



Everything Grey on Grey?

Ageing Workforces and Office Work

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Foreword

Hardly a day goes by when the media do not report about the demographic change and its effects on industry and society. This takes place more or less seriously, sometimes factual, sometimes sensational. For example, a major tabloid newspaper gives the Germans up to the year 2300 or a good 12 generations – then the population will have shrunk to 3 million and the Germans will be as good as extinct ...

This brochure does not look quite so far into the future. And although it also deals with the consequences of the demographic change, the aspects and correlations presented here are much less dramatic than the introductory sentences suggest. The whole point is simply how our world of work – in particular the world of office work – has to be designed so that older employees can also feel at home in it, both now and in the future, remain productive and motivated and can meet the demands imposed on them. That is by no means an insoluble problem but definitely represents a challenge for many companies – especially as some have not even recognised the need for action. However, the following also applies to these companies: They will have to overcome the economic challenges in future with older workforces and rely on their innovative ability and efficiency.

This brochure intends to provide information and tips on how that can be achieved. You will see that

there are no insurmountable hurdles on the way from an average to an age and ageing-appropriate office workplace. However, a new office chair and a bit more light at the workplace are not enough. The aim is rather to achieve a new quality of work which is geared to the individual needs of people, support their potential and carefully handle the resource “people” which is becoming increasingly scarcer.

This brochure may possibly motivate people to subject the entire system of work to a critical analysis and optimise it where necessary. For that is the main message: A workplace optimally designed from ergonomic aspects is also an age and ageing-appropriate workplace. And such a humane workplace benefits both old and young: The work becomes easier for the young whereas it may simply permit the silver generation to work. If you want to obtain comprehensive information in addition to the contents of this brochure on the subject of office and office work as well as the demographic change, you will find everything worth knowing about these topics at www.inqa-buero.de and www.inqa-demographie.de.



1

Grandchild-free zones and silver workforces

Demographic change and labour market

Greying society

In the near future, it will no longer be worthwhile for the mayor of any town or city to hold a press conference when a citizen celebrates his or her 100th birthday. What was formerly an exception could become the rule – a long life up to a ripe old age. This is attributable to better nutrition, advances in hygiene, a comprehensive health care system and also the improved working conditions. In fact, a good development – if it wasn't for another demographic trend: the decline in the birth rate or the stagnation of the birth figures at a low level. That not only means that many a grandmother's or grandfather's lap will, in future, be without a grandchild, but above all results in an older and smaller total population on average. A key development which cannot be simply reversed as children who are not born today cannot become parents tomorrow, either. Therefore, the Federal Republic of Germany – according to the calculations of the Federal Statistical Office – will have between 69 and 74 million inhabitants, depending on net immigration, in 2050 who, on average, will be a few years older. Therefore, the average age of the population will rise from the present approx. 42 to some 50 years by 2050.

Grey workforces

The social security systems are affected by this demographic development just as much as companies and their workforces. For there are already signs today that an older population on average is also linked to older workforces on average. For example, between 1993 and 1998 the proportion of the workers over 55 rose by 22 % in spite of drastic staff reductions among the old – keyword: early retirement. And the proportion of older workers in the workforces will continue to increase. Forecasts predict that the average age of the working population potential will increase by a good two years by 2020 – compared with the period 1980 to 2000 that is a rise of a factor of three. That entails a rising proportion of older workers in the working population potential by 2020: Whereas the 50 to 64-year-olds, with 15.5 million at present, represent about 30% of the population of employable age, there will be roughly 19,5 million, i.e. almost 40 %, by 2020.

This development involves questions to which this brochure would like to provide answers:

- Can the economic challenges of the future be overcome at all with older employees?
- How can the innovative ability and competitiveness of the companies be safeguarded if ever

- fewer younger, “freshly” trained minds take over?
- Or to put it another way: How can companies cope with the tremendous drain of empirical knowledge and skills when in a few years time the high birth rate cohorts, the baby boomers, all go into retirement?
- How do work and working conditions in the office have to be designed so that they are ageing and age-appropriate?
- And finally: What can companies do now to remain competitive despite the change in the age structure of their workforces?

Workplace – the desk

At present, of the roughly 40 million workers in Germany, approx. 17 million take a seat at their desk every morning – they work in an office. Forecasts assume that this figure will even rise in the future – the office is on the way to becoming **the** workplace in the modern services and knowledge society. Against the backdrop of the demographic change, ever more older workers will therefore also work at a desk – the typical office workforce of tomorrow will therefore no longer set itself very much apart from the uniform grey of the furniture and computers. Great, one might think, for then everything is alright, after all office work is regarded as a low workload-intensive activity and is therefore certainly not a problem for ageing and older workers ...

An estimation which is certainly justified as regards some industrial workplaces (above all in former times) but it is, however, not really applicable – at least as far as the workload intensity in office work is concerned. For example, the commercial

and administrative jobs now record the most days lost due to illness. The complaints range from headaches, complaints in the back, neck and shoulder areas, inflammation of the tendons, “mouse arm”, eye disorders etc. The rise in mental workloads caused by modern office work should also not be underestimated. For example, computers and modern communication technologies have revolutionised office work over the last 20 years – and now the revolution is “eating” its children, at least not seldom their well-being and health. A surplus of information, short time corridors for performing tasks thanks to modern communication technology, a flood of e-mails which inundate some people every day, programs which do not always do what the user wants: The once fairly unspectacular office work has become for many a demanding and even stressful job which is a strain on the nerves.

