higher than among other blue-collar workers.

To date, evidence-based intervention programmes among construction workers or other blue-collar workers that explicitly aim to support sustainable employability are lacking. Only one intervention among construction workers at risk of early retirement can be found that aimed to improve work ability and prevent work disability pensions. This six-month counselling and education programme showed no significant intervention effects on either outcome measure. Other intervention programmes in the construction industry targeted either the construction workers’ health by means of a lifestyle programme or the decrease of physical work demands by means of ergonomic measures. However, taking into account the complexity and multidimensionality of the concept of sustainable employability, it could be hypothesised that a multidimensional intervention approach could potentially be more effective than a single intervention.

Even if a multidimensional intervention is tailored to the target group, implementing intervention programmes at worksites still faces several challenges. For instance, support from managers towards the programmes,
workers’ participation in the programmes\textsuperscript{37}, and social support at work from colleagues and staff\textsuperscript{38} are key elements for a successful implementation. To gain more insight into the key elements of implementation as well as the effectiveness of intervention programmes, several reviews have highlighted the need for better and comprehensive evaluations of these programmes.\textsuperscript{27,38} A comprehensive evaluation of an intervention not only investigates the effects of the outcomes, but also the process of implementing the intervention, and the costs in relation to the benefits. The process evaluation is important as it facilitates the interpretation of study findings by providing more detailed information about the content and degree of implementation of the intervention.\textsuperscript{39} As the decision whether or not to invest in intervention programmes is not only based on effectiveness, insight into the costs in relation to the benefits is needed for employers.\textsuperscript{40}

**Aims**

In order to support sustainable employability among workers, it is not only important to get insight into the determinants of the ability and willingness to continue working until the retirement age, but also into evidence-based intervention programmes. Coming forth out of this introduction, the current thesis addresses three primary objectives:

I. To provide an insight into factors that influence the ability and willingness in workers to continue working until the age of 65;

II. To develop a tailored intervention aimed at improving the work ability and health of construction workers in order to support their sustainable employability;

III. To evaluate this intervention in terms of the process evaluation, the effect evaluation and the economic evaluation.

**Outline of this thesis**

Following this general introduction and the three objectives, this thesis is divided into three parts. *Part one* of this thesis focuses on the factors associated with workers’ ability and willingness to continue working until the age of 65 for two different target groups. Specifically, Chapter 2 identifies the predictors of the willingness and ability to continue working until the age of 65 in workers aged 45-63 years. It is followed by Chapter 3, which describes the associations of demographic, work-related and health-related factors with the ability and
willingness to continue working until the age of 65 in construction workers. For these two chapters, the Netherlands Working Conditions Cohort Study and the Netherlands Working Condition Survey were used.

Part two of this thesis focuses on the systematic development of a prevention programme for construction workers. It was hypothesised that focusing on the health and work ability of construction workers is important to support sustainable employability. Chapter 4 describes the development of a worksite prevention programme aimed at improving both outcome measures, developed through an application of the Intervention Mapping protocol. The Intervention Mapping protocol was applied to systematically incorporate empirical findings from the literature and input from all stakeholders (i.e., workers, managers and providers) into an intervention tailored to the construction workers. Chapter 5 presents the study design of the evaluation of the intervention.

Part three of this thesis includes the evaluation of the worksite prevention programme by reporting on the process evaluation and (cost-)effectiveness evaluation. The prevention programme was evaluated among 293 workers from six construction companies in the Netherlands using a cluster randomised controlled design. The feasibility of implementing an intervention at different worksites in the construction industry is presented in Chapter 6. Also, the reach and the satisfaction with the worksite intervention, the intention to use the intervention in the future and the role of contextual factors are described in this chapter. Chapter 7 presents the differences in the effects between the intervention and control group on social support at work, work engagement, physical workload and need for recovery. Whether the intervention was successful in improving work ability, health and sick-leave as well is described in Chapter 8. Additionally, the decision of employers to invest in the intervention is not only guided by the evidence of the effectiveness, but also by considerations in relation to their financial benefits. Therefore, Chapter 9 describes the cost-effectiveness and financial return of the intervention from the employer’s perspective.

The final chapter, Chapter 10, summarises the main findings of the thesis and discusses the implications for practice and future research.
References


