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### 1. The role of older workers in the European Union

The proportion of older workers in the European Union will increase during the next few decades. EU-27 working-age population trends indicate that the age group 55–64 years will expand by about 16,2% (9.9 million) between 2010 and 2030. All the other age groups show a declining trend, from 5.4% (40–54-year-olds) to 14.9% (25-39-year-olds). This pronounced demographic change is due to higher life expectancy and lower fertility rates. The consequence is that the European workforce will be older than ever before. In many countries older workers will make up 30% or more of the working-age population.

The employment rates of older workers (55–64 years old) in the EU-27 are currently less than 50%. Only 15 countries worldwide show an employment rate of older workers which is higher than 50%. More than half of older workers leave work before the mandatory retirement age, for a variety of reasons. Therefore, better and longer work careers are urgently needed to finance and support the longer life of European citizens.

The European Year of Active Ageing 2012 aims to promote the quality of life and well-being of the European population, especially older people, and to promote solidarity between the generations. A good working life is an important platform to promote active ageing. Therefore, occupational health and safety plays a crucial role in securing active ageing through a better and longer work life. Good work also promotes cooperation between young, middle-aged and older generations.

### 2. Some facts about ageing

Long-term health problems and chronic diseases increase with age. Therefore, about 30% of men and women in the age group 50–64 years need urgent adjustments at work due to their health problems to prevent the risks of early retirement and work disability. The major health problems are musculoskeletal and mental disorders. Depression is also currently one of the most common reasons for work disability and early retirement. Decline of physical work capacity with age is clear: cardiorespiratory capacity and muscular strength fall by about 1–2% a year after the age of 30. Lower physical capacity is mainly a problem in jobs with a high physical workload; about 30% of jobs in Europe today involve poor work postures, the handling of heavy objects or repetitive work. There are nevertheless wide individual differences in functional capacity and health status at any given age. The majority of older workers can enjoy good health and adequate physical capacity.

Although health and physical capacity deteriorate as we get older, several other functions improve with age.

Mental growth is the success story of ageing. For example, strategic thinking, sharp-wittedness, considerateness, wisdom, ability to deliberate, ability to rationalise, control of life, holistic perception and language skills improve with age. Older workers are also committed and engaged with their work, loyal towards their employer, and often record less absenteeism than other age groups. Work experience and life management improve with age, too. Studies have shown that when measuring the work performance in

<sup>\*</sup> The author's views do not necessarily reflect the views of the Agency

the workplace, work experience compensates for the decline of some basic cognitive processes such as memory functions and psychomotor skills.

Age and work experience also improve the valuable social capital of older workers: (i) professional competence, tacit knowledge, cooperation skills grow, (ii) structural awareness about the organisation and its functions improve, and (iii) customer contacts and networks expand, and understanding about changes in operational environment improves.

Older workers can learn new things. Learning is not dependent on age, but the learning process changes with age. Therefore, it is important that older workers have access to training and equal opportunities to learn new skills and update their professional competences. In lifelong learning the right learning strategies and didactics should be used.

In summary, ageing makes the older workers in many ways better and stronger than before. Therefore, active participation in working life is an important positive driver for active ageing. Each generation has its own strengths and weaknesses; the strengths of older workers should be better identified and utilised with the aim of making them a valuable asset in workplaces.

## 3. Age management at workplaces

The definition of age management (AM) emphasises that 'age related factors should be taken into consideration in daily management, including work arrangements and individual work tasks, so that everybody, regardless of age, feels empowered in reaching [their] own and corporate goals'. The eight targets of age management are:

- 1. Better awareness about ageing
- Fair attitudes towards ageing
- 3. AM as a core task and duty of managers and supervisors
- 4. AM included in HR policy,
- 5. Promotion of work ability and productivity
- 6. Lifelong learning
- 7. Age-friendly work arrangements, and
- 8. Safe and dignified transition to retirement.

