

Safer and healthier work at any age: Analysis report of workplace good practices and support needs of enterprises

Report

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Abbreviations

Case company	The term 'case company' is used throughout this document to refer to all types of commercial and non-commercial organisations that form a part of this study
CSR	corporate social responsibility
ESENER-2	European Survey of Enterprises on New and Emerging Risks (second edition)
ESF	European Social Fund
EU	European Union
EU-OSHA	European Agency for Safety and Health at Work
Eurofound	European Foundation for the Improvement of Living and Working Conditions
HR	human resources
MSD	musculoskeletal disorder
NACE	statistical classification of economic activities in the European Community
OSH	occupational safety and health
WHO	World Health Organization

Executive summary

This study¹ investigates successful and innovative workplace practices for safer and healthier work at any age. The report is intended to provide decision-makers with a better understanding of the practices implemented by companies to address the challenges of an ageing workforce within various national frameworks and circumstances.

Methodology

The report is based on an analysis of 36 selected examples of good workplace practices relating to safer and healthier work in the context of an ageing workforce. The analysis identified similarities and differences in the practices studied, examining motivations and drivers, as well as why a particular practice or policy was specifically chosen by a given company. The success factors and challenges associated with the implementation of a practice were also analysed.

A selection of workplace practices in companies was identified using different sources of information (literature review, contact with relevant stakeholders, national desk studies and internet searches). From these, 24 case studies from 15 European countries were selected, in cooperation with the European Agency for Safety and Health at Work (EU-OSHA). The case studies covered companies of varying sizes across a number of different sectors. Each of the six following selection criteria is represented in at least one example: a holistic approach; external assistance; the existence of good practice tools; the promotion of workplace health; the prevention of musculoskeletal disorders (MSDs); and the prevention of work-related stress. Information on the different activities implemented was gathered from the case companies through questionnaires and phone interviews, with a particular focus on the drivers, barriers and needs that the companies experienced in their activities.

To collect in-depth information, 10 large and medium-sized companies and 10 small and micro companies from Austria, Belgium, Denmark, Finland, France, Germany, Greece, the Netherlands, Norway, Poland and the United Kingdom were selected for qualitative group interviews. Separate group interviews were conducted for the following groups: the employer and the employer's occupational safety and health (OSH) and/or human resources technical staff; older employees or employees who were within the target group of the implemented activity; and trade unions and worker safety representatives. The main objective of the group interviews was to gain insight into the experiences of companies that have implemented activities to create and/or maintain a working environment that takes into consideration the health and safety of older employees.

Qualitative research was complemented by a structured data analysis of the second European Survey of Enterprises on New and Emerging Risks (ESENER-2) to examine the relationship between high proportions of employees of 55 years and older in companies and workplace characteristics relating to safety and health at work.

Main findings

Measures. The report shows that the 36 case companies selected have implemented a wide range of measures with the purpose of either retaining older employees or improving the health and wellbeing of all employees, regardless of age. While large companies have a greater range of measures, both large and small companies have taken action at primary and secondary intervention levels. Companies have introduced changes in the work environment, the organisational structure and the culture of the company, along with measures targeting individual behavioural change. Small companies tended to slightly prioritise primary intervention-level measures, initiated by both OSH and human resources departments. Several of the selected companies have implemented strategies combining measures from both OSH and human resources perspectives. Collaboration between different departments, in particular OSH and human resources, supported by senior and line management, is described as crucial in establishing workplace interventions that successfully address the challenges of an ageing workforce.

The report also outlines the conditions in which the workplace interventions were developed and implemented in the case companies, which are outlined below.

¹ This report forms part of the activities carried out to support a three-year pilot project initiated by the European Parliament and managed by EU-OSHA on the occupational safety and health (OSH) of older workers, including rehabilitation and return to work. The project aims to assess the prerequisites for OSH strategies and systems within different EU Member States to take account of an ageing workforce and ensure better prevention for all throughout working life.

Drivers. The main drivers for taking action were to maintain employee productivity and avoid sickness absence and early retirement. The fear of losing skills and expertise was frequently an important reason for taking action, particularly when the recruitment of competent young workers is difficult or costly. Other drivers included broader objectives, such as maintaining the health and wellbeing of employees, improving corporate image or continuing a tradition of proactive corporate employment policies. External factors, such as national or regional policy frameworks, also played a role in supporting the employment of older workers and encouraging comprehensive approaches to healthier and safer work at any age.

Target groups. The groups targeted by the measures differ. While some companies focused on measures specifically targeting older workers, others took a more global approach, following a lifecourse approach and focusing on the wellbeing of all employees.

Initiators. Measures were always initiated by management, often in collaboration with human resources departments, health and safety representatives and workers' representatives (where they existed). Employees were often involved at an early stage through various structures and tools (e.g. steering groups, consultation processes and needs assessments).

External support. Several companies made use of different forms of external support for workplace intervention. These included occupational health services, insurance companies, management consultants and more specialised expertise (e.g. dieticians or ergonomists).

Financing. The majority of the case companies financed the measures themselves, with some receiving partial funding — and a very small number receiving full funding — from various external sources at EU, national, regional or local level, and sometimes from public institutes.

Integration into a broader policy. In most cases, the measures formed part of a long-term strategy and continue to be implemented. In several large companies, the measures have been formally established as part of company-wide policy and, in some cases, the companies negotiated agreements with workers' representatives.

Evaluation. Many large companies have developed an in-house evaluation system to assess the effectiveness of the measures, such as the monitoring of quantitative indicators. Positive measurable results include an increase in the average retirement age, a decrease in sickness absence, increased reported employee wellbeing, improved health status and increased recognition of good management by employees. The results show no specific pattern in relation to the target groups or the motivations for putting measures in place.

According to the results of the ESENER-2 analysis, only a limited number of statistically significant links were found between the proportion of older workers in an establishment and the presence of OSH risks/OSH management measures. One finding is that respondents from establishments with higher proportions of older workers mention the presence of physical and psycho-social risks more often than those from establishments with lower proportions of older workers.

However, the associations between OSH risks, OSH management measures and awareness are weak and should be viewed as indications needing further investigation and research before they can be considered conclusive. These associations were found mainly in small and medium-sized establishments and, among those, to a larger extent in public sector establishments.

Success factors

Successful development and implementation, including the achievement of positive and sustainable results, is dependent on various factors:

- *Involvement of employees in the development and implementation of the measures.* Even when management initiates a policy or strategy, employees should be involved in the development of the measures to ensure ownership and participation.
- *Management involvement and commitment to the measures.* Involving senior management in the development of the programme sends a clear signal that this is a company priority. In large companies, this commitment can be expressed in company policy or the corporate mission statement, as well as in company or departmental objectives. The existence of a well-established prevention culture within the company seems to be highly indicative of the success of measures. Specific training or awareness-raising approaches targeting line managers may also serve as a vehicle to secure commitment and ensure a thorough practical understanding of the implementation of the measures. In micro and small companies, the participation of management in the measures themselves sends a positive signal to employees.

- *Inclusion in a broader programme or strategy.* In addition to serving as a driver, an overall programme or strategy can guide and structure measures and initiatives. This would typically be a programme or strategy implemented by a large parent company or a strategy developed by a local authority, such as a municipality, which is then applied to the public companies falling under its responsibility.
- *Strategic approach and diversity of measures.* A comprehensive approach increases the likelihood that multiple dimensions of wellbeing at work are addressed. Diverse measures combine primary-, secondary- and tertiary-level interventions, using OSH and human resources perspectives and resources. Such measures include adaptation of workstations and specific programmes encouraging the promotion of health in the workplace, as well as age management or transition to retirement. Human resources policies can support OSH measures. Therefore, collaboration between different departments to manage health in the context of an ageing workforce is critical.
- *Use of external consultants.* External consultants can bring relevant technical experience and expertise. These would typically include insurance companies, occupational health institutes, academic institutions and management consultancies, as well as other expertise, such as sports associations. External support is particularly important for small and micro enterprises, whose resources and expertise are limited.
- *Adopting a lifecourse approach.* A lifecourse approach in the workplace means adopting measures that focus on all employees, regardless of age, with the aim of preventing physical and mental ill-health from the early stages of the career. While the importance of individualised measures should not be underestimated (see next point), adopting a lifecourse perspective when addressing the health, wellbeing and work ability of older workers is seen as key.
- *Flexible approach.* Successful measures are those that are easily adapted to individual situations within the framework of a lifecourse approach. Different measures should be offered based on employees' individual needs, including needs linked to age. The development and implementation of measures specifically targeting older workers, such as flexibility in working time, mentoring or succession plans, and additional leave days, can address some of the issues specific to this group of workers.
- *Systematic approach.* Taking a systematic approach based on the organisation of a needs-assessment survey, the calculation of the resources available, the prioritisation of measures and evaluation is crucial, with the most successful approaches involving both a preliminary assessment and regular evaluation.

Barriers/obstacles

These case studies also highlight the obstacles to implementing OSH and human resources measures to improve the health and work ability of an ageing workforce. In this respect, differences can be identified between small and large companies:

- The lack of financial and human resources to implement measures is a more frequent problem for small companies than for large companies. This relates not only to the cost of implementation but also to the cost of man-hours if employees undertake certain activities during their working hours.
- In small companies, difficulties may be experienced in implementing measures such as job rotation. Although this measure is widely used to reduce workload in arduous occupations, it cannot always be put in place by small companies, as there are simply not enough appropriate alternative occupations.
- The lack of anchoring of OSH measures into company culture can also be a barrier for smaller companies. If OSH measures are not integrated into company culture and procedures, the success of a measure or a programme may be entirely dependent on the motivation of one or a few key actors among employees or management. If motivation dwindles, if management changes its priorities or if key people leave the company, the measure/programme may cease.
- Corporate culture and the attitudes of employees and managers can be a significant obstacle. In small companies, interviewees frequently mentioned negative or unmotivated employees as a barrier. In large companies, it was the lack of management support that created issues.
- The reluctance to change work habits and routines, especially by long-serving employees, may also be a barrier. This may be the result of a lack of awareness of the negative consequences of particular habits or poor communication of the benefits of doing things differently.

- Low salary may be an obstacle to implementing certain types of measures, notably in part-time work or reduced night shifts, where employees with limited earnings would refuse a reduction in working hours.
- A lack of consultation and involvement of employees in the design and implementation of activities can also compromise employee motivation and result in the reduced uptake of activities.

Differences between large and small companies

The analysis revealed a number of important differences between small and large companies.

Although both large and small companies accessed external funding to finance part of their activity, external funding has been the critical factor for some of the micro and small case companies in establishing their measures.

Both large and small companies make use of support from external consultants. While larger companies use a greater variety of external consultants for a wide range of purposes, smaller companies show a significant trend towards using specialised knowledge for specific situations. Small companies in particular need external assistance for developing measures and activities and conducting workplace evaluations, as they do not always have internal resources to do this effectively.

Measures in micro and small companies are often ad hoc, reactive and informal rather than derived from an explicit company policy. They are frequently linked to support schemes, sectoral initiatives or programmes, which points to the importance of such initiatives for encouraging action in small companies.

Transferability

In both small and large companies, interviewees believed that the measures implemented are transferable to other companies facing the same challenges. There is, however, little evidence of actual transfer of the practices and measures implemented, apart from the cases that took place within the framework of a large programme or that were subsequently extended to several daughter companies or establishments down the supply chain.

Support needs

The review of the practices in the 36 case companies identified a number of support needs and suggestions:

1. Internal communication

Internal communication activities are crucial for both employees and management. Clear communication of the benefits of healthier workplaces increases the likelihood of employee motivation, participation and success. Information tools, leaflets or campaigns that demonstrate the benefits of measures addressing an ageing workforce at individual and company levels can be useful forms of support.

2. External support

External support is often very important for the successful implementation of a programme or policy, particularly for small companies. External consultants can help companies to broaden their measures from a small group of key employees to the entire workforce. For companies lacking the time and human resources needed to implement such policies, external support can help, leaving the company free to focus on its key business activities.

3. Financial support

A lack of financial resources creates obstacles, especially for small companies. National stakeholders can support companies' efforts by creating funds and programmes to design and implement initiatives aimed at older workers. In addition to offering financial support, funding programmes can also create an opportunity for companies to work together and increase their knowledge by sharing experiences. Participation in national or regional programmes can also promote social dialogue in companies, as they often require collaboration between various workplace actors, including trade unions and workers' representatives.

While the development of funding mechanisms, coupled with a programme to share good practices, can contribute to the adoption of successful initiatives, these can be prioritised in order to minimise costs. Tools that help companies to focus on the most important and effective measures, such as needs assessment, mapping and careful planning, can be promoted, while less costly measures can also be recommended.

4. Legislation and policy

The adoption of legislation or policy at national level should be considered. The overall analysis shows that national strategies, laws and policies related to age management, work ability or sustainable work have been powerful external drivers of relevant measures or company policies. National legislation and policies should adopt and promote a life course perspective in order to encourage the adoption of similar perspectives within individual companies. While measures specifically targeting older workers may be relevant in certain contexts, all policies should take a sustainable approach to the prevention of ill-health in the workplace, being mindful that the young workers of today are the older workers of tomorrow.

1 Introduction

1.1 An ageing workforce: consequences and opportunities for businesses

The European population has aged significantly in recent decades as a result of increasing longevity and declining birth rates. This trend is predicted to continue and intensify: by 2080, the proportion of the EU population over 65 years of age is expected to account for nearly 30 % of the total population.

At the same time, the EU workforce is shrinking as large groups of people retire and are replaced by smaller groups of young people.² In order to avoid consequent labour shortages, European governments have been raising the official retirement age and promoting the participation of people over the age of 55 in the workforce over the past 15 years. Thus, the relative size of the older age groups in the workforce is continually increasing, firstly, because of the ageing of the general population and, secondly, because of the policy push for greater participation of older workers in employment.

For businesses, retaining older people at work is both a necessity and a challenge. On the one hand, an older workforce is often associated with more experience and wider skills. Preserving knowledge and know-how and avoiding skills shortages is a key aspect of survival for many businesses in a highly competitive economic environment. As the Commission notes, retaining ageing workers within an otherwise shrinking European labour force is essential for maintaining the capacity of the European economy to grow and hence to create new jobs.³ (European Commission, 2012).

On the other hand, the factors explaining why an individual stays or leaves the labour market are very diverse and can be related to labour market conditions (e.g. policies against age discrimination in hiring practices), to individual situations (e.g. motivation, caring responsibilities, health problems) or to the workplace itself (e.g. working conditions, career prospects). This means that businesses can encounter a considerable diversity of individual situations when trying to retain older workers, not all of which are within their control.

Adapting to an ageing workforce is part of a broader climate for businesses, which have to continually adapt to changes in their operational environment and to new trends in the world of work (European Parliament, 2008). Globalisation and the economic crisis have led to restructuring and downsizing, along with an increased intensification of work to remain competitive. Technological developments and the shift from a manufacturing-based society to a service-based society have transformed the way we work, from the reduction in heavy physical labour and increase in sedentary work to the creation of blurred boundaries between private and working life. Atypical forms of work, such as self-employment and part-time employment, are also increasing, driven by a desire for more flexibility on the part of both employers and workers.

While businesses that wish to retain their more experienced workers must take into account a large number of variables, these can also create new opportunities. For instance, part-time employment contracts can be a way to give a pre-retirement worker more control over their working hours, thus increasing the chance that they will stay at work up to or even after retirement age; lifelong learning initiatives and training ensure that the whole workforce keeps up to date with technological changes; investing in equipment adapted for different working abilities widens the pool of potential recruits; and taking care of employees' health and safety, for example through workplace health promotion programmes or other health-related initiatives, reduces sickness absence costs, increases employee's satisfaction and productivity and helps to improve corporate image.

1.2 Objective of the report

This report forms part of a three-year project initiated by the European Parliament,³ entitled 'Safer and healthier work at any age'. The project started in June 2013 after a delegation agreement was concluded between the European Commission and the European Agency for Safety and Health at Work (EU-OSHA). Project activities were coordinated by EU-OSHA and implemented by a consortium led by Milieu Ltd. Other

² Eurostat 2013 population statistics. Population in the EU on 1 January by broad age group and sex [demo_pjanbroad] and Eurostat population projections [proj_13npms], Milieu Ltd own calculations.

³ Official Journal of the European Union, '04 04 16 — Pilot project — Health and safety at work of older employees', Chapter 0404 - Employment, Social Solidarity and Gender Equality, 29.02.2012, p. II/230–II/231. Available from: <http://bookshop.europa.eu/en/official-journal-of-the-european-union-l-56-29.02.2012-pbFXAL12056/> (retrieved 05/11/2015).

consortium partners include: COWI A/S, the Institute of Occupational Medicine (IOM), the External Service for Prevention and Protection at Work (IDEWE), Forschungs- und Beratungsstelle Arbeitswelt (FORBA), Gesellschaft für Konsumforschung (GfK) and the Nofer Institute of Occupational Medicine (NIOM).

The project aims to assess the prerequisites for occupational safety and health (OSH) strategies and systems in European countries to support an ageing workforce and ensure better prevention for all throughout working life.

This particular report is intended to present successful and innovative workplace practices in the context of an ageing workforce in order to provide decision-makers with examples of practices implemented within various national frameworks and circumstances. 'Decision-makers' refers, in this case, to EU decision-makers, Member State governments, OSH authorities, occupational insurance organisations, trade unions and employers' representatives. The purpose is to assist them by describing the types of successful practices identified and explaining how they can be promoted. Other target groups include those who develop and run activities to support OSH actions at the workplace level, as well as the research community. The report highlights what works well and what still needs to be completed or prioritised, and identifies the main drivers and obstacles to effective implementation of policy initiatives in this area.

1.3 Methodology

In order to present examples of successful and innovative practices in the workplace, 36 selected examples of good workplace practices were analysed. The project collected data through 24 case studies, complemented by 20 group interviews, either within the same company or in other companies, resulting in 36 cases overall (see explanations below).

While the diversity and limited number of cases did not allow for generalised findings, it highlighted patterns and examples of good practice. The analysis describes the variety of practices that exist, and examines the factors influencing the selection of a particular practice or policy by a given company. It also looked at those elements that contribute to the successful implementation and challenges associated with each practice in the case companies.

Qualitative research was complemented by a structured data analysis of the second European Survey of Enterprise Survey on New and Emerging Risks (ESENER-2) in order to obtain insights into the relationship between high proportions of employees over 55 years old and workplace characteristics relating to health and safety at work. ESENER-2 is a Europe-wide survey to assist workplaces to deal more effectively with safety and health and promote the health and wellbeing of employees.⁴

1.3.1 Case studies

Case study search strategy

A 'long list' of possible companies was identified using a variety of information sources (literature review, contact with relevant stakeholders, national desk studies carried out under other components of the project and internet searches).

In order to capture the diversity of workplaces and measures, the main selection criteria were designed using the following parameters:

- diversity in country coverage;
- diversity in company sizes: micro companies (< 10 employees), small companies (10-100 employees), medium-sized companies (100-500 employees) and large companies (>500 employees);
- diversity of sectors represented (based on statistical classification of economic activities in the European Community (NACE) codes) and types of jobs within the sector;
- diversity of good practices.

The final long list included 137 companies in 25 European countries, as well as companies from Canada, Japan, Australia and the USA. Of these, 24 case studies from 15 European countries were shortlisted, in cooperation with EU-OSHA. The selection criteria were:

- coverage of at least 10 countries;

⁴ Information retrieved from: <https://osha.europa.eu/en/publications/reports/esener-ii-first-findings.pdf> (retrieved 05/11/2015).

- diversity across good practices was reflected, that is when selecting the short list each of the six following selection criteria is represented in at least one example:
 - a holistic approach;⁵
 - external assistance;
 - the existence of good practice tools;
 - the promotion of workplace health;
 - the prevention of musculoskeletal disorders (MSDs);
 - the prevention of work-related stress.
- differences in company sizes and sectors (see above); and
- a mix of cases that have used intermediaries and those that have not.

The case companies chosen varied in size and were located in Austria, Belgium, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Hungary, Latvia, Norway, the Netherlands, Poland, Slovenia, Spain and the United Kingdom. A wide range of business areas are represented: manufacturing, trade, construction, human health and social work activities, banking, local government, oil and gas, air transport and water supply and management of wastewater. One case company encompassed a number of business areas: construction, trade, hotels, cleaning/waste, transport, health and post logistics.

Data collection

The respondents from the selected case companies were asked to complete a questionnaire about the different activities they implemented, following which information was gathered according to target group, purpose, motivation, initiators, implementation, external support, financing, evaluation of measures, outcomes and benefits, and drivers of and barriers to implementation. Further information on the companies' potential policies to address workforce ageing, the transferability of the measures to other companies and information on the existence of a broader national or branch programme were also gathered. After returning the questionnaires, the case companies were contacted by telephone to validate the data obtained.

One of the case studies is about a national programme supporting companies in implementing an OSH prevention policy that takes into account the age of their workforce. Only 23 case studies from the short list have therefore been included in the analysis.

1.3.2 Group interviews

Case company selection for group interviews

According to the project specifications, the group interviews were to be organised in one large or medium-sized company and one small or micro company in each of 10 different countries. While the intention was to carry out the interviews in the companies selected for the case studies, many companies declined to participate in interviews. Therefore, an additional six large/medium-sized companies and seven small/micro companies were identified by the project's national OSH expert(s), using the selection criteria described above. As it proved challenging to identify companies that had put in place policies or measures to address the challenges of their ageing workforce, in particular for small and micro companies, the selection criteria were broadened. The final selection also includes companies that do not have specific policies or measures in place for older workers but that are experiencing issues with their ageing workforce. All case companies were approved by EU-OSHA.

As a result, group interviews were carried out with one large/medium-sized company and one small/micro company in nine countries (Austria, Belgium, Finland, France, Germany, Greece, the Netherlands, Poland, the United Kingdom), as well as one large/medium-sized company in Norway and one small/micro company in Denmark.

Data collection

The specific objective of the group interviews was to gain insight into the experiences of companies that have implemented activities to create and/or maintain a working environment that considers older

⁵ A holistic approach works to improve and promote the safety, health and wellbeing of older workers, including OSH and workplace health promotion, by coordinating a variety of approaches.

employees' health and safety. In those case companies where the measures arose from a broader national or branch programme, strategy or policy, information was also sought on how this broader programme related to the measures implemented in the company. The interviews provided broad information about the activities taking place, and the views of the different parties on the types of support that would help them to address OSH issues for an ageing workforce.

The group interviews were conducted with representatives from the selected case companies and with external intermediaries where relevant. Thus, the participants represented the following three different stakeholder groups:

1. employer and employer's OSH and human resources technical staff, where such roles existed within the company, and intermediaries who may have supported the implementation of the activity;
2. older employees who were within the target group of the implemented activity;
3. trade unions and worker safety representatives, where such roles existed within the company.

In each company, two or three group interviews were organised; one for each stakeholder group present in the company. A minimum of one group interview with representatives from management and one group interview with workers were organised. Where possible, an additional group interview was organised with representatives from trade unions or worker representatives. The three stakeholder groups were interviewed separately in order to obtain independent statements.

The participants were selected on a voluntary basis and were offered anonymity. One criterion for the selection of the participants was that they have knowledge about the measures to be discussed during the interviews. This meant that most of the workers interviewed had benefited from specific measures for older workers implemented in their company. In a few cases, younger workers were also invited to participate in the group interviews in order to provide their views on the measures or policies. Wherever possible, this was carried out in the small and micro companies, where the measures put in place for older workers could potentially impact the whole workforce.

The objectives of the group interviews were as follows:

1. The group consisting of employer/management, OSH and human resources technical staff and intermediaries who may have supported the implementation of the activity: The discussions focused on the programmes, information and tools the company found useful in relation to older workers and OSH. Drivers for implementing the activity, factors contributing to the success of the activity, barriers to successful implementation and operation, transferability or advice for other companies were also discussed in more detail.
2. The group consisting of workers who benefited from the measures/policy: The interview focused on their assessment of the ability of the measures to improve older workers' OSH. Older workers' experiences and perceived needs, motivations and obstacles with regard to the implemented measures were discussed, and information on external support and tools offered by intermediaries that aimed to help older workers was also gathered. In addition, views and experiences from younger workers in relation to the measures put in place for their older colleagues were also collected in a few cases.
3. The group consisting of trade unions/worker safety representatives: The discussions focused on their experiences of and views on the situation of older workers and the measures taken to accommodate this older workforce. They were also asked about drivers of and barriers to implementation of the measures, as well as their advice on transferability for other companies.

The interviews were conducted using a thematic semi-structured interview guide. A separate guide was also developed for companies without a specific policy in place, in order to address their support needs and the reasons for the lack of action. The guides were then adapted to each company situation by the national OSH expert(s), who also chaired the group interviews. The number of participants in each group varied between one and seven, depending on the scale of the measures and the availability of personnel.

1.3.3 Analysis parameters

The analysis of the 36 case companies used the parameters in Table 1 to structure the analysis and identify similarities and differences between the case companies.

Table 1. Analysis parameters

Parameters used in the analysis	
Company size	<ul style="list-style-type: none"> • Large • Medium • Small • Micro
Measures	<ul style="list-style-type: none"> • Primary-level prevention • Secondary-level prevention • Tertiary-level prevention • OSH and human resources measures
Reason for taking action	<ul style="list-style-type: none"> • Retaining older employees • Difficulties in recruitment • Healthier working life for employees • High incidence of sick leave • Good company brand • Other determinants
Target groups	<ul style="list-style-type: none"> • All employees • Older employees • Focus on older employees including all employees
Initiators and coordination structures	<ul style="list-style-type: none"> • Senior management • Human resources management • Coordination structures • Employees' involvement
Preliminary assessment and planning	<ul style="list-style-type: none"> • Age structure analysis • Consultations • Workplace evaluation
External support	<ul style="list-style-type: none"> • Yes • No • Forms of support
Financing	<ul style="list-style-type: none"> • Company financed • Part-financed by external sources • Fully financed by external sources
Anchoring	<ul style="list-style-type: none"> • Reported • Not reported
Evaluation of results	<ul style="list-style-type: none"> • Qualitative: <ul style="list-style-type: none"> ○ Positive ○ Negative ○ Neutral • Quantitative: <ul style="list-style-type: none"> ○ Decreased sickness absence ○ Increased effective retirement age ○ Increased time used for physical activities ○ Reduced exposure to arduous work

1.3.4 Data analysis of the ESENER-2 results

The ESENER-2 of EU-OSHA⁶ was conducted in 2014, covering a total of 49,320 establishments (employing at least five people) across all activity sectors and in 36 countries, including the EU-28 Member States. The survey asked about different areas of OSH, including general OSH management practices, the presence of traditional and newly emerging risks and drivers and barriers to OSH management. In each establishment surveyed, the respondent was the person most familiar with the management of safety and health risks at their workplace.

A secondary analysis of the data explored if companies with a higher density of older workers in their workforce are more or less likely to adopt practices that focused on safety and health. The question arose from previous research that showed that the density of older workers in a workforce has a positive impact on an employer's attitudes and practices (see, for example, Loretto and White, 2006).

OSH management and measures to address risks from the ESENER-2 dataset were analysed to assess whether or not they were associated with the proportion of older workers in the enterprises covered by the survey. For this part of the analysis, the four categories of the variable 'share of older workers' (i.e. no older workers; less than a quarter; a quarter to half; more than half of the workforce) were used.

Some indicators were then chosen for further analysis if, on the one hand, they showed a statistically significant linear association with the proportion of older workers, or, on the other hand, if they were particularly interesting with respect to OSH risks (physical and psycho-social), measures addressing these risks, return-to-work procedures and reasons for and difficulties with addressing health and safety issues.

Many differences were found between companies with no older workers at all and those with older workers (irrespective of the proportion of the workforce). This is likely because of the size of the companies, which also influences the proportion of older workers. Furthermore, companies with older workers making up more than 50 % of their workforce showed differences from the rest of the case companies analysed, which could also be explained by their size or the sector (public) in which these companies operate.

In a third phase, we examined the significant relationships between proportions of older workers and OSH risks/OSH management indicators controlling for size and sector. In order to control for these factors, we looked at the relations between the indicators on OSH risks and OSH management for six types of establishments separately: small (5-9 employees), medium (10-49 employees) and large (50+ employees) in the private and public sector. For this purpose, only three categories of the variable 'share of older workers' (i.e. no older workers; less than 25 %; more than 25 %) and only three categories of establishment sizes (i.e. 5-9 employees, 10-49 employees and 50+ employees) were used, otherwise the number of cases of large establishments, split up by sector, would have been too small.

The indicators summarised in Section 4, and provided in more detail in Annex 2, are those that have the strongest relations with the proportion of older workers for many of the six types of establishments.

1.4 Structure

The report has six main sections:

- Chapter 2 gives an overview of the 36 company practices studied in the context of this project.
- Chapter 3 presents a typology of the different measures taken by the case companies. It then details the main findings about key parameters for the development and implementation of workplace interventions. It also gives an overview of interviewees' understanding of 'sustainable work'.
- Chapter 4 summarises the findings of the data analysis from ESENER-2, insofar as they relate to OSH in the context of an ageing workforce.
- Chapter 5 identifies the main success factors and barriers, and discusses the differences between large and small companies and the transferability of good practices to other companies.
- Chapter 6 provides conclusions on support needs and proposes some potential responses to those needs.

⁶ ESENER web page. Available from: www.esener.eu (retrieved 05/11/2015).

2 Overview of case companies

In total, 36 case companies were selected, including two micro companies, 11 small companies, four medium-sized companies and 19 large companies.

Table 2 lists each company by name, the country it is located, NACE sector, number of employees and data source, which may be case studies, group interviews, or both, as explained in Section 1.

The table is followed by a short description of each case, that is motivation, drivers, measures implemented and results.

