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INTERNATIONAL SOCIAL SECURITY ASSOCIATION



## Demographic change in the world of work: Challenges for prevention

Working Group “Demography and Prevention” of the Special Commission  
on Prevention of the International Social Security Association

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ISBN: 978-3-937824-03-1

First issue November 2010

4 route des Morillons

CH-1211 Geneva 22

Illustrations: istockphoto

[www.issa.int/prevention/demography](http://www.issa.int/prevention/demography)

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# 1. Origins and aims of this brochure

**Demographic change presents a great challenge to the stability and continued existence of social security systems. Hence the focus on demographic change and its effects in the ISSA activity programme for 2008 – 2010. These will continue to be of importance in ISSA activities in the future. Demographic change affects many aspects of social security. Most affected are the systems for health and family benefits, unemployment insurance, old-age insurance and finally the insurance against occupational accidents and diseases.**

Prevention has an important role to play in overcoming the challenges linked to demographic change. For that reason the ISSA Special Commission on Prevention wanted to look into which concrete measures could contribute to health and safety at work. To do this, the Special Commission instituted the working group “Demography and Prevention” involving experts from a total of eight international ISSA Sections for prevention.

This group of experts has compiled important facts and data on demographic change, defined objectives for prevention against this background and put together proposals for concrete preventive measures for a total of five different spheres of activity. These will be explained in detail. Furthermore, systematic approaches in the workplace will be presented in a separate chapter. Finally practical examples that are promising or already proven demonstrate strategies for solutions and give ideas on how recommendations for preventive measures can be put into practice.

This brochure is aimed at all prevention actors and those responsible for prevention. This includes employers and employees as actors in the workplace, occupational safety experts, the social partners, social insurance institutions, the bodies responsible for cultural activities, educational institutions and those in positions of political responsibility in government and society.

The Special Commission on Prevention wishes to disseminate important principles on ageing-appropriate and age-appropriate workplace design with these recommendations and this information. Effective prevention throughout all phases of working life increases the ability to work and employability of an ageing population; thus, playing a key role in overcoming demographic change in the world of work.

## 2. Initial assessment

### 2.1. Population developments: Facts and data

The average population age worldwide is rising thanks to increasing life expectancy and falling birthrates. These worldwide demographic changes are taking place at regional and national levels at very different speeds. Both now and in the near future comparisons between countries will show widely differing stages of this development. According to UN figures (United Nations, 2001) the birth rate in every second country in the world has already sunk to a replacement level (2.1 children per woman). According to forecasts this change will proceed much more slowly in Africa than in Asia or Latin America. What is expected, however, is that this trend will have become the general norm by 2050.

Thus the percentage of older persons will increase significantly in all parts of the world – albeit at differing speeds. For the European Union (EU) as a whole (27 countries) the forecast is for an increase in the percentage of persons over 65 of 17.1% (in 2008) rising to 25.4% (in 2035) and 30% (in 2060) (Eurostat, 2008). The Organisation for Economic Cooperation and Development (OECD) has also presented similar forecasts. In most of the 30 OECD states senior citizens are the fastest-growing population group. In many OECD countries every fourth person will be over 65 from 2030. Data for persons over 60 are particularly well documented in the United Nations population statistics (United Nations, 2001) (see also Table 1 and Diagram1). They show that the percentage of people in this age group worldwide will grow faster than any other age group. This increase will be particularly rapid and noticeable in less-developed countries.

Demographic changes will affect all areas of life. They will naturally affect the age structure of the working population: the number of older workers will rise in absolute and relative terms. In many countries workers over 45 will soon be forming the majority of workforces. In Germany it is expected that every third working person will be over 50 by 2015 (Geo-Magazin, 2004).

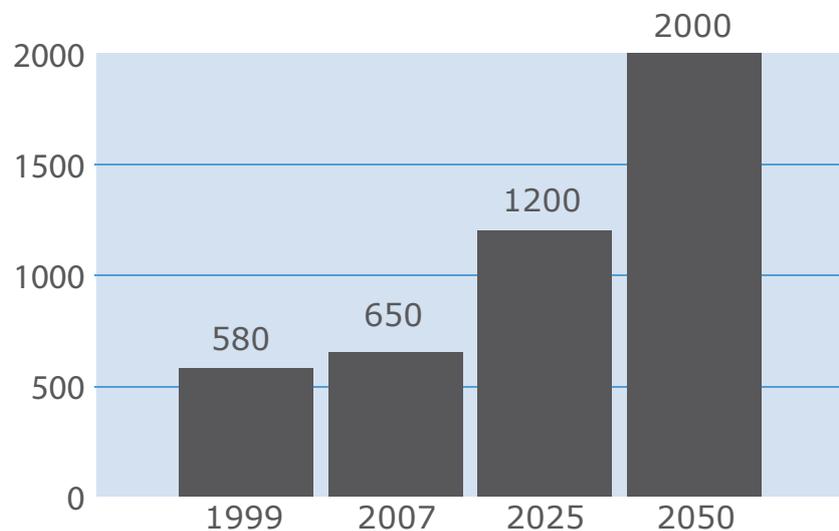
**Table 1:**  
Percentage of persons over 60 in the overall population of each region (in %)

Region	2005	2020	2050
World	8	12	23
Less-developed countries (Africa, Asia except Japan, Latin America and the Caribbean)	8	11	20
The 50 poorest countries (34 in Africa, 10 in Asia, 5 in Oceania, Haiti)	5	6	10
Highly developed countries (Europe, North America, Australia, Japan)	20	25	32

## 2. Initial assessment

In less-developed countries the percentage of persons over 60 in the overall population will rise from 8% to 20%, i.e. more than double. It will also rise steeply in the poorest countries (from 5% to 10%). This rise in the older population group is therefore by no means restricted to highly developed countries. (Source: United Nations, World Population Prospects. The 2006 Revision Population Database)

**Diagram 1:**  
Development of the number of persons (in millions) over 60 worldwide up to 2050



Of the 580 million persons worldwide over 60 (1999) 60 % (= 355 million) lived in developing countries. In 2050 there will be approximately 2,000 million over 60, of which 80% (= 1,600 million) in developing countries (Source: United Nations, World Population Prospects. The 2000 Revision Population Database, 2001).

Today, older persons form a population group often neglected by the job market. Currently, when unemployment is high, the trend is to keep the number of older workers small in order to make room in the labour market for younger persons who can be paid less. Presumably this practice will no longer be continued given the fall in the number of younger job applicants. It is more likely, that it will become essential in economic and social-political terms to retain older population groups in employment, given expected population developments worldwide. Measures to keep older persons healthy and able to work are therefore urgently needed in all world regions and are not merely a “luxury” for highly-developed countries.

### 2.2. Age-related changes in individuals and their ability to work

Medicine has long been aware of the physiological changes that happen to a person due to ageing. Decline in visual performance, age-related loss of hearing, diminished strength and cardio-vascular performance together with restrictions in general physical mobility, are just a few examples. These age-dependent changes occur in individuals to different extents and can have direct effects on health and safety at work. For example, the points in time when deterioration in performance and illnesses occur differ markedly from person to person. Calendar age alone says little about an individual's physical and psychological performance and their ability to work.

Furthermore, increasing influences of any existing chronic illnesses and the long-term effects of damaging factors arising out of the work context of an individual's life must be taken into account. Ageing is often accompanied by an increasing disposition to fall ill or to polymorbidity. The higher figures for illness in old age naturally also mean that taking medicines occurs much more frequently than in younger years. Some 56% of the turnover for medicines for statutory health insurance schemes in Germany went on those insured over the age of 60 in 2003 (Nink & Schröder 2004, op. cit. Henning, 2007). On the one hand medicines have often favourable effects on an individual, helping them to participate in working life. On the other hand, individual performance can be severely reduced by often used high levels of medication. This is particularly the case with analgesics, sedatives, antidepressants and sleeping pills.

The ageing process not only changes physical and perception skills but also affects cognitive functions. However, it would be absolutely wrong to assume that a general deterioration of all mental faculties takes place. In this context the difference between crystallized and fluid intelligence is significant: Crystallized intelligence involves, for example, knowledge, judgement and experience. It also covers long-term memory as well as cultural techniques such as reading and writing. Crystallized skills definitely do not fade. They grow through the life-long summation of knowledge and experience.

On the other hand, fluid skills fade within the ageing process: The speed at which information can be processed slows down, multi-tasking becomes more difficult, as does the ability to ignore irrelevant distracting information while performing a task. Performance speed slows down with age. However, if sufficient time is available, performance quality does not necessarily slow down (Schlag, 2001). Perception and decision times slow down while performing complex tasks under distracting conditions, thus making reaction times longer. Attention, concentration

## 2. Initial assessment

and the ability to retain information can also be affected (Henning, 2007). In rapidly changing situations that require quick adaptation and action, older persons can easily be overwhelmed. However, it is quite possible to influence any deterioration of cognitive skills. Many studies show fluid intelligence can be trained (use it or lose it) (Poschadel et al., 2007).

Ageing processes show high plasticity and development potential (Oswald et al., 2002). Thus the individual's ability to work does not automatically decrease with advancing age. It changes: older workers have skills and potential that are less noticeable in their younger colleagues. For example language competence is higher at advanced age than in younger years (Falkenstein et al., 2008). Corresponding long-term studies show significant increases in personality qualities such as conscientiousness, tolerance and emotional stability between the ages of 50 and 70 (Schindler, 2008). Whereas older persons are more capable of preventing the occurrence of negative feelings. They consider themselves better than younger persons at having positive social relationships and at accepting themselves for the way they are (Herzberg, 2008). Advancing years sees less willingness to take risks, less aggression and less non-standard behaviour. What increases, however, is composure, experience and routine.

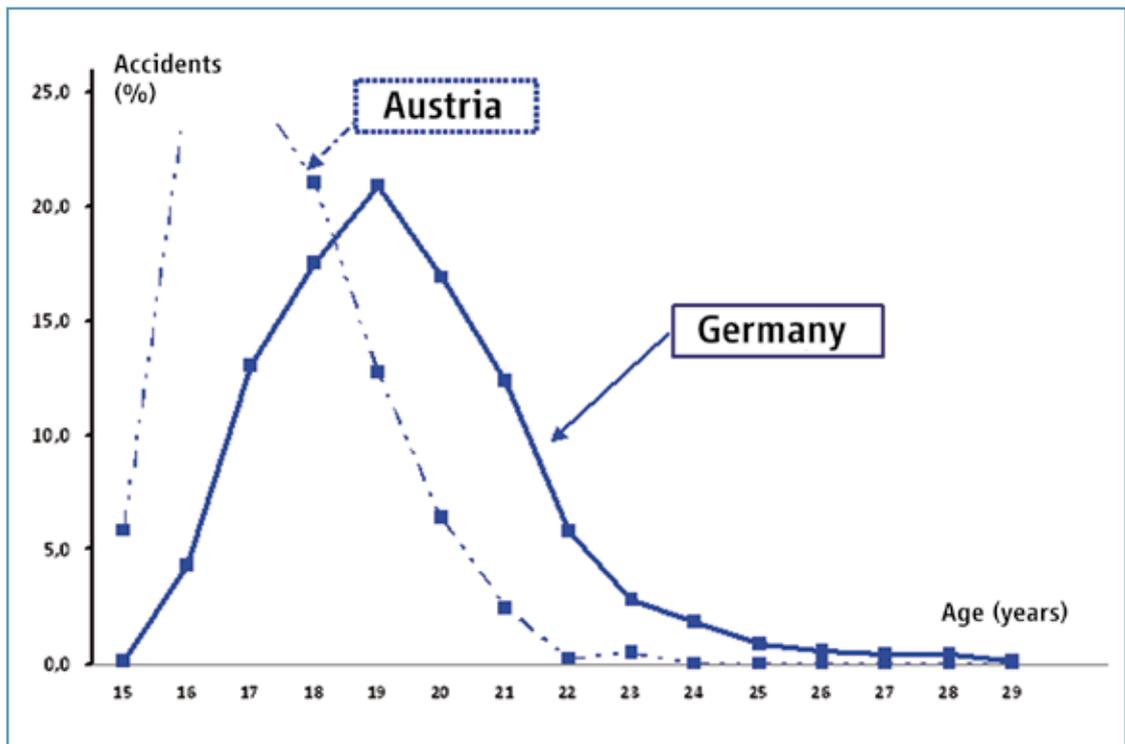
### 2.3. Age-dependent illness and accident occurrence among employees

There is a clear correlation between the age of employees and the occurrence of occupational accidents in 15 particularly well-researched European countries. According to these studies older employees suffer fewer reportable occupational accidents (per 100,000 employees) than younger workers. Diagram 2 (see page 7) clearly shows the increased quota for accident occurrences involving trainees in 2007 in German and Austrian metal-working factories.