Office work is not simply office work

Whether and to what extent office work is humane and therefore also suitable for ageing and older workers naturally also depends on what type of office activity is involved. Here, the spectrum is broad and ranges from creative to monotonous. Basically a difference can be made between three types of activities:

- **Function type 1** (management): Office work which cannot be formalised, geared to individual cases, tasks of high complexity, little structuring of the tasks, open solutions as well as changing co-operation partners
- **Function type 2** (project processing, skilled workers): Office work which can be formalised to

some extent, geared to specific cases, tasks of medium complexity requiring little planning, certain rules and guidelines which, however, are not schematic but applied with individual expertise.

- **Function type 3** (accounting, clerical work, materials management): Office work which can be completely formalised, geared to routine cases, the same problems with the tasks of low complexity, high level of structuring, established solutions and defined co-operation relations.
(to Last, Hoffmann and Walker, no year)

This breakdown not only reflects different fields of activity and qualifications but also hierarchical levels as well as different working conditions and workloads. For example, the function type 3 generally exhibits a very strong link with a monitor and a corresponding static body posture and is also paired with little latitude for decision-making and action. Greater opportunities for a varied activity with regular workload changes, by contrast, are offered by function types 1 and 2 which, from the ergonomic point of view, tend to have humane and therefore age (ageing)-appropriate potential.

However, regardless of which activities are performed in the office – every office activity can involve workloads to a greater or lesser extent which may result from a lack of ergonomics, poor work and workplace design, a lack of exercise, environmental influences, poor leadership, unsuitable qualifications etc. The following basically applies: The worse the work and the workplace are designed, the greater the strain is for those who have to work

there. And anyone who is put more under strain, their health deteriorates faster than is biologically unavoidable. To this extent, poorly designed work can make some employees look rather old at a fairly early stage. The converse naturally also applies: Well-designed work can promote the health and personality of the workers and help to avoid alleged “age-typical” shortcomings. More later about how that can work.



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2

Deficits and competencies

Strengths and weaknesses of older workers

We read about them in the newspaper or see them on the television: People over 60 who have completed a marathon run in under three hours, who have entered themselves in the summit log of a 6000 m high mountain or swum the English Channel. And in parliaments, at universities, on theatre stages or at the top management levels in industry, people of 66 years of age are often by no means at the end. However, the general public and even many personnel departments hold the opinion that ageing is generally linked by destiny with the loss of skills at all levels – physical, mental, locomotor. Admittedly, gerontology drew the picture of human ageing in the 1970s in a very different way but in reality this perception has not really gained much currency. To this extent, the so-called deficit model still wanders through the minds of many of those responsible for human resources with very real consequences for many ageing workers. They are removed from working life at an appropriate opportunity and often long before the statutory retirement age. The fact is frequently overlooked that empirical knowledge often disappears from the company with the older workers.

Productive also at 50+

When does one actually belong to the group of “older workers” nowadays? There was previously no agreement about when one belonged to the “target group” of this brochure. For example, the OECD avoids indicating a specific age. According to its definition, older employees are those workers who are in the second half of their working lives, have not yet reached retirement age and are healthy and productive. The Institute for Employment Market and Occupational Research of the Federal Employment Agency, on the other hand, sees a flowing border between the ages of 45 and 55 from which an employee is termed an older worker. Wuppertaler Kreis e.V., the Federal Association of Company Further Training, defines the older worker in a completely different way: “The term ‘older workers’ defines a group of people which is confronted in working life and on the labour market with age-related difficulties and risks because the work performance decreases, actually or allegedly, from a certain age group onwards.” In other words: One is regarded as an older worker some time between the ages of 40 and 60, depending on the definition. And according to the common prejudices, older workers are prone to illness,

unmotivated, uninterested, slow, unaccustomed to learning, unproductive and inflexible.

No one is disputing that the human organism is subject to a biological ageing process which also entails restrictions of functions. For example, the physical performance of a person, i.e. endurance, dexterity, strength and speed, reaches its peak between puberty and early adulthood. Up to the age of 40 it diminishes slightly, and then after that decreases more sharply. And the performance of the senses is also subject to this natural ageing process, above all vision and hearing ability may deteriorate appreciably with older people. The loss of hearing in old age does not only have a biological cause – anyone who has a “lot on their mind” in their work or in private life, their hearing deteriorates faster and earlier than that of others.

Great physical strength is not exactly the characteristic required in the office – and for the diminishing senses there are excellent seeing and hearing aids which offset the shortcomings. What is more crucial is certainly: What’s the situation behind the grey temples? What about the cognitive skills of ageing people? Actually quite good – and certainly better than many assume. Even “age-critical” skills, such as absorbing and processing information, can be almost as good with a 60-year-old as with a 40-year-old. And if the sands of time actually get to the grey cells, “deficits” can be offset with learning and memory strategies.