Table 2. Overview of case companies

Case no.	Company name	Country	NACE sector	Number of employees	Research format
1	Haus Tamariske-Sonnenhof	Austria	Care	80	Group interviews
2	SONNENTOR	Austria	Food	190-220	Case study Group interviews
3	DVC Heilig Hart	Belgium	Care	537	Group interviews
4	Service d'Aide aux Familles Bruxelloixes asbl	Belgium	Care	50	Case study Group interviews
5	Zlatna Panega Cement	Bulgaria	Cement manufacturing	226	Case study
6	GE Money Bank a.s.	Czech Republic	Bank	3,200	Case study
7	Vuggestuen Kernehuset	Denmark	Kindergarten	19	Case study Group interviews
8	Roskilde Cemeteries	Denmark	Cemetery	32	Case study
9	Berner Ltd	Finland	Manufacturer of hygiene products, detergents, and plant-protection products	380	Case study Group interviews
10	City of Naantali	Finland	Local government	1,241	Case study
11	Kuopion Monirakennus OY	Finland	Construction	40	Group interviews
12	Saarioinen Ltd	Finland	Manufacturer of food products and beverages	1,700	Case study
13	Marphil International	France	Metal business	8	Group interviews
14	PSA Peugeot Citroën	France	Car manufacturer	118,080	Case study
15	Solystic	France	Design, manufacture, and installation of automatic postal sorting	450	Case study Group interviews
16	Anton Plenkers	Germany	Roofing	4	Case study
17	Audi	Germany	Car manufacturer	73,000	Case study
18	Tegos GmbH, Dortmund	Germany	Software development	56	Group interviews
19	Thyssen Krupp Steel	Germany	Steel manufacturer	27,000	Group interviews
20	Melilotos	Greece	Restaurant	24	Group interviews
21	S&B	Greece	Mining	612	Group interviews
22	MOL Plc. Hungarian Oil and Gas Company	Hungary	Oil and gas	8,500 (in Hungary)	Case study

Case no.	Company name	Country	NACE sector	Number of employees	Research format
23	JRC Latvijas Balzams	Latvia	Alcohol production	613	Case study
24	Bilderberg Hotel	Netherlands	Hotel	1,300	Group interviews
25	De Zwart Facilitaire Diensten	Netherlands	Facility service	70	Group interviews
26	Van der Geest Schilderspecialisten	Netherlands	Painting and glazing	85	Case study
27	Oslo Airport	Norway	Air transport	500	Case study
28	St. Olav's Hospital, Trondheim University Hospital	Norway	Healthcare	9,726	Case study Group interviews
29	CEMEX Polska	Poland	Cement and concrete	1,200	Group interviews
30	P.P.H.U. Dartex Dariusz Kozłowski	Poland	Manufacturer of textiles	14	Case study Group interviews
31	Domel Holding, d.d.	Slovenia	Manufacturer of electric motors, generators, transformers, control apparatus	952	Case study
32	Premogovnik Velenje	Slovenia	Coal mining	1,333	Case study
33	ISS Facility Services S.A.	Spain	Other services	29,835	Case study
34	BT plc	United Kingdom	Telecommunication	70,000	Group interviews
35	Glosta Engineering	United Kingdom	Skip manufacturing	20	Group interviews
36	Northumbrian Water Group	United Kingdom	Supply of water and management of water waste	2,790	Case study

1. Austria — Haus Tamariske-Sonnenhof

Haus Tamariske-Sonnenhof is a residential care facility for older citizens, with approximately 80 employees. The home belongs to the umbrella organisation Kuratorium Wiener Pensionisten-Wohnhäuser (KWP, with approximately 3,900 employees), which is owned by the municipality of Vienna. KWP has 31 residential care facilities and the organisation has implemented several OSH measures for older employees, co-financed by a social insurance institution and other labour market bodies.

KWP recently experienced problems in maintaining the long-term health of its ageing employees. Following a detailed survey among employees, Haus Tamariske-Sonnenhof was one of the first of the facilities to introduce pilot measures, including several measures for fostering the health of the (older) employees:

- introduction of 13 internal ergo-experts: volunteer employees who have been trained to identify major health-related problems in the workplace;
- reduction of night shifts/part-time work;
- health circles, that is strategic annual meetings, open to all employees, to discuss aspects of health promotion.

On the basis of the reports from the health circles, the line manager decides on what measures to implement and evaluate. The health circles have supported the implementation of measures on:

- dealing with lifting heavy weights and buying mechanical equipment for this type of work;
- insufficient light;
- reorganising the storage of work materials;
- modification of the laundry work, allowing staff to work sitting down;

- buying anti-fatigue mats; and
- body warm-up exercises for employees working within care jobs.

The prevention measures implemented have delivered overall improvements in the work quality and job satisfaction of the employees (and the satisfaction of clients). This case is a good example of empowerment at work, that is employees identifying measures to improve their daily working life. The measures taken at Haus Tamariske-Sonnenhof, have been extended to other units within KWP.

2. Austria — SONNENTOR

SONNENTOR Kräuterhandels GmbH, a medium-sized organic foods distributor, currently has 250 employees. The average age of the employees is 42 years. SONNENTOR has a business commitment to sustainability and extends this to its employees. SONNENTOR decided to take measures to retain the experience, skills and competences of their older workers, to attract younger workers and to reduce sickness absence. The company received partial financing to implement health measures for older workers, as part of a scheme launched by the Austrian Public Employment Service in 2000. In addition, SONNENTOR has put in place a number of measures on its own initiative, supported by the consultancy firm Trilog and the Qualification Alliance Waldviertal, including:

- workplace adaptation: wrist and leg supports, adjusting the height of computer screens, ergonomic chairs, etc.;
- a generation mentor responsible for diffusing older workers' fears of being no longer valued and replaced by younger workers;
- the option to work beyond pension age (part-time job for EUR 400 a month);
- the promotion of professional mobility;
- advice for prevention measures provided by the insurance company NÖGKK;
- workplace health promotion programme with a reward scheme (including sports activities, focus on nutrition, mental health, team work, etc.);
- the training of workers for replacement in cases of sickness absence.

Employees describe a high level of work satisfaction and appreciate being integrated within the team, regardless of age. Results included a decrease in sickness absence, as well as helping SONNENTOR to achieve national 'Nestor Gold' certification (a standard of good practice for age- and generation-sensitive labour organisation created by the Federal Ministry of Labour, Social Affairs and Consumer Protection and the Public Employment Service in 2010 (BMASK, 2013)). While the company initiatives are readily transferable, part of its success was the specific tailoring to the needs of SONNENTOR.

3. Belgium — DVC Heilig Hart

DVC Heilig Hart offers services to more than 300 children and adults with moderate to severe handicaps. The company provides both residential and semi-residential care and has a partnership with a school for special needs education. Half of its employees are more than 45 years old and one-third are over 50 years old. To stimulate work enthusiasm among older employees, the human resources department, together with a group of employees, developed a sustainable employment policy for the entire company, including concrete measures and actions in all areas defined in the policy. This was complemented by a survey of all employees over 45 years old. The main reasons for taking action were the need to retain the experience of older employees, concerns over the high number of MSDs among employees and the desire to improve the company's image.

The main measures taken included:

- workplace adaptation, which was supported by an external fund, whereby a number of ergonomic aids were installed;
- supporting the psychological wellbeing of employees using confidential advisors, discussions with supervisors and individual counselling;
- providing internal vocational training for older workers to acquire new skills; and
- adjustments to working time, such as extra days off for workers over 45 years (national measure, compensated by the government).

Discussions about working conditions and organisation also formed part of annual performance reviews. While the survey results for workers over 45 years old were mainly positive (employees reported that they

liked working for DVC Heilig Hart), employees indicated concerns relating to the physical challenges of their job, which may lead to early retirement. The study group makes an annual evaluation of the implementation of the sustainable employment policy to identify necessary adjustments. The organisation's human resources department believes that there is little more that can be done to improve ergonomics in the organisation, so lightening of the physical demands of the work remains a major challenge.

4. Belgium — Service d'Aide aux Familles Bruxelloises asbl — 'life coach' training for family assistants

Service d'Aide aux Familles Bruxelloises asbl (support services to Brussels families) is a small, non-profit organisation supporting families in the Brussels area during illness, disability or social distress. Of all its employees, 90 % are care workers, 45 % of whom are over 45 years old. Their work — supporting families in the home — is stressful and requires significant technical skills. There is a high rate of sickness absence. Care workers may lack the adequate communication and interpersonal skills to deal effectively with these difficult situations, and this leads to stress-related disorders and high staff turnover.

The 'Life Coach' project (started by the company director) enhances family assistants' skills by providing training on stress/psycho-social risks. This includes training on how to deal with daily work situations that can be stressful (e.g. relations with clients), while also acquiring a qualification as a coach. The project was developed on the basis of a DEPARIS⁷ (participative risk assessment) used to assess the psycho-social risks to which the family assistants are exposed. The project involves 10 two-day training modules on communication, conflict and change management, facilitated by professional trainers Bouche-à-Oreille. Participation is voluntary and funded by the Fund for Professional Experience. Post-training discussion groups allowed participants to share their experiences with work colleagues. Evaluation will be completed by the social engineering department of the Haute-Ecole Paul-Henri Spaak, based on participants' feedback. Success factors include partnership between management and workers, as well as the focus on upskilling.

The care workers now experience more satisfaction when going to work. They feel that their job is evolving and that their clients are more appreciative of their work. The programme is transferable to similar multi-skilled services, particularly if financial support is available.

5. Bulgaria — Zlatna Panega Cement AD — creating healthier and safer working conditions for all employees

Zlatna Panega Cement AD is one of the leading cement manufacturers in Bulgaria. It currently employs 226 employees, a quarter of whom are over 50 years old. At the end of 2008, the company began the 'Step Change' project, initiated by parent company the TITAN Group. 'Step Change' was implemented by Zlatna Panega Cement management, OSH department, workers' representatives and the consulting firm DuPont. 'Step Change' adopts a holistic approach, making overall safety improvements, as well as changes in safety culture and behaviour across the organisation. Following a thorough health and safety audit of the company, the measures implemented were:

- regular risk assessment, taking into account the impact of age on functional capacities, and the health of personnel;
- regular preventive check-ups and full medical examinations (including on MSDs and lung spirometry);
- training on health issues for blue-collar workers;
- attention to lighting to protect employee's sight
- weekly training on a variety of OSH and health promotion topics (e.g. manual handling of loads, harmful impact of alcohol and tobacco use, promotion of healthy lifestyles and eating patterns, use of salt, 'moving for health' and sport);
- the provision of healthy and balanced nutrition in the company canteen, whereby healthy discounted meals were available;
- access to rooms with comfortable conditions for rest; and
- specific measures aimed at older employees, including assessment of their working environments, with tailored adaptations made for age-related changes to sight and physical ability.

⁷ More information about the DEPARIS method on the website of the Belgian Federal Ministry of Employment. Available from: <http://www.emploi.belgique.be/moduleDefault.aspx?id=2740> (retrieved 05/11/2015).

In order to implement these measures, a central safety committee and 15 sub-committees were created. Two-way communication was the key success factor, with employees encouraged to be equal partners in the creation of a culture of safety and wellbeing. The company has achieved its 'zero accident' goal, and received commendations, both nationally and internationally, for its OSH policies. For each of the years from 2010 to 2013, 'Zlatna Panega Cement' has received the General Labour Inspectorate Executive Agency's 'national award for occupational health and safety'. In December 2013, the company received the special award for comprehensive and sustainable health and safety policy. This initiative is widely transferable, with the company already extending its programme throughout its supply chain.

6. Czech Republic — GE Money Bank — 'HealthAhead' programme ('GE Pro zdraví')

GE Money Bank a.s. is the financial services branch of the American corporation General Electric (GE). Of its 3,214 employees, approximately 350 are older workers who have already reached pension age (62 years for men and 60 years for women) but who continue to work for the company. GE Money Bank a.s. initiated its 'GE Pro zdraví' programme in March 2010, in line with GE's global health culture strategy. 'HealthAhead' is a GE certification standard that evaluates workplaces on specific healthy workplace metrics beyond the required health and safety measures. The 'GE Pro zdraví' programme operates throughout the year during working hours and is aimed at workers of all ages. It currently offers the following:

- talks and workshops on healthy lifestyle (diets, stress management, tobacco addiction);
- medical check-ups and screenings;
- consultations with external advisors (e.g. nutrition specialists, psychologist, medical authorities and tobacco dependence centres);
- provision of healthy meals at the canteen;
- financial support to strengthen engagement in activities supporting healthy lifestyles;
- return-to-work measures, whereby employees who are ill for more than six weeks can apply for temporary changes in their working conditions.

The measures are implemented by a specific working group, called the 'Wellness Committee', which includes representatives of management, human resources and workers. Two branches of GE Money Bank have already been awarded the 'HealthAhead' certification, based on their score on both measures pre-determined by corporate guidelines and local initiatives. An internal evaluation of 48 measures in the first two years showed increases in awareness of healthy lifestyles and physical activity, as well as reduced stress. The screening programme helped to identify eye problems in 100 employees. Success factors included clear corporate guidelines, consistent communication with employees and the sharing of good practice between workplaces. Consistency is ensured by regular certification assessments. This programme is readily transferable and can be scaled according to company structure.

7. Denmark — Vuggestuen Kernehuset — never too old for the kindergarten: reducing the strain to retain employees

Vuggestuen Kernehuset is a Danish kindergarten (for children up to three years of age) that takes care of 51 children and has 19 employees, five of whom are women over 55 years. The repetitive tasks increase the risk of MSDs and can lead to early exit from work.

In partnership with its municipality, the kindergarten management undertook a series of measures to raise health awareness, prevent MSDs and retain older employees. An occupational therapist conducted a work ability analysis and suggested the following improvements:

- purchase of hydraulic changing tables and height-adjustable chairs;
- opportunities for rest breaks;
- part-time work or regular days off work;
- better workload distribution among all employees, for example one older staff member only works with older children who need less lifting;
- coaching programme, where more experienced employees provide support to younger employees;
- kindergarten employees to be trained as health ambassadors to raise awareness for other colleagues;
- physical activities at reduced prices;
- ergonomics training (on good lifting techniques) and physical therapy;

- a booklet distributed to all employees;
- reduced-fee participation in the municipality's health initiatives (courses) for kindergarten employees.

Benefits from the measures included more sustainable working conditions, a reduction in MSDs and the retention of experience in the workplace. Success factors included the commitment from management, involvement of all actors, the development of specific individual measures combined with a holistic approach, the support from trade unions and external experts and the diverse range of measures undertaken. Changing employees' patterns of behaviour was identified as a challenge. In addition, with the departure of the in-house health ambassadors, many on-going activities have since stopped. While these measures are kindergarten-specific, the approach is transferable to other businesses.

8. Denmark — Roskilde Cemeteries — job satisfaction for employees of all ages, including a senior policy Roskilde Cemeteries, comprising three cemeteries and one crematorium, employ 32 people, primarily gardeners and administrative staff, nine of whom are over 45 years old and classified by the company as entitled to 'senior' benefits (e.g. additional leave days). Its senior policy was developed in 2007 by an internal working group and was facilitated by an external consultant, in line with the company's intention to retain older workers. Focus groups with younger and older workers, interviews with individual managers, employee survey questionnaires and consultant observation led to a series of recommendations. These were then aligned with company policy and culture and were communicated to employees. Measures, which were a mix of human resources and OSH measures, included:

- additional days off for older employees, called 'family care' days;
- annual employee interviews about their expectations regarding their future work ;
- reduced working hours from the age of 60, with full pension coverage;
- task rotation; and
- special work tasks for senior employees.

Success factors include the partnership with external experts, the systematic approach and the relevance to all employees. As a result, older employees have indicated a wish to remain at work longer, while younger employees have shown improved understanding of the need for sustainable working measures for their older colleagues. This needs-based approach is transferable to other workplaces, with the specific measures applicable to cemeteries.

9. Finland — Berner Ltd — age management at Berner Ltd

Berner Ltd is a long-time manufacturer of hygiene products, detergents and plant protection products and is known for its employee-centred approach. With an average employee age of 44 years and with 21 % of employees over 55 years old, Berner put in place a 'senior programme' in 2010. The programme was developed by an in-house steering group in partnership with the Ilmarinen Mutual Pension Insurance Company to improve the working environment of older workers (as well as that of all employees), retain older employees, improve the image of the company and reduce costs (pension and sickness absence costs).

The main measures implemented by the programme fell into four areas:

1. Management:
 - career plans for older workers (including a retirement plan);
 - succession plan before retirement for employees in key positions;
 - training for management on age management and vocational training for older workers;
 - mentoring programme.
2. Work community and work environment tools:
 - lectures and discussions on how age affects ability to work and the needs of the employee; lecture on sleep and recovery;
 - annual meeting with older workers to identify measures that need to be taken.
3. Individual work ability:
 - Extra, yearly medical check-ups, including a fitness test and physical training plan for employees aged 58 years or older;

- Workplace adaptations following medical check-ups;
- Extra leave days for older workers if they follow the physical training plan and keep a training diary;
- Coaching on pensions and transition to retirement for employees aged 60 years or older.

4. Labour reserve:

- retired employees are invited to join an employment register and may provide work cover for sick colleagues for short periods.

The programme was successful, resulting in reduced rates of sickness absence, almost no staff lost in recent years because of incapacity, an average retirement age in the company above the national average and increased employees' satisfaction, as shown by the responses to the annual questionnaire. The company has also received national recognition, winning the National Working Life Award in 2013 for its programme. Success factors include employee consultation, career planning and the diversity of measures. The programme is transferable for large private/public organisations, and smaller companies could adopt a modified range of measures. More recently, the lessons from the programme are also being applied to a 'junior' programme for younger staff.

10. Finland — City of Naantali — age management in the City of Naantali

The City of Naantali currently employs 1,241 people, 29 % of whom are over 55 years of age, with a further 3-4 % expected to reach retirement age each year between 2014 and 2020. Its age management programme, approved in 2003, aims to offset these demographic challenges, reduce sickness absence and increase the average retirement age. The programme consists of the following elements:

- an employee's annual performance review covers age-related concerns, with the possibility of follow-up measures (reduction of workload or working time, ergonomic measures);
- facilitating relocation, whereby workers are temporarily relocated within the organisation in order to gain additional skills for later reassignment to a more suitable position;
- a mentoring programme, which provides informal mentoring through partnering among different age groups;
- managers are provided JET-training (specialist management qualification aimed at improving leadership skills);
- a comprehensive medical check-up every two years for older workers up until retirement, reimbursed physiotherapy treatment;
- a senior team consisting of nine members that organise events and information sessions (leisure activities) on the wellbeing of older workers;
- training plans for all workers, including older workers.

Since the establishment of the programme, sickness absence has decreased and the average retirement age has increased by 2.1 years. About 50 % of older employees have benefited from physiotherapy as part of the enhanced occupational healthcare services. Several employees have remained in work past the official retirement age.

Success factors include the strong legislative support, the company culture, the participative approach and the diversity of measures implemented. The programme is transferable to all sizes and sectors, particularly its management training on work ability and performance reviews to accommodate issues related to an ageing workforce.

11. Finland — Kuopion Monirakennus Oy

Kuopion Monirakennus Oy specialises in renovation and construction projects for local and national governments, as well as for private companies. There are approximately 40 employees in the company, 10 of whom are office workers, with the remaining 30 carrying out the physical labour. All but three are under 50 years old. The company previously employed more older employees but recession and consequent redundancies reduced their number.

Kuopion Monirakennus Oy has taken part in a Finnish regional health and safety project called ISKE, coordinated by the Confederation of Finnish Construction Industries. One aim of the ISKE project was to improve the wellbeing of employees in the construction business. As part of the project, all employees were given the opportunity to participate in:

- the division of tasks at construction sites between the workers, taking into account possible physical problems (heavy lifting often done by younger workers);
- weekly safety walks at construction sites by OSH representatives;
- protective equipment for workers;
- a fitness test;
- lectures on wellbeing;
- OSH training.

According to interviewees, the project did not change the practices in the workplace or create new practices. However, the interviewees estimate that the employees have personally begun to take better care of their physical condition and eating habits since participating in the project. It was agreed that more targeted OSH activities would be needed to maintain the work ability of the older employees. However, a lack of management time and money was identified as a barrier to change.

12. Finland — Saarioinen Ltd — age management at Saarioinen Ltd

Saarioinen, a Finnish food product manufacturer/distributor had recognised an increase in prolonged sickness absence and early exit from work as a result of MSDs. Of a total of 1,700 employees, 279 are aged 50 years or older, with a large number of these older workers working in a three-shift system in the production plants. In 2003, the company launched an age management programme with the aim of reducing the costs associated with this problem. The programme is complemented with career planning for employees over 50 years, required by the collective agreement for the food industry from 2010.

All production workers aged over 55 years, with five or more years' service, can apply for 'senior' status, triggering an individual plan, including salary-level guarantees, work adjustment, re-training and career planning. Additional benefits for older workers include:

- a reduction in shift work;
- priority in choosing tasks and rotation of tasks is reduced;
- extra leave days;
- the possibility of taking job alternation (sabbatical) leave (at least 90 days);
- financial support for physiotherapy when prescribed by the occupational healthcare physician.

Feedback shows that there is improved employee wellbeing, and the average retirement age has increased by almost three years, from 58 years in 2004 to 61.6 years in 2013. The company is considering extending the programme to its office workers. Success factors include the supportive national legislation, career planning and involvement of all stakeholders, while challenges exist in career planning for older workers. More specifically, managers and older employees have sometimes been unable to appropriately identify the needs that are most pertinent and the solutions that would be most helpful. The company intends to provide further training on age management to its workers and to its managers. The programme is transferable to public/private organisations, particularly its career planning and job satisfaction questionnaires.

13. France — Marphil International

Marphil International is a micro enterprise specialising in the sale of products and services for international business markets. It currently employs eight people, two of whom are 45 years or older.

All employees, but one, are sales representatives, and there is a direct correlation between their performance and the success of Marphil International. Overtime work is common, as is working outside of normal working hours to accommodate international clients. Marphil International has no formal policy to address OSH or older employees. However, their informal mentoring programme helps to support younger employees while also valuing the experience of older employees. The mentoring occurs in the first months of work, whereby the older employee is responsible for helping and training the 'newcomer'. According to the employer, the mentoring programme is loosely based on the 2013 French law on 'Generation Contract',⁸ which has the objective of maintaining older people at work while employing young people and supporting the transfer of skills and know-how among generations.

⁸ More information on the law on 'Generation Contract' on the website of the French government. Available from: <http://www.gouvernement.fr/action/le-contrat-de-generation> (retrieved 07/12/2015).

The main objective of the programme is to value and retain the experience of older employees. Young employees, even if they are more qualified, know that experience is a valuable asset when working in the company. The transfer of this experience from older to younger workers is seen as a means of reassuring older employees that their jobs are safe, while also giving confidence to the 'newcomers'.

According to the employer, since 2012, more than twenty people — newcomers and their mentors — have been involved in the programme. The interviewed employees affirm that the programme has created a better working environment with employees feeling better trained and happier.

14. France — PSA Peugeot Citroën — mapping the workplace to better manage the workforce

PSA Peugeot Citroën is one of France's largest car manufacturers, employing 118,080 staff, 29 % of whom are over 50 years of age, with older manufacturing operators experiencing reduced capacity. In 2009, French legislation required the company to negotiate with its social partners to promote the employment of older workers. In accordance with the government's six priorities, Peugeot implemented several key initiatives:

- classification of jobs as heavy, medium and light, based on a mapping of the workforce carried out by the team of in-house ergonomists;
- prohibition on workers over 50 years being assigned to a heavy job (by company agreement);
- assessment of vacant jobs and evaluation of the possibilities for workers with reduced capacities to take up these tasks, with adaptations of the workstation when needed (by the physical skills manager);
- creation of lighter tasks for workers with reduced capacities;
- rotation of staff between workstations to reduce exposure and enable workers to acquire/maintain skills;
- personal skill assessments (which can result in reallocation);
- medical check-ups and recordkeeping of working conditions of employees over their career;
- the recently launched 'Mission Handicap' programme also protects workers with disabilities in the company.

Agreements are revised every three years. The main results of the programme were a reduction in heavy jobs, with no older workers undertaking heavy jobs, and improved career management. The assessment also highlighted the need for improved monitoring of employees' careers and working conditions in the company. Success factors include the strong legislative context, the involvement of social partners and relevance to all workers. Workplace mapping is frequently used here and is easily replicated.

15. France — Solystic — a comprehensive approach for the wellbeing of older workers in Solystic

Solystic specialises in postal sorting and distribution equipment, and employs 450 people. Of the total workforce, 58 % is over 45 years, and 37 % have been employed by the company for 20 years or more. In 2009, French legislation required Solystic to negotiate an agreement with its social partners promoting the employment of older workers. Aware of the coming age and career management issues, Solystic developed a strategy to maintain employees at work longer and in good health while preserving skills in the company:

- Improving the work environment. Annual ergonomic assessments followed by workplace adjustments (by the Committee on Hygiene, Safety and Working Conditions) were carried out.
- Part-time employment with protection of pension rights was made available (older workers can work part-time at 80 % while the company covers employees' full-time contribution and taxes) and managing retirement transitions.
- Better career management:
 - career and skills assessment for workers over 45 years by human resources managers;
 - improved access to vocational training for older workers and validation of acquired experience.
- Training/awareness-raising activities for managers about prejudices towards older workers.
- Mentoring programme.

Sickness absence has reduced and occupational accidents among older workers number fewer than five each year. The agreement is evaluated and adapted annually. Success factors include the legislative underpinning, targeting early interventions from 45 years of age and consistent evaluation and monitoring.

The concept is transferable, with negotiation of targeted agreements being particularly replicable for countries with social partner systems.

16. Germany — Anton Plenkers — ‘Off the Back’: retaining older workers in a small roofing company

Anton Plenkers is a micro enterprise within the field of roofing, employing four people with an average age of 40 years. Plenkers, in partnership with the Lower Rhine University of Applied Sciences and the Fraunhofer Institute for Work Organisation, designed and implemented MSD prevention measures for workers. The objective was to retain older workers in employment in order to avoid losing their experience. Six months of activity analysis in the Anton Plenkers workplace by university researchers was followed by the identification of the following measures to reduce heavy work:

- purchase and systematic use of mobile lifting aids;
- use of a sack barrow to transport heavy items, even for short distances;
- use of kneepads for activities that need to be carried out kneeling;
- training for older workers to take up account management to facilitate the transition to lighter jobs.

Success factors included the consistent supervision by the company owner and the input from external experts. Changing employee behaviour presented the most significant challenge. A similar approach could be followed by any working environment involving heavy physical work. While employees can easily be trained in office work, providing transfer opportunities might be more problematic in more structured companies.

17. Germany — Audi — Audi voluntary medical check-ups

Audi AG is a car manufacturer employing 73,000 people (both production and office-based staff). Since 2006, the Audi AG health programme forms part of its long-term human resources strategy. The programme helps identify health risks and develop appropriate interventions at an early stage. The aggregated data is analysed to identify health risks and necessary changes in work process and organisation to protect employees' physical and mental health. Employees are entitled to comprehensive voluntary medical checks with employees referred to health initiatives provided by Audi health insurance. Individual issues that are identified trigger individual interventions. In summary, the programme involves:

- the modification of clip and snap connections to limit the weight on the joints of the employees (based on medical check-up findings);
- a medical check-up every five years for staff younger than 45 years and every three years for staff older than 45 years, aimed at detecting and tackling health risks at an early stage; and
- targeted development and team-building processes in teams where mental health problems have been detected.

Medical check participation stands at 90 % across all workers. There is an indication of reduced likelihood of heart attack or stroke owing to the programme. In total, 60,000 health promotion consultations have been carried out, of which 10,000 were follow-up examinations. In 2008, the programme identified an accumulation of hand and arm symptoms, which was an unexpected consequence of the introduction of new technologies in the assembly line. In addition, an increase in mental health problems in two divisions was identified by the programme. The development of such a comprehensive programme has required significant investment in the laboratory diagnostics of the medical centres at Audi. Budgets are agreed each year by management to ensure continued implementation of the programme.

Success factors include the ease of access for employees, accessibility to all workers, improvements at both individual and collective levels and the systematic approach. The programme is transferable, although external supports might be needed for smaller companies in the areas of medical checks and data analysis.

18. Germany — Tegos GmbH, Dortmund

Tegos GmbH develops software for the recycling industry. Tegos started in 1996 with three employees and today has 56 employees, with an average age of 35 years. The company introduced occupational health management with a dual objective to remain an attractive employer in a competitive market and to preserve workforce productivity and health. An experienced consultant was employed to focus on human resources development and health management, as employees' overall health was observed to have deteriorated (the manager himself had a minor stroke). Before implementing new measures, Tegos conducted an

employee survey to identify critical fields of activity and the most pressing issues, resulting in the implementation of a new working time regulation. Tegos introduced its trust-based working hour system to reduce lengthy working hours (employees can decide when they want to work between 07.00 and 19.00), as well as the possibility to work from home.

Tegos also scheduled seminars and workshops on nutrition, MSDs, cardiovascular health and stress management, followed by a series of voluntary measures, paid by the employer and which, for the most part, take place during working hours:

- vocational training (company pays for training);
- a 'health day' organised by the health insurance company;
- walking/jogging groups and other sports activities;
- the promotion of participation in a local company run;
- access to physiotherapy;
- a contract with a fitness centre close to the company;
- a free fruit basket.

Although there is no formal evaluation of the measures, the number of sickness absence days fell from seven to four per employee. Employee surveys conducted every two years show an increased satisfaction with the health management measures, a view supported by the interviews. The employees state that the activities help them to become active, which they find important whilst working in rather stressful jobs, and also contribute to good team spirit.

19. Germany — Thyssen Krupp Steel

ThyssenKrupp Steel (TKS) Europe is one of the world's leading suppliers of high-grade flat steel. With approximately 27,000 employees, TKS faces three demographic challenges: preserving the productivity of employees until retirement, attracting young talent, preventing a skills shortage and safeguarding knowledge based on experience and lifelong learning.