However, accidents involving older employees, lead to longer incapacity for work, amongst other factors related to a reduced (injury) healing capacity. Furthermore, the consequences of accidents involving older employees are more serious because of their greater vulnerability. Accidents involving older workers have fatal consequences more often than those involving younger workers. The proportion of fatal occupational accidents (accidents per 100,000 employees) involving employees between the ages of 55 to 64 is 5.6, approximately twice as high as that (2.9) for employees between the ages of 35 to 44 (Eurostat, 2005).

German statistics show that illness-related incapacity for work lasts longer, the older the individual becomes. Foremost, among these are musculoskeletal disorders and illnesses affecting the anatomical airways as well as diseases affecting the musculoskeletal system together with cardio-vascular diseases (German Federal Institute for Occupational Safety and Health, 2007).

Diagram 2: Occupational accidents involving trainees in metal-working trades from 2007 in connection with age (Szych 2010).



### 3. Aims for prevention in the context of demographic change

The aim for everyone to be able to participate actively in society, both during their working life and after, in good health, for as long as possible, is completely undisputed. This aim is desirable not only because it stabilizes and takes the pressure off social security systems, but also primarily for medical and ethical and humanitarian reasons. Maintaining the ability to work is an important aspect in this. Preventive measures in the workplace take on a key role in this context.

Effective age-appropriate prevention must cater for the specific profiles and social and health issues of older employees and take account of the strengths and weaknesses of these individuals. For example, greater weight should be given to the knowledge and experience of older employees through special allocation of tasks and activity profiles. The general creation of “special workplaces for older employees” does not appear to be necessary. Since this might lead to a stigmatization of older employees is also undesirable.

Age-appropriate prevention is necessary from an early age. Young employees must be protected through working conditions that are conducive to good health, so that they stay strong and productive in their later working life. An attentive and careful approach to health needs to be the concern of society as a whole more than ever, and needs to be rooted more firmly in people’s consciousness and the way they live. Prevention strategies in the workplace have decisive weight, even in connection with this general aim of a healthy lifestyle, whatever the age.

When designing and structuring work, the overall level of safety at work rises when greater consideration is given to the protection needs of older employees. Prevention programmes that have been optimized in this way, and implemented at the workplace, create the conditions for a careful and protective approach to handling health matters right from the start. Thus, benefiting younger employees (German Social Accident Insurance, DGUV Information 7009: “The secret’s in the mix: Young and old at work together“). Safety and health at work for older employees is also prevention for younger employees.

## 4. Spheres of activity for prevention

The following five spheres of activity are of importance when developing and implementing measures for age-appropriate and ageing-appropriate prevention:

1. Social, socio-political and economic context
2. Leadership and personnel management
3. Work design and organization
4. Promoting and preserving health
5. Staff training and further training

These spheres of activity are helpful and relevant in developing a catalogue of measures that is as comprehensive and as wide as possible, involving various subject disciplines (psychology, medicine, engineering, education and social sciences).

Activities and aims in these spheres of activity can be summarized as follows:

- (1) The role of the state and society should be to promote the cultural values and structural conditions in which the various generations can co-exist socially and decently. Health and prevention are particularly important in this. The framework provided by these standards and values must guarantee age-appropriate and ageing-appropriate prevention.
- (2) An enterprise culture that values the distinctiveness and advantages of older employees and at the same time promotes co-operation between different generations is essential for staff management in the workplace.
- (3) Working conditions should be optimized through ergonomic workplaces, tool designs and improvements in the overall organization of workflow processes.
- (4) Effective health management in the workplace and health-conscious behavior for employees must both be promoted.
- (5) Training and further training for employees should promote permanent learning, receptivity and enable them to overcome continuously changing challenges. At the same time knowledge about the prevention of health risks at the workplace should be passed on and continually updated.

The measures recommended in the individual spheres of activity will be presented in detail in the sections that follow. The table format gives an overview and makes reading easier. Concrete aspects are linked to explanations and/or examples. We also mention the respective actors from whom the initiatives or actions are expected.

For example, a priority list can be selected from the many examples or the tables can be used as checklists.

For more information see chapter 5: “The in-company approach“.

## 4. Spheres of activity for prevention

### 4.1. Sphere of activity: social, socio-political and economic context

Demographic change comes with many challenges for both the state and society. These tasks can be dealt with particularly effectively if the body politic has certain basic characteristics. Favourable conditions are found in a socially oriented community, built on solidarity where the health of the individual is a highly prized possession. In this context, health must be more than just the absence of illness or accident. As early as 1986 in the Ottawa Charter on the definition of health, the World Health Organization had stressed that the bodily, spiritual and social well-being of the individual all represent important aspects of health.

Based on this concept of health the Ottawa Charter called not only for the prevention of illness, but above all for the promotion of health. This concern is the task of the health sector and beyond that of all policy areas. As basic conditions for health, the Ottawa Charter named peace, reasonable housing conditions, education, food, income, a stable ecological system, a careful use of natural resources and social justice. According to the Ottawa Charter, health promotion creates safe and pleasant living and working conditions. The way a society organizes work, working conditions and leisure should be a source of health. At the same time, everyone should be able to influence their own health through health-related education and be able to meet the various phases of life in good health.

This also shows the special meaning of prevention for health promotion and for overcoming the challenges posed by demographic change. The preventive measures (presented in the spheres of activity 4.2 to 4.5) require as basic conditions the following fundamental state principles and social values, standards and socio-political measures.

#### **The principle of solidarity as important basis for the state and society**

The principle of solidarity as a basis for the functioning of the State and as a pre-condition for social security, also creates the structural and cultural foundation for the decent social co-existence of the various generations.

#### 4. Spheres of activity for prevention

Concrete aspects	Explanations and/or examples
The universal principles of justice, equality, human rights and respect for the dignity of man as an individual are among the basic values of society; a socially oriented community built on solidarity is the social foundation of the functioning of the state.	Raise consciousness of the significance of the universal and ethical principles, which the whole of humanity can follow: Similarly, for the principle of solidarity as an indispensable pre-condition for social cohesion, for social peace, law and order, the rule of law, stability and human dignity.
Man and his right to life and health are central. The economy must be bound to this principle.	This principle must be enforced in corresponding conflicts of interest.
Society must aim to be child and family friendly in which an effective family policy is valued.	The aim must be for a positive image of the family through social discussion and media work; family-friendly legislation must bring about work/life balance; child-friendly and family-friendly policies long-term are an effective means of preventing population problems.
Human dignity is to be protected throughout all phases of a person's life. The same respect must be shown to both young and old.	Address and make use of the qualities and strengths of all age groups, work towards a culture that also values older people. Promote the involvement of older persons in all social sectors.
Identify and analyze erroneous trends to organize the market economy socially.	Use state regulatory mechanisms for the protection of social security effectively.

Actors: Legislators, all social groups, social partners, enterprises, workforces, creative artists and media, every individual in society.

## 4. Spheres of activity for prevention

### State, society and health protection

Health as a precious possession will be effectively preserved and promoted through the prevention principle. Prevention therefore has to be highly valued in all social areas including the world of work. Prevention in factories as well as in the transport sector is aiming at a level of safety at which fatal accidents and serious injuries no longer occur. Work and traffic systems must be so organized and operated, that employees are not “punished” for mistakes by death or very serious injury.

Concrete aspects	Explanations and/or examples
Health is a very precious possession for each individual and fundamental value for the whole society.	Legislation places human health under particular protection by the state and society; establishment of a suitable health system.
Preserving and promoting health is an important concern of the state and society; health can be protected effectively through preventive measures.  Prevention also includes changing life environments and social conditions possible disease-causing.	Attentive and careful approach to health from an early age as a concern of the whole society; this must be more strongly rooted in the consciousness and lifestyle of the individual; corresponding media and publicity work is important; health protection content to be included in school lessons and occupational training and further training schemes.
Occupational safety – particularly with age-appropriate and ageing-appropriate optimization – is a vital element in preventive health care.  An explicit item of prevention in the working world, alongside factory work, must be occupationally related participation in road traffic. Road safety is a specific prevention objective.	Prevention strategies as applied in the working world, contribute significantly towards keeping employees healthy throughout their entire working life. The “Transport and traffic” sector is an important sector for prevention in the working world, since it is a significant source of danger worldwide with high accident statistics and corresponding burdens for national economies. Compared with other sectors of the working world potential gains in road safety are particularly high.

Actors: Legislators, occupational health and safety experts, traffic safety experts, directors of schools and occupational training and further training institutions, media.

### Legislative framework

Age-appropriate and ageing-appropriate prevention must be widely rooted in law, thus reflecting its importance.

Concrete aspects	Explanations and/or examples
Occupational protection is to be rooted in legislation as a duty, on enterprises in the same way as employees' duty to collaborate. This duty on entrepreneurs expressly includes "Transport and traffic" as a prevention sector.	Concrete regulations are to be respected. Implementation is to be monitored. Occupational safety and health must be integrated into all work processes.
Optimization of occupational protection taking particular account of the health resources of all age groups, longer working in optimal health.	Motivating and obliging enterprises to practice age-appropriate and ageing-appropriate occupational protection. Making occupational safety experts, social partners, the economy in general, occupational training and further training institutions aware of the problem of demographic change. Motivating and creating solutions and their implementation for all prevention-related spheres of activity, including the relevant research work, campaigns, attendant media and advertising work.
Occupational protection obligations must not be at the mercy of business considerations.	Occupational protection is a fundamental human right for employees; it must be reliably available and continuously optimized.

Actors: Legislators, social partners, enterprises, employees, occupational safety experts, directors of occupational training and further training institutions, media.

## 4. Spheres of activity for prevention

### Sustainable social policy

In future, health, the ability to work and the labour force participation rate must be stabilized at a high level to enable social security systems to continue to function.

Concrete aspects	Explanations and/or examples
Longer working life for employees.	Extend and maintain the ability to work and labour force participation rate at a high level as a humanitarian need and economic necessity.
Fight unemployment effectively.	Mass unemployment continues to be the main danger to the continued existence of social security systems and exacerbates the problems facing older employees in the labour market.
Make a higher labour force participation rate possible for older persons.	Special dismissal protection for older persons. Bonus and penalty systems for enterprises based on workforce age structure. Subsidies for enterprises with older workforces, incentive systems for older persons to remain in work.
Make flexible retirement schemes possible.	Promote flexible phased retirement, reduce working hours for older persons, and introduce working time accounts. Make partial pensions possible.
Adjust pension systems to demographic change.	Change the retirement age. Optional retirement age with corresponding supplements or deductions or gradual entry into retirement. Increase the number of contribution years. The pension system should not encourage early retirement.

Actors: legislators, social insurance schemes, enterprises, remuneration negotiation/social partners, employees.

## 4.2. Sphere of activity: leadership and personnel management

### Personnel management

A good enterprise culture that involves and supports all its employees should be able to take account not only of any existing age-related shortcomings, but also to use and promote the competencies of older employees in particular. Enterprise culture has an important role to play in instilling company loyalty in younger and older employees. When the work climate is perceived as trusting and supportive, employees feel good in the workplace, like to work, and identify with the company. Good leadership strengthens confidence, trust, satisfaction and company loyalty. Furthermore, it makes a significant contribution to developing an enterprise culture, in which “health and safety at work” occupies an important position.

It is important to start from a holistic view of the individual: he should not simply be seen as an employee but as someone with a multiplicity of social roles who is rich in experience with many competencies and interests (including outside the work place).

Concrete aspects	Explanations and/or examples
Create a positive enterprise culture and promote a good working climate.	Social responsibility, colleague-oriented; employees identify with the company, good communication and transparency.
Support positive attitudes for employing older persons.	Appreciate older persons and make use of their competencies from earlier activities; show positive ideas, attitudes and behaviour towards older persons; integrate the appreciation of older employees into the enterprise mission statement.
Make sure all supervisors have a good participative leadership style.	Take into account suggestions and defer to the (life) experience of older employees, promote participation and self-determination, confidence and trust through feedback.
Promote technical competencies and leadership behavior.	Leadership training courses, aim-setting interviews, cooperation with the works council, understand work and traffic safety as part of leadership responsibilities.

#### 4. Spheres of activity for prevention

Concrete aspects	Explanations and/or examples
Work towards working conditions that maintain good health, reduce accident and injury risks in the factory and when in traffic.	Personnel managers to work closely with occupational health and safety experts; selection of suitable persons, activities and workplaces after risk assessment and/or suitability for older persons; pay attention to ergonomics and traffic safety (see also Sphere of activity 4.3. “Work design and organization”).
Promote stable social relationships at work.	Information exchange especially between young and old, works events and community activities.
Provide help and encouragement for employees of different generations and cultures to work together.	Set up and moderate discussion and work circles, promote tolerance and acceptance, mentoring programmes, e.g. the older looking after the younger employees or newcomers.
Analyze mistakes, incidents and near-accidents constructively.	Work suggestion system, making use of the technical knowledge of experienced employees, reward system.
Make processes in the work hierarchy clear.	Clear tasks and areas of responsibility for all employees and their involvement in change processes.