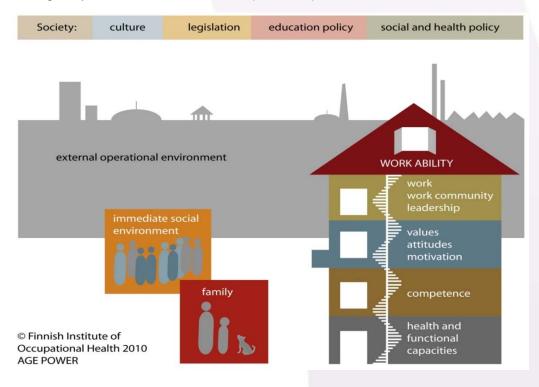
Age management practices in European workplaces show that organisations deal with ageing matters in either 'problem solving' or 'proactive' ways. A low level of awareness of the issue of ageing leads companies to tackle problems with scarce resources and by reducing work demands on older workers (the problem solving approach). Through a better understanding of ageing as a challenge or opportunity, proactive companies are prepared to enhance individual resources and to support intergenerational learning. At its best, age management uses a life-course approach and creates equal opportunities for all generations.

### 4. Work ability

Extensive research on the work ability of older workers has identified the core factors affecting individual work ability. The research findings can be depicted in the form of a 'work ability house' with four floors (Figure 1). The three lower floors of the house describe the individual resources: (i) health and functional capacities, (ii) competence, (iii) values, attitudes and motivation. The fourth floor covers (iv) working life.

Work ability is the balance between work and individual resources; when work and individual resources fit well together, work ability is good. Staircases between the floors indicate that all floors of the house are interacting. The strongest interaction exists between the floors of 'work' and 'values & attitudes' (floors 3 and 4). Positive and negative experiences at work penetrate into the 3rd floor, which will then be weighted either positively or negatively. The 3rd floor represents a worker's subjective understanding about their work – their opinions and feelings about a variety of factors connected with their daily work. The 3rd floor has a balcony, from where the worker can see the environment closest to their workplace: (v) family and (vi) close community. These factors both affect the worker's work ability every day. Healthy lifestyles and hobbies strengthen health and functional capacities. Personal networks and human interactions affect values, attitudes and motivation. Therefore, two drivers outside the workplace impact a person's work ability either by improving or worsening the balance between the work and their resources. Overall, an individual's work ability depends on six factors.

Figure 1: Work Ability House-model describing the different dimensions effecting human work ability. Work Ability is the balance between work and individual resources. Besides the workplace, also family and close community influence the balance. Based on Ilmarinen, 2006. Finnish Institute of Occupational Health, Age Power, graphic design Milja Ahola. Lundell et al. 2011 (in Finnish).



The operational environment of organisations tends to change continuously due to globalisation, new technology, financial crisis, etc. As a consequence, the work to be done in the organisation is under continuous development. Simultaneously, the organisation's human resources change, for example due to ageing of the workforce. Health problems may appear, and the need to update skills and competences becomes more acute. The unexpected dynamics between the floors of the house make it difficult to reach a good balance between work and individual resources. As a consequence, we need to try to get the best possible balance throughout our whole working life.

The 3rd floor reflects and summarises our work situation. The information flow from different floors and drivers outside of work can easily modify a worker's values and attitudes as well their engagement and commitment to their work. The decision of whether to continue working in this organisation until retirement, or even later, will be made on the 3rd floor. The more positively weighted the 3rd floor, the more likely it is that one will have a good working life and longer career. Crucial positive indicators are for example respect

received, trust in employer, support and feedback of supervisors, fair treatment, engagement with work. A positively weighted 3rd floor makes active ageing a reality.