ProZukunft is the 'umbrella' or 'platform' for all demography-related activities at TKS. ProZukunft has four fields of action:

1. Retaining employees. Family-friendly company (e.g. agreement on parental leave, onsite childcare, flexible working hours, laundry service, shopping service); organisation of working time; corporate pension scheme.
2. Improving safety health and performance. Risk assessment of physical and psychological risks; health management; health care.
3. Developing competencies. Talent management; knowledge transfer; sensitising executives; lifelong learning.
4. Optimal assignment of employees. Integration of altered ability employees; shorter working hours; taking on apprentices.

Some of the measures implemented as part of the 'ProZukunft' initiative include:

- shorter or flexible working hours;
- mental and physical risk assessments;
- one-day seminar for each team of shift workers (called 'health shifts'), including medical check-up and courses on a range of topics decided by the workers themselves;
- encouraging workers to define personal health-related objectives, and follow up on objectives;
- free medical check-ups;
- safety training;
- vocational training.

Before the start of the 'ProZukunft' initiative, TKS performed an age structure analysis of the actual and prospective workforce. It put in place a steering group consisting of management and worker representatives, who meet twice a year to make strategic decisions. Operational decisions are made by the different departments in the company. Teams of workers can also have their own budget to put health initiatives in place (e.g. buy equipment, such as stability balls or fruit baskets).

Employer and employees agree that both the organisation of the project and its measures contribute to a culture of wellbeing, which is crucial for employees taking part in activities and reconsidering their own

health behaviour. However, they stressed that it is very difficult to interest shift workers in a steel mill in new topics (e.g. nutrition, exercise). The change of attitudes and health-related behaviour is still not fully integrated in the company. Management believes that the project is transferable to other large companies with sufficient resources (human and financial) and strong leadership. The successful transferability of a project of this scale to small or micro companies is considered unlikely.

20. Greece — Melilotos

Melilotos is a Greek restaurant (capacity 80-100 people) and delivery service, with a staff of 25, aged between 25 and 60 years old. In the restaurant business, employees aged 35-40 years are already considered to be 'older'.

The following activities have been implemented to improve staff wellbeing:

- no-tray policy (reduce arm MSDs), and ensure enough space between tables to facilitate waiters' work and help to avoid awkward positions;
- training of younger employee to take over the daily management of the restaurant to spare the ageing owners;
- flexible working arrangements (days off, changing of shifts, etc.)

The restaurant has not implemented specific OSH activities or activities focused specifically on older employees. However, for the past three years, the owners have been training a younger employee (aged 28 years) to gradually take over the day-to-day management of the restaurant. This will allow the middle-aged owners to reduce working hours/workload and reduce stress. They have also ensured that one of their employees was gradually reintegrated to his routine after a long sickness absence. The employees stress that the restaurant's no-tray policy is a very important initiative for the waiters/waitresses.

Both the owners and the employees emphasised that the financial situation in the country creates an extra obstacle to overcome. For the employees, the main concern is to remain employed. Financial support or incentives would help greatly, as well as government programmes (e.g. OSH training — seminars for employees).

21. Greece — S&B

The company mines and processes bentonite, perlite, bauxite, zeolite and wollastonite. It produces continuous casting fluxes and a variety of specialty products for a wide range of industrial applications and markets. The company employs 612 older employees, 88 of whom are over 55 years old. A total of 180 employees work at the headquarters while the rest work at extraction sites.

According to the national 'Heavy and Health-hazardous Occupations' regulations, it is possible for the employees at the Milos branch of S&B to retire at the age of 55 years. The company believes that people should retire at an age when they are still fit to enjoy life beyond work (e.g. leisure and family activities). Therefore, no measures are taken to retain older people at work, unless they specifically request it for personal reasons.

All activities in the company are targeted at all employees. The following initiatives have been implemented:

- OSH audits;
- OSH barometer;
- mechanically assisted heavy lifting operations;
- younger workers assisting older employees in heavy tasks, as needed;
- flexible working hours;
- telework and part-time work for older employees (55+ years);
- informal transfer of knowledge initiative;
- safety training;
- awareness-raising activities that focus on improvements to individual workstations;
- workplace health promotion programme, which focuses on a healthy diet, physical exercise and reducing smoking; work-life balance seminars;
- in-house gym in central offices;
- provision of healthy menus in in-house restaurants.

The company also provides a medical and 'loss of income' private insurance package, as well as psychological support through the in-house social worker services for employees facing serious health problems. Furthermore, company policy prohibits the scheduling of meetings outside of regular working hours. Older employees have reported that understanding and support from management and among colleagues help to alleviate arduous working conditions and high work demands, highlighting the importance of values and motivation in individual work ability. The seminars have motivated older employees to participate in voluntary physical activities during their leisure time.

22. Hungary — MOL Hungary — 'STEP — take a step for your health'

MOL Hungary is a Hungarian oil and gas company with 5,533 employees. It is one of Hungary's largest employers and is considered a leader in sustainable employment. Since 2007, the STEP programme has aimed to reduce workplace accidents and sickness absence, and retain older workers in employment. A steering committee (comprising management and workers) coordinates the company-wide programme. Internal teams are supplemented by external service providers to offer the following:

- workplace interventions by specialists (e.g. ergonomic workplace intervention, psychological workplace intervention and assessment);
- medical check-ups;
- individual health plan (recommendations for measures and activities in which the worker should participate);
- training and advice sessions (e.g. on stress management and reduction, healthy lifestyles);
- physical activities (e.g. office gym programme, company sporting events, outdoor weekends, hikes);
- awareness-raising campaigns, such as 'stop smoking' and 'healthy food at work'
- posters, brochures, leaflets;
- family days, where the family members of employees can participate in a health screening;
- rewards, whereby participants of the STEP programme can collect points at each event to be converted to STEP gift items.

An evaluation showed that there is an increasing number of participants in the different STEP programmes, a rate of sickness absence below 2 %, a reduction of cardiovascular disease by 5 % and its risk factors by 10 % and an improved health culture among the workers. Success factors include the integration of health promotion into company strategy, stakeholder involvement, the diversity of measures undertaken and clear communication. Challenges were experienced with changing the working culture and insufficient financing for the programme. The programme is transferable as, despite its comprehensive nature, measures are tailored to the individual worker.

23. Latvia — Latvijas Balzams — human resource policy supporting older workers in Latvijas Balzams

An alcoholic beverage production company, Latvijas Balzams employs 600 workers, 20 % of whom are over 57 years. High-risk processes increase the risks of MSDs throughout the working life. Task specialisation is high, as are recruitment/training costs. Under its collective agreement, the company implemented a programme to reduce employee turnover and retain older workers, ensuring the continuity of production. Measures include:

- alternative tasks in the same line of production and, if not available, in other parts of the enterprise for at-risk workers;
- flexible working hours or adjustment of the work tasks for workers with health problems;
- additional leave days for employees at risk;
- mentoring and succession programmes (set up by external consultants);
- dissemination of information on the correct handling of heavy loads;
- medical check-ups;
- OSH training, including ergonomic aspects of handling heavy items, correct body postures and relief exercises;
- subsidised sports activities (including access to swimming pool and a company annual sporting event);

- awareness-raising activities.

According to a 2012 worker survey, employees felt safer and healthier and considered the enterprise to be socially responsible. The uptake to this programme is greatest among older workers. Worker retention has improved and surveys show that there is increased awareness of OSH issues, with employees requesting more involvement in this area. Success factors include the integration of OSH activities into the overall company management system (ISO 9001), the involvement of trade unions and the use of external experts. A lack of individual motivation was a challenge. The experience gained from this programme is being applied to a national European Social Fund (ESF)-financed project. This programme is transferable to other companies, if appropriate financing is available.

24. The Netherlands — Bilderberg Hotel

Bilderberg is a Dutch hotel company consisting of 18 hotels across the Netherlands and employing more than 1,300 workers. It began focusing on sustainability in 2009 when the Dutch government introduced new legislation and the EU enhanced its focus on sustainability in procurement projects. In 2011, Bilderberg participated in the Green Key Programme, an eco standard. The programme focuses on people, planet and profit and made the company focus on the sustainability aspects of its customer and employee relations, particularly the sustainable employability of its staff in the face of an increasing pension age. A bottom-up pilot project, 'On the Move', was established, starting with a questionnaire (on health, wellbeing, knowledge and skills) for all employees in one department. The company provided the following opportunities to its employees:

- work reorganisation as a result of the employees' communication about their health and wellbeing;
- physical activities during breaks or outside of working hours (e.g. fitness, running, Nordic walking);
- medical check-ups;
- special events to exchange experiences, share objectives, discuss health and wellbeing at work;
- training to change career path, Dutch language courses.

A larger reorganisation of work was carried out as a result of the employees' feedback on their health and wellbeing. The housekeeping teams have a stronger bond and now operate as a close team, resulting in less absenteeism. Furthermore, referrals of employees from the general manager to the occupational health physician (bedrijfsarts) have reduced, and he now plays more of an advisory role to the company. The main success factors of the initiative is its bottom-up approach and how enthusiastic the employees and line managers were about commencing the project. The 'On the Move' project will be rolled out to other departments in the hotels.

25. Netherlands — De Zwart Facilitaire Diensten

De Zwart Facilitaire Diensten is a small Dutch cleaning company established in 1946. De Zwart Facilitaire Diensten offers general cleaning, window-cleaning and façade cleaning services to individuals as well as companies and institutions from a wide range of sectors. The family-owned company employs approximately 70 people, around 75 % of whom are over 40 years of age. From 2006 to 2007, the enterprise began to focus on age management and the sustainable employability of its staff as the Dutch Ministry of Social Affairs and Employment started to offer subsidies to companies focusing on age management. The company therefore implemented several policies:

- Pair working. This relieves older workers from certain tasks, which are performed by younger workers instead, and enables knowledge transfer.
- Use of microfibre products (lighter cleaning equipment).
- Compulsory induction for all employees. Even though this mainly consists of vocational training, this also includes advice on how to work efficiently and ergonomically.

According to management, the attitude of the employees of De Zwart has changed slightly towards prevention and health promotion measures. Employees are more aware of the importance of prevention measures, and people who work in teams have indicated that they experience more understanding and respect for intergenerational differences. While the older employees are more likely to be part of the company because they enjoy cleaning, the younger employees tend to be less motivated and only look at their job as a way to make a living. This difference in mentality has proven to be challenging. In particular, the number of younger employees is low and makes recruitment difficult. To address this, and following the

introduction of a new law in 2015, the company started working with young people from sheltered workshops.

26. Netherlands — Van der Geest Schilderspecialisten — ‘Win-Win’: a health improvement project at a painting company

Van der Geest Schilderspecialisten is a painting company with 125 employees, most of whom are over 45 years of age. While there is no legislation that requires health programmes for older workers, in 2010, the company began ‘Win-Win’, an early-intervention project to improve the physical and mental health and retention of its employees. Over a six-month period, the project used online tools specific to small and medium-sized enterprises. These online tools are maintained by the Netherlands Organisation for Applied Scientific Research (TNO) and allow for knowledge to be exchanged between companies. Initial health surveys, completed by 41 % of employees, identified significant weight and smoking issues, but also highlighted the willingness of employees to take part in health promotion activities. In partnership with its health insurer, the company offered the following:

- health promotion activities (e.g. courses to quit smoking and healthy nutrition);
- monitoring system for employee health complaints and follow-up actions (workplace adaptation and/or provision of health services such as physiotherapy).

Supported by ‘TIGRA’, a national network specialising in health management in the workplace, the company put in place a system to deal with employee health complaints, including adaptations of working conditions (e.g. workstation, working schedule) or provision of health services (e.g. physiotherapy). After consultation with employees, improvements were implemented in the management of sickness absence and return to work. A health survey identified the needs and expectations of the employees concerning their health and supported the development of targeted interventions. New agreements between the painting company and one of the Dutch health insurance companies (‘De Friesland’) included an enhanced focus on health promotion activities. Attention was also given to the social aspects of working at the company and the experiences of older employees when working with younger colleagues.

Activities were well received, with further awareness-raising activities planned to ensure sustainable working. Even though the project was relatively short, it has had an impact on the overall approach of management and workers to the importance of OSH in relation to ageing. The company has also registered a significant decrease in the absenteeism rates of older workers. Success factors included intercompany knowledge exchange, worker involvement and external support involved. Information exchange through TNO demonstrates the transferability of the programme.

27. Norway — Oslo Airport — Oslo Airport’s ‘Life Phase’ policy

Oslo Airport (OSL) owns and operates Norway’s main airport, Oslo Airport, in Gardermoen. OSL provides infrastructure, buildings and service facilities to the companies that do business at the airport. Operational responsibility includes everything from snow removal and maintenance of runways, maintenance of technical facilities (luggage handling, lighting and navigation systems) to security checks of passengers, employees and facilities. The company has approximately 500 employees (average age of 46 years), together with approximately 13,000 other employees at the airport. As over 50 % of the work is carried out in shifts, OSL developed their ‘Life Phase’ policy to reduce sickness absence and occupational disability, while retaining skilled workers for longer. It focuses on three objectives: (1) build a culture in the company that promotes good health and physical activity; (2) enable employees to better cope with challenges in their jobs; (3) enable older employees to work as long as possible. As part of the holistic approach of the older worker policy, health protection and promotion activities are offered to all employees, such as:

- relocation of workers to less physically demanding jobs when they can no longer perform their task;
- flexible working hours and additional time off for employees over 62 years;
- re-training to be relocated to less stressful jobs;
- partnering with the University of Stavanger to train managers on age management issues;
- individual medical check-ups and evaluation for older employees, including advice and follow up on how to change lifestyle;
- facilitation of physical activities, energy breaks;
- promotion of healthy nutrition;
- ‘green’ canteen;

- regular health monitoring for older workers;
- seminars aimed at raising awareness, skills development and career progression in later life.

The measures helped increase the average retirement age by three years (ahead of OSL's targeted six-month increase), and there was a reduction in sickness absence and the number of employees designated medically disabled. Employees report 90 % job satisfaction and OSL received national recognition for its senior policy. Success factors include the commitment of senior management, stakeholder coordination, external support and the diversity of measures. The key principles are transferable to any company.

28. Norway — St. Olav's Hospital — senior policy measures at St. Olav's Hospital

St. Olav's Hospital, Trondheim University Hospital, is integrated with the Norwegian University of Science and Technology (NTNU). The main tasks of the hospital — public health enterprise — are patient treatment, the education of patients and their relatives, research and the education of health professionals. St Olav's Hospital employs 9,726 people, 2,000 of whom are aged 55 years and over. Early retirement costs are high and the hospital wishes to retain experienced workers.

At the company level, recommendations for adapting work organisation for older workers, especially to avoid night working, is built into the various collective agreements on labour conditions negotiated between the trade unions and the hospital. In addition, while there is no legal requirement, St. Olav's developed a senior policy in partnership with its trade unions and external consultants. Under this policy, older workers continue to access training, education leave and career counselling. Other measures include:

- annual talks (part of the annual performance appraisal) between senior employees and managers;
- the relocation of older workers to administrative jobs (this is not systematic but on an individual basis);
- additional days off for older workers, also called 'senior days';
- training of managers on correct attitudes and behaviours towards older employees;
- a mentor/buddy system;
- awareness-raising measures about health promotion;
- development activities, such as training courses, skills maintenance/development;
- courses and information sessions for older workers on various topics (e.g. pensions, motivation, consequences of early retirement, myths about ageing) provided by the Fafo Institute for Labour and Social Research;
- a motivation programme;
- individual guidance; and
- a final interview with all senior workers who leave the company to identify lessons learned from their experience and provide them with information about opportunities for retired workers.

An evaluation was carried out by an external consultant, the Work Research Institute. The evaluation showed a six-month increase in the average retirement age and high levels of job satisfaction. Older workers found the extra leave days and development programmes to be the most valuable measures. Improvements are needed in management training, experience-exchange and development programmes. St. Olav's was recognised nationally for its senior policy (in 2011). Success factors include the commitment by senior management, stakeholder involvement, flexible decision-making and long-term focus. The policy is transferable, including to smaller organisations, given appropriate modifications.

29. Poland — CEMEX Polska

CEMEX produces building materials, focusing primarily on cement and concrete production. Its customers range from individuals to big construction companies, mainly those specialising in engineering construction. In order to improve sustainability, CEMEX put in place a policy built on five interrelated pillars, namely (1) support for employees, (2) creation of job opportunities for the disabled, (3) encouragement of professional development among women, (4) age management and (5) salary management scheme.

The reasons for developing the policy were the desire to retain the skills and experience of current employees, and the predicted shortages of skilled workers in the future, as highlighted by an age-structure analysis carried out by the company. Employees are encouraged to get involved in mentoring and share their knowledge and experiences. Other services are also offered:

- generation management training for managers;
- a 50+ club, which acts as an exchange platform for older workers to express their needs, including personal needs linked to ageing and health;
- e-learning courses on self-development;
- workplace health promotion activities (e.g. advice on nutrition, swimming lessons, dietary consultations) on the basis of employees' suggestions;
- planned vocational training (workers interested in acquiring new skills).

The initiative is still largely in its start-up phase and current efforts are focused on organisational issues, such as the involvement of different groups in the companies and the set-up of decision-making processes. The initiative has already been evaluated but, according to the employer, it is too early to identify durable impacts. However, older employees seemed particularly keen on the acquisition of new skills and improvement of their general fitness or of living habits. The employer assumes that, overall, the programme will deliver the expected result — as much for the employees (e.g. in terms of their wellbeing) as for the company (e.g. pre-retirement policy, retention of skills and experience, fewer early exits from work).

30. Poland — P.P.H.U. Dartex Dariusz Kozłowski — safer and healthier work at any age: the case of a Polish sewing plant

Dartex is a small sewing plant with 14 female permanent employees working five-day single shifts, three of whom remain in employment, despite being entitled to an early pension. Repetitive tasks, performed seated, increase OSH risks, including the risk of MSDs. Repetition also impacts on productivity and sickness absence, as well as customer satisfaction. Dartex became increasingly concerned about the organisation of work after complaints from staff. The employer initiated measures in order to improve the image of the company, as well as to improve safety, health and working conditions of all employees and retain the skills of the most experienced employees. As a starting point, each individual workstation was assessed. A number of issues were identified, such as the difficulty (in terms of both time and postures) for the sewers to pick up the knitwear from near the ground and transfer it from one workstation to another or the significant proportion of time spent by the sewers walking around to move products, which led to decreased productivity and increasing risks of slips, trips and falls. Despite the initial apprehensiveness of employees towards the implementation of extra OSH measures, the employer, together with the employees and external experts, established a number of practical solutions to help alleviate these risks:

- tables between individual workstations, so that the sewers now 'push and pull' most of the knitwear between the stations;
- baskets at each workstation at arm level to avoid having to lean down;
- weight limits for heavy loads;
- trolleys to carry heavy loads;
- purchase of ergonomic chairs;
- replacement of sewing machines with better engines to reduce exposure to noise and vibration;
- additional types of lighting (non-tiring light) to reduce visual stress;
- regular audit of working conditions;
- OSH training;
- awareness-raising activities (e.g. reminding sewers to take regular breaks or sit at an ergonomically correct height).

In addition to legally required medical check-ups, assessment of individual workstations led to improvements in work layout and equipment, reducing repetitive strain. External consultants advised on lighting and machinery changes to minimise eyestrain, noise and vibration effects. Improved work organisation reduced accidents to zero and reduced MSDs, while increased precision resulted in a 70 % reduction in customer complaints. Monthly audits ensure continued focus on OSH issues. Success factors include awareness of issues, employer investment, worker involvement and the use of external experts. Initial challenges in convincing employees of the benefits of change but were soon overcome. While the solutions are industry-specific, the notion of a cooperative, common-sense approach, which brings solid business benefits, is widely transferable.

31. Slovenia — Domel Holding d.d. — establishing a health promotion team at Domel

Employee-owned Domel Holding d.d. is a large producer of electric motors, employing 952 workers with an average age of 40 years. Since 1998, their health promotion team has focused on two main areas: the prevention of work-related ill-health, based on a thorough investigation of causes of sickness absence, and workplace health promotion, to encourage healthy lifestyles and improve employees' wellbeing. The activities of the health promotion team target all workers.

In relation to reducing sickness absence, return-to-work interviews are carried out to establish causes of sickness absence, particularly for employees with health problems. Causes/costs are analysed and prevention measures are identified, including medical check-ups to prevent disease and work adaptations to reduce accident/injury. With regard to health promotion, the 'Improving our Lifestyle and Staying Healthy' project aims to empower individuals to take care of their own health, including the early identification of health problems, and to increase their knowledge of healthy lifestyles. Initiatives include training and subsidised activities. Funded by the Health Insurance Institute since 2013, health promotion procedures detail the implementation and evaluation of these activities:

- ergonomic planning of workplaces;
- awareness-raising, training, seminars and subsidised activities to promote physical activity;
- awareness of line managers and supervisors of possible mental health issues;
- personal counselling (mental health).

The understanding of the causes of sickness absence has increased, with a reduction in MSDs and injuries. While success factors include the informal communication used, systematic sickness absence analysis and continuous monitoring and evaluation, the slow rate of results and the lack of comprehensive employee health care were significant challenges. The project is transferable to other companies, if modifications to the work environment are feasible.

32. Slovenia — Premogovnik Velenje — 'Care for a healthy worker' programme at the Velenje coal mine

Premogovnik Velenje coal mine is committed to worker safety and health, having established the 'Care for a healthy worker' programme in 1998. The programme aims to reduce sickness absence and MSDs, and targets all workers, prioritising older employees. Specific benefits are available for men over 46 years and women over 45 years. To set up the project, the company called upon external medical doctors and physiotherapists who worked with management and human resources staff to establish and design the activities within the project. Measures were identified using analyses such as work ability and age structure analysis, as well as statistics from the Institute of Public Health (IVZ) on the most common causes of work-related absence, and a company analysis regarding MSDs. These analyses also formed the basis for the annual evaluation of the programme.

Measures include:

- ergonomic and psychological workplace interventions adapted to the needs of older workers and workers who have developed MSDs (e.g. instructions on how to arrange the workstation, use of technical aids, prevention of repetitive work, dealing with stress-related problems);
- medical examinations;
- medical preventive 'active vacations' combining sports activities with health promotion activities (priority given to older workers);
- short breaks in a spa organised in June as a health promotion programme, which also includes physiotherapy (priority to workers with MSDs);
- sport activities offered to employees;
- a 'walk test' twice a year (health examination via a group walk); and
- consultation/discussion with the employee after return to work following sickness absence to adjust their workstation, if needed.

The initiatives have resulted in better prevention and early discovery of diseases, lower level of absenteeism, reduced number of accidents and greater awareness of employees about their health and safety at work. Planned improvements include the extension of preventive training to all employees. Company commitment continues with participation in a two-year European OSH project. Success factors include the strong OSH policy, assessment of worker needs, the use of external supports, diverse

measures and regular evaluation. The programme is transferable to other industries, if appropriate modifications are implemented.

33. Spain — ISS Facility Services — measures to retain experienced workers at ISS Facility Services

ISS Facility Services provide facility and property management services. Of 29,835 employees, 1,834 are entitled to specific benefits for older workers. The work is physically and mentally demanding, so measures targeting the health of older workers were introduced based on collective agreements with trade unions. This was to reduce costs due to sickness absence and retain experienced workers among administration and building-maintenance staff. External consultants conducted an age-structure analysis to determine the number of older workers, the positions they occupy and the tasks they are most likely to perform. Following the age-structure analysis, the management, the human resources department, health and safety representatives and employees' representatives designed a series of measures to address workers' health needs, including:

- flexible work arrangements, such as flexible working time;
- medical check-ups followed by workplace and tasks adaptations;
- compulsory training in occupational health for all workers and managers, with a specific training session called 'Ageing and work' for workers over 55 years and their managers.

These initiatives were funded by the company and implemented by management. A work environment survey was carried out with the support of external service providers (including psychologists and management consultants). It showed that staff performance and loyalty have improved, while sickness absence has reduced. Success factors included stakeholder and senior management involvement, the diversity of measures and external supports. Challenges were reported in implementing changes in client companies and also in the limited involvement of workers in the programme design. Similar measures are transferable to other companies, particularly health vigilance in physically-demanding work environments and preferential rights for older workers.

34. The United Kingdom — BT plc

BT plc is a telecommunications company. It employs 88,500 people, 70,900 of whom are in the United Kingdom. Thirty-seven per cent of the workforce is over 50 years of age. Working conditions and related health and safety risks vary across the business, due to the differences in job requirements from desk-based jobs in contact centres, administration and sales to field-based roles, such as engineers installing or maintaining equipment. The employer acknowledges that the main OSH risks in the company are psychosocial ones leading to a high number of mental health issues. Another issue is the high rates of sickness absence and difficulties with return to work, especially for people with MSDs or mental health problems.

The company has an OSH policy that integrates health, safety and wellbeing for all employees. The policy includes:

- flexible working hours and the option to work remotely, where appropriate;
- keep fit campaigns;
- awareness days/weeks on specific wellbeing topics;
- stress assessments;
- mentoring;
- guides on health and wellbeing;
- employee assistance programme (coaching, advice), as an externalised service;
- support to return to work.

The company aims to take an age-neutral approach while recognising that the specific needs of older employees also need to be taken into consideration. Employers, intermediaries and employees agree that, in the context of high work pressure, information and communication on the measures taken is crucial and should be further enhanced.

35. The United Kingdom — 'Glosta Engineering'

Glosta Engineering is a ship engineering and manufacturing company. There are currently 20 employees, with four aged over 50 years. The types of tasks carried out at the worksite include welding, fabricating, spray painting, saw pressing and plasma cutting. These tasks can be physically straining and there is a

risk of accidents (working at height, hot work, reaching and stretching, awkward positions, moving and handling, repetitive and monotonous tasks). The ethos of the workplace is 'Do not let an unsafe practice happen'. An OSH policy is in place at the company, written by an external OSH consultant. While the policy does not specifically focus on age, the company intends to retain its older workers for as long as they want to stay.

The actions taken include:

- the provision of ear protection and air-fed masks;
- the provision of manual handling equipment/trolleys;
- occasional relocation of employees — short-term where a sick worker has a temporary incapacity to do manual work, or a more permanent move to another workstation if the problem is longer term;
- flexible hours;
- regular breaks (morning break, lunch break and mid-afternoon break);
- a mentoring scheme;
- a health surveillance scheme;
- the promotion of good hygiene (hand washing); and
- the promotion of health via posters and booklets.

Because Glosta Engineering is in an industry with lower-than-average academic/educational skills, the company sees its role as giving new employees the chance to learn on-the-job. A mentoring programme helps new employees to learn the skills required to work at the enterprise, while also providing the opportunity to learn life skills and get positive feedback from an older colleague. For the older employee, this demonstrates their high level of knowledge, which increases confidence and builds self-esteem. The bond created between the paired employees works together with the emphasis on timekeeping and work attendance to create a friendly (and safe) competitiveness among experienced employees. Attitude barriers have been identified as an important obstacle to the implementation of the policy. Both employers and workers have admitted that changing habits and behaviours could prove challenging.

36. The United Kingdom — Northumbrian Water Group — Northumbrian Water Group Wellbeing Programme

Northumbrian Water Group Limited (NWL) supplies and manages waste water systems. Of the total workforce, 30 % is over 50 years old. Sickness absence due to MSDs and stress costs GBP 1 million annually. NWL's 'Wellbeing Programme' aims to prevent health problems before they become chronic. The organisation worked with external occupational health providers to identify various options and prepare a business model. From 2006, line managers were trained to identify employee issues, manage sensitive issues by holding appropriate discussions and make referrals to services available to employees under the Wellbeing Programme, in particular RehabWorks focused on rehabilitation and return to work. Face-to-face contact sessions with 95 % of line managers gave them the skills and support they needed to do this.

Measures include the following:

- Disease management. Referral from a line manager to RehabWorks is given as soon as an MSD problem appears. Reports from the physiotherapists are returned to the company with recommendations on treatment and management of symptoms.
- Confidential counselling and employee support to enable people to tackle stress for employees and their family.
- Employees have been encouraged to take part in an annual walking challenge (10,000 steps a day).
- Voluntary work is encouraged for mental wellbeing.

Management reports better employee engagement, MSD-related sickness absence reduced by 40 % and stress-related sickness absence reduced by 13 %. Success factors include the involvement of different stakeholders in the organisation, including the human resources department, trade union representatives, line managers and workers, the use of a holistic approach, external support and the diversity of measures implemented. The processes are transferable, particularly where employee assistance programmes exist.

3 Main findings

This chapter presents the main findings of the analysis of the case studies and group interviews. After commenting on the types of measures implemented, it continues by describing the key features of the development, implementation and evaluation of workplace interventions. The chapter concludes with an overview of interviewees' understanding of 'sustainable work'.

3.1 Typology of measures

Workplace measures aimed at improving the work environment, promoting health and wellbeing, and adapting tasks to workers' age and capacities can be distinguished according to their level of intervention — whether they target the work organisation or the individual — and the timing of the intervention — if it aims to prevent the effects of risk factors, manage their effects or treat and rehabilitate workers with health problems. This distinction is commonly referred to as primary-, secondary- and tertiary-level interventions.⁹

3.1.1 Primary-level interventions

Primary-level interventions eliminate or reduce the sources of risks or threats in the workplace — and therefore workers' exposure — through changes to the work environment, the organisational structure and culture of the company. They include a wide range of measures, from typical OSH measures, such as improved workstations, to human resources-oriented measures addressing working practices and management. As stated by the World Health Organization (WHO), 'in workplace health, primary prevention includes most of the activities related to prevention and protection of workers against harm due to elements of the physical or psychosocial work environment, as well as health promotion activities and many interventions of the enterprise in the community.' (Burton, 2010).