#### Staff recruitment

Needs-based and future-oriented recruitment, particularly of technical and management staff, is of great importance for every enterprise to remain competitive and be innovative. There will probably be a shortage of technical staff as a result of demographic change, so it is to be expected that enterprises will have to compete for qualified staff in the future.

Concrete aspects	Explanations and/or examples
Measures to make an enterprise known and attractive.	Communicate the enterprise mission statement, good working conditions, promotion and further qualification possibilities (word-of-mouth recommendation, advertisements, agencies and media, open days).
Look for potential employees in educational institutions.	In schools, vocational schools, colleges, universities.

#### 4. Spheres of activity for prevention

Concrete aspects	Explanations and/or examples
Hire older persons if they have the same qualification as younger applicants.	Avoidance of discrimination, use of previous occupational experience, “private” competencies and general life experience.
Open up new groups of persons in the labour market.	Allow work/life balance, e.g. child care to be able to hire women; special reaction to the needs of migrants.
Create incentives for moving for newly-hired employees.	Pay costs, act as agency for accommodation and support in family questions, help for those employees with long commutes.
Promote education.	On-the-job qualification for beginners, cooperation with vocational schools/external institutions.
Bring on the young generation.	In-house search for suitable employees and their encouragement/promotion.
Introduce in-house mobility management.	Connect the enterprise to public transport, introduction of job tickets (commuter benefits), setting up of car pools.

#### Staff development and further training for employees

In-house knowledge and assembly-specific know-how can only be preserved and developed further if employee knowledge is fostered. Everyone, whether young or old, must be willing and able to deal with new developments in the working world. Occupation qualifications improve the sustainable employability for every employee (see also Sphere of activity 4.5: “Staff training and further training”).

Concrete aspects	Explanations and/or examples
Carry out an age structure analysis.	Provides the current and anticipated age breakdown in the company and in individual departments.
Provide employees with further incentives for company loyalty.	Praise, profit-sharing, special leave, promoting intrinsic motivation e.g. through participatory leadership styles.
Support the willingness to develop and ability to innovate in every employee.	Create incentive systems, emphasize earnings security and promotion prospects, diversity management.

## 4. Spheres of activity for prevention

Concrete aspects	Explanations and/or examples
Find out in-house qualification requirements.	Forward-looking needs analyses for all activities and workplaces.
Promote training and further training.	Lifelong learning right from the start of a person's career, special designs for young and older employees.
Maintain availability through horizontal (other similarly qualified activities) or vertical (promotion, obtaining a higher qualification) career path design.	Through staff interviews and in-house (or external) further training, keeping staff in-house, securing key functions and ability to innovate.
Support individual employees with problems.	Talking about work, help with solving work problems. Promoting individual development possibilities.
Secure succession planning and knowledge transfer.	Promoting knowledge exchange across generations through different age groups working together.
Carry out in-house re-integration management.	Maintain contact with sick employees, provide company help when employees return to work after long illnesses or accidents.

Actors/target groups: employers/heads of personnel/senior management/external institutions (e.g. schools/educational institutions/associations).

### 4.3. Sphere of activity: work structuring and organization

Industrial safety regulations and generally recognized ergonomic rules must be generally observed. This basic protection for employees of all age groups is enhanced through the following specific aspects that are particularly significant in relation to demographic change.

#### Workplace and tool design

According to various forecasts, it has to be assumed that a growing number of employees will have to remain longer in the work process in future. That is why work will have to be designed and organized in an age-appropriate way: employees should remain healthy as long as possible throughout their working life. Therefore workplaces are to be ergonomically designed and optimized. Activities must be so designed that they can be performed by younger and older employees.

## 4. Spheres of activity for prevention

Concrete aspects	Explanations and/or examples
Adapt the workplace to different body sizes.	Height adjustability e.g. for worktables and chairs, possibly with footrests, work to be done in natural body positions not in forced postures.
Make tools easy to reach, visible and easy to use.	Optimal space within reach, workspace dimensions suitable for the work task, easily usable tools, keyboards and displays.
Make sure that visual information is easily readable.	Large letters, clear presentation, good contrast, colour correlation, e.g. on screens and written material.
Avoid lifting and carrying heavy weights.	Reduce weights, where possible do not carry heavy items alone, where required lifting aids, conveyor belts, etc.
Create pleasant environmental conditions at the workplace.	Adequate lighting, good ventilation, comfortable climate without drafts, noise reduction.
Simplify machine operating, make work safer; emphasize active and passive safety systems on vehicles.	Increase safety through additional machinery fittings, e.g. photoelectric barriers, fit advanced driver assistance systems that increase comfort and safety, e.g. navigation systems, anti-blocking systems (ABS) and anti-slip regulators (ASR).

### Work organization

Working as an occupation is supposed to be beneficial to health and performance with positive economic and psycho-social feedback. Therefore, work tasks, work content and work flow need to be properly organized. On the other hand the general transfer of “old people” into so-called easy jobs is just as counterproductive, as shifting heavy burdens onto younger workers.

Concrete aspects	Explanations and/or examples
Check and be aware of loads and reduce excessive strain.	Regular checks on work instructions, integrate traffic safety subjects into risk assessments.
Check work rhythm and work intensity.	Reduce loading through job rotation or enrichment; adapted piece-work targets.

#### 4. Spheres of activity for prevention

Concrete aspects	Explanations and/or examples
Limit high-load activities for all.	Check occupation-specific requirements, e.g. musculoskeletal requirements and psychological and mental requirements.
Recognize that piecework, night- and shift work are particular problems for older people.	Possibly exclude from shift work; (for more details see “Working time regulations”).
Increase work satisfaction.	Staff interviews about work requirements and aims.
Relieve work stress.	Analysis and reduction of causes of stress; raising management awareness.
Recognize acceleration and intensification of work processes as problems.	Avoid time pressure through time buffers.
Adapt work organization to the changed performance profiles of employees.	Re-integration after accident or illness, counselling through the company medical officer.
Avoid monotonous lopsided work.	Change regularly or extend work tasks.
Create possibilities for participation.	More room for manoeuvre, independent working.
Leave sufficient time to learn new things and get used to them.	Possible longer and more intensive induction for older persons.
Adjust staff ratio to work requirements.	Take absences for holidays and sickness into account.
Use the competencies of the various age groups.	Recognize the strengths and potential of each age group, use each competence accordingly, e.g. advisory tasks for older persons.
Set up mixed-age working groups.	Change loadings and knowledge transfer.
Make gradual retirement possible for older persons.	Possibly assign to other work, gradual reduction in working hours.
Optimize management culture, improve work climate.	Seminars for managers, change the way they view older persons.
Create structures to solve problems with colleagues/supervisors.	In-house conflict mediation, arbitration procedures.
Reduce compulsory mobility.	Make teleworking from home possible, avoid unnecessary commuting.
Reduce stress for employees in field service positions (sandwich positions).	Realistic route planning (e.g. for goods delivery).
Recognize connections between in-house targets/variables and (traffic) accident risks and draw the corresponding conclusions.	No shifting of in-house problems onto individuals, evaluation of (almost) accidents, in-house suggestion schemes.

### Regulating working hours

Staff employability should be maintained over an individual's whole working life and occupational activity should be possible in different life phases. Working hours must be adapted in line with age and should take account of the employee's personal situation (e.g. just starting work, re-orientation, parenthood, care of relations, retirement).

Concrete aspects	Explanations and/or examples
Limit additional work and overtime.	Good pre-planning for production, work time account as compensation.
Adapt working hours to age and performance.	Slower work rate and adapted piecework rate.
Offer reduced and/or flexible working hours.	Special working hour models and part-time employment for older co-workers; adapting to the family situation in each life phase.
Adapt working hours to the in-house and individual needs of the employee.	Flexible shift system, taking particular account of individual problems or emergency situations.
Limit night shift working for older employees.	Avoid or limit night shift working, make required rest times possible after a night shift phase.
Optimize rest break planning.	Make length of breaks a function of the workload, more frequent short breaks of 1-3 minutes, make sure the breaks are taken.
Reduce time pressure on commuting.	More flexible core times and punctuality requirements.
Consider journey time as working time.	Driving a vehicle is work, avoid night driving.

Actors/target groups:

- In-house managers: entrepreneurs (employers), management, personnel department, purchasing (because of procurement of tools and materials).
- In-house occupational safety actors: occupational safety professionals, company medical officers, staff or works council members.
- External consultants: accident insurance providers, traffic safety organizations, consultancy institutions, firms.

## 4. Spheres of activity for prevention

### 4.4. Sphere of activity: promoting and preserving health

Health is a central prerequisite for employability. Health therefore offers a many-layered sphere of activity not only for company medical officers and experts from other disciplines, but also for employers, managers and employees themselves. Crucially, life-long health becomes an issue early on when the young person enters the world of work. External conditions need to be set that make working in salubrious conditions possible, promote health competence in the individual employee and, according to each individual health situation, guarantee comprehensive medical care. Accordingly the possibilities must be differentiated for designing general prevention measures, individual prevention measures and special prevention measures for particular risk groups or groups performing dangerous activities.

#### General prevention

Concrete aspects	Explanations and/or examples
Guarantee treatment by company medical officer.	Basis for measures in health protection and health promotion.
Analyze the health situation of the workforce.	Absences (health reports) Work ability index (WAI) Knowledge of the company medical officer Workforce surveys (also on loading/stress and work climate).
Plan and carry out suitable programmes on subjects relevant to health <ul style="list-style-type: none"> <li>• Ergonomic design</li> <li>• Addiction prevention</li> <li>• Stress management</li> <li>• Nutrition</li> <li>• Exercise</li> </ul>	Set up health circles, initiatives against lack of exercise, healthy eating programmes, set out principles for canteen food; stress prevention programmes; information on addictive behaviour and drugs, anti-smoking campaigns; workplace assessment on ergonomic criteria; adapt shift plans according to ergonomic criteria.
Ensure sustainability of health prevention measures.	Set incentives (“Come on! Join in!”); Carry out regular training courses; Include external offers, e.g. from sickness insurance schemes (back problems, ergonomics consultants) Prize systems for taking part in these programs.

#### 4. Spheres of activity for prevention

Concrete aspects	Explanations and/or examples
Reinforce specific competencies that are relevant to health.	Handling unsocial working hours; sleep counselling; Anti-fatigue programmes for night workers, emergency service workers/ long-distance lorry drivers, practical driving courses and traffic safety seminars for various traffic user groups.

Actors: employees, employers, workers' representatives, personnel departments, company medical officers, safety professionals, sickness insurance schemes, in-house and external professionals for psychology, physiotherapy, nutrition, exercise, ergonomics, addiction and road traffic safety.

#### Individual prevention

Concrete aspects	Explanations and/or examples
Ascertain suitability for activity in health terms.	Physical and mental prerequisites suitable for the work task.
Provide occupational medical care.	Occupational medical assessment of health risks and early recognition of any health disorders with dangerous loads.
Offer general health screening <ul style="list-style-type: none"> <li>• Hypertension</li> <li>• Cardiovascular disorders</li> <li>• Obesity</li> <li>• Diabetes mellitus</li> <li>• Cancers</li> </ul>	Offer health check-ups to identify risk factors, Programmes for the early recognition of so-called widespread diseases, body mass index, rapid tests for diabetes, blood pressure measurement, cancer screening, fitness tests.
Introduce and support in-house sports.	Selection and monitoring by professionals, medical supervision and/or establishing physical suitability, setting training aims, checking general state of health, enlisting participating examples from the management team.
Strengthening personal resources under physical and mental strain/stress situations.	Stress management programmes, offering help for self-help, progressive muscle relaxation, yoga, autogenic training, anti-fatigue exercises for strained muscle groups.

Actors: employees, employers/supervisors, company medical officers, psychologists, sports teachers/practice leaders, physiotherapists, sickness insurance schemes.