## 5. Work ability and ageing

Work ability can be evaluated by the Work Ability Index (WAI), a subjective survey instrument that consists of seven items. The WAI score ranges from 7 to 49; the higher the better. The WAI score is classified into poor, moderate, good and excellent. The WAI has a high predictive value: of those having a poor WAI at age 45–57 years, about 60% were on a work disability pension 11 years later. The WAI has been translated into 26 languages and is widely used in different cultures worldwide.

Work ability tends to decline with age, although the mean values of the working population from 20 to 65 years remain in the categories of good and excellent. However, about 30% of male and female workers over 45 years of age show a marked decline of WAI in both blue- and white-collar jobs. Also, the ageing trend of WAI is different depending on the sector of the economy. Work ability seems to be lower in farming and agriculture, the wood industry, the metal industry and transport, as well as in social services and in some countries among teachers. The best fit between work and individual resources has been found in electronics and telecommunication, banking and insurance.

Individual differences in work ability grow with age. A work population over 45 years is very heterogeneous compared with younger workers. About 15–30% of 45-year-olds have a WAI at the level of moderate or poor. They are at risk of losing their work ability unless preventive and corrective actions are taken.

The declining trend of work ability by age is due to difficulties in adapting the changes in work to the changes in individual resources. The working life seems to develop on its own track which does not necessarily follow the track of normal human ageing processes. Therefore, the 3rd floor will be often weighted negatively and older employees and workers will consider that their work ability is worsening.

### 6. Promotion of work ability

The work ability house model suggests that actions in the workplace to promote work ability should cover all four floors. The workers are more responsible for their health and competence, and the employer has more responsibility for the organisation and arrangements of the work. The promotion concept is therefore based on cooperation between the employer and employee: together they can create a better balance in the workplace and enhance work ability. Shared responsibility for measures to be taken will make them more acceptable and feasible and lead to a win-win situation.

Health promotion (1st floor) covers a variety of lifestyle habits in terms of eating, drinking, physical activities, recovery and sleep. Besides a healthy lifestyle, preventive and proactive measures by occupational health services as well as good treatment of acute health problems play an important role in achieving good health during the life course at work. Therefore, the competence of occupational health experts should also cover ageing and health issues. Their understanding about the adjustments needed at work due to changes in health and functional capacities induced by ageing is valuable resource for creating a better working life for older workers. Because many health problems are work-related, the health risks of work should be identified and prevented in the workplace (4th floor). The strong interactions between health and work demand an active collaboration between occupational health and safety experts, employers and employees.

Maintaining professional competence requires continuous updating of skills and competences (2nd floor). On-the-job training together with various types of special staff training courses give older workers the opportunity to strengthen their capacities. However, changes in the learning process of older workers

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should be taken into consideration. Learning strategies, learning conditions, the use of images, relaxation and timetables for acquiring knowledge vary between younger and older workers. However, the most important platform for learning is the work and workplace itself. On-the-job learning is possible if the work content and tasks are designed so that they give learning experiences. Positive learning experiences at work throughout one's career reduce the number of barriers to learning new things and correct negative attitudes towards learning. The attitude of the supervisor is also important: if he/she is committed to lifelong learning and supports it by providing training possibilities, one important obstacle of learning for senior employees is removed. Learning during ageing is an important success factor of active ageing.

Values, attitudes and motivation (3rd floor) are not often the target of direct interventions. They tend to be influenced more indirectly. This means that activities should be focused mainly on the work floor. Several improvements in management and leadership skills impact the features of the 3rd floor. People should feel that they are respected and they can trust their employer. They expect to be supported by the supervisor in demanding and difficult work situations. They need feedback on whether the work was done well, and also to learn how to improve their performance. The dialogue between supervisor and workers should be a continuous process, not a one-off annual appraisal interview. Fair treatment and zero-tolerance of age discrimination will be noted and appreciated by the employees. Individual engagement and commitment to work are key indicators of a positively weighted 3rd floor. It should also be mentioned that employees are ultimately responsible for their own values, attitudes and other personal factors. Updating their own mind-sets towards work, their internal resources and family matters are necessary to build up a better, sustainable balance in working life. Such a balance creates a positive weighting in the 3rd floor.