Primary-level interventions may include:

- *Adapting the physical environment and technical equipment.* This type of intervention eliminates or reduces the sources of physical risks in the workplace, or their harmful effects on workers' health, through technical changes. Examples of such measures in the case companies include the provision of lifting equipment (such as mechanical arms or trolleys), transport devices (trolleys, sack barrows), protective equipment (ear protection, air-fed masks, knee-pads), ergonomic products (such as ergonomic chairs) and non-tiring lighting.
- *Adapting tasks and managing workload.* Reorganisation of tasks can usefully adapt work to the resources and skills of employees, in particular older workers or those with reduced capacities. Such measures change the organisational structure, whether through the formal introduction of rotation of tasks or the relocation of workers to lighter tasks on an as-needed basis, or in more ad hoc arrangements, such as younger workers helping older workers in their team. Reorganisation of tasks can result from the implementation of career planning. In a number of large case companies, performance reviews or skills assessments are an opportunity to discuss working conditions and health issues, career prospects and potential retraining needs. In addition, increasing flexibility in work schedules, reducing working time and providing additional periods of rest are used in several case companies to retain older workers in employment. Some companies offer extra days off for workers over a certain age (from 45 to 62 years of age, depending on the case). Most of the examples are large companies — with the exception of the Roskilde Cemeteries (32 employees) — and are located in Scandinavian countries (Denmark, Finland, Norway) and Belgium, where the government compensates healthcare providers offering extra days off to employees aged over 45 years. As the negative effects of working non-standard hours increases with age, some companies have removed older workers from night or shift work.
- *Changing management culture.* Training managers on age management can directly influence organisational culture by introducing a new perception of age in management processes. Workshops organised through the Fit for the Future programme in Austria were intended to raise awareness of work ability, as management often perceives age as a restriction or constraint on the work ability of workers. Training managers can also reduce the risks of poorly adapted tasks and

⁹ The definition of primary, secondary and tertiary is adapted from definitions of interventions aimed at the prevention and management of psycho-social risks at work provided in EU-OSHA and Eurofound, 2014.

age-related conflicts between employees. Mentoring programmes also influence company management culture by changing the relationship between younger and older workers.

- *Health promotion at the workplace.* This aims to change the culture of the company to promote health and wellbeing at work by improving the work environment and the work organisation as a whole. In particular, it seeks an 'organisational commitment to improving the health of the workforce'¹⁰ from the management, with active participation from employees. Some case companies have, for example, set up a coordination structure within the company, whereby management, human resources, workers' representatives and health and safety representatives, work together to develop and implement health promotion measures at the workplace.

3.1.2 Secondary-level interventions

Secondary-level interventions focus on early disease detection, and primarily aim to increase the capacities of individuals or groups to cope with work situations. They are not designed for major organisational change in the company, but, rather, focus on individual behavioural change, often targeted at a particular group with specific risk exposure.

Secondary-level interventions may include:

- *Improved health surveillance.* Many of the case companies offer free medical check-ups to their employees, often going beyond their legal obligations. Check-ups can be more regular for older workers. These measures are more frequent in large case companies.
- *Promotion of healthy behaviour.* Many health promotion interventions focus on reducing individual risk-related behaviours, such as unhealthy diets, tobacco use, lack of physical activities. These types of measures identified in the case companies include incentives, such as physical activities organised by the company, healthy meals in company canteens and awareness-raising activities.
- *Skills development.* Training is provided by some companies to develop employees' coping skills, making them more resilient, particularly with respect to managing time and stress.

3.1.3 Tertiary-level interventions

Tertiary-level interventions are designed to reduce the negative physical/biological, psychological and social consequences associated with an on-going illness or injury that has lasting effects. They are 'reactive' measures, as their main purpose is to treat and rehabilitate workers suffering from work-related health problems, and adapt the work environment to facilitate their return to work.

Tertiary-level interventions may include:

- *Return-to-work programmes.* These programmes help workers to adjust to the work environment when they return to work.
- *Employee assistance programmes.* These programmes include short-term counselling, coaching and advisory services for employees, often delivered by external service providers, designed to address work- and non-work-related problems.
- *Rehabilitation services.* Such services are provided by external service providers hired by the company to support the restoration of the functional capacity of workers, furthermore to provide vocational rehabilitation programmes to retain workers.

Several examples have been identified under another part of the project focusing on return to work and rehabilitation. As a result, the case studies and interviews did not examine in detail the take-up of such measures within the case companies.

¹⁰ ENWHP, definition of workplace health promotion. Available from: <http://www.enwhp.org/workplace-health-promotion.html> (retrieved 05/11/2015).

3.1.4 Comprehensive strategies

In most selected companies, as illustrated by the example of BT plc below, a combination of primary, secondary and tertiary measures were taken, in an attempt to approach globally issues related to age management and OSH.

BT plc (case no 34)¹¹

BT plc is a large telecommunication company with 70,900 employees in the United Kingdom. Occupations and jobs vary depending on the line of business within the company. While some jobs require a great deal of physical labour (equipment maintenance), others are primarily desk-based (administration, call centres). The company has an OSH policy that integrates health, safety and wellbeing for all employees.

The BT plc approach is a good example of intervention at the three different levels to address both physical and psychological risks:

- Primary interventions. These include the Work fit campaigns, which BT runs annually, focusing on one specific topic each year (e.g. cancer, mental health, summer of sport). It has also introduced ergonomic design to manage risk for older workers in the workplace, as well as a physical demand analysis pilot programme to identify preventive adjustments and identify early capability issues.
- Secondary interventions. These include the implementation of STREAM, an online stress assessment tool, mental health training, access to physiotherapy and cognitive behavioural therapy services.
- Tertiary interventions. Return-to-work support, and a functional restoration programme to support workers with MSDs to get back to work.

3.1.5 Combination of OSH and human resources perspectives

Many of the measures implemented in selected companies — in particular where the company has put in place a policy specifically targeting older workers — are co-developed with human resources management, including typical measures such as adaptation of working time and career management.

Many of the selected companies have implemented strategies that combine the complementary perspectives and measures from both OSH and human resources perspectives (e.g. Solystic, case no 15; Peugeot, case no 14; Oslo Airport, case no 27). OSH and human resources measures can support both the overall improvement of the work environment and workers' health, by affecting different determinants; OSH measures will often focus on reducing or managing risks, primarily in the physical environment, although increasingly, psycho-social risks also are considered relevant in OSH. For human resources departments, it might be easier to use a broader, more strategic, approach that addresses a wider range of factors influencing employees' health and work ability, including the development of skills and the organisation of work and of working time at company level.

Collaboration between different departments, in particular OSH and human resources, supported by general senior and line management, seems crucial in setting up workplace interventions that are able to address the challenges of an ageing workforce in a comprehensive and holistic manner.

3.2 Development of workplace interventions

3.2.1 Reasons for taking action

The main drivers for companies to take measures to address an ageing workforce can be grouped into the following categories:

- maintaining employee productivity and avoiding sickness absence;
- avoiding loss of skills and expertise;

¹¹ In addition, the following sources of information were used: Taskila et al. (2015) and presentation by Steve Exall Health and Wellbeing Lead BT Group plc, 'Health and Wellbeing at BT', September 2015. Available from: <https://www.iosh.co.uk/~/-/media/Documents/Networks/Group/Communications%20and%20Media/Past%20events/Steve%20Exall%20%20Approach%20to%20mental%20health%20at%20BT.pdf> (retrieved 05/11/2015).

- facing labour shortage;
- maintaining health and wellbeing of employees;
- avoiding costs linked to sickness absence and early retirement;
- improving corporate image; and
- other determinants, such as legal requirements, policy frameworks, company policy.

The concerns common to all case companies were maintaining employee productivity over the longer term, avoiding sickness absence and early retirement. MSDs are mentioned in many case studies as a significant factor leading to sickness absence and then to early exit from work. As sickness absence has significant implications for companies in terms of production loss, disruption and pressure on employees providing cover, companies have taken measures to reduce the burden on older workers, either by modifying workload or the nature of tasks, eliminating non-standard hours or offering additional periods of rest (e.g. Berner Ltd, case no 9; Oslo Airport, case no 27).

Other drivers, such as avoiding direct and indirect costs linked to long-term sickness absence and early exit from work, often depend on the extent to which the employer is responsible for these costs. Companies that were prompted to act as a result of these costs are from countries where employers incur significant related costs, namely the Netherlands and Norway (Bilderberg, case no 24; Oslo Airport, case no 27).

In many case studies, concerns about age distribution in the company are linked to the fear of losing expertise and skills, and the difficulties of finding replacements. This has led a number of companies to take measures to address the issue.

S&B (case no 21)

S&B is a Greek mining and minerals-processing company employing 612 workers, of whom 80 are older than 55 years. At extraction sites, the company has put in place a strong OSH policy targeting manual handling, awkward postures, the reduction of MSDs and safe driving. Although the company differentiates between younger and older employees in its OSH policy, age management became an issue when 50 % of the supervisors in mines, electromechanical maintenance, loading, quality control and material processing retired during a five-year period. The company was faced with important knowledge gaps and reacted by improving training and facilitating rotation of staff to encourage diffusion of expertise. No measures are taken to retain older employees at work (unless they specifically ask for personal reasons), as management believes that employees should retire at an age when they are still fit to enjoy life beyond work. However, as a result, the need to transfer experience and expertise is clearly a critical issue for the company considering the early age at which workers leave the company.

In sectors such as catering, cleaning services, construction, healthcare and food production and processing, companies have mentioned the difficulty of recruiting young employees as a key driver for keeping older workers in employment as long as possible. In one case (RC Latvijas Balzams, case no 23), a high degree of task specialisation was mentioned as a recruitment issue.

Improving the corporate image or continuing a tradition of proactive corporate employment policies is often quoted as a reason for acting. In the case companies concerned, it typically goes hand-in-hand with an employee-centred attitude and an active effort to improving the employees' wellbeing. Employees see the introduction of OSH and health promotion measures as a sign that management is caring about the employees, which makes them feel valued. One interviewed employee stated that the fact the company was paying for health-related measures meant that 'the employees are worth it'.

In a number of cases, external drivers, such as legislation, had a significant influence on the development of workplace interventions.

Solystic (case no 15) and PSA Peugeot Citroën (case no 14)

In France, two laws have encouraged companies to implement measures towards a safer and healthier workforce in the context of ageing:

- the 2009 law on the funding of social security requires companies with more than 50 employees to negotiate a company agreement for the promotion of employment of older workers; and

- the 2013 law on 'Generation Contracts' has the triple objective of maintaining older people at work while hiring young workers and supporting the transfer of skills and know-how between generations.

Solystic specialises in the design, manufacturing, marketing and installation of automatic postal sorting and distribution equipment. Solystic adopted its first company agreement in 2009, and has renewed the agreement each year following an assessment of results. At the time of the first negotiation, a new human resources team, together with the trade unions, decided to act on all six dimensions of the agreement, although the law obliged them to act on only a minimum of three.¹² Clear objectives included a quantitative target: 15 % of the workforce should be workers over 55 years of age by 2010, with a further increase to 18 % by 2012. The different components of the company agreement complemented each other and resulted in a global improvement of working conditions and job satisfaction for all employees, including younger and older workers.

In 2013, in accordance with the law on 'generation contracts', Solystic signed a company agreement implementing generation contracts for the period from 2013 to 2016. The generation contract aims to link the recruitment of young workers (below the age of 26 years) with the employment of older workers aged over 57 years (55 years for newly hired and disabled workers). The negotiation of a company agreement implementing the generation contract is compulsory for companies employing more than 300 workers.

Similarly, PSA Peugeot Citroën also signed a company agreement on the employment of older workers, based on the 2009 law. Prior to the 2009 agreement, ageing was not specifically targeted in human resources policies, and older workers benefited only from measures put in place for staff with reduced capacities. The company agreement put more emphasis on proactive age management by anticipating career changes, preventing work-related strain for all workers and maintaining the employability of workers.

In the Netherlands, the national policy framework on 'sustainable employability' has impacted on individual companies' policies. Workers and managers in Dutch companies were the only interviewees/respondents across all cases to talk spontaneously about 'sustainability' in the context of working conditions (Bilderberg Hotel, case no 24; De Zwart Facilitaire Diensten, case no 25; Van der Geest Schilderspecialisten, case no 26). Another example is Finland where, rather than legislation, a national collective branch agreement for the food industry sector has influenced the type of age management measures taken. The collective agreement was revised in 2010 to include age-related provisions, requiring companies to hold career-planning meetings with all employees reaching 50 years of age (Saarioinen Ltd, case no 12).

Legal measures to support the employment of older workers (e.g. part-time work or extra annual leave days) can also have an influence on the type of measures taken by companies. In Belgium, compensation provided by the government for extra leave days taken by older healthcare workers encourages companies in the healthcare sector to offer extra days to their employees (Service d'Aide aux Familles Bruxelloises asbl, case no 4). A similar scheme exists in Norway and Denmark for workers over 60 years. There are also several examples of reduced working hours or extra leave days paid for by the companies themselves, in Norway and Denmark (Roskilde Cemeteries, case no 8, Oslo Airport, case no 27), as well as from other EU Member States (Saarioinen Ltd, case no 12; Berner Ltd, case no 9; Solystic, case no 15).

Local/regional policy frameworks can also have an impact at the company level.

Kindergarten Kernehuset (case no 7)

Kernehuset is a Danish kindergarten caring for 51 children aged up to three years. The kindergarten implemented a number of measures to reduce the incidence of MSDs among its workers and to help to retain older employees. The initiative formed part of a municipal health promotion project, together with intermediaries and the Trade Union of Educators (BUPL). Employees from the kindergarten benefited from municipality-sponsored activities, such as health courses.

¹² The six dimensions are: recruitment of older workers; anticipation of career changes; improvement of working conditions and the prevention of arduous working conditions; skills development and access to vocational training; career management for older workers and transition between employment and retirement; transmission of knowledge and skills; and development of mentoring.

In large companies with several subsidiaries or corporate groups, the general policy of the parent company can influence the other members. Examples include the establishment of a workplace health promotion programme (GE Money Bank a.s., case no 6) or an OSH project encouraging improvements (Zlatna Panega Cement, case no 5).

Finally, intermediary organisations, such as business and trade-union organisations, occupational insurance companies or universities, can also provide an external driver for companies to implement innovative practices. In Finland, for instance, the Confederation of Finnish Construction Industries has launched a regional OSH project called ISKE to improve the wellbeing of employees in the construction sector (Kuopion Monirakennus Oy, case no 11).

3.2.2 Target group

Among the selected companies, some have implemented measures specifically targeting older workers, while others have instead chosen to target all employees. Within the sample of companies covered by this review, large companies were most likely to have taken measures specifically for older workers.

The box below gives an overview of the main types of measures targeting older workers identified in the different case companies.

Examples of measures for older workers
<ul style="list-style-type: none">▪ Career planning. Personal meetings with human resources to discuss careers in later life for workers reaching the ages of 45, 50, 55 and 60 years (Solystic, case no 15), written career plans, including retirement plans (Berner Ltd, case no 9), individual talks to encourage workers to stay longer (St. Olav's Hospital, case no 28).▪ Succession plan, including the identification and training of a suitable successor (RC Latvijas Balzams, case no 23).▪ Generation mentor (SONNENTOR, case no 2).▪ Flexibility in working time. Provided for workers over the age of 55 years who wish to move to part-time work (Solystic, case no 15), for workers aged 62 and over, flexible working hours and additional time off (Oslo Airport, case no 27), preferential rights for older workers (ISS Facility Services, case no 33).▪ Post-retirement work opportunities (SONNENTOR, case no 2), which may also take the form of the establishment of an employment register (Berner Ltd, case no 9).▪ Reclassification of workers to lighter jobs (PSA Peugeot Citroën, case no 14).▪ Job rotation (PSA Peugeot Citroën, case no 14).▪ Job relocation and retraining (Oslo Airport, case no 27).▪ Extra medical check-ups for senior workers, including a fitness check and a physical training plan (Berner Ltd, case no 9), individual medical check-ups, including advice and follow-up on lifestyle changes (Oslo Airport, case no 27), voluntary medical tests for workers over 55 years old, followed by workplace adaptation if necessary (ISS Facility Services, case no 33).▪ Extra leave days for older workers (St Olav's Hospital, case no 28).▪ Pension coaching (Berner Ltd, case no 9).▪ Training specifically addressing older workers, for example workers over 45 years (Service d'Aide aux Familles Bruxelloises asbl, case no 4).

Adopting measures targeting older workers does not necessarily result in age-centred management. Many selected companies have taken a more global approach, focusing on improving working conditions for all employees and cooperation between generations. In the examples below, the adoption of specific measures for older workers has taken place in the context of a general improvement of working conditions.

PSA Peugeot Citroën (case no 14)

PSA Peugeot Citroën is a French automotive company employing 118,080 workers. Many jobs involve production line tasks, with associated physical risks linked to repetitive gestures and postures and psycho-social risks. To keep its employees in good health and maintain productivity, the company had a strong OSH policy, whereby dealing with workers with reduced capacities or disabilities was already well integrated into company policy.

As required by the 2009 law on the funding of social security, PSA Peugeot Citroën negotiated a company agreement promoting employment of older workers. This was taken as an opportunity to improve working conditions for all employees. A mapping of the workplace and all workstations was completed, categorising jobs into heavy, medium and light, according to their energy expenditure (number of calories consumed during a workday to perform a job), as measured by heart rate. Quantitative objectives were defined in the company agreement to increase the number of light jobs to 60 % and reduce the number of heavy jobs to 8 %. By 2013, 57 % of jobs were classified as light (compared with 38 % in 2005), 35 % as medium and 8 % as heavy (compared with 18 % in 2005). This was achieved by reducing manual interventions, limiting movements or reducing work performed standing under the vehicle. In addition, rotations among work positions were introduced to reduce the exposure to strenuous working conditions. The agreement's measures were taken in the context of a general reduction of arduous working conditions for all workers.

In addition, many companies emphasised understanding and cooperation between generations in their company policies. In many of the selected companies, mentoring programmes have been set up (e.g. St Olav's Hospital, case no 28; and DVC Heilig Hart, case no 3, as described below).

DVC Heilig Hart (case no 3)

DVC Heilig Hart is a Belgian company offering residential and semi-residential care to children and adults with a handicap. To develop and implement its age management policy, the company set up a study group, supported by the human resources department. Almost immediately, the emphasis shifted from 'age management' towards 'sustainable employment', as a policy exclusively directed at older workers was considered too limited. The study group found that in order to stimulate enthusiasm among older employees, measures oriented towards employees of all ages were needed. Cooperation between younger and older generations was then found to be important in creating good working conditions for all employees.

Similarly, the company managing Oslo Airport decided to set up a broad company policy, taking a lifecourse approach, with some measures applying to all employees, while others specifically targeted older workers.

Oslo Airport (case no 27)

Oslo Airport (OSL) owns and operates Norway's main airport. The company has close to 500 employees who perform different types of tasks, including snow removal and maintenance of runways, maintenance of technical facilities (luggage handling, lighting, and navigation systems) and security checks of passengers, employees and facilities. In order to retain its senior workers in employment, OSL developed, in 2007, a senior policy within their existing OSH policy.

OSL chose to take the lifecourse approach in developing its senior policy. Part of the senior policy was to change the management culture to value all ages in the company. The company put in place a human resources management programme to train managers not only to cope with challenges related to senior workers, but to manage employees at different age levels. Other measures included flexible working hours, job relocation and retraining, health monitoring and workplace health promotion activities. The company successfully raised the average retirement age in the company from 63 to 66 years within three years.

In general, OSH measures (adaptation of the physical environment) and workplace health promotion measures are inclusive and target all employees. Measures targeting older workers are often human

resources-focused (working-time, career planning, etc.) or are related to training, and have been taken in addition to general OSH policies improving working conditions for all. This does not mean, however, that there cannot be potential conflicts between specific adaptation measures for older workers and general OSH measures.

Redistributing tasks between employees and removing older workers from either arduous tasks or non-standard work schedules may affect workload balance in the company and put more pressure on younger employees. Health and safety and trade union representatives from DVC Heilig Hart (case no 3) highlighted that extra days off for workers over 45 years could lead to conflicts between younger and older workers, as these days increased the workload for younger workers. This is an issue that had not been mentioned by the employer or older employees in the interview. Other measures, such as removing older workers from night and shift work (Saarioinen Ltd, case no 12) or from heavy work tasks (Saarioinen Ltd, case no 12; PSA Peugeot Citroën, case no 14) may create the same issues. It is therefore important to make sure that measures for older employees do not discriminate against other employees and are arranged and organised in such a way that older employees will not be spared at the expense of others.

In several interviews, the issue of discrimination also came up. At Berner Oy (case no 9), for instance, younger employees indicated that they felt discriminated against because their older colleagues are allowed extra days off work. In the two British companies selected for interviews (BT, case no 34; and Glosta Engineering, case no 35), the reason indicated for not implementing measures targeting older workers is that the company wished to adopt an age-neutral policy. At Glosta Engineering (case no 35), older employees mentioned that younger workers would feel discriminated against if older workers received special treatment. At BT (case no 34), trade union representatives even indicated that taking specific measures for older employees might breach the Equality Act.

3.2.3 Initial set up: initiators and coordination structures

In all of the case companies, the decision to implement measures (whether targeting all employees or specifically focusing on older workers) was taken by management, often in collaboration with human resources departments, health and safety representatives and workers' representatives. This is mostly the case in large companies, where such workers' representation exists. Internal dialogue in the company can take place within a formal structure, such as a steering group, which supports decision-making and sometimes has responsibilities for the implementation and evaluation of measures. Where no such structure exists, broad consultation can take place at every level in the company.

Thyssen Krupp Steel Europe (case no 19)

Thyssen Krupp is one of the world's leading suppliers of high-grade flat steel, employing around 27,000 people. In 2008, after the conclusion of a formal framework agreement between the managing board and works council on introducing holistic employee health management, the company started the ProZukunft project. ProZukunft has four fields of action: retaining employees; improving safety, health and performance; developing skills; and assigning employees optimally.

The project is coordinated by a steering group (Lenkungskreis) with an equal number of management and employees representatives. The steering group meets twice a year and is responsible for strategic decisions. Further operational decisions are made by the departments responsible for specific areas of the company

In France, as measures for older workers were taken in the form of company agreements (PSA Peugeot Citroën, case no 14; Solystic, case no 15), they were negotiated with social partners and the Health, Safety and Working Conditions Committee (CHSCT). In some selected companies, external consultants, such as OSH providers, doctors and physiotherapists, were involved in the steering group (St Olav's Hospital, case no 28; Premogovnik Velenje, case no 32).

A few selected companies took a bottom-up approach, with employees participating in the development of the project and the measures to be implemented. In some case companies, a specific structure was created (Haus Tamariske-Sonnenhof, case no 1; CEMEX, case no 29) or events were held (Bilderberg Hotel, case no 24) to collect employees' opinions on their needs and potential solutions.

In the Austrian company Haus Tamariske-Sonnenhof (case no 1), 'health circles' act as a sort of steering group, involving employees, proposing measures and evaluating those that have been implemented.

Haus Tamariske-Sonnenhof (case no 1)

Haus Tamariske-Sonnenhof is a pensioners' home in Vienna employing 80 workers, part of the larger organisation Kuratorium Wiener Pensionisten-Wohnhäuser (KWP). KWP is having to contend with an ageing workforce, and the organisation recently experienced problems maintaining the long-term health of its employees. Based on a detailed survey of employees in 2011, KWP management decided to establish a range of prevention programmes. Among the measures implemented were health circles.

Health circles are thematic, strategic meetings to discuss health promotion measures. They take place once a year and are divided into three meetings. Solutions discussed during the meetings are communicated to the director once a year. The director then decides whether to implement measures immediately or at a later stage, according to available resources. The innovative component of health circles is that they are open to all employees.

Issues the health circles have dealt with so far include: lifting heavy weights and the purchase of technical assistance; insufficient light; reorganising the storage of work material; solutions to allow working while seated in the laundry service; purchase of anti-fatigue mats; and warming-up exercises for employees working in care jobs.

The health circle raises awareness of risks in the workplace, helping employees and teams re-think work procedures and find solutions together. As a consequence, employee job satisfaction increased with the perception that management is taking care of employees' health.

In the case of the Dutch company Bilderberg Hotel (case no 24), management initiated the programme but then gave responsibility for developing the measures to the employees. This increased ownership and, as in the previous example, had a positive impact on employee motivation and attitude towards the measures.

Bilderberg Hotel (case no 24)

Bilderberg is a Dutch hotel company with more than 1,300 employees. The company progressively focused on employment sustainability, following the trend set by the Dutch government with its sustainable employability policy. The company started a project called 'On the move' focusing on worker sustainability.

Management realised that, if they wanted to apply a new policy programme, this had to be implemented bottom-up, rather than top-down, in order to ensure it was administered effectively. As a first step, all employees had to fill in a questionnaire about their health and lifestyle, and on this basis define personal goals. All general managers were informed that the project would be implemented in their hotels, but they did not play a significant role in its actual implementation. Rather, they played a facilitating role, kept track of the process and followed up on employees' personal goals. This was not meant to be a control mechanism, but a way to start and maintain personal communication between the general manager and individual employees.

Special events were organised to allow employees to share experiences and objectives through a dialogue about their health and wellbeing at work. The housekeeping staff gathered and discussed the results of a questionnaire (on health, wellbeing, knowledge and skills) and set their own personal objectives for their sustainable employability. As a result, the human dimension has been strengthened and there is an open and more frequent dialogue between employees, department heads and management.

In smaller companies, managers usually have a leading role in developing measures, and consultation with other parties is generally more limited. One exception is the Roskilde Cemeteries (case no 7) in Denmark, employing 32 workers, where measures were defined by the owner of the company together with a group of four employee representatives.

3.2.4 Main tools used in developing workplace interventions

In several of the case companies — all large companies — an age-structure analysis was a starting point to look at potential age issues and human resources challenges (City of Naantali, case no 10; Solystic, case no 15; Thyssen Krupp Steel, case no 19; CEMEX, case no 29; ISS Facility Services, case no 33).

The age-structure analysis presents the actual age structure of the workforce and its expected development in the future (Morschhäuser and Sochert, 2006). The analysis can be broken down by company sections, departments or sites, groups of workers or functions (operational, office, management), gender, skills and qualifications.

Age-structure analyses can reveal the need for further skills development, recruitment succession and retirement planning or for better career planning. In CEMEX, it acted as an early warning of a potential skill shortage in the near future.

CEMEX Polska (case no 29)

CEMEX is a Polish company specialising in the production of building materials, employing 1,200 workers. In 2014, the company started the '50+ Club' to provide older workers with a platform for discussing views, experiences and, more importantly, their own needs in relation to ageing, career prospects and personal development. The project was designed to help retain the skills and experience of current employees, while also addressing predicted shortages of skilled workers in the future.

To assess potential skill shortages in the company, CEMEX made a projection of the number of workers who would reach statutory retirement age between 2014 and 2020. In view of the significant projected increase in retirements over the next six years (four workers in 2014, nine in 2017 and 19 in 2020), the company saw a need to implement a project targeted at older workers.

Although selected companies generally did not involve employees directly in the development of measures, several companies, including small ones, asked employees to complete a survey to identify workers' problems and needs before developing measures (Haus Tamariske-Sonnenhof, case no 1; SONNENTOR, case no 2; DVC Heilig Hart, case no 3; Roskilde Cemeteries, case no 9; Van der Geest Schilderspecialisten, case no 26). Such surveys or consultations ensure that measures were tailored to the needs of employees, effectively implemented and widely taken up by employees.

In one selected company, Roskilde Cemeteries (case no 8), focus groups were also conducted. As the group discussion was not facilitated by a manager but by an external consultant, an open and free space was created for employees and managers to talk about the challenges the company is facing.

Roskilde Cemeteries (case no 8)

Roskilde Cemeteries is a group of three cemeteries and one crematorium, all located in the Municipality of Roskilde in Denmark. The company employs 32 workers, primarily gardeners and administrative staff. Faced with an ageing workforce, the company sought appropriate measures to retain experienced employees and improve the physical and psycho-social work environment. To this end, the company started a survey among employees to determine problems and needs.

Two-hour focus groups with younger employees (30-40 years) and older employees (45-60 years) from each cemetery were carried out by an external consultant. The younger participants discussed how they experienced working together with older colleagues, while the older group discussed the impact of age on their work in the cemetery and how working conditions could be improved. Following these focus groups, the consultant interviewed the managers from each cemetery, gaining their perspective on the issues raised by employees. From the interviews and focus groups, the external consultant identified cross-cutting topics. These topics were then verified with the employees and managers to make sure they were an accurate representation of what had been said.

Other selected companies also used more formal consultation processes and assessment methodologies with the assistance of external consultants.

Service d'Aide aux Familles Bruxelloises asbl (case no 4)

Service d'Aide aux Familles Bruxelloises asbl is a small non-profit organisation providing care and support to individuals and families in Brussels. It employs 50 people, all women, 45 % of whom are over 45 years old. Of these women, 90 % are employed as care workers. In 2012, Service d'Aide aux Familles Bruxelloises asbl organised a European symposium on family assistance.

Following this, the director of the association set up the 'life coach' project to help employees to deal with stressful situations with clients, while also offering the opportunity to acquire new skills.

A participative risk screening (called DEPARIS) was conducted to evaluate psycho-social risks and assess training needs. The risk assessment consisted of a two-hour meeting with employees to discuss the problems linked with a specific risk category, formulate solutions and prioritise what could be done immediately and what would require specific measures (BeSWIC, online).

Kindergarten Kernehuset (case no 7)

In the Kernehuset kindergarten (see above), a work-ability analysis was conducted prior to the development of health promotion measures. An occupational therapist, employed by the Aabenraa municipality, observed the employees' work for several hours. Following the analysis, each individual employee received feedback on the changes necessary to their work habits, such as adjusting chair height when dressing a child. Collective measures, such as the provision of physical therapy at reduced cost to all employees, were also identified.

This more formal approach may be more successful than information approaches, which do not always engage employees. For example, in one of the small case companies, a questionnaire was circulated amongst employees asking about the kinds of issues and topics they wished to see addressed by the employer. However, the response rate was too low to draw any conclusions about the needs or expectations of the employees (De Zwart Facilitaire Diensten, case no 25).

Another solution may be to conduct a pilot project on a small scale before generalising the measures to all employees or to a whole group of employees. This helps to focus the measures and adapt them to the specific needs of the employees.