## 4. Spheres of activity for prevention

### Prevention measures for special groups of persons

Concrete aspects	Explanations and/or examples
Strengthening personal health competencies.	Promote personal responsibility for health e.g. through intensive counselling or training.
Easy access to medical expertise <ul style="list-style-type: none"> <li>• Early warning systems at first symptoms or illnesses</li> <li>• Avoiding barriers</li> </ul>	Early access to company medical officer at first sign of health complaint “Early pain reporting“, Optimize medical care for long-distance commuters, field representatives, long-distance lorry drivers (e.g. “Doc Stop” stations at motorway service stations).
Screening in cases of special strain.	Fitness for shift working, sleep apnoea (sleeping disorder) screening.
Take measures against workplace fatigue and against drowsy driving.	Ergonomic break design; offer seminars on “alertness management”; counselling for emergency service workers, night and shift workers, long-distance commuters, long-distance lorry drivers; make it possible to take “power naps”, have sleeping places ready in the works; more lay-bys and resting places on motorways for lorry drivers.
In-house reintegration management.	Post-illness or accident re-integration taking into account existing performance and prognoses; return to work programmes; disability management, coaching (case management) in gradual re-integration cases.
Reduce individual health burdens for employees who are particularly ill or at risk.	Workplace design taking into account individual limitations; choice of personal protective clothing in the case of imminent or existing illness.

Actors: employees, employers/supervisors, employee representatives, company medical officers, psychologists, personnel departments, safety professionals, accident insurance schemes, Integration Offices, pension insurance schemes.

## 4.5. Sphere of activity: staff training and further training

### The lifelong learning principle

Lifelong learning means reinforcing the individual's willingness to learn in order to be able to keep abreast of the rapid changes in working life and also in private life. It is not just a question of gaining diplomas and certificates but of building up abilities and skills to overcome the changing challenges at work and at home. The aim of everyone having the ability and possibility to continue to learn, and to actually do so, is vitally urgent. Entrepreneurs and employees have to recognize the significance of lifelong learning for an enterprise's ability to compete, as much as, for an individual's ability to perform and their quality of life.

Advanced and continued education courses teach the knowledge to prevent health risks in the workplace and in traffic and train the abilities that go with it.

Concrete aspects	Explanations and/or examples
Promote qualified training diplomas.	Reduce the number of people leaving school without certificates; special support programs.
Support and training for young people at their first workplace.	Implement an external and in-house further education and training system, develop training standards and in-house regulations for these activities.
Provide support and training for older employees.	Learn to learn again, develop new career paths, incentives to promote, develop or retain a healthy lifestyle and prevention activities, training courses in compensation for existing deficits or deficits to be avoided, provide and make available training courses and programmes to obtain further qualifications, including for older persons in particular (e.g. handling new communications media at work and in the home).
Education for health and safety at work and in the home.	Early learning about health and safety-appropriate behaviour (health education focuses at school are nutrition education, addiction prevention, hygiene, exercise and AIDS prevention), road safety, integrating health and safety aspects in programmes, training material and in training the trainers and/or teachers.

## 4. Spheres of activity for prevention

### Particularities of learning in older employees

People show different learning behaviour in the course of their lives. Young people can grasp facts more quickly. On the basis of their experience in life older persons learn differently. Therefore older employees have other needs on a training course or in an educational programme.

Concrete aspects	Explanations and/or examples
Make use of age-related changes in cognitive abilities.	Necessity for learning that accompanies an occupation or activity, older persons learn differently: longer training times, plan time requirements realistically, take into account and recognize occupational experience.
Check abilities and competencies regularly.	Qualification status for occupational activities and participation in traffic, examine whether standards and rules are adhered to, when using tools and plant. Individually tailored basic and advanced training courses for all, from career entry to retirement.

### Basic and advanced training

A company can develop employees' loyalty and thus retain their levels of qualification and employability through qualification courses that are attractive. Older employees should be involved in planning such courses and also make use of them. In-house training is strongly practical and takes the working environment and fellow workers into account. Internal trainers, who are familiar with the workplaces and working environment, are particularly suitable for in-house training. Basic and advanced training possibilities are as follows:

Concrete aspects	Explanations and/or examples
Basic and advanced training in the workplace.	Participation of employees and their works representatives, e-learning.
Career re-orientation.	Horizontal career development, workplace rotation, interdisciplinary projects and flexibility, technological change, correspondence courses.
Educational leave.	Educational programme has relevance for employment, general educational leave to increase general knowledge or to obtain an occupational qualification, sabbatical.

#### 4. Spheres of activity for prevention

Concrete aspects	Explanations and/or examples
Certified diplomas.	Occupational training, scientific education.
Various training methods.	Discussions, role-playing, workshops, case studies, internet forums, possibilities to test new abilities and try them out in practice, practical driver training courses and road-safety seminars.
Age-appropriate learning environment.	Atmosphere, organization, length, involvement of those taking part.

#### Safeguarding the company-specific empirical knowledge of older employees

Older employees' empirical knowledge that is specific to the company must be passed on in that company. In addition, social experience must be recognized and passed on to the younger generation. Prior to retirement experienced employees must pass their knowledge on to other employees in the company.

Concrete aspects	Explanations and/or examples
Safeguarding older employees' experience and knowledge.	Mixed-age teams, colleague support systems.
Support for older employees.	Train the trainers, reduce workload, train managers, so that they can recognize and prevent age discrimination, financial support for and ongoing promotion of education programs.

Actors: employees, employers/supervisors, employee representatives, personnel departments, in-house trainers, schools, external education institutions for basic and advanced training such as technical colleges and colleges, universities, chambers of trade and chambers of commerce and industry or other organizations, employment agencies, sickness and accident insurance schemes.



**Step 2: “Analysis”:**

To ascertain the in-company status quo (review of the current situation) various sectors can be analyzed, in particular

- **Age structure** of the workforce with a forecast for future development
- **Work design** and organization with workplace design, working hours and how work is organized (this forms part of the company risk assessment, taking into account commuter routes to and from work)
- **Health of the workforce** (pathology, health complaints, accidents, near-accidents)
- **Occupational qualification levels of the workforce** (in-house and external training, basic and advanced training)

Because of the significance of demographic change producing a view of the company’s age structure and drawing up a forecast for how that structure will develop is central. The workforce age structure is presented as age groups in table form. The number of employees per age group is entered in the appropriate cell in the column for 2010 in Table 2. The second step is to add 10 years to the life of each employee. The number of employees in each age group is then entered in the appropriate cell in the column for 2020 in Table 2.

**Table 2: Example of producing a view of a company’s age structure for a small company**

Age group	Number of employees 2010	Number of employees 2020
< 20	--	--
20 – 29	2	--
30 – 39	4	2
40 – 49	2	4
50 – 59	3	2
60 +	--	1
<b>Total</b>	<b>11</b>	<b>9</b>

## 5. The in-company approach

This procedure produces a simple forecast for a company's age structure 10 years ahead and the ageing in the workforce becomes easily visible and hence, understandable. For example, the number of employees in the workforce could fall if the company does not retain employees through training and health programmes or through hiring new employees. Conclusions from the analysis such as the loss of expert knowledge or the necessary recruitment of new employees are to be taken into account in future personnel planning exercises.

For more differentiated evaluations, for example to meet changing staff requirements in various departments, a variety of age-structure data-analysis tools or software can be obtained from various institutions over the internet.

The risk analysis focuses in particular on age-sensitive areas or on age-critical load factors and is geared towards age-appropriate working conditions.

Statistics often widely used to produce a view of sickness-related absences are those compiled by personnel departments for absence rates. These could be completed, for example, by work incapacity data from sickness insurance schemes (in anonymous form). This would make a clearer analysis of the state of health possible.

The ongoing review of the training level and the qualification requirements of employees against a background of current, as well as, future needs for staff can be used for individual career path planning. This can also serve to inform the provision of further in-house and external training.

### Step 3. "Evaluation":

The results of the above-mentioned status-quo analyses are to be evaluated by the relevant actors, both in-house and externally. For example, the personnel department handles age structure and qualification requirements. The design of the work place is handled by occupational safety experts and, the sickness absence rate or health data, by the personnel department (and/or the works medical officer). Employees should always be involved in the process (e.g. in health circles, workshops or generally as part of in-house communication) and these evaluation processes should be bundled into steering committees. In small companies they should be handled by management or even by the proprietor.

The evaluation of all analyses should achieve the following:

- Recognize and identify possible problems
- Develop perspectives and/or aims
- Assess the need for action for employment groups and/or individual workers.

### Step 4. "Implementing measures":

Many solutions are on offer to companies, employees and other actors in the "Concrete aspects" items for the individual spheres of activity. Priorities should be set as a function of in-house analysis results and objectives. The actors to set these objectives and those responsible for managing the implementation of measures are indicated in the spheres of activity.

### Step 5. "Evaluation":

Once measures have been carried out checks should be made at regular intervals to see whether the intended targets have been reached and to what extent success remains observable over a longer period of time. Just as for many other points in the life of a company, evaluation is essential to judge the success of measures and where necessary, improve, change or end them. To do this evaluation cannot simply be based on subjective opinions; it needs objective indicators that gauge extent or quantity. This requires the right measurement tools to be identified prior to the evaluation phase.

The various spheres of activity allow for a multiplicity of quantitative measuring tools. Examples are given in the following table. The choice of measuring tools must be decided on in the analysis phase. Tools are then to be used during the implementation phase, to be able to evaluate developments and/or progress. The results obtained will support the efforts and form the basis for in-house and external communication.

Many indicators in Table 3 below under 2. "Analysis" are quantitative (figures, proportions, percentages). They would be even more meaningful if they could be compared against a reference group (e.g. only young age group, same branch). Measuring tools must be accepted by everyone, especially the social partners, to avoid intergenerational tensions.

### Step 6. "Constant process of improvement":

Ongoing analysis of the the data generated, can reinforce sustainable prevention as part of a constant process of improvement. Employees should be able to remain healthy and active in their working lives for as long as possible.

Some of the measures mentioned in the individual spheres of activity are already important for general in-house occupational safety but can be useful specifically for age-appropriate prevention through this ongoing analysis.

The approaches, analytical tools or indicators mentioned in each sphere of activity in the table below are examples that can also apply to other spheres of activity.

## 5. The in-company approach

**Table 3: The in-company approach – in-company age management**

Spheres of activity / Approach	2. Leadership and personnel management	3. Work design and organization	4. Preserve and promote health	5. basic and advanced training for employees
<b>1. Sensitization</b>	Enterprise culture Acceptance of older persons Staff planning	Assess age-sensitive activities, e.g. shift work, part-time working, ergonomic aspects	Health management Availability and take-up of health programme offers	Staff development, age structure and qualification requirements
<b>2. Analysis (Tools as examples, see spheres of activity for more)</b>	Age structure and qualification requirement analyses e.g. regarding retirement age Fluctuation Absenteeism Costs of special programmes	Load analyses Interviews, Questionnaire surveys, Risk analysis	Work incapacity and sickness absence rate analyses, age-dependent nature of illnesses Cause explanation Work ability index	Proportion of basic and advanced training in age groups Budget amount Use of qualifications
<b>3. Evaluation (Example approach)</b>	Interviews with employees/management Steering groups	Staff involvement Ergonomic rules Health and safety audits	Work-medical and scientific knowledge Health circles	In-house and external education standards
<b>4. Measure implementation</b>	Select “Concrete aspects” of the individual spheres of activity in the various organization units and reach agreements on their implementation in a priority list			
<b>5. Evaluation</b>	Selection of suitable measuring tools from the “Concrete Aspects” of the individual spheres of activity and checking the effectiveness of measures			
<b>6. Constant process of improvement</b>	Where appropriate application of changed or improved measures after ongoing analysis and evaluation			

## 6. Practical examples

The examples show how prevention can be carried out in view of the demographic changes. They also show that prevention for older persons is a means to provide for younger persons (no senior citizen schemes).

The measures described in the practical examples have been partly checked scientifically for their effectiveness. In those cases where this has not yet happened, their effectiveness seems highly likely. Many of the projects were still running at the time this brochure was published.

The examples cover the numerous range of working life: the variety of branches (e.g. from administration to the car industry), the variety of enterprise sizes (from artisans to multinational enterprises, or branches of entire industries). Even the government, or rather its social security institutions can be active in overcoming the challenges of demographic change, as the examples from Finland, Austria, Germany and France demonstrate.

It is therefore, feasible to introduce prevention measure in all spheres of economic activity in order to achieve widespread prevention schemes.

For greater clarity the practical examples have been allocated to individual spheres of activity, even when the measures often originate from more than one sphere of activity. In many of the examples it also becomes clear that spheres of activity are very closely connected with some overlap.

The examples have been taken exclusively from Europe. It would have been desirable to report on examples from other regions but none could be found in other. This is certainly not because they do not exist – at least in economically more developed countries. They are often not generally made known to the public, and are mostly available only as “grey literature“ or pamphlets. The authors of this brochure naturally know of primarily European examples.

### 6.1. Practical examples for sphere of activity 1 (social, socio-political and economic context)

#### 6.1.1. The national programme “ageing employees” (Finland)

##### Initial situation

The negative consequences of an ageing society were noticeable in Finland as early as the beginning of the 1990s. The situation at the time was characterized by a rising number of persons taking early retirement. This served to increase the burdens on the pension insurance scheme, as well as produce a shortage of qualified workers and cause high unemployment among those aged 55 to 64.