The 'work floor' (4<sup>th</sup> floor) is the largest and heaviest floor of the house. It consists of the work environment (physical, mental, social), work organisation and work arrangements, working time, the work community and work tasks, as well as management. The managers and supervisors play an important role because they have the authority to arrange the work processes and individual work tasks. All decisions and changes in work go through their hands. They are also responsible for occupational health and safety matters, including risk assessments. Risk assessments should take into consideration the large individual differences in functional capacities and health of personnel, disabilities, gender issues, etc. Workers and employees of all age groups are vulnerable to harmful work exposures. Because adapting work to one's abilities, skills and state of health should be a continuous and dynamic process, based on adequate risk assessment, adapting work to older workers' health status and needs should not present an additional burden. Age is just one aspect of the diversity of the workforce, but the awareness of managers and supervisors of age-related issues needs to be improved. All these age-related actions and improvements needed at workplaces can be termed 'age management' (see section 3, above).

The redesign of individual work tasks according to the strengths, needs and capabilities of older workers is crucial to secure the work ability, well-being and productivity of the employees. For example, decreasing the physical workload, introducing short breaks in work processes and taking account of health risks when scheduling shift work and flexible working arrangements are all age-friendly measures. On the other hand, the strengths of older workers should be utilised (see section 2). The easiest way to identify new needs and ways to redesign the work is to ask the older workers how they would like to change and improve their work. Another useful option is to share the work duties between younger and older employees, utilising their different strengths.

## 7. Benefits of promoting work ability among older workers

Good practice examples demonstrate that the costs of investments in work ability promotion are outweighed by the benefits. People can go on working productively, the work atmosphere improves, productivity improves, and age-related problems decrease. Cost–benefit analysis shows that the return on

investment (ROI) can be very good: the return on €1 amounts to €3–5 after a few years. The positive ROI is based on lower rates of sick leave, lower work disability costs and better productivity.

### 8. Policy issues for older workers

Several reforms are necessary to enhance active ageing through longer and better careers for older workers:

- 1. Attitudinal reform to create fair and appropriate attitudes towards older workers
- 2. Management reform to identify and utilise the strengths of older workers
- 3. Work life reform to create an age-friendly working life for all generations
- 4. Pension reform which takes into consideration the large individual differences between older workers by providing a flexible range of retirement dates and a financial bonus for working longer
- 5. Organisational reform to improve the collaboration between different stakeholders and actors influencing better and longer work lives, and
- 6. Health service reform to strengthen the proactive and preventive occupational health services.

It is crucial from a policy point of view to implement positive reforms first, negative ones later. Positive reforms mean that the working life should first be developed so that people can, will and may work longer. This can be achieved by using the comprehensive promotion of work ability model for all generations. After that, the retirement ages can be raised, and early retirement options can be reduced.

Innovative models to extend individuals' working life and raise their actual retirement age are urgently needed. Some good practice examples show that giving workers more time off or decreasing the workload with age increased the actual retirement age by about three years. One manufacturing company introduced an 'Age Master' scheme offering extra days off for workers over 58. This gave them more time to rest after performing precise and demanding manual work, which included the building of locks for doors. The number of paid days off increased from 6 (age 58 years) to 14 (age 63 years). The 'Age Masters' were able and willing to work about 3 years longer than before and to retire at 63 years. An energy company introduced an '80-90-100' programme enabling its workers to reduce their working time by 20%, for which their salary was reduced by 10% but their pension benefits remained at 100%. About 25% of employees and workers used this opportunity. The actual retirement age increased by about 3 years to 64 years.

These innovative examples show that older people are able and willing to work longer when they can better cope with the workload or working hours. The employers and employees have been satisfied with the new models.