Solystic (case no 15)

Solystic specialises in the design, manufacturing, marketing and installation of automatic postal sorting and distribution equipment. The company is implementing a range of measures under an agreement on the employment of older workers, including ergonomic interventions and improvements to workstations. Such activities were implemented in a pilot workshop, where motivated 'young senior' employees were working. Participants in this pilot felt proud to see the practices tested within their workshop generalised to all workers across the company.

Both large and small companies make use of external support in identifying problems and solutions. As shown in the previous examples, small companies particularly need external assistance to conduct workplace evaluations, as they do not have internal resources to do so. In the case of the micro roofing company, Anton Plenkens (case no 16), support from an external academic project was critical for carrying out workplace assessments and identifying solutions.

Anton Plenkens (case no 16)

Plenkens is a roofing micro enterprise employing four workers, with an average age of 40 years. The nature of their work places high demands on workers' physical health, making them particularly vulnerable to MSDs. The director of the company therefore sought ways to retain experienced older workers and reduce the risk of MSDs. The company had the opportunity to participate in a 10-year project run by Lower Rhine University of Applied Sciences on the retention of ageing workers in the handcraft sector, conducted in association with the Fraunhofer Institute for Work Organisation. As part of the project, researchers observed Plenkens workers for six months and proposed a series of measures to reduce MSDs, such as using mobile lifting aids, a sack barrow to transport heavy items even for short distances or kneepads for activities that require kneeling.

External support also means that the analysis of employees' perspectives is more objective, and can help management to better understand the processes and the measures needed to meet the challenges.

3.3 Implementation of workplace interventions

3.3.1 Communication and management

In many of the case companies, clear communication and information concerning the objectives and reasons for implementing new OSH or human resources measures was a key factor in worker participation. In some companies, managers ensured that new measures were effectively communicated to employees before they were launched, sometimes at a launch event where the purpose of the measures or activities was explained (Roskilde Cemeteries, case no 7; Berner Ltd, case no 9; CEMEX, case no 29).

Explaining measures generally increased up-take by employees and promoted a feeling of 'belonging to the workplace'. Several employers interviewed also mentioned that employees had to be convinced of the usefulness of the measures and encouraged to make use of the ergonomic aids or the advice they were given in training (Dartex, case no 30; DVC Heilig Hart, case no 3; Anton Plenkens, case no 16; Zlatna Panega, case no 5; ISS Facility Services, case no 33).

St Olav's Hospital (case no 28)

St. Olav's Hospital is integrated with the Norwegian University of Science and Technology (NTNU) in Trondheim. The hospital provides healthcare services, training of health professionals and research. It employs 9,726 people, 2,000 of whom are aged over 55 years. St Olav's Hospital has put in place a senior policy project to retain experienced workers. Information on the project was disseminated through the hierarchy and the hospital intranet, in particular in the senior network area 'Network 55+'.

Awareness-raising activities help employees to better understand and accept one of the main objectives of the policy — retaining senior employees. As part of the project, all senior employees take part in a four-day course. The hospital runs three courses per year with 40 participants per course. The course gives them information about the hospital senior policy measures, including pension and economy (contractual pension rights versus the economic benefit of staying in the workforce for longer), legal requirements, myths about ageing, the consequences of early retirement, exercise and diet, etc. The course helps senior employees to make informed choices, and, with its mix of group activities, strengthens older workers' feelings of being appreciated.

Dartex (case no 30)

In Dartex, several interviewees noted that the employees did not always welcome the introduction of OSH measures beyond the legal requirements. This lack of acceptance could have been overcome through clearer communication of the objectives of the measures and the anticipated results, and better engagement of the employees at an early stage of implementation. One of the interviewees raised an interesting point, emphasising that while the measures were aimed at all workers in the company, the older workers better appreciated the efforts made and were more inclined to provide feedback or participate in consultations.

Discussing reasons for certain measures is also important to dispel interpretations of such measures as positive discrimination or special treatment. As mentioned before, the issue of discrimination against younger workers, who were not entitled to the same benefits as older workers, came up in several interviews (Berner Ltd, case no 9; Glosta Engineering, case no 35).

The level of commitment among managers also influences employee's participation and motivation.

Service d'Aide aux Familles Bruxelloises asbl (case no 4)

At Service d'Aide aux Familles Bruxelloises asbl, the director, who set up the coaching project for employees over 45 years, took part in the training on an equal footing with other employees. This sent a strong message to employees that the director considered the programme necessary and useful for everyone.

The use of ambassadors can also be very effective in promoting the participation of employees in the programme.

Kindergarten Kernehuset (case no 7)

As part of a municipal health promotion project, several employees were trained as health ambassadors to support employees' physical and mental wellbeing. Part of the role of health ambassador was to provide information about the municipality's health initiatives available to employees at reduced prices (e.g. calisthenics courses with a focus on lower back pain). Additional responsibilities included encouraging employees to do the recommended stretching exercises and to remind them to support each other in healthy work practices.

The approach was effective because there is no power relationship between the ambassador and the employees, as there is between employees and employer, making it easier for the ambassador to motivate other employees.

3.3.2 External support

External support in workplace intervention can take multiple forms. Several companies have brought in external expertise from dieticians, ergonomists, occupational therapists and tobacco-dependence centres to carry out health promotion activities, such as health training and courses (Van der Geest Schilderspecialisten, case no 26; MOL Plc, case no 22) or hired the services of sports centres to propose sports activities (Oslo Airport, case no 27; MOL Plc, case no 22). External experts can be independent consultants or experts from intermediaries, such as occupational health services (Premogovnik Velenje, case no 32) or insurance companies (Van der Geest Schilderspecialisten, case no 26).

Case companies also use external support for employee assistance services and rehabilitation.

Examples of external support: Northumbrian Water (case no 36) and Van der Geest Schilderspecialisten (case no 26)

Northumbrian Water Ltd is one of 10 regulated water and sewerage businesses in England and Wales, employing approximately 3,000 workers. In 2008, the company determined that MSDs accounted for 38 % of sickness absence, with stress and mental health problems costing 4,300 lost workdays. This finding, coupled with organisational changes, led to the establishment of the NWL Wellbeing Programme, which includes individual counselling, either remotely via telephone or face-to-face, provided by external service providers.

Van der Geest Schilderspecialisten is a Netherlands-based painting company that employs around 125 workers. In 2010, the company implemented the 'Win-Win' project to improve the health — both physical and mental — of employees and to increase their employability. As part of the project, the company requested the services of the Dutch national network TIGRA, to put in place a monitoring system for employee health complaints. The TIGRA network specialises in health management at the workplace and focuses on increasing the vitality and employability of workers, in particular older workers. When a worker brings up a complex problem, which requires the advice of a specialist, the company can call upon the TIGRA network to discuss the case and, if needed, take follow-up actions, such as adaptations of working conditions (e.g. working station, working schedule) or provision of health services (e.g. physiotherapy).

3.3.3 Financing

The majority of the case companies financed the measures themselves. Some received partial external funding, with only a couple of companies receiving full financing for their measures from external sources.

External funding generally comes from public entities, including:

- European funding organisations, and in particular the ESF (SONNENTOR, case no 2; RC Latvijas Balzams, case no 23);
- national funding organisations (Service d'Aide aux Familles Bruxelloises asbl, case no 4; DVC Heilig Hart, case no 3; De Zwart Facilitaire Diensten, case no 25);

- regional (Kuopion Monirakennus OY, case no 11) or municipal funding organisations (Kindergarten Kernehuset, case no 7);
- public institutes, for example the Health Insurance Institute of Slovenia (Domel Holding d.d., case no 31) and the Danish Centre for Development and Quality Management (Roskilde Cemeteries, case no 8).

External funding usually covers only part of the measures implemented, such as training ambassadors or mentors (SONNENTOR, case no 2), hiring external consultants (Roskilde Cemeteries, case no 8) or purchasing ergonomic aids (DVC Heilig Hart, case no 3). Although both large and small companies have resorted to external funding to finance part of their activities, external funding has been crucial for some of the micro and small case companies. In three cases, the companies might not have implemented activities without external funding (Service d'Aide aux Familles Bruxelloises asbl, case no 4; Kindergarten Kernehuset, case no 7; De Zwart Facilitaire Diensten, case no 25).

In both cases below, the requirements of the funding organisations — the Belgian and Dutch governments — determined that the focus of the project, and therefore the target group of the measures, should be older workers. In the Belgian case in particular, the non-profit organisation had to adapt to requirements they perceived as too restrictive in order to have the training programme funded.

Service d'Aide aux Familles Bruxelloises asbl (case no 4)

In Belgium, the existence of a public fund financing projects aimed at improving the working conditions of workers over 45 years, the Professional Experience Fund, enabled implementation of the 'life coach' project at the non-profit organisation Service d'Aide aux Familles Bruxelloises asbl. According to the director of the organisation, external financial support was crucial even if time-consuming and complex to obtain.

The >45-year-old target group for the training was selected due to conditions set by the funding source, and not because this group had specific training needs. The director of the company regretted that she could not offer the training to younger employees, as they could also benefit from it. The implementation of further training programmes will depend on the availability of funding.

De Zwart Facilitaire Diensten (case no 25)

De Zwart Facilitaire Diensten is a small Dutch cleaning company that employs around 70 people, of whom around 75 % are above 40 years of age. It is a family company; the grandchild of the founder currently runs the company with his wife.

The Dutch Ministry of Social Affairs and Employment's subsidy programme focusing on age management was a significant driver for De Zwart Facilitaire Diensten to consider sustainable employability and the working conditions of older employees. The subsidy programme required the company to develop and implement an age management policy, which the company did by implementing a programme pairing younger and older workers.

Another good example of the key role of external funding for small companies is the kindergarten Kernehuset, where workplace health promotion activities ended when the municipality stopped providing funding.

Kindergarten Kernehuset (case no 7)

Kindergarten Kernehuset implemented a number of measures to reduce the incidence of MSDs among its employees and to help retain its older employees. Among other measures, the kindergarten put in place health promotion measures with the financial support of the municipality. These included reduced subscription rates at a fitness centre, fee reductions for physiotherapy, healthy food distribution at the kindergarten and free health training. Municipal support was critical to the success of the intervention. Since the municipality withdrew funding, the kindergarten can no longer afford to provide these health promotion measures. Both the health and safety representative and the older worker interviewed indicated that employees were motivated to continue the activities and regretted the loss of financial support.

Lack of financial resources is seen in several case companies as an obstacle to implementing comprehensive and long-term strategies. Managers from both small and large companies indicated during interviews that they wanted to implement further measures to prevent physical and mental attrition and to postpone retirement age, but did not have the resources to do so. Economic factors may be a greater problem for small companies as they have fewer resources and, sometimes, less stable finances, although it does not prevent them entirely from taking action. In small companies where the manager of the company is also the human resources manager and where there is no health and safety representative, it can also be difficult to allocate the necessary human resources to develop and implement programmes.

In several case companies, the lack of adequate public funding has been mentioned as a specific barrier (Service d'Aide aux Familles Bruxelloises asbl, case no 4; Melilotos case, no 20; Dartex, case no 30). The director of the Belgian non-profit organisation Service d'Aide aux Familles Bruxelloises asbl indicated that she was unsure if she would receive further funding and that her target group (+50 low-skilled women) does not interest politicians. The director of Dartex stated that the lack of financial support from national or local authorities discouraged him from working with external experts. In one case (DVC Heilig Hart, case no 3), the interviewee underlined the rather complex and time-consuming procedure to obtain financial support as an obstacle to implement the different measures.

3.3.4 Anchoring measures

In the majority of case companies, the activities or measures implemented formed part of a long-term plan. Except for a number of cases where the activities had a pre-defined duration (Service d'Aide aux Familles Bruxelloises asbl, case no 4; Van der Geest Schilderspecialisten, case no 26) or stopped when external funding ran out (Kindergarten Kernehuset, case no 7), most of the OSH or human resources measures are still in place.

In many large companies, programmes and measures — especially when they target older workers — are often part of a wider company policy, either the general OSH policy (Oslo Airport, case no 27), a general 'wellbeing policy' for all employees (Berner Ltd, case no 9) or the company's corporate social responsibility (CSR) policy (CEMEX, case no 29). In one case, a new policy was formally drafted (DVC Heilig Hart, case no 3). In a few companies, the measures implemented are rooted in a company agreement negotiated with social partners (St Olav's Hospital, case no 28; Solystic, case no 15; Peugeot, case no 14). Their formal establishment is meant to ensure their application in the long term.

In smaller companies, where management processes depend significantly on the director and a small team of managers, continuity in the implementation of measures will depend more on managers' and employees' motivation and commitment. In the kindergarten Kernehuset (case no 7), the suspension of funding occurred at the same time as a change in management, which had a strong negative impact on the implementation of health promotion activities. The presence of 'ambassadors' nominated among employees is also a way to ensure the continuity of activities in the longer term, as ambassadors will transfer their knowledge and motivation to other employees.

Several case companies highlighted the importance of the role of line managers in the implementation of the measures, alongside support from senior management.

Dartex (case no 30) and Bilderberg Hotel (case no 24)

In Dartex, although the measures were initiated by the manager, the line managers played an important role in providing information and support to the workers, as well as feedback to the senior manager on on-going and planned measures. The line managers were also instrumental in highlighting any issues in the implementation of the measures to senior management.

In the Bilderberg Group, the communication between employees and the department heads has been improved as a result of the implementation of the Duurzame Inzetbaarheids Index (DIX) tool (see above). The group offered conversation and coaching training to the department heads in order to facilitate dialogue with employees on issues related to sustainable employability. In addition, the company has developed a special package that provides the department heads with an overview of the services and tools that Bilderberg offers employees to improve their health, skills and self-development. The package is built around four themes; health and energy, motivation and commitment, knowledge and skills and working conditions and work-life balance. It includes different tools and measures such

as sport activities, safety and security measures, training and skills development, information about workers' rights with regard to absenteeism, additional time off and rehabilitation services.

3.3.5 Evaluation of results

A number of the case companies — almost all large companies — have put in place an evaluation system to assess the effectiveness of the measures implemented in the workplace. In most of these companies, the evaluation was qualitative and was conducted through feedback questionnaires distributed to employees, or in one case through an online survey (Saarioinen Ltd, case no 12; Thyssen Krupp Steel, case no 19; GE Money Bank, case no 6; MOL plc, case no 22; Latvijas Balzams, case no 23). These questionnaires are intended to assess employees' satisfaction with the measures in place and define areas for improvement. In a few cases, the internal structure set up to develop and/or implement the programme is also responsible for evaluating the measures (DVC Heilig hart, case no 3; Solystic, case no 15; Haus Tamariske-Sonnenhof, case no 1). In two companies, the evaluation was conducted by an external organisation, the Work Research Institute in Norway (St Olav's Hospital, case no 28) and the Haute-Ecole Paul-Henri Spaak in Belgium (Service d'Aide aux Familles Bruxelloises asbl, case no 4). Most of the companies mention annual or at least 'regular' evaluations. Only one company has clearly stated that the results were published in the company's annual OSH report (Premogovnik Velenje d.d., case no 32).

The small case companies carried out only informal assessments of results by the employer (Dartex, case no 30) or by the human resources manager (Tegos GmbH Dortmund, case no 18). Only in two cases, did a more formal evaluation take place, with an evaluation completed by an external organisation (Service d'Aide aux Familles Bruxelloises asbl, case no 4, as above) or by an internal structure, the health circles (Haus Tamariske-Sonnenhof, case no 1).

In addition to collecting employees' feedback, a number of companies are monitoring some quantitative indicators such as:

- *Sick leave.* Seven large companies and two small companies have reported reduced sick leave as a result of the measures (Berner Ltd, case no 9; City of Naantali, case no 10; Solystic, case no 15; Oslo Airport, case no 27; Northumbrian Water Group, case no 36; MOL Plc, case no 22, Tegos GmbH Dortmund, case no 18; Dartex, case no 30).
- *Improved health.* A few companies have measured improved health in quantitative terms: reduction in prevalence of cardiovascular diseases and risk factors (Audi, case no 17; MOL Plc, case no 22). Many companies also reported that the prevalence of MSDs had decreased.
- *Retirement age.* While demonstrating a direct effect between an OSH/human resources intervention and the rise of effective retirement age is difficult to do,¹³ a number of case companies, all of them large, have reported a rise in average retirement age following the implementation of their programme (Berner Ltd, case no 9; Saarioinen Ltd, case no 12; City of Naantali, case no 10; St. Olav's Hospital, case no 28; Oslo Airport, case no 27).
- *Costs.* Two companies, one large and one small, have made an assessment of the (potential) costs of the measures implemented against the (potential) financial benefits, calculated in terms of reduction of sickness absence costs (Tegos GmbH Dortmund, case no 18; Oslo Airport, case no 27). Both have found a (potential) positive return on investment.

St. Olav's Hospital, case no 28

The senior policy scheme introduced in 2009 was evaluated in 2012 by an external body, the Work Research Institute. The overall conclusion was that most measures have achieved the intended results and were well received by older workers.

The evaluation used a mix of indicators (increase in the average retirement age from 63.73 years in 2009 to 64.23 years in 2012, the annual employee survey, which show that job satisfaction among older workers/seniors was high, etc.). The evaluation also allowed the identification of measures that did not fulfil their objectives, for example the intranet (digital 'network 55+') did not serve to foster experience exchange among older workers, but was mainly used as a source of information.

¹³ Hilsen, A.I., Midstundstand, T., 'Domain: Human resource management and interventions' in Hasselhorn, H.M., Apt, W., 2015.

The evaluation was also instrumental in identifying areas for improvement such as better information and training for managers, additional courses for older workers and evaluation of selection criteria for attending the motivation course for senior workers.

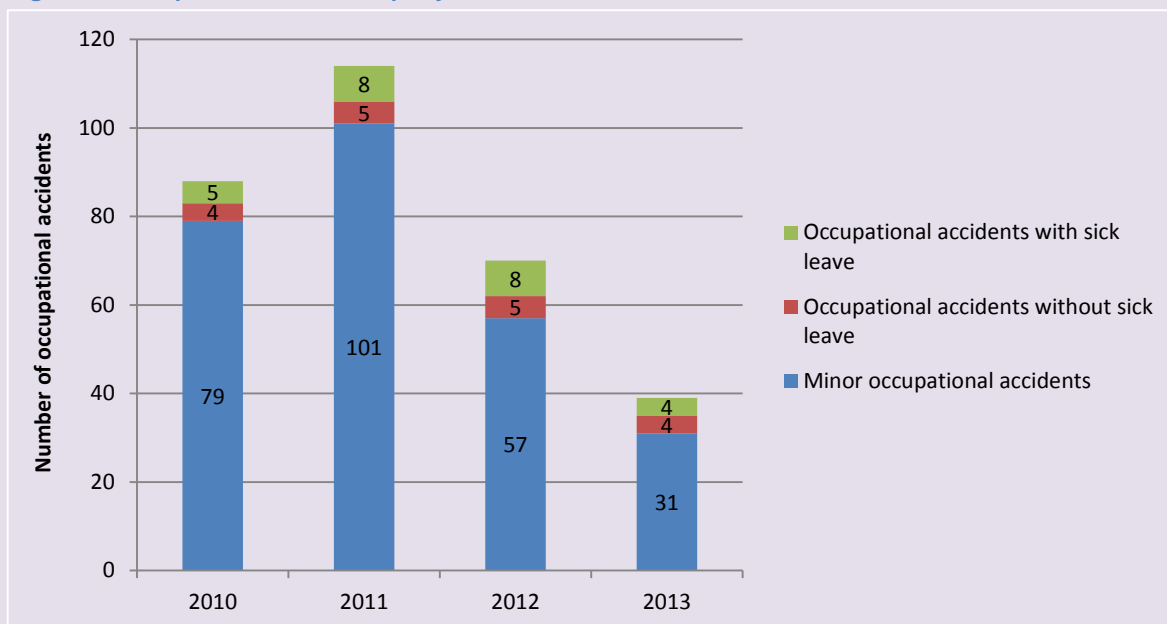
Solystic (case no 15)

During negotiation of the company agreement for the promotion of employment of older workers, Solystic set quantitative objectives, such as maintaining a workforce with at least 18 % of employees older than 55 years, offering all employees over 45 years a career assessment meeting, having 30 % of employees over 50 years engaged in a process of technical qualifications improvement, etc. Trade unions insisted on the inclusion of quantitative targets in order to assess the implementation of the programme. One interviewee did not agree with the focus on quantitative targets, believing that some qualitative measures, such as mentoring, were not sufficiently captured. Most targets have been achieved.

The implementation of the agreements is evaluated every year. The achievement of the quantitative targets and other objectives is presented before the *comités d'entreprise* and CHSCT (committee for hygiene, safety and working conditions) in order to improve the project and increase the mobilisation of social partners. As a result of the evaluation, new measures have been taken, such as the possibility for employees over 50 years to work every other Friday, rather than work part-time every Friday, and the introduction of the option to work part-time at 80 % for employees over 50 years.

The objective to reduce occupational accidents resulting in absence from work to fewer than five a year by 2015, was achieved, with only four such accidents recorded in 2013. All types of occupational accidents have decreased since 2010 (see Figure 1). In addition, the company has seen a decrease in sickness absence.

Figure 1. Occupational accidents per year, 2010-2013



In 2012, 78 % of older workers attended the individual career discussion meeting with human resources, compared with 20 % in 2009. Overall, eight requests for part-time work have been made, all of which have been accepted. Requests for other working time arrangements and adaptations of workstations have also been approved.

Tegos GmbH Dortmund, case no 18 and Oslo Airport, case no 27

Tegos GmbH develops software for the recycling industry. Tegos introduced a new health promotion policy. The human resources department made an estimate of the cost and benefit of the measures undertaken, calculating that while the health management measures cost EUR 20,000 per year to the company, the reduction in sickness-absence days helped to save about EUR 50,000 per year.

Oslo Airport (OSL) owns and operates Norway's main airport. In 2007, the occupational health team identified the need for a senior policy as part of the company's existing OSH policy. The occupational health team argued that such a policy was not only a good personnel policy but would save the company a substantial amount of money. While, on the one hand, OSL would need to grant approximately NOK 15 million to carry out the programme, on the other hand, the company would gain a return of NOK 25 million in terms of reduced costs.

However, very few of the selected companies linked the preliminary assessment conducted prior to the implementation of measures to the evaluation. A systematic approach to the implementation of measures would require an analysis/survey to identify the needs of the employees before developing measures so the company could define realistic targets, prioritise the measures according to the resources available, monitor pre-defined indicators and conduct an evaluation after a relevant period of time.

Haus Tamariske-Sonnenhof (case no 1)

Haus Tamariske-Sonnenhof (see above) implemented pilot measures after a survey highlighted a need for improved employee health. Potential measures are discussed in 'health circles', discussion groups where employees identify the major health-related problems in the workplace and develop appropriate solutions to address these issues. Each year, when a new health circle takes place, the group assesses the measures implemented during the previous year.

In conclusion, a number of benefits and positive results from the interventions analysed have been identified at both management and employee level, as summarised below.

Management-level benefits	Employee-level benefits
<ul style="list-style-type: none"> • Reduced number of people leaving work before reaching retirement age (under early retirement or incapacity schemes) and reduced related costs (in particular in cases of incapacity retirement) • Reduced rate of sickness absence and absenteeism in general, and reduced related costs • Change in the management culture in relation to OSH, health and wellbeing • Improved health management in the company • Increased awareness among employees of the benefits of good OSH management • Increased team spirit and cohesion among the workers • Increased transfer of knowledge between generations and reduced risk of losing crucial skills • Certification, if it exists in the country 	<ul style="list-style-type: none"> • Improved overall health status • Reduced exposure to ergonomic or psychosocial risks and reduced occurrence of MSDs or stress-related health problems • Increased perception that older workers are valued in the company, reassuring both older and younger workers in relation to their future in the company • Increased motivation to keep working up to retirement age, and even after retirement age in some cases • Increased satisfaction with working conditions, improved perception of management's commitment to their health • Increased awareness of the benefits of a healthy lifestyle and physical exercise • Acquisition of new skills (e.g. administrative skillset for workers in arduous manual work) • Improved working atmosphere and improved relations at work as a result of better understanding between different generations

3.4 Views on sustainable work

According to Eurofound, 'sustainable work over the lifecourse 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 work.’ (Eurofound, 2015)

Sustainable work over the course of life is addressed through two main dimensions:

- Work. This specifically refers to the characteristics of the job and the work environment. This includes earnings, prospects, intrinsic job quality and working time quality.
- The individual. This specifically refers to the characteristics and circumstances of the individual. This includes time availability and care obligations, health and wellbeing, employability and skills, unemployment and inactivity and motivation.

Group interviews were conducted in 20 case companies. The interviewees were asked about their understanding of the concept of ‘sustainable work’. Most interviewees did not spontaneously talk about ‘sustainable work’ when they were asked about their needs or their employees’ needs, nor was it mentioned when talking about employers’ motivation for initiating measures or employees’ decisions to participate. Interviewees’ considerations on sustainable work were first discussed when they were asked the question. Only a few companies referred to sustainability spontaneously, reflecting the broad take-up at workplace level of the national strategy on sustainable employability (Bilderberg Hotel, case no 24; DVC Heilig Hart, case no 3).

Below is a summary of their answers. It shows that while interviewees do not use this terminology spontaneously and have a different view of this concept, their understanding covers most elements of the Eurofound definition of sustainable work. They also broadly reflect the four dimensions of the concept of ‘work ability’ as defined in the 1990s by the Finnish Institute of Occupational Health (FIOH¹⁴), namely ‘health and functional capacities’, ‘competence’, ‘values, attitudes and motivation’ and ‘work organisation, work community and leadership’, as presented below.

	Sustainable work	Work ability
Many of the employees, from both small and larger companies, stated that for them ‘sustainable work’ means staying healthy and being able to remain in the same kind of work throughout their working lives	Individual: health and wellbeing	Health and functional capacities
Many interviewed employees feel that hard physical work is part of their daily tasks. For them, being offered training opportunities is a crucial measure to prevent physical health problems Very few interviewees mentioned the acquisition of new skills, vocational training or lifelong learning as components of work sustainability. One mentioned the transfer of skills from older to younger employees as part of the overall sustainability of a company	Individual: health and wellbeing, employability and skills	Health and functional capacities Competence, skills, training
Other interviewees, both employees and employers, stated that sustainability is related to wellbeing and job satisfaction, focusing more on psycho-social issues and stress. For these workers, there should be realistic expectations towards older employees, allowing them to continue to be enthusiastic about their work without going beyond their limits. Good work–life balance was also mentioned as an important aspect of motivation to keep working	Individual: health and wellbeing, motivation, availability and care obligations	Health and functional capacities Motivation, attitudes, values
Interviewees also perceived sustainability as adapting the work to the individual employee — including older employees — as much as possible. This is mentioned by both employers and employees. In many of the companies where OSH measures are in place, the work is organised in order to reduce older employees’ workload or working hours. This is especially the case in companies where the measures specifically focus on older employees From a sustainability perspective, it could be argued that, unless the heavy work is done by machines, the transfer of heavy physical work or	Work: characteristics of the job, work environment	Work organisation, leadership

¹⁴ Webpage of the FIOH on work ability.

Available from: http://www.ttl.fi/en/health/wai/multidimensional_work_ability_model/pages/default.aspx (retrieved 05/11/2015).

**Sustainable
work**

Work ability

more hazardous work from older employees to younger employees is not necessarily a sustainable measure. Although they might be young and healthy at present, continued hard physical work for many years can lead to the development of health problems and possible early exit from the labour market, and would therefore be counter-productive in the long-run

Finally, sustainability is also understood by a number of interviewees, in particular employers, as a CSR issue. For instance, one employer decided to start recruiting young people from sheltered workshops, believing that it will be beneficial for the new recruits as well as for the current employees (De Zwart Facilitaire Diensten, case no 25). Employees have also noted that having a meaningful job, a job that 'makes sense for the future', is likely to play an important part in their motivation to keep working

Work: intrinsic
job quality

Motivation,
attitudes, values

4 Measures to adapt to an ageing workforce — results of the analysis of ESENER-2

The previous sections described measures taken by companies to adapt to an ageing workforce. The description of these measures based on the case studies and interviews was complemented by an analysis of the results of the ESENER-2 of EU-OSHA. The ESENER-2 was conducted in 2014, on a total of 49,320 establishments¹⁵ across all activity sectors that employed at least five people, covering 36 countries, including the EU-28 Member States. The survey covered different areas of occupational safety and health, including general OSH management practices, the presence of traditional and newly emerging risks and drivers and barriers to OSH management. A first analysis of the results provided a comparison of countries and different types of establishments (e.g. according to sector and size) regarding the prevalent risks and OSH management approaches (EU-OSHA, 2015).

The analysis of ESENER-2 data prepared for this project focuses on the following questions:

- Are there differences across countries, size and sectors in how companies with higher proportions of older workers behave concerning their OSH management?
- (How) does the proportion of older workers in establishments vary across sectors, different size groups and countries?
- Is the presence of physical and psycho-social risks related to the proportion of older workers in an establishment?
- Do companies behave differently depending on the proportion of older workers concerning their OSH management and measures to prevent OSH risks?

For half of establishments across the EU-28 Member States (51 %), between 1 % and 25 % of the workforce are older workers.¹⁶ Around one-third have no older workers at all. Larger establishments tend to have a higher proportion of older workers, while among small companies (five to nine employees) the largest proportion (42 %) have no older workers at all. In fact, the higher the proportion of older workers in an establishment, the more likely it is to be in the public sector, and therefore in the largest size categories.

There are also considerable differences between the EU-28 Member States concerning the age of the workforce. Countries with many establishments having high proportions of older workers are: Sweden, Norway, Finland, the Czech Republic, Poland and Iceland. Countries that clearly show very low proportions of older workers are: Greece, Luxembourg, Cyprus, Slovenia, Austria, Spain and Ireland.

The analysis also examined which indicators of OSH risks and OSH management may be related to the proportion of older workers in a company, which revealed only weak associations. This may be because factors other than the age of the workforce have a stronger influence on the presence of OSH risks or the adoption of OSH management measures. However, it may also be because of data limitations (see Annex 2).