The political leadership, faced with the pressure of the developing situation for the state and society as a whole, defined objectives to reduce the problems connected with demographic change, coming to the conclusion that a very broad programme was needed.

## 6. Practical examples

### Objective

The main aim was to strengthen the position of older employees in the labour market. The relatively low labour force participation rate for older persons was to be raised and aligned with the rate for those aged 35 to 45.

Comprehensive reforms of the pension system were necessary. The average pensionable age had to be raised significantly and the widespread practice of taking early retirement had to be avoided as far as possible.

In addition, the capacity to work and employability of older persons had to be preserved and promoted. Willingness on the part of the individual worker to work longer and of enterprises to keep their older employees in work also had to be strengthened.

Reaching these objectives required redesigning employment conditions to be age-appropriate and ageing-appropriate. At the same time the public was to be presented with a positive view of older persons.

### Procedure

In 1997, the Finnish government adopted the national programme “ageing employees” to run from 1998 to 2002. It was clear from the very beginning that all relevant decision makers and actors from the political sphere, society as a whole, the economy, and academic life had to be tied into this extremely complex project. Consequently, in addition to the ministries for Health and Social Affairs, Labour and Education, the Ministry of Finance, the Ministry of Trade and Industry, all social partners, the Social Insurance Institute, the Pension Insurance Institute, the Employers’ Association, and the Institute for Labour Medicine came to be involved in the programme’s implementation.

The following components were included into the programme: basic and advanced training programmes for employees, management courses for supervisors and managers, media campaigns, legislation reforms and accompanying research and development projects.

Further education programmes built up employees’ career competencies and imparted the principles of life-long learning. Company managements received training to strengthen leadership skills and to develop and expand an age-appropriate enterprise and management culture.

Occupational safety and health professionals received training aimed especially at sensitizing them to the various aspects of ageing.

Through development plans it was explained to enterprises how to maintain employee work capacity, how to design age-appropriate career biographies, and how to improve occupational safety and health.

A positive attitude towards older employees was promoted and age discrimination was fought through intensive public relations work and media campaigns.

New labour market policy measures were introduced to improve the chances of older persons while looking for work, making occupational re-integration easier and reducing the number of long-term older unemployed.

Pension legislation was aligned with the national programme objectives. At the forefront, was the raising of the retirement age, coupled with provisions making the retirement age more flexible. Various financial incentives were introduced to influence people to remain in work for longer.

The national programme received scientific support through various research projects. Several follow-up projects were started after the official term of the programme concluded. These included projects to address qualifications for older workers and in-house company measures to extend working life and improvements in work organization.

### Results

The attitude towards older persons at work has noticeably improved. They are regarded by the majority, as competent and efficient. It has been possible to redesign working conditions to be ageing-appropriate. Overall, the capability and employability of this group, has been improved through the combined effects of numerous national programme measures.

The incentives for early retirement have been drastically reduced. The trend towards early retirement has been stopped. During the four-year period of the national programme, the labour market participation rate for the age group 55 to 64 rose from 45% to 55%. Between 1995 and 2005 unemployment in this age group sank by more than 20% to 6.8%.

### Conclusion

The Finnish example shows the importance of a broad approach to overcome the challenges related to demographic change. These have to be regarded as something that concerns society as a whole. The necessary measures can only be implemented if all the relevant actors from the worlds of politics, economics, science, creative arts and the media are involved and take all of the complex connections into account. Thus, a holistic bundle of measures offer more success than individual measures implemented in isolation.

Of fundamental importance, is the positive attitude towards older employees from companies, individuals and society as a whole. This will provide the fertile ground for the framework and measures to preserve and promote the capability and employability of older persons for the benefit of all.

### 6.1.2. Building the House of Employability (Austria)

“Fit for the Future – preserving employability“ - a programme of the Austrian AUVA (General Accident Insurance Institute) and the Austrian PVA (Pension Insurance Institute).

#### 1. Objectives for the programme

##### “Fit for the Future – preserving employability”

There are economic and human reasons why it is both useful and necessary to promote employability over a longer working life.

## 6. Practical examples

The programme is financed by the PVA (<http://www.pensionsversicherung.at>) and the AUVA (<http://www.auva.at>) and provides support until 2012, for a total of 20 pilot enterprises, with approximately 13,000 employees from eight branches to promote the employability of these employees long-term. The enterprises are of different sizes and structures (e.g. H&M 2,500 employees, branches all over Austria; Schinnerl GmbH a family enterprise with approximately 100 employees in the town of Tulln).

The programme “Fit for the Future – preserving employability” refers to the Finnish research results and findings (c.f. Ilmarinen & Tempel 2002) and is implementing targeted measures in companies which have been supporting this project on employability over a period of four years on the basis of an analysis carried out with the software tool “Arbeitsbewältigungsindex Plus™”, or work-load management index (ABI Plus™).

The programme aims to develop a national database by using the “ABI Plus™” and a “toolkit“ containing instruments to promote and to preserve employability over a period of four years.

It is intended to apply the findings of this project and the products, which were developed by 20 pilot-companies to the working environment of other companies.

## 2. Methods behind the programme – the House of Employability

(according to Juhani Ilmarinen)



The “House of Employability” model shows the range and variety of starting points to employability. Employability can increase when concerted measures are used.

Employability can be ensured up to a very advanced working age if a proper work design and organizational structure is applied.

### 3. The “Arbeitsbewältigungsindex Plus™” as a measuring instrument for employability

The ABI Plus™ software tool was developed for the AUVA and PVA by national experts in co-operation with Prof. Juhani Ilmarinen (Finland) as part of the “Fit for the Future – preserving employability” programme.

It is based on the Finnish Workability Index and has been expanded to include aspects from the House of Employability such as values, competencies and working conditions. Partial indices are calculated for health, competency, values, management, cooperation, room for creativity and working conditions.

The ABI Plus™ software tool generates a status, a prognosis and an evaluation for employability. The higher the scores in ABI Plus™ the better the employability, i.e. the match of individual resources (health, attitude, competency) with organizational resources; the better the fit between individual and work the more probable will be a productive continuation in work.

ABI Plus™ will be deployed in all 20 pilot companies three times in the course of the programme. The first deployment has already yielded some 7,600 data sets.

### 4. Interventions

Using the analysis findings, a team of 15 employability experts have developed measures aimed at restoring, preserving or promoting employability at organizational and individual levels in cooperation with the project steering committee in each company.

**Standard interventions** took the form of training courses for management, to support employability, using common-sense appreciative management approaches and courses for health and safety professionals.

**Company-specific** interventions or support measures tackled enterprise culture, structures, processes and individual behaviour. These cover the introduction of ageing-appropriate interviews for employees and go as far as developing models for micro-pauses or regenerative breaks.

The implementation phase is currently running in all companies.

### 5. The way ahead

Events to promote the results and successful tools of the project take place regularly. Tools/events include for instance an annual employability survey and “future circles” organized in co-operation with the ÖPWZ (Austrian Centre for Productivity and Efficiency).

All dates and publications can be consulted at [www.wai-netzwerk.at](http://www.wai-netzwerk.at).

The overall results for each promoting instrument including the ABI Plus™ software tool will be published in full in 2012 and they are intended to be distributed throughout Austria.

## 6. Practical examples

### 6.1.3. Collective labour agreement “working lifetime and demography” (Germany)

In 2008 the social partners in the German chemical industry (BAVC and IG BCE) negotiated the collective labour agreement “working lifetime and demography”. This was the first collective labour agreement of its kind in Germany.

The shared objective of the agreement was to make possible a lasting and forward-looking personnel policy, through a framework agreement that was fit for the future. The framework takes into account employer and employee interests, under age-appropriate and ageing-appropriate working conditions. Needs-based solutions at company level make an important contribution towards securing the ability to compete, and promoting employability in global conditions that continue to change. The intention is to put into place incentives for longer employment through this collective agreement.

The challenges posed by an ageing society are taken into account in the so-called “chemical industry formula”.

This formula has four elements:

- Implementation of a company-level **demographic analysis**,
- **Work process design** measures that are age-appropriate, ageing-appropriate and health-appropriate,
- **Qualification** measures over the whole length of a person’s working life
- **Occupational (and personal) pension** measures and flexible tools for **smooth transitions between a person’s training, earning and retirement phases**.

Every enterprise in the chemical industry branch sets up a demography fund. The employer pays into this fund an annually adjusted amount for each employee.

At retirement, the collective labour agreement provides five tools:

- **Compensation time account**: employees can pay in overtime into a special compensation time account. Time is converted into money. It is also possible to pay part of a person’s salary straight into this account. Funds can be taken from the demography fund for the compensation time account to finance an employee’s early retirement.
- **Partial retirement**: can be taken between the ages of 59 to 65. A maximum of five percent of employees can claim partial retirement at any one time.
- **Part pension**: can receive top-up payments from the fund. This can also be used in conjunction with other tools – for example the compensation time account. This way possible income shortfall can be evened out.
- **Additional insurance against disability**: money from the demography fund can be used for an additional insurance against disability policy (“Berufsunfähigkeitszusatzversicherung Chemie – BUC”). It insures employees against not being able to work up to retirement age for health reasons and is paid up to age 65.
- **Occupational pension**: money from the fund can also be paid into the existing occupational pension scheme. An existing occupational pension scheme agreement that had been signed in 1998 was extended and modernized in 2001 and 2005. Employees can now claim 613 Euros per year, towards their occupational pension under the collective agreement. For every additional 100 Euros that they pay in, the employer pays a further 13 Euros as a special “chemical industry allowance”.

These individual tools can be combined freely. If the parties at company level cannot agree, then there is a back-up agreement that comes into force. In companies with up to 200 employees, the demography contribution has to be used for the occupational pension scheme. For companies with more than 200 employees this contribution has to be made available in the form of a compensation time account.

### 6.1.4. Improving the employment rate for older persons: the industry-wide agreement (France)

In 2000 the employment rate for those aged between 60 and 65 in France was the lowest in Europe. In view of the European obligation in this respect, to reach an employment rate of 50% for those aged 55-65 by 2010, the government passed a new law (No.2003-775). It reformed pension regulations by promoting employment for those aged over 50. From 2005 onwards, with this in mind many industrial sectors developed agreements. Despite these efforts the employment rate for those aged 55-65 was only 38% by 2008. To reinforce this trend a second stage was agreed upon and introduced in article 87 of the legislation (L. 138-24 to 28), governing social security financing for 2009 and was adopted as an action plan for the employment of older workers. To illustrate the process, the agreement for the fertilizer and soil treatment agents and wholesale industry (IDCC 1077) will be described briefly. In 2008 the industry had 17,600 employees, of which 10 % were over 55 and 31 % between 45 and 55. Those over 50 are classified as older persons.

The agreement on implementing the employment of older persons (30 November 2007) contains a preamble, which refers to the legal background and objective: to keep over-50s in work or to get them to take up work again where there is a real interest in “continuing the working relationship“ from both employer and employee. The approach aims at “a career that stretches over the entire life“, with support for adapting to changes that could affect employment and internal and external mobility conditions.

Eight articles go into the approach in detail

- (1) Future-oriented organization. The industry defines aims for progress and provides enterprises with an indicator for occupational mobility by age group, particularly from 40 onwards.
- (2) Avoid age discrimination at the point of hiring a new employee.
- (3) Employee-manager interview at the start of the second half of an employee’s career, from 45 onwards and thereafter every five years at the request of either side. The interviews address developments and perspectives in the sector of activity, the employee’s competencies and his or her training needs. The industry equips employees with a “training passport“.
- (4) This article on training comprises of eight paragraphs. The skill review (this is drawn up for every employee over 45), the validation of learning through experience (VAE, every employee can receive this), the individual right to training (DIF, applications from candidates over 45 in mobility projects have priority), longer training programmes (the agreement aims at increasing the number of these programmes for those over 45), occupational qualification contracts (increased efficiency in employing those over 45) and information from official institutions about training programmes by age group and occupation.

## 6. Practical examples

- (5) Knowledge transfer has priority for personnel management. The job descriptions and training for tutors are defined and recognized.
- (6) Review (of a check-list) for retirement preparation, at the request of the employee with his/her manager (ways of leaving work).
- (7) Adaptations to working conditions (particularly with regard to the reviews and the employee interview, particular workloads that remain to be negotiated), working hours (part-time, retention of social contributions as for full-time working for those over 50), use of time accounts (longer employment, remuneration for part-time working).
- (8) "Work splitting": Splitting an employee's overall working time over several enterprises in an enterprise group. The enterprise group (or industry) commits itself to create such group structures.

The last three paragraphs of this agreement deal with the legal aspects, particularly its unlimited validity with a review after two years in operation.