## Older workers as an asset in working life and in society

Older workers are an important part of the workforce of modern societies and their numbers will increase in coming decades. Older workers have different skills and competences compared with other generations. Without their participation in working life, a shortage of professional, structural and networking capacities will arise. Also, the transfer of their tacit (silent) knowledge to younger generations is important. The strongest combination of competences in the workplace is based on the different strengths of different generations.

The better health and life expectancy of older workers improve their opportunities to enhance an agefriendly society. However, a good working life is an important prerequisite for older workers to remain active and ensure that society benefits from their strengths and talents. In doing so, they participate actively in building up a sustainable and caring society, where solidarity exists between the generations.

and productive working life is an important platform for active ageing. Satisfactory employment can help people avoid sickness and physical or mental deterioration, secure good cognitive and physical capacity, and promote positive and active attitudes towards life. The quality of working life has a big impact on all workers, because we spend so much of our time at work. Recent longitudinal research findings show that work ability before retirement predicts the independence of daily living between the ages of 73 and 85 years. The better the work ability before retirement, the better the quality of life later on. Therefore, investments in active ageing need to be secured during the working years. The investments in occupational health and safety in workplaces are also investments for the rest of our lives.

### Further reading

- Eurofound resource pack 'Living longer, working better active ageing in Europe' <a href="http://www.eurofound.europa.eu/resourcepacks/activeageing.htm">http://www.eurofound.europa.eu/resourcepacks/activeageing.htm</a>
- Gould, R., Ilmarinen, J., Järvisalo, .J, Koskinen, S. Dimensions of work ability. Results of the Health 2000 Survey. Finnish Centre of Pensions (ETK), The Social Insurance Institution (KELA), National Public Health Institute (KTL), Finnish Institute of Occupational Health (FIOH), Helsinki, 2008.
- Ilmarinen, J. 'Work Ability a comprehensive concept for occupational health research and prevention. Editorial', Scandinavian Journal of Work, Environment & Health 2009, 35(1), 1–5.
- Ilmarinen, J. Towards a longer worklife. Ageing and the quality of worklife in the European Union, Finnish Institute of Occupational Health, Ministry of Social Affairs and Health, Helsinki, 2006.
- Ilmarinen, J. 'Aging and Work: An International Perspective', in: Sara J. Czaja and Joseph Sharit (eds)
  Aging and Work. Issues and Implications in a Changing Landscape, The Johns Hopkins University
  Press 2009, 51–73.
- Nygård, C-H., Savinainen, M., Kirsi, T., Lumme-Sandt, K. Age Management during the Life Course, Tampere University Press, Tampere 2011.
- Rowe, J., Kahn, R. Successful aging, A Dell Trade Paperback, New York 1998.
- Taylor, P. (ed.) Ageing Labour Forces: Promises and Prospects, Edward Elgar, 2008.
- Tuomi, K., Huuhtanen, P., Nykyri, E., Ilmarinen, J. 'Promotion of work ability, the quality of work and retirement', Occupational Medicine 2001, 51(5), 318–324.
- von Bonsdorff, M.E., Kokko, K., Seitsamo, J., von Bonsdorff, M.B., Nygård, C-H., Ilmarinen, J., Rantanen, T. 'A 28-year follow-up study on differences in midlife physical and mental work strain according to work ability trajectories', Scandinavian Journal of Work, Environment & Health 2011, 37(6), 455–463.
- von Bonsdorff, M.B., Seitsamo, J., Ilmarinen, J., Nygård, C-H., von Bonsdorff, M.E., Rantanen, T. 'Midlife work ability predicts late-life disability: A 28-year prospective follow-up', Canadian Medical Association Journal 2011. DOI:10.1503/cmaj.100713.
- Wallin, M., Hussi, T. 'Best practices in Age Management evaluation of organisation cases', Final report of research project (2011), Pdf-version downloadable at: <a href="http://www.tsr.fi/database.">http://www.tsr.fi/database.</a>