The analysis suggests that, on one hand, older workers seem more exposed to OSH risks and, on the other hand, that awareness of these risks is higher in establishments with an older workforce. Results also indicate that companies react to these different needs by implementing more measures and using special OSH services, in particular to address physical risks.

¹⁵ The sampling unit and the statistical unit of the ESENER-2 was the 'establishment', meaning the 'local unit', rather than the whole enterprise or company. (See EU-OSHA)

¹⁶ In this analysis, 'older workers' is defined as workers aged 55 years or older.

5 Analysis of results

This chapter describes the main factors that can contribute to the adoption of measures in the workplace to ensure a safer and healthier workforce at any age. It then summarises the main barriers and obstacles experienced across the different cases. The chapter also reflects upon the differences between large and small companies, as well as considering aspects of transferability.

5.1 Success factors

Successful development and implementation, including the achievement of positive and sustainable results, is dependent on:

- *Involvement of employees in the development and implementation of the measures.* Even when management initiates a policy or strategy, employees should be involved at an early stage of development to ensure ownership and participation.
 - The employees should be involved as early as possible in the process, at the preliminary stage of development of the measures. Ideally, this could take place in the framework of the needs assessment (e.g. by survey or interviews).
 - Employee involvement can be encouraged through various measures, such as seeking feedback from employees (SONNENTOR, case no 2) and communication and dissemination tools, for example newsletters (GE Money Bank a.s., case no 6). Informing the employees of the outcomes of the measures also helps them to feel involved (Kindergarten Kernehuset, case no 7).
 - Where possible, using members of the workforce as internal trainers is a good way to strengthen ownership. It encourages acceptance of the measures among employees, who see their colleagues as trustworthy equals who understand their needs, for example involving employees as ambassadors (Haus Tamariske-Sonnenhof, case no 1; Kindergarten Kernehuset, case no 7).
 - Cooperation with workers' representatives, for example through the signing of a company agreement with trade unions, is essential (PSA Peugeot Citroën, case no 14; ISS Facility Services, case no 33).
 - Involvement can be extended to family members, reinforcing individual ownership of the initiative/measures (MOL Plc., case no 22). Another important aspect is to ensure that the objectives of the measures are clearly communicated to employees.
 - In some cases, the fact that the employee's participation in the initiative is voluntary helps to ensure commitment (Service d'Aide aux Familles Bruxelloises asbl, case no 4).
 - The employees' involvement is also greatly facilitated if the purpose of the activities is well understood and relates to the employees' needs.
- *Management involvement and commitment to the measures.* Involving senior management in the development of the programme sends a clear signal that this is a priority for management and employees alike. In large companies, this commitment can also be expressed in company policy or the corporate mission statement, as well as in strategic or departmental objectives. The existence of a well-established preventive culture within the company seems to be highly indicative of how successful the measures are. Specific training or awareness-raising activities targeting line managers may also serve as a vehicle to secure commitment and ensure a thorough practical understanding of the implementation of the measures. (Berner Ltd, case no 9). In micro and small companies, the implementation of activities does not usually rely on written strategy but on the employer's willingness and personality. The participation of management in the measures sends a positive signal to employees (Service d'Aide aux Familles Bruxelloises asbl, case no 4).
- *Inclusion in a broader programme or strategy.* In addition to serving as a driver, an overall programme or strategy can guide and structure measures and initiatives. This would typically be a programme or strategy implemented by a large parent company (Zlatna Panega Cement, case no 5) or by a local authority, such as a municipality (Kindergarten Kernehuset, case no 7).
- *Strategic approach and diversity of measures.* A comprehensive approach increases the likelihood that multiple dimensions of wellbeing at work are addressed. Measures should therefore be diverse and combine primary-, secondary- and tertiary-level interventions (Northumbrian Water Limited,

case no 36) using OSH and human resources perspectives and resources (Domel Holding d.d., case no 31). Such measures include adaptation of workstations and specific programmes encouraging the promotion of health in the workplace, as well as age management or transition to retirement (City of Naantali, case no 10). Collaboration between different departments, in particular OSH and human resources, to manage health in the context of an ageing workforce is critical in ensuring that human resources policies support OSH measures (RC Latvijas Balzams, case no 23).

- *Use of external consultants.* External consultants can bring relevant technical expertise. These would typically include insurance companies, occupational health institutes (Van der Geest Schilderspecialisten, case no 26), academic institutions and management consultancies (Anton Plenkens, case no 16; ISS Facility Services, case no 33), or other experts, such sports associations (Oslo Airport, case no 27). External support is particularly important in the case of small and micro enterprises, whose internal resources and expertise are limited.
- *Adopting a lifecourse approach.* A lifecourse approach considers that older people's socio-economic, mental and physical status is directly affected by events at earlier ages and stages of life. A lifecourse approach at the workplace means adopting measures that focus on all employees, independent of age, with the aim of preventing physical and mental ill-health from the earliest stages of the career (Audi, case no 17). While the importance of individualised measures should not be underestimated (see next point), adopting a lifecourse perspective when addressing the health, wellbeing and work ability of older workers is seen as key (McDermott et al., 2010; Eurofound, 2015).
- *Flexible approach.* Successful measures are those that are easily adapted to individual situations within the framework of a lifecourse approach (SONNENTOR, case no 2; Oslo Airport, case no 27). Different measures should be offered based on employees' individual needs, including needs linked to age. The development and implementation of measures specifically targeting older workers, such as flexibility in working time, mentoring or succession plans and additional leave days, can address some of the issues specific to this group of workers.
- *Systematic approach.* Taking a systematic approach, based on a needs-assessment survey, the calculation of the resources available, the prioritisation of measures and evaluation is crucial to success. Such an approach must involve both a preliminary assessment and regular evaluations:
 - Mapping of the workforce and careful planning up-front is essential in order to make informed decisions. Companies need to have a clear view of 'the age pyramid within their organisation, the skills and experience present within the organisation and how this maps against future demands and changing requirements' (BUSINESS EUROPE, 2012). In practice, this means that companies have a better chance of success where they focus their efforts on a realistic number of measures that correspond to the needs of their workers, in line with available resources. If a needs assessment is carried out that includes the employees' perspective on their health and the factors that influence their health, it also contributes to their involvement and participation.
 - The establishment of a pilot programme that can then be extended to other services or departments (Haus Tamariske-Sonnenhof, case no 1; St. Olav's Hospital, case no 28).
 - Regular evaluation of the programme or measures ensures continuous improvement by incorporating lessons learned and adapting to new circumstances (GE Money Bank, case no 6; Premogovnik Velenje, case no 32). It can also help to motivate both managers and employees.

There are no particular differences between the success factors identified by employers and those identified by employees interviewed in the framework of this study. Similarly, no clear differences emerge in relation to company size.

5.2 Barriers/obstacles

These case studies also highlight the obstacles to implementing OSH and human resources measures to improve the health and ability to work of an ageing workforce. In this respect, differences can be seen between small and large companies:

- The lack of financial and human resources to implement measures is more often a problem for small companies than for large companies. This relates not only to the cost of implementation but

also to the cost of man-hours if the activities are undertaken during working hours. Funding is therefore crucial, although the conditions for financing should be carefully designed to avoid preventing implementation of successful measures, for example limiting financing to measures for only people over a certain age may prevent the application of a lifecourse approach, which might be more desirable (Service d'Aide aux Familles Bruxelloises asbl, case no 4).

- In small companies, difficulties may be experienced in implementing measures such as job rotation. Although this measure is widely used to reduce workload in arduous occupations, and may be necessary, it cannot always be put in place by small companies, as there are simply not enough appropriate alternative occupations (De Zwart Facilitaire Diensten, case no 25).
- The lack of anchoring of OSH measures into company culture can result in the success of a measure or a programme being entirely dependent on the motivation and efforts of one or a few key actors among employees or management. If motivation dwindles, if management changes its priorities or if key people leave the company, the measure/programme may cease (Kindergarten Kernehuset, case no 7).
- Corporate culture and the attitudes of colleagues and managers can be a significant obstacle. In small companies, interviewees frequently mentioned negative or unmotivated employees as a barrier. In large companies, it was the lack of management support that created issues.
- The reluctance to change work habits and routines, especially by long-serving employees, may create a barrier (Glosta Engineering, case no 25). This may be the result of a lack of awareness of negative consequences of particular habits, or poor communication of the benefits of doing things differently (Dartex, case no 30).
- Low salary may be an obstacle to implementing certain types of measures, notably switching to part-time work or reduced night shifts, where employees with limited earnings would refuse a reduction in working hours (Haus Tamariske-Sonnenhof, case no 1).
- A lack of consultation and involvement of employees in the design and implementation of activities (ISS Facility Services, case no 33) can also compromise employee motivation and result in reduced uptake of activities.

5.3 Differences between small and large companies

According to the preliminary results from the analysis of ESENER-2, the proportion of employees aged 55 years and older is linked to the size of the company — older workers are more likely to be employed in large companies (>250 employees) — and the sector — companies with higher proportions of older workers are more likely to be in the public sector. While research on interventions in small and medium-sized enterprises is very limited, existing findings suggest that measures to promote longer working lives are less common in private sector small and medium-sized enterprises (Hasselhorn and Apt, 2015).

The analysis reveals a number of differences between small and large companies. Some, as described, relate to lack of financial and human resources, which is more commonly an issue in small companies. Other difficulties include implementing certain types of measures because of the limited number of employees, dependence on one person to act as an ambassador in small companies and a lack of motivation among employees in small companies versus a lack of management support in large ones.

While large companies have put in place more measures, both large and small companies take action at primary and secondary intervention levels. Small companies tend to privilege primary intervention-level measures, both from an OSH and human resources perspective.

In both small and large companies, one of the main drivers for initiating and implementing a policy or programme is the commitment of senior management. In micro and small companies, the role of the owner or manager is crucial. The owner or manager drives the process through an awareness of and interest in OSH management and their belief in a people-centred approach towards work organisation (De Zwart Facilitaire Diensten, case no 25).

Both large and small companies make use of support from external consultants. While large companies use a greater variety of external consultants, and for a wider range of purposes, small companies show a significant trend towards using specialised knowledge for specific situations.

Measures in micro and small companies are often ad hoc, reactive and informal (Marphil International, case no 13, Melilotos, case no 20) rather than derived from an explicit OSH/senior policy. Existing research has shown that informal practices in small and micro companies can be more effective than formal strategies

for age management put in place in large companies.¹⁷ Practices in small companies are frequently linked to support schemes (Service d'Aide aux Familles Bruxelloises asbl, case no 4), sectoral initiatives (Kuopion Monirakennus OY, case no 11) or programmes (Vuggestuen Kernehuset, case no 7), which points to the importance of such initiatives for encouraging action in small companies.

Finally, very few of the micro and small companies covered by the study used a formal evaluation process. In only two cases was such a process carried out by the students of a business school (Service d'Aide aux Familles Bruxelloises asbl, case no 4) or internally by members of a health circle ((Haus Tamariske-Sonnenhof, case no 1). In other cases, there was only an informal assessment of the results by the employer (Dartex, case no 9) or by the health manager (Tegos, case no 6). In the large case companies, a formal evaluation is slightly more common, although a majority have not defined indicators that would enable them to make a link between their programme and the desired result, that is an increase in the effective retirement age of their workers.

5.4 Transferability

Interviewees in both small and large companies believe that the measures implemented are transferable to other companies facing the same challenges. They often mentioned, however, that this is only possible in companies within similar sectors and of similar size.

Several interviewees emphasised that transferability depends not only on size and sector but also on a company's work culture, working environment and general attitude towards dialogue with employees, health, working conditions and work environment. Important success criteria for transferability are open dialogue and frequent communication — at both professional and personal levels — between employer and employees and among employees themselves. The interviewees do not, therefore, believe it is possible to implement measures in a traditional top-down manner. This issue was also raised by large companies, who spoke of the need to secure the commitment of senior management and the involvement of 'champions' (e.g. human resources manager or line managers).

Some interviewees also emphasised that transferability is more likely in a conducive legal and policy framework (e.g. allowing for flexible working time or tax incentives to support keeping older workers after they reach the pension age).

One important point raised was that transferability would be greatly improved by exchanges of experiences and practices between companies. One interesting example was given of a Dutch national platform that provides a knowledge and experience service for companies and research centres concerning sustainable employability.

Bilderberg Hotel (case no 24)

The hotel developed a new pilot project 'On the Move' based on the use of a tool, called DIX, which is a questionnaire focusing on four themes: health and wellbeing, knowledge and skills, work-life balance and commitment. The questionnaire is meant to facilitate a dialogue between employer and employees. The company found the tool through the National Platform for Sustainable Employability,¹⁸ which offers tools and instruments to measure and improve sustainable employability. Interestingly, there was a two-way learning process as the platform offered Bilderberg a tool to identify and measure the needs of the employees while the feedback from the company was also useful for the platform to further improve the instrument. However, the interviewees also emphasised that tools and instruments are not enough to change a company's vision and that a change of the overall attitude and mentality of the company towards their employees was the main factor for undertaking measures to address overall wellbeing of the employees. In other words, the tools can facilitate and support such processes but they are not sufficient on their own.

There is, however, little evidence of actual transfer of the practices and measures implemented in the case companies, apart from in cases that took place within the framework of a larger programme or that were subsequently extended to several daughter companies or establishments down the supply chain (GE Money Bank, case no 6; Zlatna Panega Cement, case no 5).

¹⁷ Hilsen, A.I., Midstundstand, T., 'Domain: Human resource management and interventions' in Hasselhorn, H.M., Apt, W., 2015.

¹⁸ Website of the National Platform for Sustainable Employability. Available from: <http://www.npdi.nl/> (retrieved 05/11/2015).

6 Conclusions

After reviewing the main findings of the analysis, this chapter draws conclusions about what support is needed to implement measures and makes proposals on how to respond to these needs.

6.1 Main findings

The report shows that the 36 case companies reviewed have implemented a wide range of measures with the purpose of either retaining older employees or improving the health and wellbeing of all employees, regardless of age. While large companies tended to adopt a greater range of measures, both large and small companies were taking action at primary and secondary intervention levels. Changes were made to the work environment and the organisational structure and culture of the company, in particular management culture, as well as implementing measures to increase the resilience and capacity of individuals or groups to cope with work situations. Small companies had a slight tendency to prioritise primary intervention-level measures, from both OSH and human resources perspectives.

Many of the measures implemented in the case companies, in particular when the company has in place a policy specifically targeting older workers, were at least co-developed with human resources management and included typical measures such as adaptation of working time and career management. Several of the case companies have also implemented strategies that try to combine the complementary perspectives and measures of OSH and human resources. Collaboration between different departments, in particular OSH and human resources, supported by senior and line management, seems crucial in setting up workplace interventions that can effectively address the challenges of an ageing workforce.

The drivers for taking action were related to the desire to maintain employee productivity, while avoiding sick leave and early retirement. The fear of losing skills and expertise is frequently an important reason for taking action, particularly where the recruitment of competent young workers proves difficult or costly. Other drivers include broader objectives, such as maintaining the health and wellbeing of employees, improving the corporate image or continuing a tradition of proactive employment policies. External factors, such as national or regional policy frameworks, also played a role in supporting the employment of older workers, as did national integrated policy frameworks for sustainable working lives. The companies that implemented measures as part of a company policy were mostly large companies, with the policy usually relating to the employment and/or the health and wellbeing of older employees.

The groups targeted by the measures differ. While some companies primarily adopted measures specifically targeting older workers, others took a more global view, following a lifecourse approach and focusing on the wellbeing of all employees.

Measures were initiated in all cases by management, often in collaboration with human resources departments, health and safety representatives and workers' representatives (where they existed). Employees were often involved at an early stage through various structures and tools (steering groups, consultation processes for a needs assessment).

Several companies made use of different forms of external support for workplace intervention. These included occupational health services, insurance companies, management consultants or more specialised expertise (e.g. dieticians or ergonomists).

The majority of the case companies financed the measures themselves, with some case companies receiving partial financing, and a very small number receiving full funding from various external sources at EU, national, regional or local levels, and sometimes from public institutions. Both large and small companies have resorted to external funding to finance part of their activities. Although a large number of small case companies have financed measures themselves, receipt of external funding has been critical for some of them.

In most of the case companies, the measures formed part of a long-term perspective and are still implemented. Anchoring the measures is essential to sustain the results in the longer term. If the measures depend on a system of ambassadors, however, there is a risk that they will be discontinued if the ambassador leaves the company.

Many large companies have developed an in-house evaluation system to assess the effectiveness of the measures, including, in some instances, the monitoring of quantitative indicators. Positive measurable results include an increase in the effective retirement age, a decrease in sickness absence, increased reported employee wellbeing, improved health status and an increased recognition of good management

by employees. There was no specific pattern in the results concerning target groups or the motivations for putting measures in place.

According to the results of the ESENER-2 analysis, only a limited number of statistically significant links were found between the proportion of older workers in an establishment and the presence of OSH risks/OSH management measures. One particular finding was that respondents from establishments with higher proportions of older workers mentioned the presence of physical and psycho-social risks more often than those from establishments with lower proportions of older workers.

However, the associations between OSH risks, OSH management measures and awareness are small and should be viewed as indications needing further investigation and research before they can be considered conclusive. These associations were mainly found in small and medium-sized establishments, and, among those, to a greater extent in public sector establishments.

6.2 Support needs and related proposals

The review of the practices in 36 case companies points to a number of support needs and suggestions for future action. These relate to awareness-raising activities, external technical support, financial support and legislation and policies. Finally, the review indicates that small and micro companies are in particular need of support.

Internal communication and external awareness-raising activities

Internal communication activities are crucial for both employees and management. Clear communication of the benefits of healthier workplaces improves employee motivation and participation from an early stage, increasing the likelihood of success. Support in the form of information tools, leaflets or campaigns that demonstrate the benefits at individual and company levels for measures addressing an ageing workforce would be useful.

Ways of raising awareness of the benefits of sustainable working conditions for all — workers, employers, policy-makers, intermediaries — and exchange of experience and good practices among European workplaces could be envisaged at EU level, for example as a specific topic of the European Week of Safety and Health at Work under the Healthy Workplaces Campaign for All Ages.

External support

External support was a strong role for the successful implementation of a programme or a policy. External consultants can help companies to broaden their measures from a small group of key employees to the entire company. External support also closes the gap created by the lack of time and human resources in many companies to implement such policies. As explained previously, large companies appear to use external consultants more extensively and for a wider variety of purposes, while small companies tend to use specialised expertise for specific situations.

Financial support

Lack of financial resources creates obstacles, especially for small companies. National stakeholders may support companies' efforts by creating funds and programmes to design and implement initiatives aimed at older workers. For a number of the case companies, in particular small ones, governmental financial support proved instrumental. In addition to offering financial support to implement measures, funding programmes can also create an opportunity for companies to work together and increase their knowledge by exchanging experiences. Participation in national or regional programmes can also further promote social dialogue in companies, as they often require collaboration between various workplace actors, including trade unions and worker representatives.

EU funding, such as the European Social Fund, can also play a role in the implementation of policies or measures in companies. In particular, it can help foster exchange of experience among companies, notably by sharing various successful approaches across Member States. Funding for projects related to the improvement of working conditions or the working environment could include a requirement to take into account aspects linked to an ageing workforce.

While the development of funding mechanisms, coupled with a programme to share good practices, can contribute to the adoption of successful initiatives, other aspects should also be taken into consideration. In particular, tools that help to focus on the most important and effective measures, such as needs assessment, mapping and careful planning, should be favoured. Less costly measures can also be recommended.

Employees will be more motivated to participate in activities if they take place within working hours and the employer pays the related costs (e.g. free fitness card, free physiotherapy and free fruit). Although this can be costly for the company, it should be seen as an investment that will pay off in reduced sickness absence, increased retirement age and, possibly, increased productivity. After a certain period of time, employers and employees could move towards a cost-sharing arrangement, thereby reducing the financial burden placed on companies.

Legislation and policy

Consideration should be given to the adoption of legislation or policy at national level. The overall analysis shows that national strategies, laws or policies related to age management, work ability or sustainable work have been powerful external drivers of relevant measures or company policies. The development of a recognition scheme for good practices to address demographic change can also constitute an incentive for companies to implement measures. However, the possible negative effects that these can have on younger workers were noted by some case companies.

National stakeholders should pay attention to all age groups when developing policies or strategies, even when these are focused on the older workforce. The objective of any national policy or legislation aimed at promoting longer and healthier working lives should be to consider the long-term effects of work and exposure to risk factors and the early prevention of physical and psycho-social risks. National legislation and policies should adopt and promote a life course perspective, in order to encourage the adoption of similar perspectives within individual companies. While measures specifically targeting older workers may be relevant in certain contexts, all policies should take a sustainable approach to the prevention of ill-health in the workplace, being mindful that the young workers of today are the older workers of tomorrow.

Specific needs of small and micro companies

The review of practices showed that small and micro companies face particular difficulties in the design and implementation of measures to address an ageing workforce. Each of the different types of support outlined above should pay particular attention to the needs of small and micro companies.

External support should include a mix of measures, in particular both financial and technical, to address the lack of financial and human resources often found in small and micro companies. The study has identified several cases in which support schemes or programmes have been effective in encouraging micro and small companies to put in place measures to address demographic change. The support schemes or programmes should be easy to access and not entail a cumbersome process to obtain funds or support.

Such activities could raise awareness among owners and managers, about the importance of communication and participation of employees.

Finally, measures in micro and small companies are often ad hoc, reactive and informal, rather than derived from an explicit OSH or older worker policy. The production of a simple guide for small and micro organisations, with some key areas to consider, suggestions for practical implementation and evaluation and examples of informal practices that have been shown to be effective, would provide a useful starting point.

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ESENER website:

www.esener.eu

EU-OSHA, 'Ageing and OSH' theme:

<https://osha.europa.eu/en/themes/osh-management-context-ageing-workforce>

Eurofound, ageing workforce case studies (2005-2007):

<http://www.eurofound.europa.eu/observatories/eurwork/case-studies/ageing-workforce>

European Social Fund, 'Strengthening employment and mobility' activity:

<http://ec.europa.eu/esf/main.jsp?catId=532&langId=en>

European Year of Active Ageing funded projects and awards:

<http://ec.europa.eu/archives/ey2012/>; <http://ec.europa.eu/archives/ey2012/ey2012main3bf2.html>

Eurostat, population, employment and health statistics:

<http://ec.europa.eu/eurostat/web/population-demography-migration-projections/statistics-illustrated>

<http://ec.europa.eu/eurostat/web/labour-market/statistics-illustrated>

<http://ec.europa.eu/eurostat/web/health/statistics-illustrated>

Annex 1: Summary table of measures implemented in case companies

No.	Company	Primary	Secondary	Tertiary
1	KWP, Haus Tamariske- Sonnenhof	<ul style="list-style-type: none"> • 13 internal ergo-experts (trained volunteer employees) identify major health-related problems in the workplace • Reducing night shifts/part-time work 	<ul style="list-style-type: none"> • Health circles: strategic meetings to discuss the need for health promotion 	
2	SONNENTOR	<ul style="list-style-type: none"> • Working time: part-time work for older employees • Workplace adaptation: wrist and leg supports, adjusting the height of the computer screens, ergonomic chairs, etc. • A generation mentor responsible for reinforcing older workers' feelings of value and reducing their fears of replacement • The option to work beyond pension age (part-time job EUR 400 a month) • Advice for prevention measures provided by an insurance company 	<ul style="list-style-type: none"> • Workplace health promotion programme (including sports, focus on nutrition, mental health, team work) • Training of workers for replacement in case of sickness absence 	
3	DVC Heilig Hart	<ul style="list-style-type: none"> • Working time: extra days off for workers over 45 years (national measure, compensation by government) • Workplace adaptation: ergonomic aids • Annual performance reviews, which were also used to discuss working conditions and organisation 	<ul style="list-style-type: none"> • Vocational training for older workers/internal training to acquire new skills 	<ul style="list-style-type: none"> • Psychological wellbeing support for employees: confidential advisors, discussions with supervisors, individual counselling
4	Service d'Aide aux Familles Bruxelloises asbl		<ul style="list-style-type: none"> • Training on stress/psycho-social risks, dealing with daily work situations that can be stressful (e.g. relations with clients) and acquiring a qualification as life coach 	
5	Zlatna Panega Cement AD	<ul style="list-style-type: none"> • Regular risk assessment • Attention to lighting to protect employee's sight 	<ul style="list-style-type: none"> • Regular preventive check-ups and full medical examinations (including MSD and lung spirometry) • Training on health issues for operational workers 	<ul style="list-style-type: none"> • Covering the rehabilitation costs for workers who had experienced serious illness and/or occupational disease • Workers with sight problems who had to buy glasses receive compensation

No.	Company	Primary	Secondary	Tertiary
			<ul style="list-style-type: none"> • Weekly training on a variety of OSH and health promotion topics (e.g. manual handling, harmful impact of alcohol and tobacco use, promotion of healthy lifestyles and eating patterns, use of salt, 'moving for health' and sport). • Healthy discounted meals available in the company canteen • Access to rooms with comfortable conditions for rest breaks 	
6	GE Money Bank		<ul style="list-style-type: none"> • Talks on the promotion of healthy lifestyles (diets, stress management, tobacco addiction), workshops on healthy lifestyles • Health check-up • Consultations with external advisors (e.g. nutrition specialists, psychologist, medical authorities and tobacco dependence centres) • Provision of healthy meals in the canteen • Financial support to strengthen engagement in activities supporting healthy lifestyles 	<ul style="list-style-type: none"> • Return to work: Employees who are ill for more than six weeks can apply for temporary changes in their working conditions
7	Vuggestuen Kernehuset	<ul style="list-style-type: none"> • Purchase of hydraulic changing tables and height-adjustable chairs • One older staff member works only with older children who need less lifting • Opportunities for rest breaks • Part-time work or regular days off work • Better workload distribution among all employees • Coaching programme, where more experienced employees provide support to younger employees 	<ul style="list-style-type: none"> • Kindergarten manager trained as a health ambassador to raise awareness of employees • Physical activities at reduced prices • Physical therapy (on good lifting techniques) • A booklet distributed to all employees • Municipality's health initiatives (courses) in which employees can participate at reduced price 	
8	Roskilde Cemeteries	<ul style="list-style-type: none"> • Family care days • Annual employee interviews about their expectations regarding their future work • Reduced working hours from the age of 60 years, with full pension coverage 		

No.	Company	Primary	Secondary	Tertiary
		<ul style="list-style-type: none"> • Task rotation • Special work tasks for senior employees 		
9	Berner Ltd	<ul style="list-style-type: none"> • Workplace adaptation: adjustments of workstations • Working time: extra 'senior leave' days • Annual senior worker meeting (to identify measures to be taken) • Succession plan before retirement for employees in key positions • Career plans for senior workers (including retirement plan) • Mentoring programme • Training for management • Employment bank for retired employees to continue to work for short periods 	<ul style="list-style-type: none"> • Health check for employees aged 58 years or older • Lectures and discussions on how age affects the ability to work and needs of the employee; lecture on sleep and recovery • Guidance for safe lifting for warehouse workers • Coaching on transition to retirement • Training for senior workers 	
10	City of Naantali	<ul style="list-style-type: none"> • Employee's annual performance review covers age-related considerations and may lead to follow-up measures (reduction of workload or working time, ergonomic measures) • Facilitating relocation: temporary relocation within the organisation in order to gain additional skills with a view to later reassignment • Mentoring programme • Training of managers (general management qualification aimed at improving leadership skills) 	<ul style="list-style-type: none"> • Comprehensive medical check-up every two years for older workers up until retirement • Senior team: nine members that organise events and information sessions (leisure activities) • Training plans for all workers including older workers 	
11	Kuopion Monirakennus Oy	<ul style="list-style-type: none"> • Tasks at construction sites divided between the workers, taking into account possible physical problems. Heavy lifting often done by younger workers • Weekly safety walks at construction sites by health and safety representative • Protection equipment for workers 	<ul style="list-style-type: none"> • Fitness test • Lectures on wellbeing • OSH training 	

No.	Company	Primary	Secondary	Tertiary
12	Saarioinen Ltd	<ul style="list-style-type: none"> • Reduced shift work for older workers • Older employees are given priority regarding choice of tasks, and rotation of tasks is reduced • Extra leave days • Possibility to take 'job alternation leave' or sabbatical (at least 90 days) 		<ul style="list-style-type: none"> • Financial support for older workers for physiotherapy when prescribed by the occupational healthcare physician
13	Marphil International	<ul style="list-style-type: none"> • Informal mentoring programme values experience of older workers and uses it to help younger employees 		
14	PSA Peugeot Citroen	<ul style="list-style-type: none"> • Classification of jobs as heavy, medium and light and reduction of heavy jobs to 8 % • Worker over 50 years are not assigned to a heavy job (by company agreement) • Creation of lighter tasks for workers with reduced capacities • Assessment of vacant jobs, and evaluation of the possibilities for workers with reduced capacities to take up these tasks, with adaptations of the workstation when needed (carried out by the physical skills manager) • Rotation of staff between workstations to reduce exposure and enable workers to acquire/maintain skills • Personal skill assessments (can result in re-allocation) 	<ul style="list-style-type: none"> • Medical check-up, record keeping of working conditions of employees throughout their career 	
15	Solystic	<ul style="list-style-type: none"> • Ergonomic study followed by workplace adjustments • Possibility of part-time employment (older workers can work part-time, i.e. 80 % of normal hours, while company covers employees' full-time contribution and taxes) • Career and skills assessment for workers over 45 years • Training/raising awareness of managers about prejudices on older workers 	<ul style="list-style-type: none"> • Improved access to vocational training for older workers and validation of acquired experience 	<ul style="list-style-type: none"> • Ergonomic programme for workers with more significant health problems (back pain)