The supplement to this agreement (8 September 2009) was to avert the punishment under article L. 138-24 of the legislation governing social insurance from affecting those enterprises in the industry covered by the 2007 agreement. The message is that a career must offer possibilities for further development for those aged 50 and even those aged 55. Six articles deal with the criteria for evaluating the industry agreement:

- (1) The employment rate for those over 55 is to rise to 11% (it is currently 10%). If this is difficult, the alternative is to raise the percentage of those over 55 to 10%.
- (2) Priority promotion of four sectors: perspective-oriented career planning, knowledge transfer and tutoring, skill development (access to basic and advanced training) and individual settlements at the end of a career.
- (3) Contains a table showing the four sectors mentioned with the selected definitions, the targets in figures and the selected indicators in relation. Furthermore, the following figures should be reached in three years: a 10% increase in the number of employee interviews with employees over 45, increase in the number of tutors among workers over 55 (from 5% to 8%) and among technicians (from 16% to 18%), availability of a skill review for all workers over 50, double the number of applications for validation of learning through experience, increase in part-time working to 7% of the overall average for all employees in the age group over 50. The main monitoring tool is the annual industry survey of the individual indicators in enterprises which are then collated.
- (4) Information of official institutions.
- (5) Age discrimination may not play any role in staff hiring, in allocating training courses, in remuneration, in career planning or development or the use of occupational skills and capabilities.
- (6) The industry guarantees an annual review of results.

The last three articles contain details of the legal background to this agreement, which was concluded for a period of three years and entered into force in January 2010.

The agreement for the fertilizer and soil treatment agents and wholesale industry was one of the first of this type to be concluded. In 2007 it already contained several interesting considerations, particularly the focus on the over-50 age group, occupational mobility in relation to age groups, programme evaluation by a central body, a future-oriented view of the career development of individual employees and part-time working. This last consideration was only addressed to a limited extent in 2007. It was put forward by an industry that is more oriented towards sectors with sufficient employee loyalty (employment pool) rather than towards large national targets.

## 6.2. Practical examples for sphere of activity 2 (leadership and personnel management)

### 6.2.1. The “ZuM Handwerk” project: A factor for the future – skilled crafts and workers in demographic change

Skilled craft enterprises have just as much need to act regarding the social process of demographic change as large-scale industrial enterprises.

The number of junior employees is falling. Questions are increasingly being asked how small and medium-sized enterprises can conduct long-term personnel planning and development as well. What would ageing-appropriate work design look like where employees would not be “worn out”? How can the knowledge and experience of persons leaving be kept in the company? How can enterprise succession be designed?

In most cases skilled craft enterprises lack the staff and financial resources to address this multifaceted problem. The federally funded project “ZuM Handwerk” aims at sensitising and showing ways and means. It is being carried out by the Bremen Chamber of Crafts, Ansgaritorstr. 24, 28195 Bremen, ([www.hwk-bremen.de](http://www.hwk-bremen.de)) in cooperation with the “Demography-network Northwest”, Drosselweg 12, 27574 Bremerhaven, ([www.demografie-nordwest.de](http://www.demografie-nordwest.de)) and the HandWERK gGmbH, and will run from September 2009 to August 2011. Scientific support is being provided by the Institute for Gerontology of the University of Vechta (Prof. Frerichs):

#### What aims does the project have?

- Supporting skilled craft enterprises in adapting to demographic change.
- Cross-company further education on demographic change.
- Exchange of experience about examples of good practice in population-aware personnel planning and designing ageing-appropriate working conditions.

#### What is happening in the project?

- Company-specific consultations for skilled craft enterprises in and around Bremen. These include a preliminary interview and a follow-up workshop of approximately three hours. Concrete needs for action and possible solutions are discussed with population consultants, enterprise owners and further actors if required.

## 6. Practical examples

- Developing and implementing qualification modules towards the master craftsman's certificate, for skilled craft business economists and master craftsmen/business proprietors at the Centre for Excellence for Skilled Crafts and at national level.
- On-site practical information sessions on technical subjects.
- Networking enterprises and institutions.

### What use is the project?

- Participating enterprises can benefit from a well-founded analysis and consulting session about their concrete business situation.
- The project offers the possibility to exchange experience with enterprises in other skilled trades and crafts.
- The Bremen Chamber of Crafts, the training institution HandWERK gGmbH and Demography-network Northwest provide know-how in the form of long-term proposals and activity guidelines.
- The project aims at contributing towards a positive view of skilled trades and crafts amongst the general public and so making the hiring of young employees easier.
- Networking activities and actors for demographic change in small and medium-size enterprises is subsidized in the federal state of Bremen.

### 6.2.2. Company consultancy: road safety and the working world

The conviction that a holistic view of the individual, whether young or old, is required in occupational health and safety and has finally gained acceptance. Employees can no longer remain restricted to a purely passive role with one-way communication, in which they receive the correct information and instructions so that they then “automatically” behave and function correctly (i.e. health and safety-conscious). Persons simply concerned can, on the contrary, become persons involved. All their skills, interests and abilities, not just those that are work-related, have to be involved explicitly. Chapter 2.2 showed how younger and older employees can differ in this respect.

Based on these and other considerations the approach of a holistic, integrating, participating in-company road traffic safety programme was developed. It has been published under the title “Betriebsberatung; Verkehrssicherheit und Arbeitswelt“ (company consulting, traffic safety and the working world) by the German Road Safety Council and is based on the following principles (Falkenberg et al., 2002; Geiler 1994; Kalveram et al., 2000):

- A holistic approach: this is expressed in the fact that a holistic view of the individual is taken as the point of departure. The employee is not just an employee; he/she carries a multiplicity of other social roles and functions. This makes it possible to expand on approaches to prevention. Furthermore traffic safety work is regarded as a part of a more comprehensive objective (e.g. reducing in-company nuisance factors) and is therefore integrated into the system of occupational health and safety.
- Participation: persons simply concerned become persons involved. Employees are drawn into the risk analysis, designing approaches to solutions and their implementation. This can happen, for example, by mobilizing employees' skills and knowledge in workshops. Con-

crete example: employees design specific company information materials (e.g. short video sequences, posters) which are then used for in-house communication purposes. (e.g. at company discussion sessions, for initial training for new employees).

- Continuity: the programme is designed for continuity over time. This can be seen in the fact that solutions to problems become integrated in existing safety concepts. Individual “fire brigade actions” really only make sense in that they sometimes help to set up a procedure that is of use over the longer term.

Model projects along these lines took place in the vehicle parks of enterprises of varying size and from different industries (e.g. building industry, telecommunications, food industry). What they had in common was the setting up of traffic-safety discussion groups, which brainstormed in several workshops (group size 10-15 employees) numerous challenges and risks (“What’s on your mind?”). Drivers worked out solutions and ways of putting them into practice. The solutions that were developed as a result, differed widely according to the situation of each company. Some examples: revision of delivery route plans, putting out trays or clipboards for delivery notes, working out rules for vehicle cleaning/servicing.

In several efficiency studies (control-group design with before and after measurements; behaviour observations, attitude questionnaires) the workshop participants showed changes in attitude and behaviour conducive to safety (e.g. less willingness to take risks, fewer speeding offences, use of transport aids when loading and unloading) (Kalveram et al., 2000; Rabe et al., 2007).

The studies also highlighted what management had to contribute, in terms of organization and the conditions necessary for such a project to have the desired effect. In those enterprises where management did not provide workshop members with feedback about their suggestions, the projects were seen as failures. Employees felt that they had not been taken seriously and lost motivation.

Experienced and older employees in particular, need to be taken seriously. However, where measures were put into practice and there was a high level of commitment from all those involved in the project, effects could be observed in attitudes and behaviour that were conducive to safety.

### 6.3. Practical example for sphere of activity 3 (work design and organization)

#### Holistic management of demographic change in the BMW Group

Issues relevant to staff in the BMW Group are taken up via surveys of employee representatives and through internal company focal points for personnel policy.

Among the focal points for 2008 the subject of “demographic change” ranked as high as, “good working conditions”, “attractive employer”, “work/life balance”, “basic and advanced training” and “occupational safety, health protection and promotion“. The project “today for tomorrow” regards demographic change as an opportunity and pursues five main directions.

## 6. Practical examples

### 1. Future-oriented work environment design

Ergonomically equipped workplaces should do away with physical effort to a large extent thus, achieving age-appropriate design for workplaces. For example, production line rotation models (guided change of workplace at regular intervals) reduce one-sided physical strain. Furthermore individual working time models should give employees more flexibility and space for personal recovery.

In 2007 and 2008 the production plant Dingolfing looked at the question of how a workforce that was gradually ageing would affect assembly work. They set up a production line for rear axle differential assembly that had the same age structure that had been forecast for 2017 and called the project “labour system 2017”. The result was that the older workforce worked just as efficiently as a similar production sector with far younger workers. The “labour system 2017” conditions had been adapted to meet the needs of older workers. The central measures employed were “load-optimized employee rotation” and the development of shift models that were age-appropriate and catered to health requirements based on a demand-limit analysis.

The work of the employees had been made easier by a multiplicity of measures with regard to ergonomics and tool/equipment design. Seating space was created, for example, to give temporary relief to the musculoskeletal system. Vertically adjustable tables could be adapted to the height and size of each employee. Wooden floors were put in to allow improved attenuation or suspension, on which employees with custom-fitted working shoes could stand for a long time without feeling tired. Containers were installed for better availability of assembly parts. Screens on the production terminals were tilted and the screen font made larger to cater to age-specific vision impairments. Magnifying glasses were provided so that workers could read part numbers that were in very small print.

### 2. Health management and prevention

A prevention programme supports employees in being responsible about their health. For example, there is a health forum that provides free comprehensive medical examinations with follow-up consultations. Employees can improve their fitness in the company’s own fitness centres and also attend seminars on healthy eating, physical fitness and mental equilibrium. The “Rehabilitation Network” programme accompanies employees through shortened and effective rehabilitation process. BMW Group uses these comprehensive programmes to sensitize their employees and promote their employees own sense of responsibility.

### 3. Qualifications and skills

Life-long learning is becoming more and more important. For this reason BMW promotes forms of learning that are directly connected with occupational activities. The company’s skill requirements are formulated at a very early stage as part of qualitative personnel planning.

BMW’s Goodwood site in the USA was awarded “Investors in People” status in 2008. This scheme rewards employers who promote, support and provide further training for their employees.

### 4. Individual working lifetime models

Despite reinforced preventive measures not every employee will want to or be able to work until the statutory retirement age in future. Retirement schemes were therefore worked out with the works council that met the needs both of the company and employees' life plans.

### 5. Communication

The aim is to strengthen consciousness among managers and employees about changes in society and the company. For example, many models of old-age provision are on offer to employees and a variety of campaigns are run to promote employees' own sense of responsibility for personal old-age provision. The company runs a pension portal "providing for my future" where employees can obtain information about all the offers for comprehensive personal provision for the future and design their own individual schemes.

## 6.4. Practical examples for sphere of activity 4 (promoting and preserving employees' health)

### 6.4.1. Fitness through safety: the firm BK Giulini provides an example of health-preserving measures

The firm BK Giulini was founded in 1823 by the Giulini brothers in Ludwigshafen and belongs to the Israel Chemicals Limited (ICL) Group. Approximately 850 employees work at the German Ludwigshafen and Ladenburg sites.

The enterprise attaches the highest importance to the health and safety of their employees. "Their health is their most precious possession and I and my managers hold it equally dear", admitted the managing director Alexander Paz. Under the motto "working safely", they have been achieving lasting success for years, with the widest possible variety of campaigns and programmes. This shows in declining accident figures and also in a "healthy" sick leave rate.



Demographic change is affecting the enterprise directly, since they have to compete for skilled employees with other very attractive employers where they are based.

As an employer in the chemicals industry BK Giulini has signed the collective labour agreement "Working Lifetime and Demography" (please refer to the first practical example in chapter 6.1).

## 6. Practical examples

The sub-project “fitness through safety” combines a traffic safety campaign with health promotion measures for young and old.

Cycling is an excellent way of preventing cardio-vascular disease. In addition to reducing stress it compensates for sedentary office work and promotes agility and receptivity in employees. Cycling on the company grounds is allowed and encouraged. The company makes bicycles available to its employees and also makes it possible for them to use private bicycles, which meet the required safety standards. These have regular safety inspections and small repairs are carried out immediately so that the bicycles are always safe for use in traffic. “Bicycle service stations” have been set up at the two sites where employees can check their tire pressure and top it up if necessary. The cycling rules are also clearly displayed at these service stations.

Setting and communicating the cycling rules was also important, for example, left gives way to the right, speed limit, rules for transporting items on the bicycle, use of mobile phones, etc. There is also a minimum technical safety standard that must be met by each bike provided”.