No.	Company	Primary	Secondary	Tertiary
		<ul style="list-style-type: none"> • Mentoring programme 		
16	Anton Plenkers	<ul style="list-style-type: none"> • Purchase of mobile lifting aids • Use of a sack barrow to transport heavy items even for short distances • Use of kneepads for activities that need to be carried out kneeling • Training for older workers to take up account management to facilitate the transition to lighter jobs 		
17	Audi AG	<ul style="list-style-type: none"> • Modification of clip and snap connections to limit the weight on the joints of the employees based on medical check-up 	<ul style="list-style-type: none"> • Medical check-up every five years 	<ul style="list-style-type: none"> • Targeted development and team-building processes in teams where mental health problems have been detected
18	Tegos GmbH, Dortmund	<ul style="list-style-type: none"> • Trust-based working hours system to reduce lengthy working hours (employees can decide when they want to work between 07.00 and 19.00) • Employees can work from home 	<ul style="list-style-type: none"> • Seminars and workshops on nutrition, MSDs, cardiovascular health, stress management • Free fruit basket • Walking/jogging groups and other sports activities • Promotion of participation in a local company run event, massages performed by a physiotherapist • Contract with a fitness centre close to the company • Health day with health insurance company • Vocational training (company pays for training) 	
19	Thyssen Krupp Steel	<ul style="list-style-type: none"> • Shorter or flexible working hours • Risks assessment of mental and physical risks 	<ul style="list-style-type: none"> • One-day seminar, including medical check-up and courses • Encourage workers to define personal health related objectives, follow-up on objectives (at three and six months) • Teams of workers have a budget for health initiatives (e.g. buy equipment, such as stability balls or fruit baskets) • Free medical check-ups 	

No.	Company	Primary	Secondary	Tertiary
			<ul style="list-style-type: none"> • Safety training • Vocational training 	
20	Melilotos	<ul style="list-style-type: none"> • No-tray policy (reduce arm MSDs) and leave enough space between tables to facilitate waiters' work and avoid awkward positions • Training of younger employee to take over the daily management of the restaurant to spare the ageing owners • Accommodation of employees (days off, changing of shifts, etc.) 		<ul style="list-style-type: none"> • Gradual reintegration of an employee after long sick leave (reduced working time, with gradual increase)
21	S&B	<ul style="list-style-type: none"> • OSH audits • OSH barometer • Mechanically assisted heavy lifting operations • Younger workers assisting older employees in heavy tasks, as needed • Flexible working hours • Telework and part-time work for older employee • Informal transfer of knowledge initiative 	<ul style="list-style-type: none"> • Safety training • Awareness-raising activities focused on individual workstation improvements • Workplace health promotion programme: focus on healthy diet, physical exercise and reduce smoking; work–life balance seminars • In-house gym in central offices • Provision of healthy menus in in-house restaurants 	
22	MOL Plc	<ul style="list-style-type: none"> • Workplace interventions by specialists (e.g. ergonomic workplace intervention, psychological workplace intervention and assessment) 	<ul style="list-style-type: none"> • Medical check-up • Individual health plan (recommendations for measures and activities in which the worker should participate) • Training and advice sessions (e.g. on stress management and reduction, healthy lifestyles, etc.) • Physical activities (e.g. office gym programme, company sporting events, outdoor weekends, hikes, etc.) • Awareness-raising campaigns, such as 'stop smoking' and 'healthy food at work' • Posters, brochures, leaflets • Family days, where the family members of employees can participate in health screening 	<ul style="list-style-type: none"> • The 'White Book of Rehabilitation' ensures equal opportunities for employees with reduced ability or disabilities. It also supports workers with chronic illnesses

No.	Company	Primary	Secondary	Tertiary
			<ul style="list-style-type: none"> Rewards: participants in the STEP programme can collect points at each event to be converted to STEP gift items 	
23	RC Latvijas Balzams	<ul style="list-style-type: none"> Alternative tasks in the same line of production and, if not available, in other parts of the enterprise for at-risk workers Flexible working hours or adjustment of work tasks for workers with health problems Additional vacation days for employees at risk Mentoring and succession programmes 	<ul style="list-style-type: none"> Dissemination of information on the correct handling of heavy loads Medical check-ups OSH training: ergonomic aspects of handling heavy items, correct body postures and relief exercises Subsidised sports activities (including access to swimming pool and a company annual sporting event) Awareness-raising activities 	
24	Bilderberg Hotel	<ul style="list-style-type: none"> Work reorganisation as a result of the employees' feedback about their health and wellbeing 	<ul style="list-style-type: none"> Physical activities during breaks or outside working hours (e.g. fitness, running, Nordic walking) Medical check-ups Special events to exchange experiences, share objectives, discuss health and wellbeing at work 	
25	De Zwart Facilitaire Diensten	<ul style="list-style-type: none"> Pair working: relieves older workers from certain tasks, performed instead by the younger worker, and enables knowledge transfer Use of microfibre products (lighter cleaning equipment) 	<ul style="list-style-type: none"> Compulsory induction for all employee — mainly vocational training but includes advice on how to work efficiently and ergonomically 	
26	Van der Geest Schilderspecialisten	<ul style="list-style-type: none"> A monitoring system for employee health complaints and follow-up action (workplace adaptation) 	<ul style="list-style-type: none"> Health promotion activities (e.g. courses to quit smoking and healthy nutrition) A monitoring system for employee health complaints and follow-up action (provision of health services such as physiotherapy) 	<ul style="list-style-type: none"> Cooperation with a new health insurance company for better guidance and support during sickness absence
27	Oslo Airport	<ul style="list-style-type: none"> Relocation of workers to less physically demanding jobs when they can no longer perform their tasks Flexible working hours and additional time off 	<ul style="list-style-type: none"> Individual medical check-ups and evaluations for older employees, including advice and follow-up on lifestyle changes 	

No.	Company	Primary	Secondary	Tertiary
		<ul style="list-style-type: none"> for employees over 62 years • Re-training to be relocated to less stressful jobs • Training of managers in age management issues 	<ul style="list-style-type: none"> • Facilitation of physical activities, energy breaks • Promotion of healthy nutrition • A 'green' canteen • Regular health monitoring for older workers • Seminars aimed at raising awareness, skills development and career planning in later life 	
28	St. Olav's Hospital	<ul style="list-style-type: none"> • Annual talks (part of the annual performance appraisal) between senior employees and managers • Relocation of older workers to administrative jobs (not systematic, individual basis) • Additional days off for older workers • Training of managers on attitudes towards older employees • A mentor/buddy system 	<ul style="list-style-type: none"> • Awareness-raising measures about health promotion • Development activities, such as training courses, skills maintenance/development • Courses and information sessions for older workers on various topics (e.g. pensions, motivation, consequences of early retirement, myths about ageing) • A motivation programme • Individual guidance • A final interview with all senior workers who leave the company to identify lessons learned from their experience and to provide them with information about opportunities for retired workers 	
29	CEMEX Polska	<ul style="list-style-type: none"> • Generation management training for managers 	<ul style="list-style-type: none"> • A 50+ club, which provides an exchange platform for older workers to express their needs, including personal needs linked to ageing and health • E-learning courses on self-development • Workplace health promotion activities planned (for instance on nutrition) on the basis of employees' suggestions • Planned vocational training (for workers interested in acquiring new skills) 	
30	Dartex	<ul style="list-style-type: none"> • Tables between individual workstations so that the sewers now 'push and pull' most of the knitwear between the stations 	<ul style="list-style-type: none"> • OSH training • Awareness-raising activities (for instance reminding sewers to take regular breaks or to sit at an ergonomically correct height) 	

No.	Company	Primary	Secondary	Tertiary
		<ul style="list-style-type: none"> • Baskets at each workstation at arm level to avoid having to lean down • Weight limits for heavy loads • Trolleys to carry heavy loads • Purchase of ergonomic chairs • Replacement of sewing machines with better engines to reduce exposure to noise and vibration • Additional types of lighting (non-tiring light) to reduce visual stress • Regular audit of working conditions 		
31	Domel Holding d.d.	<ul style="list-style-type: none"> • Ergonomic planning of workplaces 	<ul style="list-style-type: none"> • Investigation of sickness absence and injury at work to improve working conditions • Awareness-raising, training, seminars and subsidised activities to promote physical activity • Awareness of line managers and supervisors of possible mental health issues • Personal counselling (mental health) 	
32	Premogovnik Velenje d.d.	<ul style="list-style-type: none"> • Ergonomic and psychological workplace interventions adapted to the needs of older workers and workers who have developed MSDs (e.g. instructions on how to arrange the work site, use of technical aids, prevention of repetitive work, dealing with stress related problems) 	<ul style="list-style-type: none"> • Medical examinations • Medical preventive 'active vacations' combining sports activities with health promotion activities (priority for older workers) • Short breaks in a spa organised in June as a health promotion programme, which also includes physiotherapy (priority to workers with MSDs) • Sport activities offered to employees • A 'walk test' twice a year (health examination via a group walk) 	<ul style="list-style-type: none"> • Consultation/discussion with the employee after returning to work following sickness absence to adjust their workstation if needed
33	ISS Facility Services Spain	<ul style="list-style-type: none"> • The option to move the worker from their current position to another that does not constitute a health risk • Flexible work arrangements, such as flexible working time 	<ul style="list-style-type: none"> • Medical check-ups followed by workplace and tasks adaptations 	

No.	Company	Primary	Secondary	Tertiary
			Compulsory training in occupational health for all workers and managers, with a specific training session called 'Ageing and work' for workers over 55 years and their managers	
34	BT plc		<ul style="list-style-type: none"> • Keep fit campaigns • Awareness days/weeks on specific topics • Stress assessments • Guides on health and wellbeing 	<ul style="list-style-type: none"> • Employee assistance programme (coaching, advice) externalised service • Support to return to work
35	Glosta Engineering	<ul style="list-style-type: none"> • Provision of ear protection and air-fed masks • Provision of manual handling equipment/trolleys • Occasional temporary relocation of employees for illness or incapacity, or a more permanent move to another workstation • Flexible hours • Regular breaks; morning, lunch and mid-afternoon breaks • A mentoring scheme 	<ul style="list-style-type: none"> • A health surveillance scheme • Hygiene promotion (hand washing) • Pictorial version of OSH policy • Posters and booklets promoting health 	
36	Northumbrian Water Ltd		<ul style="list-style-type: none"> • Employees have been encouraged to take part in an annual walking challenge (10,000 steps a day) 	<ul style="list-style-type: none"> • Disease management: referral from a line manager to RehabWorks is given as soon as an MSD problems appears. Reports from the physiotherapists returned to the company with recommendations on treatment and management of symptoms • Confidential counselling and employee support to enable people to tackle stress for employees and their family

Annex 2: Analysis of Esener-2

1. Introduction and aim of the analysis

This draft report contains the overview of the results of the first two phases of a three-phase structured data analysis to obtain insights into the relationship between the proportion of older workers¹⁹ in companies and workplace characteristics concerning health and safety at work.

The data analysis is executed on the ESENER-2, the Second European Survey of Enterprises on New and Emerging Risks. This second Europe-wide establishment survey of EU-OSHA has the objective of assisting workplaces to deal more effectively with safety and health and to promote the health and wellbeing of employees.²⁰

The aim of this data analysis was to explore whether or not certain aspects of OSH risks and OSH management are more frequent in establishments with a higher proportion of older workers. This may show if and how companies react to having a higher proportion of older workers by adapting their OSH management.

The analysis was guided by the following research questions:

- (How) does the proportion of older workers in establishments vary across sectors, different size groups and countries?
- Is the presence of physical and psycho-social risks related to the proportion of older workers in an establishment?
- Do companies behave differently depending on the proportion of older workers concerning their OSH management and measures to prevent OSH risks?
- Are there differences across countries, size and sectors in how companies with a higher proportion of older workers behave concerning their OSH management?

2. Method and data description

Description of the ESENER-2 survey

Data from ESENER-2 of EU-OSHA were collected in 2014, with a total of 49,320 establishments²¹ across all activity sectors that employed at least five people. The survey covered 36 countries, including the EU-28 Member States, as well as Albania, Iceland, Montenegro, the Former Yugoslav Republic of Macedonia, Serbia, Turkey, Norway and Switzerland. For the analysis in this report, only the results of the EU-28 were taken into account.

The ESENER-2 survey asks one person per establishment — the person most familiar with OSH management — about the way safety and health risks are managed in the workplace. Therefore, respondents were owners and managers (especially in small and medium-sized establishments), OSH specialists, employee representatives in charge of OSH or external OSH consultants.²² The ESENER-2 survey explores four areas:

- How OSH is generally managed in the establishment.
- How the 'emerging' area of psycho-social risks is addressed.
- The main drivers and barriers to the management of OSH.
- How worker participation in OSH management is implemented in practice.

The sampling was based on address registers of establishments in each of the countries. In order to ensure cross-national comparability of the sample, screening procedures were put in place and the sampling frames adapted. The sample was stratified according to four size classes and seven groups of sectors. The samples were drawn in a multi-stratified random sampling procedure with a deliberately disproportionate sample design, which aims to reflect a mix of establishment — and employee — proportionality. Therefore, for example, large establishments are over-proportionally represented in the sample.²³

¹⁹ The term 'older workers' refers to employees aged 55 years or older.

²⁰ For more information: <https://osha.europa.eu/en/publications/reports/esener-ii-first-findings.pdf>

²¹ The sampling unit and the statistical unit of the ESENER-2 was the 'establishment', meaning the 'local unit', rather than the whole enterprise or company. See TNS (2015a).

²² For further information on the respondents, see TNS (2015a).

²³ Ibid., p. 25.

Interviews were conducted in the summer and early autumn of 2014 in establishments with five or more employees, from both private and public organisations across all sectors of economic activity except for private households (NACE T) and extraterritorial organisations (NACE U).

For further information on the survey procedure and data quality, please consult the section on the methodology used for ESENER-2 on OSH Wiki and the methodological reports prepared for this survey (OSH Wiki, online; TNS, 2015a, b).

Methodology and data analysis

The first phase of analysis examined all of the available indicators on OSH risks, OSH management and measures to address risks from the ESENER-2 dataset, in order to establish whether or not they were associated with the proportion of older workers in the enterprises that took part in the survey. For this part of the analysis, the four categories of the variable 'share of older workers' (no older workers; less than a quarter; a quarter to half; more than half of the workforce) was used.

In a second phase, some indicators were chosen for further description. Indicators were chosen where they showed either a statistically significant linear association with the proportion of older workers or where they were particularly interesting from a theoretical point of view, in particular OSH risks (physical and psycho-social), time of last risk assessment, measures addressing these risks, return-to-work procedures and reasons for and difficulties with addressing health and safety issues.

Many differences were found between establishments with no older workers and establishments with older workers (regardless of the proportion of older workers). Some differences were found between companies with older workers making up more than 50 % of their workforce and the rest of the case companies analysed, which could be explained by their size or the sector (public) in which these companies operate.

In a third phase, we looked at the significant relationships between the proportion of older workers and OSH risks/OSH management indicators controlling for size and sector. In order to control for these factors — and also to get an overview of the differences in OSH management between private and public establishments of different sizes — the relations between the indicators on OSH risks and OSH management for the following establishments were analysed separately: small (5-9 employees), medium (10-49 employees) and large (50+ employees) in the private and public sectors (i.e. six types in total). For this purpose, only three categories of the variable 'share of older workers' (no older workers; less than 25 %; more than 25 %) and only three categories of establishment sizes (the last category being 50+ employees) were used, because otherwise the number of cases of large establishments, when split up by sector, would have been too small.

The indicators presented in the text below are those that had the strongest relations with the proportion of older workers for many of the six types of establishments, and which seem most relevant from a theoretical point of view.

Definitions:

- The term 'older workers' refers to employees aged 55 years or older, according to the definition in the ESENER-2 survey and in the other reports prepared for this project.
- For the more detailed analysis in phase three, we re-coded the variable asking for the size of establishments to be separated into three groups: small establishments (5-9 employees), medium establishments (10-49 employees) and large establishments (50+ employees).
- When we say that an association, relation or trend is significant, we mean statistically significance. This means that differences between establishments with different proportions of older workers are to some extent caused by some other variable in the analysis. Significance further means that this can be generalised to the total universe for which the sample is representative. We chose a significance level of 0.01, meaning that with a probability of 99 % the result is generalizable.
- By relation, we mean the statistical association, indicating the strength of a link between two variables. As we cannot use correlations to look for the effect between the proportion of older workers and the OSH indicators, because of the restricted level of measurement for several key variables, we will consistently use the coefficient 'eta' as the indication for association between the variables. This measure of association is used for cross-tables between nominal and ordinal variables and can be read similar to a correlation. The values of 'eta' vary between 0 and 1, with 0 meaning no association at all and 1 meaning the strongest possible association. The values can also be negative, indicating an association in the reverse direction.

Limitations to the analysis:

We faced several limitations in the analysis, because of the nature of the data used:

- The variable ‘share of older workers’ in an establishment only has four categories. This considerably limits the types of analysis that can be carried out as the variable is only measured on an ordinal²⁴ level. One of the limitations is that measures of association, such as ‘correlation’, which allow for more precise analysis, cannot be used.
- Initially, a multivariate analysis was planned to investigate the extent to which different indicators of OSH risks/management relate to each other and to the proportion of older workers. The preparatory analysis for these procedures showed that indicators of OSH risks and OSH management are highly correlated to each other but less so with the proportion of older workers. Therefore, no fitting model for a multivariate analysis could be found.
- Associations found between the proportion of older workers in an establishment and OSH indicators are, in general, very small (below 0.2). This means that other factors are probably more important to determine the types of OSH management implemented and the measures taken, as well as OSH risks.

3. Description and the distribution of proportion of older workers by size, sector and country

For the proportion of older employees in an establishment, the variables used are based on the survey question ‘What proportion of the employees is aged 55 years or older?’ (Q110). The overall distribution of older workers is shown in Table 3.²⁵

Table 3. Proportion of older workers (four categories) in establishments (in total numbers and %)

	Total number	Shares from total (%)
No older workers at all	14,428	29.5
Older workers comprise less than a quarter of the workforce	24,750	50.7
Older workers comprise a quarter to half of the workforce	7,833	16.0
Older workers comprise more than half of the workforce	1,833	3.8
Total	48,844	100.0
No answer	476	
Total	49,320	

To describe the proportion of older workers in companies by company size, sector and country, cross-tabulations using the four categories of proportion of older workers were produced. Linear relationships between proportions of older workers in companies and the various indicators on OSH management and OSH risks were then identified.

Size of the company

The first important factor in profiling companies with different proportions of older workers is the size of the company in general.

Table 4. Size of establishment (Q105) by distribution of older workers (Q110)

		5-9	10-49	50-249	250+	Total
Count		10,012	4,251	158	7	14,428

²⁴ A variable is ‘ordinal’ if the categories are in hierarchical order, but the distance between the categories is not equal and not measurable. The variable would be ‘metric’, for example, if the exact proportion of older workers per establishment had been recorded.

²⁵ For the analysis in this chapter we used the weighting factor ‘**estprop**’. This factor adjusts for the disproportionality of the national sample sizes and is therefore the factor **to be used for cross-national analyses**. The factor sums up to the number of interviews across all countries, not to the number of establishments in the universe.

Safer and healthier work at any age: Analysis report of workplace good practices and support needs of enterprises

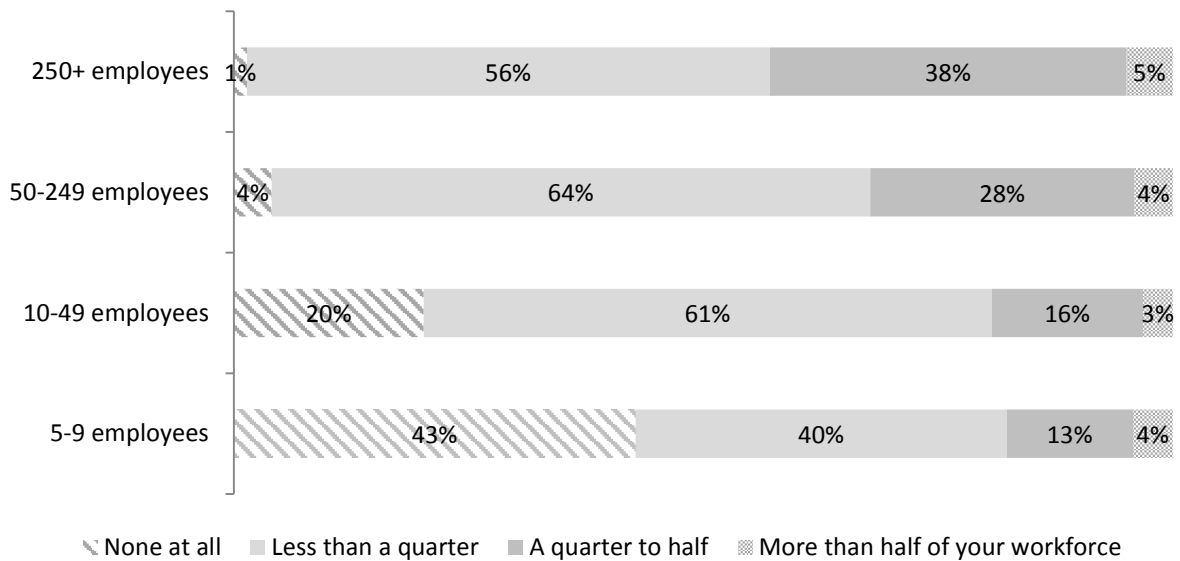
		5-9	10-49	50-249	250+	Total
None of your workforce	% within 'What proportion of the employees is aged 55 years or older?'	69.4 %	29.5 %	1.1 %	0.0 %	100.0 %
	% within size class (Q105)	42.8 %	20.2 %	4.0 %	1.4 %	29.5 %
Less than a quarter of your workforce	Count	9,247	12,722	2,497	283	24,749
	% within 'What proportion of the employees is aged 55 years or older?'	37.4 %	51.4 %	10.1 %	1.1 %	100.0 %
	% within size class (Q105)	39.5 %	60.5 %	63.7 %	55.7 %	50.7 %
A quarter to half of your workforce	Count	3,146	3,391	1,103	193	7,833
	% within 'What proportion of the employees is aged 55 years or older?'	40.2 %	43.3 %	14.1 %	2.5 %	100.0 %
	% within size class (Q105)	13.4 %	16.1 %	28.2 %	38.0 %	16.0 %
More than half of your workforce	Count	988	662	159	25	1,834
	% within 'What proportion of the employees is aged 55 years or older?'	53.9 %	36.1 %	8.7 %	1.4 %	100.0 %
	% within size class (Q105)	4.2 %	3.1 %	4.1 %	4.9 %	3.8 %
Total	Count	23,393	21,026	3,917	508	48,844
	% within 'What proportion of the employees is aged 55 years or older?'	47.9 %	43.0 %	8.0 %	1.0 %	100.0 %
	% within size class (Q105)	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %

Table 4 shows that the majority of companies (i.e. small and medium-sized enterprises and large companies with 250+ employees) have between 0 and 25 % of their workforce made up of older workers. However, among micro companies, the largest share (42 %) has no older workers.

Table 4 also shows that the frequency of higher proportions of older workers (i.e. between a quarter and half of the workforce) increases with the size of the company. Among micro enterprises, only 13 % have between a quarter and a half of their workforce made up of older workers, among companies with 10 to 49 employees, this proportion is 16 %, among companies with 50 to 249 employees, it is 28 % and, among companies with more than 250 employees, 38 % have a workforce whereby a quarter to a half is composed of older workers.

However, the effect of the size of the company seems to diminish when analysing the highest proportions of older workers (i.e. more than half of the workforce). For micro enterprises the proportion of those with a workforce made up of more than 50 % older workers is 4 %, for small enterprises it is only 3 %, but then for large companies it rises to 5 % again (Figure 2).

Figure 2. Proportions of older workers (none, less than a quarter, a quarter to a half, more than half of the workforce) within micro companies (5-9 employees), small enterprises (10-49 employees), medium-sized enterprises (50-249 employees) and large enterprises (250+ employees)



This indicates that large companies seem to be important employers of older workers (both for proportions of a quarter to a half, and of more than a half). However, when it comes to very high proportions of older workers, micro enterprises also play an important role. This supports previous findings that show that micro family businesses often keep employees in work for longer because of a higher degree of attachment and loyalty.

The relationship between the size of the establishment and the proportion of older workers is statistically highly significant ($\chi^2 = 0.000$) and this relationship will be further explored in the next phase of the analysis.

Sector

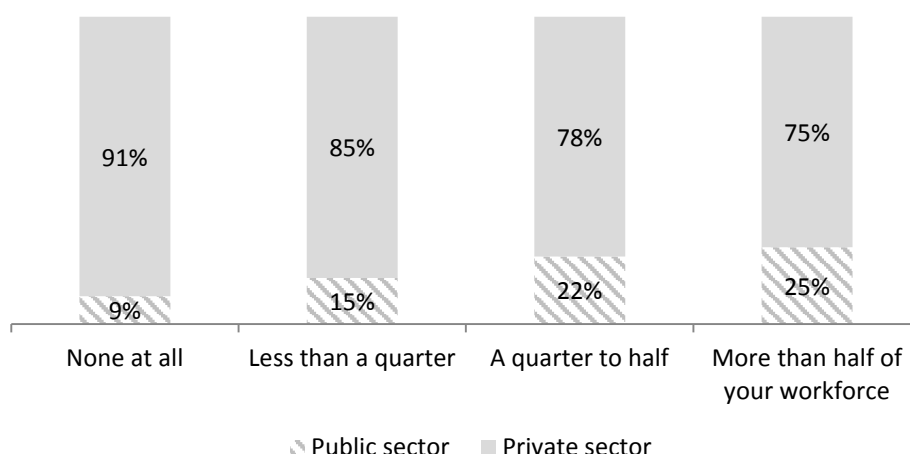
The exploration by sector of the distribution of the proportion of older workers in companies shows that the higher the proportion of older workers, the more likely the establishment is to be in the public sector (Figure 3).

Looking at the proportion of older workers in companies and the sector, there is a significant difference between the public and the private sectors. As seen in Figure 3, among companies with no older workers, only 9 % are located in the public sector, while this value rises as the proportion of older workers increases.

Although this association is relatively low ($\eta^2 = 0.134^{26}$), it shows a clear relationship between a high proportion of older workers and establishments operating in the public sector. The exploration of this relationship will also be addressed more in detail.

²⁶ As we cannot use correlations to look for the effect between the proportion of older workers and the OSH indicators because of the restricted level of measurement for several key variables, we will consistently use 'eta' as the indication for association between the variables. This measure of association is used for crosstabs between nominal and ordinal variables and can be read similar to a correlation. To prevent the reader a constant switch in interpretations due to the switch of measurements we will not show Somer's D when we have two ordinal variables. In this example the different measurements are: Somer's D : -0.113, eta: 0.134, correlation: -0.133

Figure 3. Proportion of companies operating in the private or in the public sector, according to their proportion of older workers (Q114)



Obviously, whether an establishment is considered ‘private’ or ‘public’ is also linked to the general sector (e.g. education, industry, agriculture) it operates in.

Certain sectors (‘Public administration and defence; compulsory social security (O)’ and ‘Education (P), Human health and social work activities (Q)’) have particularly high proportions of establishments belonging to the public sector.

Since there are higher proportions of older workers working in the public sector, this may influence the analysis on whether or not the sector has an effect on the proportion of older workers. In order to control for this potential bias, when looking at the relationship between sector and proportion of older workers, only establishments from the public sector were chosen.

This analysis shows that there are also significant differences on the level of the NACE groups. More specifically, around one out of three establishments from the sectors ‘Public administration and defence; compulsory social security’ (O) and ‘Education’ (P), ‘Human health and social work activities’ (Q) has a workforce made up of more than 25 % older workers, while among companies in other sectors only one out of five companies has such a high proportion of older workers (Table 5).

Table 5. Proportions of companies with older workers making up more than a quarter of their workforce, by sector(s)

NACE sector	More than a quarter of the workforce
A agriculture	19.2 %
BDEF mining; electricity and gas; water and waste; construction	19.1 %
C manufacturing	20.3 %
GHIR trade; transport; accommodation and food; arts	17.3 %
JKLMNS information and communication; finance; real estate; science; administration; other services	18.5 %
O public administration; social security	35.2 %
PQ education; human health and social work	24.8 %

Country

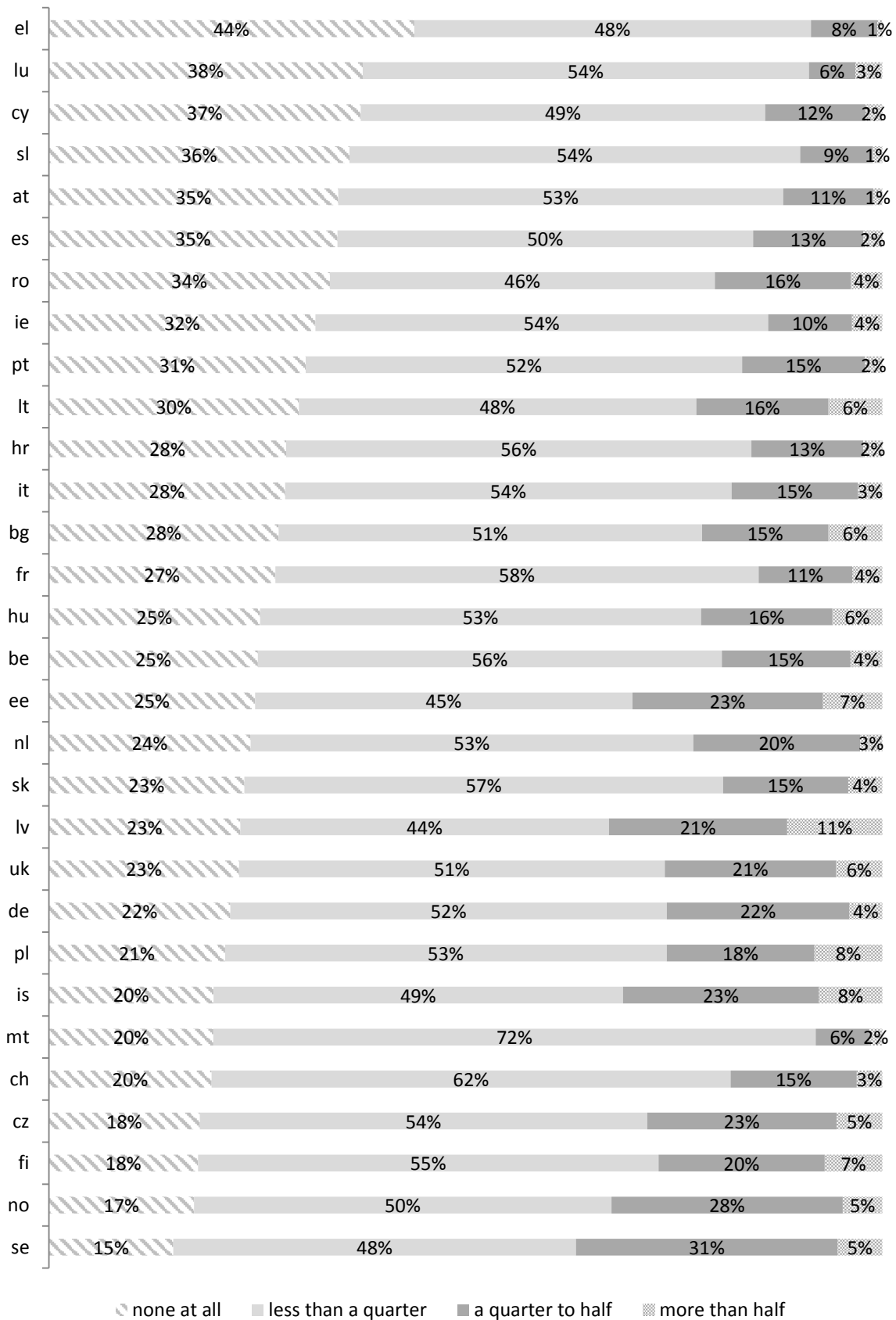
As can be seen in Figure 4, most establishments, in all countries, reportedly have between 1 % and 24 % of their employees aged 55 years or older. However, the proportion of older workers within companies varies quite a lot across the EU-28 and European Free Trade Association (EFTA) countries. There are countries where results clearly show higher proportions of older workers in establishments. These are

the countries in which a comparatively low number of establishments has no older workers AND, at the same time, a high proportion has more than a quarter of their workforce made up of older workers. This includes Sweden, Norway, Finland, the Czech Republic, Poland and Iceland. In all of these countries, around one out of five establishments has no older workers and at least one out of four establishments has more than a quarter of their workforce made up of older workers.

Countries that clearly show very low proportions of older workers in establishments are Greece, Luxembourg, Cyprus, Slovenia, Austria, Spain and Ireland. In these countries, at least 30 % of the establishments report that they have no older workers and up to only 15 % of establishments report that more than one-quarter of their employees comprises older workers.

There are countries where the results are not so clear-cut because they have large numbers of establishments with no older workers but also comparatively large numbers with more than a quarter of older workers. Such countries are Romania, Portugal, Italy, Bulgaria, Hungary, Belgium and Estonia, which have between 25 % and 30 % of their establishments with no older workers, but at least 20 % of establishments with more than a quarter of their workforce comprising older workers.

Figure 4. Proportion of companies by proportion of older workers among the workforce, for EU-28 and EFTA countries



4. Relations between OSH indicators and age of workforce

The indicators presented in the text below are those that have the strongest relations ($\eta \geq 0.1$) with the proportion of older workers for many of the six types of establishments, and which seem most relevant from a theoretical point of view. Note that the associations are, in general, quite weak, which is why these results should be seen as more of an indication of possible linkages than as fully proven causal relations.

Traditional and emerging OSH risks

Physical risks

Physical risks are more frequently present in establishments with higher proportions of older workers than in establishments with lower proportions of older workers.

The questionnaire asks about the following physical risks:

- tiring or painful positions (Q200_1);
- lifting or moving people or heavy loads (Q200_2);
- loud noise (Q200_3);
- repetitive hand or arm movements (Q200_4);
- heat, cold or draught (Q200_5);
- risk of accidents with machines (Q200_6);
- risk of accidents with vehicles in the course of work (Q200_7);
- chemical or biological substances (Q200_8);
- increased risk of slips, trips and falls (Q200_9).

When looking at all types of companies together, these physical risks are present to a significantly lower extent in establishments with no older workers than in establishments with older workers (regardless of the proportion). However, this may be partly influenced by the size and the sector (public or private) of the establishment, as highlighted by the analysis. Nevertheless, even after controlling for size and sector,²⁷ physical risks have shown to be more frequently reported the higher the proportion of older workers in an establishment. This is true for most types of establishments, although not all of these relations are significant. Table 6 show those detailed results per type of establishment for those risks that have the strongest link to the proportion of older workers. The relations are not very strong, but there seems to be a weak link between the proportion of older workers and the presence of these physical risks. Significant relations can be found, especially in companies in the private sector. Note that the general analysis — across all types of establishments — showed that the reporting of physical risks slightly decreases again if an establishment has very large numbers of older workers.

This increase of reporting of physical risks with the proportion of older workers may be partly explained by the fact that older people are over-proportionally employed in some sectors. For example, the fact that the risk of lifting or moving people or heavy loads increases the higher the proportion of older workers, may be related to the fact that many establishments with high proportions of older workers are in the human health and social work sector. For other physical risks, which are typically found in the industrial sector (such as exposure to biological or chemical substances, accidents with vehicles and machines), no such explanation can be found at first sight, since older workers do not seem to be over-represented in these sectors. Another explanation of this significant relationship between the proportion of older workers and physical risks is that the perception of these physical factors as risks by the OSH experts is possibly more frequent in establishments with higher proportions of older workers.

²⁷ In order to control for size and sector, the relation between the proportion of older workers and the presence of risks was analysed separately in small (5 to 9 employees), medium-sized (10 to 49) and large establishments (50+) for the private and the public sectors (i.e. six types in total).

Table 6. Physical risks on the work floor — significant relations with proportion of older workers, by type of establishment

Tiring or painful positions (Q200_1) — % yes						
	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers	40.6	45.5		43.7	48.5	55.1
Less than 25 %	53.5	59.6		47.5	59.6	70.1
More than 25 %	52.6	62.1		45.8	58.7	72.5
χ^2	0.000	0.000		0.000	0.000	0.000
Eta	0.098	0.090		0.023	0.069	0.057

Lifting or moving people or heavy loads (Q200_2) — % yes						
No older workers	28.8			37.0	41.2	35.8
Less than 25 %	45.3			41.0	51.4	61.2
More than 25 %	43.9			39.4	55.8	66.3
χ^2	0.000			0.000	0.000	0.000
Eta	0.127			0.026	0.094	0.099

Risk of accidents with vehicles in the course of work (Q200_7) — % yes						
No older workers	23.8	31.4		35.7	39.6	41.2
Less than 25 %	41.3	39.3		40.7	52.2	64.1
More than 25 %	38.6	41.8		41.6	55.7	67.2
χ^2	0.000	0.001		0.000	0.000	0.000
Eta	0.129	0.059		0.051	0.105	0.077

Chemical or biological substances (Q200_8) — % yes						
No older workers		29.9		27.5	28.2	22.4
Less than 25 %		32.0		34.6	38.7	51.4
More than 25 %		39.8		33.7	43.7	59.0
χ^2		0.000		0.000	0.000	0.000
Eta		0.075		0.061	0.102	0.124

Psycho-social risks

In addition to the physical risks on the work floor, the ESENER-2 questions also focus on potential psycho-social risks.

The following psycho-social risks were investigated in the survey:

- time pressure (Q201_1);
- poor communication or cooperation (Q201_2);
- employees' lack of influence (Q201_3);
- job insecurity (Q201_4);
- difficult customers (Q201_5);

- long or irregular working hours (Q201_6);
- discrimination (Q201_7).

Looking at the different types of establishments²⁸ separately shows that, for most types of establishments, the proportion of establishments in which psycho-social risks are present increases as the proportion of older workers increases. This is particularly the case for the following risks: time pressure, poor communication or cooperation and job insecurity (Table 7). For these risks, the relation is significant for a large proportion of types of establishments, in particular in the private sector. For the other risks — difficult customers, long or irregular working hours and discrimination — the relationship is not as clear. The presence of these risks is more frequent in establishments with 1 % to 25 % of their employees being older workers than in establishments with no older workers, but the differences are not significant. Furthermore, for the risks difficult customers and long or irregular working hours, the presence of these risks is, again, lower in establishments with particularly high proportions of older workers (25 % or greater).

Table 7. Psycho-social risks on the work floor

Time pressure (Q201_1) — % yes						
	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers	33.8	36.5			36.2	38.2
Less than 25 %	44.9	46.9			45.2	55.0
More than 25 %	39.7	53.1			41.7	58.9
χ^2	0.000	0.000			0.000	0.000
Eta	0.056	0.099			0.040	0.068

Poor communication or cooperation (Q201_2) — % yes						
No older workers	11.3		29.2		14.7	17.6
Less than 25 %	19.4		33.6		18.1	26.2
More than 25 %	23.2		42.0		17.8	30.4
χ^2	0.000		0.005		0.000	0.003
Eta	0.119		0.089		0.028	0.060

Job insecurity (Q201_4) — % yes						
No older workers	14.2	13.7		11.8	11.4	10.4
Less than 25 %	20.8	18.6		13.3	14.3	18.0
More than 25 %	19.9	21.9		13.7	18.2	25.1
χ^2	0.001	0.001		0.001	0.000	0.000
Eta	0.061	0.063		0.024	0.059	0.095

²⁸ In order to control for size and sector, the relation between the proportion of older workers and the presence of risks was analysed separately in small (5 to 9 employees), medium (10 to 49) and large establishments (50+) for the private and the public sectors (i.e. six types in total).

Lack of information or adequate prevention tools

The companies were also asked if they believed they had enough information or prevention tools to address the physical and psycho-social risks mentioned above (Q202).

In the first stage of the analysis, it was noted that, for almost all the information topics, companies with no older workers were more likely to mention a lack of information/prevention tools compared with the other companies. For two kinds of information, a slight linear association with the proportion of older workers was also noticed, namely for reporting *lacking information on tiring or painful positions* (Table 8) and *lacking information on employees' lack of influence over their work pace or work processes*. When we looked in detail at differences in companies based on the proportion of older workers, only *the lack of information on tiring or painful situations* is mentioned significantly more in small and medium-sized companies with no older workers and less when the proportion of older workers increases. This is most notable in medium-sized establishments in the public sector.

Table 8. Tiring or painful situations (Q202_1) — % mentioned

	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers	21.2	30.2		15.2	16.9	
Less than 25 %	26.9	20.6		14.2	14.4	
More than 25 %	15.2	13.2		11.0	12.1	
χ^2	0.001	0.000		0.000	0.000	
Eta	0.046	0.127		0.039	0.041	

Measures to address OSH risks

Physical risks, but also some psycho-social risks, seem to be more frequent in establishments with an older workforce. Therefore, the question arises whether or not those establishments also take further measures to address OSH risks. Results from this analysis indicate that establishments may be more likely to take certain measures — namely some preventive measures for MSDs and some company measures for health promotion — if their workforce is older. However, results indicate that establishments with an older workforce are less likely to take measures addressing psycho-social risks.

Psycho-social risks

The questionnaire asked companies whether or not the following measures were put in place to address psycho-social risks:

- reorganisation of work (Q303_1);
- confidential counselling for employees (Q303_2);
- set up of a conflict resolution procedure (Q303_3);
- intervention if excessively long or irregular hours are worked (Q303_4).

In the first stage of the analysis, the proportion of older employees was found to have a relationship with two measures, namely the reorganisation of work and intervention if long hours are worked (Table 9). For both measures the same conclusions can be drawn. The reorganisation of work and the intervention in working hours as measures to address OSH risks are significantly related to the proportion of older workers in small and medium-sized companies in the private sector and small public establishments. In these companies the measures decrease with the proportion of older workers, but the relation is very weak.

Table 9. Measures to address OSH risks

Reorganisation of work (Q303_1)						
	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers	40.6			40.6	47.0	

Reorganisation of work (Q303_1)						
Less than 25 %	32.0			35.3	40.0	
More than 25 %	37.6			28.5	35.4	
χ^2	0.001			0.000	0.000	
Eta	0.033			0.090	0.075	

Intervention if excessively long or irregular hours are worked (Q303_4)						
No older workers	26.1			27.8	34.4	
Less than 25 %	32.0			24.3	28.3	
More than 25 %	23.3			18.7	26.5	
χ^2	0.001			0.000	0.000	
Eta	0.011			0.074	0.056	

Preventive measures for MSDs

To research the measures taken by companies to prevent MSDs, the ESENER-2 questionnaire asked companies to provide information on the preventive measures taken.

The measures in question are:

- equipment to help with lifting or moving (Q308_1);
- rotation of tasks to reduce repetitive movements (Q308_2);
- encouraging regular breaks for people in uncomfortable working positions (Q308_3);
- provision of ergonomic equipment (Q308_4).

Based on the results from the first stage of the analysis, we know that no clear relationship can be identified between the proportion of older workers in a company and the implementation of preventive measures for MSDs (Table 10). However, for equipment to help with lifting or moving and the provision of ergonomic equipment, an increase related to the proportion of older workers can be observed, in particular for establishments in the private sector.

Table 10. Preventive measures for MSD

Equipment to help with the lifting or moving (Q308_1) — % yes						
	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers				80.8	85.9	81.6
Less than 25 %				83.2	89.0	94.9
More than 25 %				85.5	90.3	95.5
χ^2				0.000	0.000	0.000
Eta				0.045	0.042	0.051

Provision of ergonomic equipment (Q308_4) — % yes						
No older workers	65.4	56.9		66.2	70.5	
Less than 25 %	63.6	75.8		69.1	77.0	
More than 25 %	75.0	76.1		65.3	76.5	

Provision of ergonomic equipment (Q308_4) — % yes						
χ^2	0.000	0.000		0.000	0.000	
Eta	0.066	0.107		0.003	0.047	

For the provision of ergonomic equipment, the relation between the proportion of older workers and medium-sized public establishments should be noted. Although rather weak, the provision of ergonomic equipment seems to increase when establishments have older workers amongst their employees.

Company measures for health promotion

The surveyed establishments were asked if the company took measures to promote:

- healthy nutrition (Q158_1);
- prevention of addiction (Q158_2);
- sports activities out of working hours (Q158_3); and
- back exercises at work (Q158_4).

Again, the exploratory analysis did not show a clear direct link between the proportion of older workers in the workforce and companies' policies on this issue. Measures such as the promotion of addiction prevention and back exercises at work, occur less frequently in companies with no older workers than in companies with older workers, regardless of the proportion of older workers.

Table 11. Sport activities out of working hours (Q158_3) — % yes

	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers	24.4	35.2		25.3	31.6	
Less than 25 %	27.9	41.9		22.9	28.2	
More than 25 %	34.1	45.1		20.8	24.3	
χ^2	0.001	0.001		0.000	0.000	
Eta	0.078	0.059		0.039	0.050	

When controlling for sector and size, the same pattern is visible for all company measures taken for health promotion. However, organisation of sports activities outside of working hours appears to be the most affected by the proportion of older workers (Table 11). Surprisingly, there is a positive relation in small and medium-sized public establishments between the organisation of sport activities outside of working hours and the proportion of older workers.

OSH management

Given the increased presence of OSH risks in establishments with an older workforce, it seemed useful to look at whether or not these establishments function differently regarding OSH management in general.

The first aspect addressed in OSH management is the services provided. The questionnaire asks if the company makes use of:

- an occupational health doctor (Q150_1);
- a psychologist (Q150_2);
- an expert in dealing with ergonomic design (Q150_3);
- a generalist on health and safety (Q150_4);
- an expert for accident prevention (Q150_5).

A breakdown for the proportion of older workers in all companies did not reveal a strong relationship with any of these services'. However, when looking in-depth, controlled for the size and sector of the establishments, some interesting results are revealed (Table 12).

Table 12. Use of OSH services — % yes

Occupational health doctor (Q150_1)						
	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers	54.1	50.0	39.1 ²⁹	57.7	61.8	
Less than 25 %	61.3	70.3	81.8	60.0	69.7	
More than 25 %	67.5	78.8	84.8	50.8	70.5	
χ^2	0.000	0.000	0.000	0.000	0.000	
Eta	0.102	0.181	0.091	0.034	0.062	

Psychologist (Q150_2)						
No older workers	17.4	19.4			12.5	2.5
less than 25 %	21.9	30.3			15.4	28.2
more than 25 %	29.1	37.7			17.0	31.8
χ^2	0.000	0.000			0.000	0.001
Eta	0.102	0.121			0.040	0.061

Expert dealing with ergonomic design (Q150_3)						
no older workers	26.3	22.1		28.1	31.3	
less than 25 %	34.8	34.6		25.9	36.1	
more than 25 %	39.9	40.6		23.2	38.1	
χ^2	0.000	0.000		0.000	0.000	
Eta	0.108	0.114		0.040	0.046	

Generalist on health and safety (Q150_4)						
no older workers		48.9			64.3	
less than 25 %		63.5			67.1	
more than 25 %		75.8			70.0	
χ^2		0.000			0.000	
Eta		0.176			0.038	

Expert for accident prevention (Q150_5)						
no older workers	45.1	39.6		45.0	45.6	
less than 25 %	55.0	51.6		46.0	52.4	
more than 25 %	51.9	59.9		41.6	54.5	

²⁹ The proportion of establishments with 50+ employees is very low in the public sector in the sample .

Expert for accident prevention (Q150_5)						
χ^2	0.000	0.000		0.000	0.000	
Eta	0.059	0.124		0.018	0.057	

In general, the use of OSH services seems to be related to the proportion of older workers in small and, especially, in medium-sized public establishments. For all of the services used, the proportion of older workers has the most effect in these public establishments. The use of an occupational health physician and a generalist on health and safety show an apparent relationship with the proportion of older workers in the medium-sized public establishments.

Employee representation

ESENER-2 asked whether or not the establishments had any of the following forms of employee representation in place (Q166):

- a works council;
- a trade union representation;
- a health and safety representative;
- a health and safety committee.

At first sight, all forms of employee representation can be found less frequently in companies with no older workers than in companies with older workers. After controlling for size and sector, however, all forms of employee representation can be found to a larger extent in establishments with higher proportions of older workers than those with lower proportions of older workers or with no older workers.³⁰ This difference is significant for all types of establishments that have only trade union representation. For the other forms of employee representation, the increase is significant in only some types of establishments (Table 13).

Table 13. Employee representation — % yes

Works Council (Q166_1)						
	Public			Private		
					10 to 49	50+
no older workers					17.6	43.1
less than 25 %					24.0	50.7
more than 25 %					27.3	56.5
χ^2					0.000	0.003

Trade Union representation (Q166_2)						
no older workers	18.5	38.8	45.5	7.2	11.3	16.9
less than 25 %	25.9	46.5	73.6	8.7	18.8	39.4
more than 25 %	37.4	60.2	79.8	12.4	27.2	52.3
χ^2	0.000	0.000	0.000	0.000	0.000	0.000

³⁰ There are two exceptions to this trend, namely in small private establishments, where there is no increase of works councils and/or health and safety committees with an increase in the proportion of older workers.

Health and Safety representative (Q166_3)						
no older workers		59.1		44.2	52.2	
less than 25 %		62.6		47.8	62.5	
more than 25 %		76.1		47.4	68.2	
χ^2		0.000		0.000	0.000	
Eta		0.130		0.029	0.100	

Health and Safety committee (Q166_4)						
no older workers		22.6		14.7	21.1	
less than 25 %		32.8		9.6	23.5	
more than 25 %		40.2		8.9	25.1	
χ^2		0.000		0.000	0.002	
Eta		0.114		0.076	0.027	

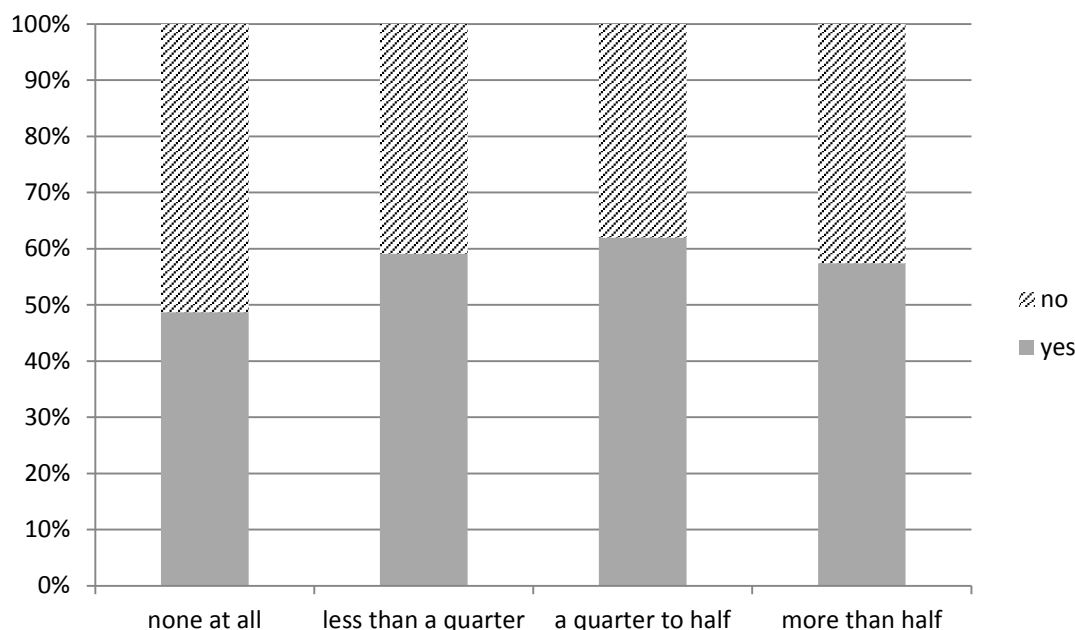
For both of the employee representations on health and safety (i.e. representative and committee), a significant relationship exists between the presence of a representative or committee for health and safety and the proportion of older workers in medium-sized establishments. The same linear relation is notable in small companies in the private sector, although the presence of a committee shows a negative linear association, and the presence also decreases with the proportion of older workers.

Return-to-work procedures

An interesting variable from a theoretical point of view is the 'Procedure to support employees returning to work after a long-term sickness' (Q161). Here, companies with no older workers are a lot less likely (49 %) than companies with older workers to have such procedures in place (Figure 5). There is also a slight difference between companies that have less than a quarter of older workers (59 %) comprising their workforce and those with between a quarter and half of older workers comprising their workforce (62 %).

It is possible that these differences are caused by the size or sector of the establishments, but this cannot be controlled for, because this question is asked for only a selection of establishments and cannot be broken down further.

Figure 5. Proportion of companies that do or do not have a procedure in place to support employees returning to work after a long-term sickness (Q161), by proportion of older workers in the company



Difficulties in addressing health and safety

Difficulties in addressing health and safety may arise within establishments for several reasons. However, there are indications that such difficulties may also be linked to the age of the workforce. In relation to the proportion of employees aged 55 years and older in establishments, some of these difficulties displayed some significant differences in the first stage of the analysis, which examined the following indicators:

- a lack of money (Q265_2);
- a lack of awareness among staff (Q265_3);
- a lack of awareness among management (Q265_4);
- a lack of expertise or specialist support (Q265_5);
- paperwork (Q 265_6).

After controlling for size and sector, we see that indicative relations between the proportion of older workers and difficulties can be found for only 'lack of awareness among staff' and 'lack of awareness among management' (Table 14).

Especially in small private companies, the lack of awareness among staff is mentioned less frequently as a major reason when the proportion of older workers in the establishments increases. The same can be said of medium-sized public establishments, and again in small private companies for the lack of awareness among management.

Table 14. Difficulties in addressing health and safety

Lack of awareness among staff (Q265_3) — % major reason						
	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers				22.4	23.5	35.8
Less than 25 %				15.6	21.2	24.8
More than 25 %				10.3	18.6	24.0

Lack of awareness among staff (Q265_3) — % major reason						
χ^2				0.000	0.000	0.001
Eta				0.122	0.046	0.040

Lack of awareness among management (Q265_4) — % major reason						
No older workers		25.8		18.9	28.2	26.3
Less than 25 %		16.9		12.2	13.9	13.9
More than 25 %		12.4		7.9	12.1	13.4
χ^2		0.000		0.000	0.000	0.002
Eta		0.110		0.119	0.065	0.044

Controversies related to health and safety arise

Companies were asked how often controversies related to health and safety arise, and in which areas these occur (Table 15). In the first stage of the analysis we noticed that companies with higher proportions of older workers experience controversies to a greater extent than companies with lower proportions of older workers.

Table 15. How often do controversies related to health and safety arise (Q351) — % often + sometimes

	Public			Private		
	5 to 9	10 to 49	50+	5 to 9	10 to 49	50+
No older workers	24.6			24.1	24.8	37.1
Less than 25 %	34.3			20.6	30.8	44.8
More than 25 %	34.1			22.0	31.4	53.6
χ^2	0.000			0.000	0.000	0.000
Eta	0.123			0.028	0.045	0.092

When companies were split based on size and sector it seemed to confirm that private companies with higher proportions of older workers experience controversies to a greater extent than companies with lower proportions of older workers; however, only in small public establishments is an indicative relationship with the proportion of older workers displayed. Like other previous conclusions, the break seems to be situated between companies with no older workers and companies with older workers, regardless of the proportion.

Areas of controversy

About 30 % of the companies mention that controversies related to health and safety arise at least sometimes in the company, even in companies with a high proportion of older workers.

Several areas of controversy are mentioned in the survey:

- investments in equipment (Q352_1);
- provision of training for employee representatives (Q352_2);
- provision of training for employees (Q352_3);
- what measures need to be taken (Q352_4);
- degree of involvement of employees (Q352_5).

Looking at the different areas of controversy, the two issues concerning training seem to be influenced by the proportion of older workers in the company.

<i>Provision of training for employee representatives (Q352_2)</i>	Companies with no older workers mention this training more often as an area of controversy (32 %) than companies with older workers (between 19 % and 21 %).
<i>Provision of training for employees (Q352_3)</i>	Companies with no older workers mention this training more often as an area of controversy (37 %) than companies with older workers (between 27 % and 28 %).

Unfortunately, for both variables, further analysis was not possible because of the lack of respondents in some groups.

5. Conclusion

Based on the analysis of the ESENER-2 data no strong conclusions can be drawn on the relationship between high proportions of employees aged 55 years and older in companies and workplace characteristics concerning health and safety at work. While significant relationships could be found that make sense from a theoretical point of view, these links were generally quite weak. Therefore, the results should be interpreted rather as indications that require further investigation.

The weakness of the results may stem, in part, from limitations of the data used:

First and foremost, the low level of measurement of the proportion of older workers (ordinal variable³¹) limited the analytical options and the potential insights into the topic. When exploring the next step of the analysis, a multivariate approach, variables and indicators for health and safety at work were found to be highly intercorrelated. Therefore, a multivariate model that simultaneously explored the interrelationship between OSH indicators and the proportion of older workers (and the explanatory value of the OSH indicators) could not be designed. The only possibility left to retrieve more information about the relation between the proportion of older workers and OSH management in companies was to split up the companies into six groups. These groups were differentiated based on size and sector, as these were the factors that had the greatest effect.

The bivariate analysis of these separate groups of establishments revealed some indicative results that can be used as input for further research on this topic. To formulate the most indicative results we looked at the indicators that showed an association with the proportion of older workers higher than 0.10. Although this level of association is still weak, we present these indicators as potentially influenced by the proportion of older workers.

The first conclusion is that, based on this analysis, little or nothing can be said with conviction about the relationship between the proportion of older workers and OSH management in large companies. Two explanations can be drawn for this conclusion. Firstly, owing to the level of measurement of the proportion of older workers, almost no large companies with no older workers were surveyed, probably because also, in reality, only very few (if any) large companies will be found with no older workers. Larger companies will also have more OSH management in place than smaller companies, not just because they have a certain proportion of older workers amongst their employees but because of the scale of the establishment.

Secondly, it looks like the influence of the proportion of older workers on companies' OSH management is more evident in public establishments than in private ones. This indicates that establishments in the public sector may be more prone to react to the age of their workforce by taking adequate OSH measures.

The following tables show the aspects of OSH management and OSH risks that were found to be most related to the proportion of older workers (these relations are small, however, as described above):

<i>Small public companies</i>
<i>The use of an OSH occupational health doctor (Q150_1)</i>
<i>The use of an OSH psychologist (Q150_2)</i>

³¹ A variable is 'ordinal' if the categories are in hierarchical order, but the distance between the categories is not equal and not measurable. The variable would be 'metric', for example, if the exact share of older workers per establishment had been recorded.

The use of an OSH expert dealing with ergonomic design (Q150_3)
The physical risk of lifting or moving people or heavy loads (Q200_2)
The physical risk of accidents with vehicles in the course of work (Q200_7)
The psycho-social risk of poor communication or cooperation (Q201_2)
Workplace risk assessment conducted by internal or external providers (Q251)
Increasing productivity (Q264_4) as a reason for addressing OSH
The frequency of controversies related to health and safety arise (Q351)

Medium-sized public companies

The presence of a health and safety representative (Q166_3)
The presence of a health and safety committee (Q166_4)
The use of an OSH occupational health doctor (Q150_1)
The use of an OSH psychologist (Q150_2)
The use of an OSH expert dealing with ergonomic design (Q150_3)
The use of an OSH generalist on health and safety (Q150_4)
The use of an OSH expert for accident prevention (Q150_5)
The lack of information on tiring or painful situations (Q202_1)
Workplace risk assessment (Q250)
Lack of awareness among management (Q265_4)
Provision of ergonomic equipment (Q308_4)

If we compare these indicators with companies of the same size in the private sector, fewer indicators can be observed to show indicative relation.

Small private companies

Workplace risk assessment conducted by internal or external providers (Q251)
Increasing productivity (Q264_4) as a reason for addressing OSH
Lack of awareness among staff (Q265_3)
Lack of awareness among management (Q265_4)

Medium-sized private companies

The presence of a health and safety representative (Q166_3)
The physical risk of accidents with vehicles in the course of work (Q200_7)

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