The image displays a 'Bicycle service station' sign on the left and a photograph of a blue van with bicycles parked in front of it on the right. The sign features a yellow header with two 'WORKING SAFELY' logos, a bicycle pump illustration, and a list of 10 safety rules, each with a red checkmark. Below the list, it says 'Everything OK?' and 'Safe journey!' in red and black script. The photograph shows a blue van with a canopy, parked on a cobblestone street with several bicycles parked in front of it.

### Bicycle service station

1. Respect the rule: Left gives way to the right	✓
2. Speed limit: 20 km/h	✓
3. Display your test badge	✓
4. Only transport material in a secured bike	✓
5. Don't take large objects on the bike	✓
6. Cross railway tracks with caution	✓
7. Respect no-cycling zones and push your bike	✓
8. Absolutely no cycling in the production halls	✓
9. Do not use your mobile phone while cycling	✓
10. Respect the no-cycling rule in snow and ice	✓

*Everything OK?*  
*Safe journey!*

The company also offers the possibility of health checks by the company's medical officer to test cyclists' fitness and recognize any health limitations early on.

Overall there is a win-win situation for employer and employees in terms of higher productivity through healthier employees. The employees take their new-found health and safety consciousness home to their families, which also gives the company a positive image.

### 6.4.2. The project "healthy fiscal authorities in North-Rhine-Westphalia"

Fiscal authorities deal with highly complex matters. In addition, staff reductions in recent years with their accompanying increase in work density, have made ongoing adaptation processes necessary. The aim of a stronger service orientation for citizens defines requirements that have to be reached as important enterprise objectives. Along with customer orientation, employee orientation was also identified as a central factor. A rising average age and a high number of employees who are working at maximum capacity made it necessary to do something about the health effects of these workloads on employees.

Therefore, numerous health promotion measures have been carried out in recent years in the tax offices of the Rhineland tax district. Examples are annual health checkups, workplace audits with regard to ergonomic design, movement, nutrition and relaxation programmes. As in other organizations the emphasis was on measures targeting preventive behaviour, rather than conditions for prevention. Furthermore, while commitment and goodwill was present, a central theme appeared to be lacking due to the large number of unconnected individual measures. These shortcomings were to be overcome in the project "healthy fiscal authorities" (for more information please consult: <http://www.inope.de> - "Health promotion and prevention").

#### Project aims – what was to be achieved and how?

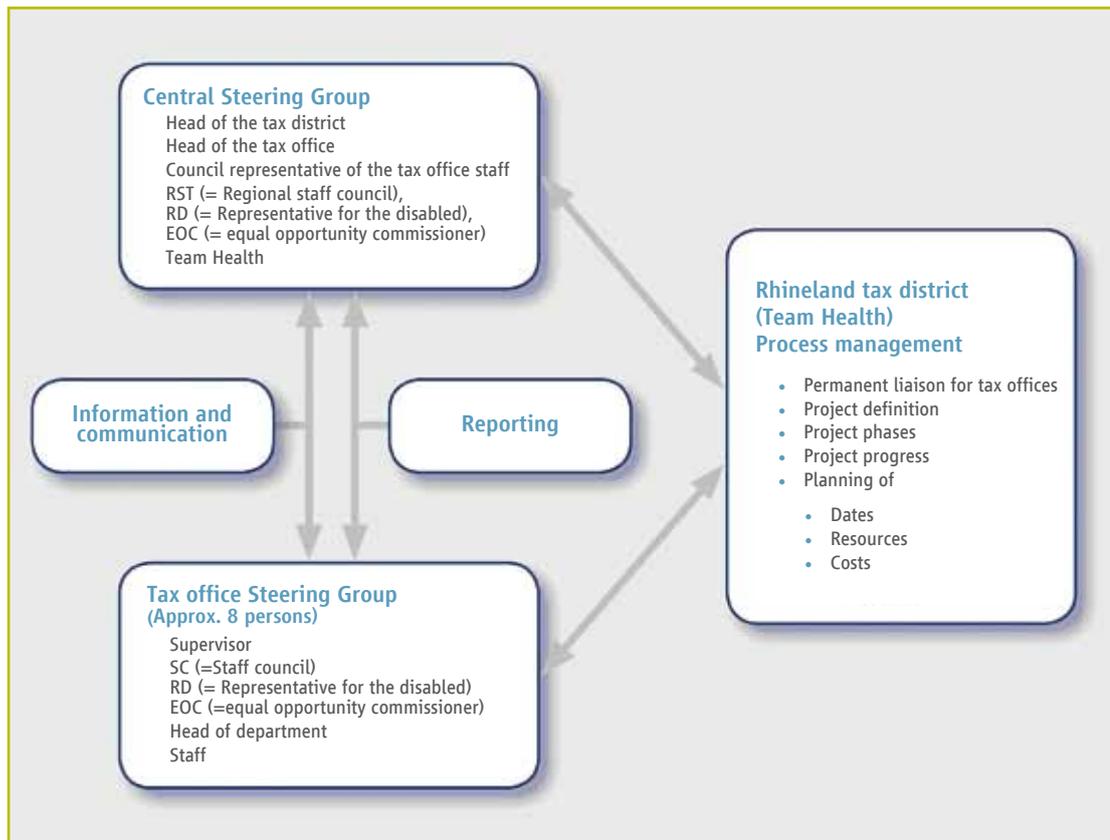
The most important aim was defined as the longer-term sustainable promotion of employee health and employability. Existing approaches in connection with occupational health and safety, health promotion and employee guidance were to be systematized, coordinated and evaluated. The objective was to build a state-of-the-art systematic and sustainably effective health management system (HMS). This consisted of the following components: structures including definition of responsibilities, tasks and processes, management, work design, information and communication, health activities and programmes, and monitoring and evaluation.

#### Actions – what exactly was done?

The first step was for the head of the tax district, together with the heads of the tax offices, to set up a Central Steering Group. Their aim was to handle the planning, coordination, fine-tuning, and evaluation of health measures, as the successful establishment of structures relevant for health was essential for a sustainable and effective health management system (see diagram below).

## 6. Practical examples

Fig.: Approach, steering teams and process management in the fiscal authority administration

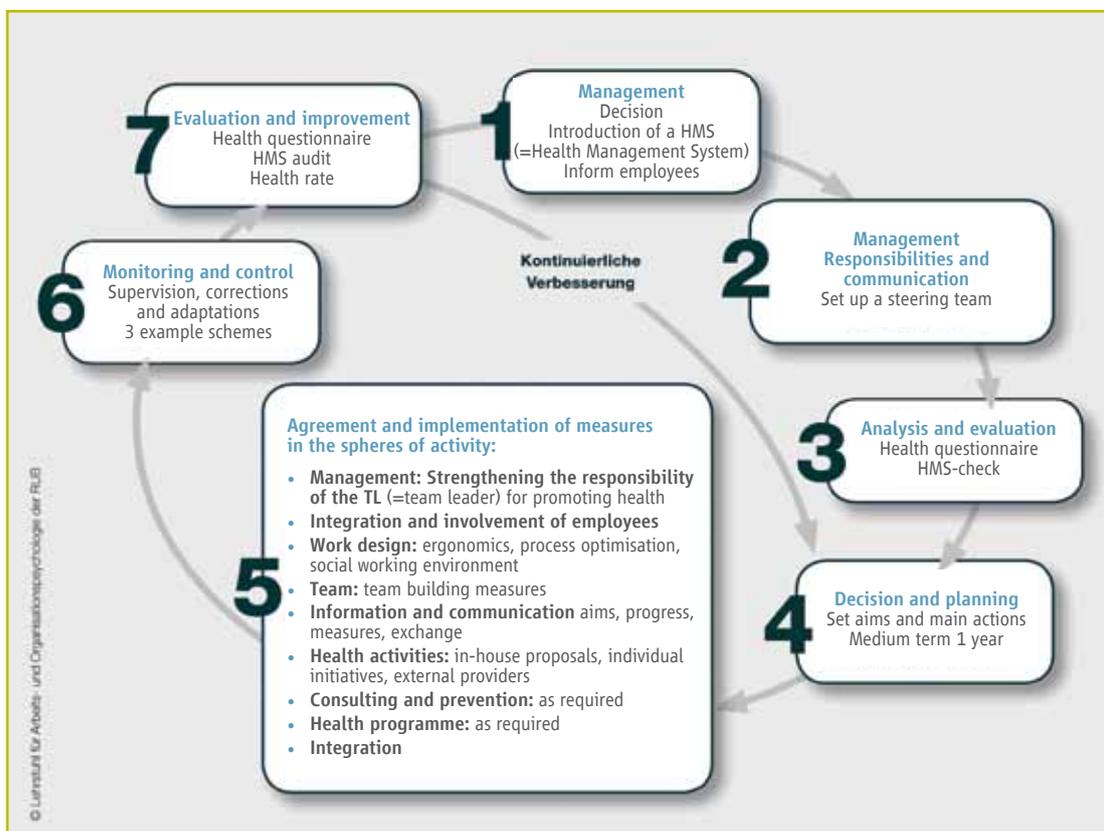


It proved to be important to involve staff representatives in the steering teams right from the beginning.

A “Team health” was set up for the overall tax district containing committed employees, moderators and facilitators available for the individual tax offices. Additional local Steering Groups were set up at each tax office to initiate and steer on-site actions and measures. Initially, the structural basis and individual responsibilities for the health management system (HMS) were laid down in the respective tax offices. In addition to setting up the Steering Group at each tax office, the focus was on engaging and motivating management for the HMS, as well as, taking a snapshot of the health situation in the tax offices through an internet-based survey. The “occupational health and safety questionnaire – in-house health promotion – short version” (FAGS BGF KV) was used to do this in 2005 and 2007. Measures arising out of this survey regarding ergonomics, work organization, team-building or other social work design were carried out as required.

The necessary information and communication processes were systematically taken into account and promoted. An important provision was both to optimize the flow of information, and to involve employees through a feedback system and track the effects of the project at a grassroots level.

Fig.: Strategy including information exchange, employee involvement, mandatory feedback



## 6. Practical examples

### Results – what was achieved?

The evaluation showed a wealth of positive changes compared to the two measurement points. There were significant improvements not only to employees' scope of action and their coping strategies, but also to the health culture overall. There were extremely significant improvements in health-related management behaviour with regard to involvement and engagement, as well as passing on information. Furthermore, back pain complaints were reduced in terms of frequency and intensity. These successes are even more important, since they were achieved against a background of increased workloads and emotional demands.

The participating tax offices rated health-related sensitization and consciousness-raising among employees (including management), as important project successes. Employee-oriented management behaviour that understands health as a management task was further promoted through measures such as coaching for heads of department and development processes in working groups.

Finally, it can be noted that it was possible to build up an efficient, sustainable and effective in-house health management system that goes far beyond a simple combination of preventive measures aimed at behaviour and conditions. It was implemented successfully through a focused project structure and interlinked activities in the tax offices over the period 2004 to 2008, in many parts of the fiscal authority administration for North-Rhine-Westphalia (NRW).

### Transferability – what happens now?

There are plans, through the fiscal authority administration NRW, to expand this approach to building an in-house health management system as used in the project, to cover those tax offices that were not involved at the time. There are also plans to establish the necessary structures and carry out health questionnaires to assess and carry out any resulting needs-based measures that may arise as a result.

The establishment of a durable, effective health management system like the one in “healthy fiscal authorities” is also to be recommended for other (administrative) institutions on the basis of this successfully proven comprehensive approach.

### 6.5. Practical example for sphere of activity 5 (staff training and further training)

#### 6.5.1. Improving the employment rate for older persons: company agreements, the Evalis example

In order to meet the french requirements for employing older workers, enterprises or groups of enterprises with 50 to 300 employees must either be covered by an agreement for their industry sector, or have their own action plans. Enterprises with more than 300 employees have to enter into negotiations for an agreement, or draw up an action plan for employing older persons.

The enterprise group Evalis, the leading distribution network for animal feed (750 employees) negotiated an agreement with all social partners on 14 January 2009, regarding jobs and skills management in perspective, the short name for which was “cap compétences” (set course for skills). This agreement had two aims: project a future estimate for the need of staff and skills and to further develop existing human capital. There are four pillars to this agreement.

- Develop skills and hiring conditions to reinforce and support career management through: starting an integration process and promoting convergence among employees, an annual one-to-one interview that can be supplemented at the employee's request by a career development interview to design a career path, intensified planning for training measures. In this context the training tools that are already available are mentioned (longer advanced training courses, DIF, CIF, VAE and skills audit – see also particulars in practical example 6.1.4.) and the introduction of a training passport is confirmed, and renewed updating of a mobility charter to accompany and support the employee and/or his life partner in their geographical mobility;
- Manage the second part of the career path to maintain hiring conditions for older persons so that they have real career development prospects. For this there is: an optional career development interview once the employee has turned 46 that can have a pension balance content from the 56<sup>th</sup> year on, measures to shorten working hours for employees over 57 in which those working hours may not be less than 50% of full-time working, priority when applying for longer advanced training courses once the employee has turned 46, a dynamic knowledge transfer policy (forms of guidance and imparting that knowledge such as tutoring, monitoring, complementing and exchanging places in teams), and careful examination of an employee's wish for career change after age 45 when this is for health reasons or to retain an “endangered workplace”.
- Forward-looking attitude to economic changes, mainly on the basis of voluntary leaving on the part of employees who are in “endangered workplaces”. What is meant here is changing to another activity. The worker remains an employee of Evalis, until a full-time position has been found.

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- Finally the fourth pillar comprises, as laid down in the legislation governing the employment of older persons, tools to evaluate mobility and career development using indicators, to be able to compare workers over 45 with those aged 40 – 45, to define the category “endangered workplace”, to map out jobs in terms of requirements one, two and three years ahead in a supplementary agreement, to produce employee overviews with job and skill descriptions, to set up a job observatory that proposes annually measures to fine-tune skill adaptation through basic and advanced training, organization, personnel recruitment, changes of activity etc. to anticipate developments in the economy. Finally “set course for skills” committees are to be formed to analyze the situation regarding jobs and skills to find possible transitional solutions and decide on the ways in which these transition possibilities can be used.

The agreement was concluded for an unlimited period and will be reviewed in May 2011.

### 6.5.2. Practical driver training course in the transport fleet of an enterprise in the bakery trade

A practical driver training course was carried out in the transport fleet (lorries of 7.5t all-up weight) belonging to the firm Schäfer's Brot und Kuchen Spezialitäten based in Porta Westfalica (Germany). The course was the programme “drive and save with safety – drive safely, economically and ecologically”, proposed by the German Road Safety Council ([www.fahrspart-training.de](http://www.fahrspart-training.de)). The main aim of the course is to instill a driving style that saves fuel, is relaxed and prevents conflict. The corresponding driving techniques were explained to the drivers in a workshop. The practical part of the training course then followed in real traffic: every employee was accompanied on his usual delivery round (average time 160 minutes) by a trainer. The trainer provided instruction through tips and comments on how to drive in a relaxed way and save fuel (e.g. change up early, make use of momentum, and anticipate while driving, even out changes in speed in the traffic flow). At the end of the round the trainer gave the driver personal feedback on his driving style. After approximately two weeks there was a final workshop that was mainly used to exchange experiences.

This course was the subject of an efficiency study (Geiler & Kerwien, 2008). It was designed as a classic before-and-after study with an experimental and a control group (n=31 or 27). There were standardized driving behaviour observations from trained passenger-observers, self-assessment and external assessment of driving styles using lists of adjectives. Attitudes that were relevant to safety (e.g. feeling stress when driving, willingness to take risks) were recorded using the scales developed by Schulz et al. (2000). Follow-up surveys took place two-and-a-half weeks and two-and-a-half months after the course. Fuel consumption was determined additionally nine and ten months after the end of the course.

The evaluation showed that attitudes and driving behaviour which were detrimental to safety had reduced to a statistically significant degree in the trained employee group. While similar changes were not observable in the untrained control group. Similarly, three-and-a-half months after the course, the readiness to express tension (e.g. anger) in a more aggressive driving style was still reduced. According to the drivers themselves, they felt less stress and were more relaxed. Rule infringements that were detrimental to traffic safety (e.g. driving too close to the vehicle in front, not respecting the right of way) were fewer. Furthermore, driving styles had become more environmentally friendly; fuel reduction was 6.76% (three months after the course) and 3.66% (nine and ten months after the course). There were no reductions in average speed. The drivers did not need more time to complete their delivery rounds than before the course.

The drivers rated the course very positively. They found it very useful (e.g. with regard to stress reduction and increased safety) and were very satisfied with the way the course had been run and its content. Furthermore these were extremely experienced transport fleet employees (20 years driving experience on average) with high occupational driving experience (35,000 km/year on average). In other words: experienced and older employees can benefit as well.

Practical driver training courses, like this one, reduce stress and lessen the risk of traffic accidents, both for other road users and for the individual employee. This is also shown in a recently completed efficiency study for a combined safety and environment course (Strohbeck-Kühner & Geiler, 2009). Trained drivers described themselves as more relaxed when driving and reported greater efforts to anticipate while driving. They also made less use of so-called confrontational coping: they reacted less aggressively in difficult stressful situations (e.g. when they were hemmed in on the motorway) and were less ready to take risks. They were less likely to burn off tension by driving fast, driving up too close to the vehicle in front and complaining about others. In standardized driving behaviour observations they made fewer mistakes than the untrained control group.

Finally, it is worth noting the fact that on-the-job further training (here with transport fleet employees) can reduce stress that is hazardous to health and the risk of accidents. The fact that such person-centered approaches have to be supplemented by organizational measures (e.g. realistic delivery round planning at the depot, safety equipment for company vehicles) and improvements in road traffic infrastructure (e.g. more and better-equipped parking and rest areas) goes without saying (see sphere of activity 3: Work design and organization).

## 7. Summary

Demographic changes are a great challenge for the stability and continued existence of social security systems. Demographic change and its effects rightly belong as a key issue in the ISSA activity programme for 2008 – 2010. Many aspects of social security are affected, particularly the systems for health and family benefits, unemployment insurance, old-age insurance and last but not least, insurance against occupational accidents and illnesses.

Prevention has a significant role to play in overcoming the challenges connected with demographic change. In this context, the ISSA Special Commission on Prevention has examined which concrete contributions occupational health and safety measures can make and how the relevant conditions for these can be created.

The first step was to review and gather population-related facts and problems. Then answers had to be found inter alia to the following central questions:

- Do older employees have special needs that are relevant for prevention?
- Do preventive measures for older employees have to differ from those for other age groups?
- How can work be designed to place the least possible burden on health?
- How can a person's ability to work be preserved at a high level for as long as possible?
- What are the priorities in-company and externally for action and how are they to be implemented?
- Who are the actors and target groups for preventive measures?

The aim for all people to participate in the life of society as actively and for as long as possible throughout their working life is absolutely indisputable. This not only takes a burden off social security systems and stabilizes them, it is also worthwhile on medical and ethical-humanitarian grounds. Preserving the ability to work is an important aspect of this. Preventive measures to improve occupational health and safety take on a key role in this context.

A person's ability to work does not automatically decline with advancing age, but it does change. Older employees have skills and potentials that are less developed in younger workers. Then again, there is an age-specific decline in primary physical abilities.

The realization that no special "workplaces for old people" need or should be created is crucial. This, however, does not stand in contradiction to the fact that, for example, the special experience and knowledge of older employees should receive greater emphasis through the allocation of special tasks and activity profiles.

Ageing-appropriate prevention is needed from an early age. Young employees need to be protected through working conditions that are conducive to good health so that they stay healthy and active in their later working life. Effective age-appropriate prevention needs to meet the requirements of the special profile of health and social concerns of older employees and take account of their strengths and weaknesses.

The following five spheres of activity were identified for the corresponding prevention measures:

### **1. Social, socio-political and economic context**

The role of the state and society should be to promote the cultural values and structural conditions in which the various generations can co-exist socially and decently. Health and prevention are particularly important in this. The framework provided by these standards and values must guarantee age-appropriate and ageing-appropriate prevention.

### **2. Leadership and personnel management**

An enterprise culture that values the distinctiveness and advantages of older employees and at the same time promotes cooperation between different generations is essential for staff management.

### **3. Work design and organization**

Working conditions should be optimized through ergonomic workplace and tool design and improvements in overall organization and workflow processes.

### **4. Promoting and preserving the health of employees**

Effective health management at works level and health-conscious behaviour for employees must both be promoted.

### **5. Staff training and further training.**

Qualifications for employees should promote permanent learning, receptivity and enable them to overcome challenges that will be changing continuously. At the same time knowledge about the prevention of health risks at the workplace should be passed on and continually updated.

The overall level of safety at work rises, if the protection needs of older employees are taken more into account. Occupational health and safety for older workers is high-quality prevention. Prevention optimized in this way and established in companies and enterprises creates the conditions for a careful and considerate approach to health from an early age thus, benefiting younger employees as well.

The findings and conclusions of the project were collated with the detailed presentations of the spheres of activity and selected practical examples into information and recommendations.

This brochure is aimed at all those responsible for, and active in prevention. This includes employers and employees as in-company actors, occupational safety experts, social partners, sponsors of cultural activities, educational and training institutions and the political leadership in government and society.

## 7. Summary

With this information and these recommendations the ISSA Special Committee for Prevention wishes to disseminate important principles for an ageing-appropriate and age-appropriate design of working life. Prevention is clearly illustrated as taking on a key role in overcoming demographic change in the world of work through increasing the ability to work, and employability of an ageing population by effective prevention in all phases of working life.

The information and recommendations in this brochure can be passed on effectively to those concerned, and to in-company and external actors through campaigns that are targeted at specific target groups and regions.

Social security institutions should disseminate these recommendations through target-group-specific information campaigns using suitable multipliers. Companies and enterprises will have to adapt them specifically to their particular industries.

Cooperation between the institutions of the various branches of social security would appear to be particularly useful, since they are all confronted by the consequences of demographic change. The different weighting attached to individual aspects broadens the perspective of the institutions concerned and creates synergistic effects.

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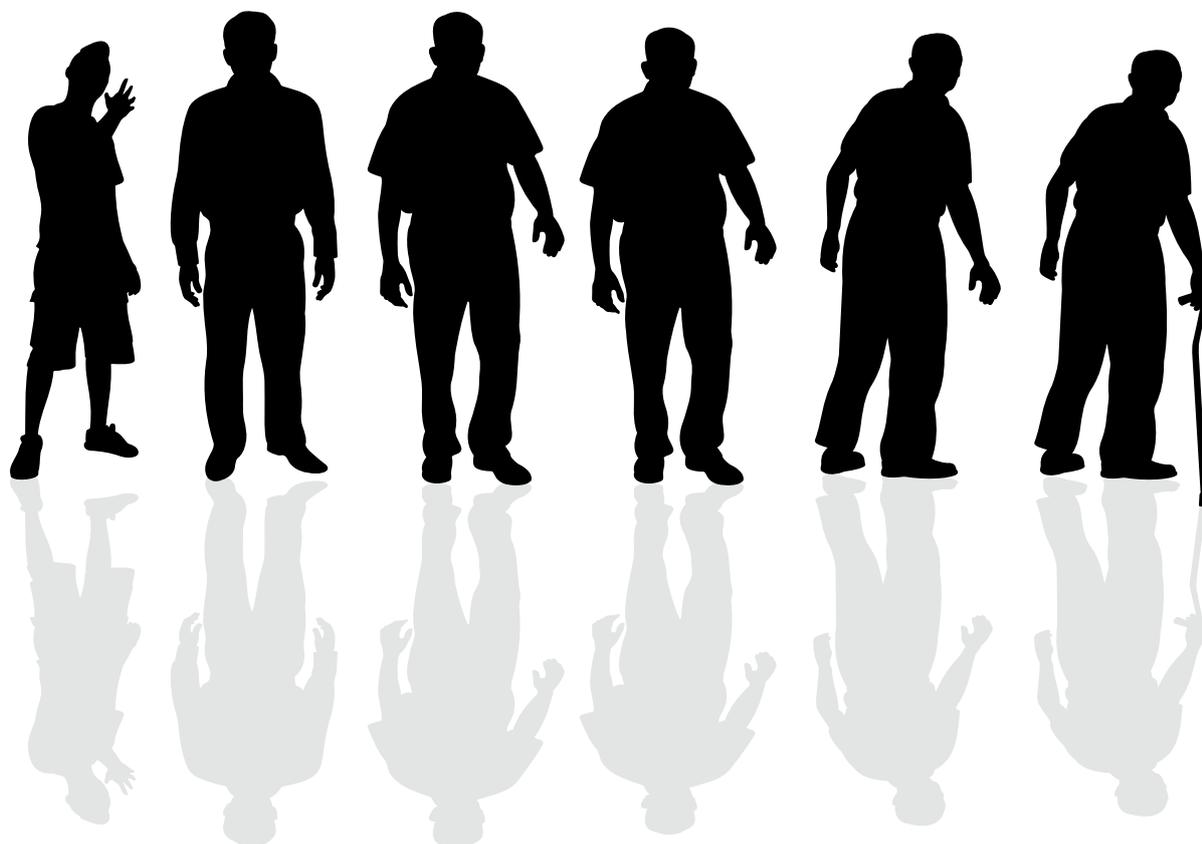
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