The situation with the so-called “crystallised” abilities, such as factual and procedural knowledge (e.g. verbal skills), is even better than with these “fluid” mental skills: They remain unchanged up to a great age and even tend to increase. Older people frequently shine in areas which are actually indispensable in the modern services and knowledge society. On the basis of sound scientific findings, older workers can be assigned the following strengths:

- wisdom, experience
- ability to make judgements
- diligence
- communication skills
- tolerance
- motivation
- work ethics
- loyalty, responsibility
- stability
- work experience
- complex problem-solving
- risk assessment.

Deficit model obsolete!

Against this backdrop the replacement of the deficit model in favour of the more realistic competence model is advisable; it does not ignore ageing-related restrictions but reflects the strengths of older workers better and estimates them realistically. The competence model proceeds from the idea of “differential” ageing. According to this, the different areas of performance and personality can change to different degrees and in different directions – some things become better, some things remain the same, other deteriorate. And naturally, we do not all

age the same in the biological sense – and most certainly not at the same rate. This “interindividual scatter” is the crucial feature of ageing; the assessment of a person’s performance therefore makes little sense merely on the basis of their calendar age especially as this scatter may be quite broad within one age group and become even broader in the group of older workers.

To this extent, the physical and mental state of older people is not completely detached from their age but also not completely determined by it. For example, in addition to lifestyle and hereditary factors, negative work-induced influences which make some employees look old long before their time also play a major role. Studies show that activities which are permanently undemanding, monotonous and extremely labour-divided with excessive routine work may lead to premature physical and mental wear, dequalification, demotivation, a loss of the ability to learn and diminished mental performance – all attributes which are readily substantiated nowadays by “natural” ageing but which often merely indicate bad work design. And under certain circumstances health pays its toll in the case of work which is constantly overdemanding in terms of content and volume.

The reverse also applies: The allegedly lower work ability of older employees is not automatic either by fate or biology. Performance requirements, such as memory, creativity, ability to solve problems, communication, innovation and learning skills, depend to a large extent on the stimuli to which a person was and is exposed during his working life. They can (and must) be maintained, fostered and also expanded through targeted measures in the fields of

prevention, workplace health promotion and work design. Whoever understands ageing as a change process will be able to appreciate that the work must also change over the course of a working life. If older (and also younger) employees are entrusted with tasks corresponding to their current strengths during their working lives, everyone wins, workers and companies.

3

Fit up to retirement!

Age management in companies

Studies from Finland prove: Work ability and employability in old age are not retained alone through working but require initiatives at various levels. It is also the responsibility of the workers themselves to do something for their health and therefore for their work ability and employability – keywords are, for example, healthy nutrition, sport, exercise, enough sleep, avoidance or reduction of alcohol and nicotine. In other fields the employer can (and should) become active so that the work ability and employability of the individual and the workforce as a whole are maintained and expanded. “Nice single efforts” such as a little back school here or a new office chair there in no way satisfy the demands of comprehensive age management – rather, holistic approaches for activities are necessary in the following fields of action:

- safety and health
- qualifications, further training and lifelong learning
- corporate culture and leadership conduct
- work design (technical, organisational and mental).

For the sustained success of age management it is important for work on this to begin in good time

and for the measures to be adapted to the conditions and needs. If the team is already grey and burnt out, it becomes (more) difficult to breathe new life into their tired bones and minds.

Admittedly, work ability can be improved through targeted training and activation at almost any time but here, too, prevention is better than cure.

Therefore, age management should not concentrate solely on those who are already grey but also include the younger and “middle-aged” workers – after all, they are the older workers of tomorrow. The necessary measures should be aimed in two directions:

- Firstly, in the direction of age-appropriate work design. This covers all specific measures for the group of older employees whose range of abilities has changed. The aim is to maintain and expand their work ability and safeguard their employability.
- Secondly, in the direction of ageing-appropriate work biographies. As the work ability of an older person can be taken as the sum of the requirements and workloads with which the person is confronted over the course of his entire working life, the aim is to develop strategies at an early stage which prevent the occurrence of age-typical deficits.

The work ability index – WAI

How can an employer actually determine whether the workplaces he offers are ergonomically well designed and also age and ageing-appropriate? The relevant ordinances, accident prevention regulations, DIN standards etc. make an important contribution towards clarifying this question. For the office sector these include

- the Workplaces Ordinance
- the VDU Work Ordinance
- the safety regulations of the Berufsgenossenschaft (institution for statutory accident insurance and prevention) in the administrative sector
- checklists and action aids of the Federal Institute for Occupational Safety and Health
- the DIN and DIN EN ISO standards for office furniture, lighting, room climate, noise etc.

If everything is right here, the workplace complies with the statutory regulations and to this extent is alright. However, is it also well suited for older workers whose range of abilities has changed? Possibly but not very probably. It is better not to rely “only” on the objectively measurable criteria which are the basis of every regulation but to consult the “workplace owner” himself as part of a participation-based approach! For who knows the deficits better than those who have to cope with them every day?

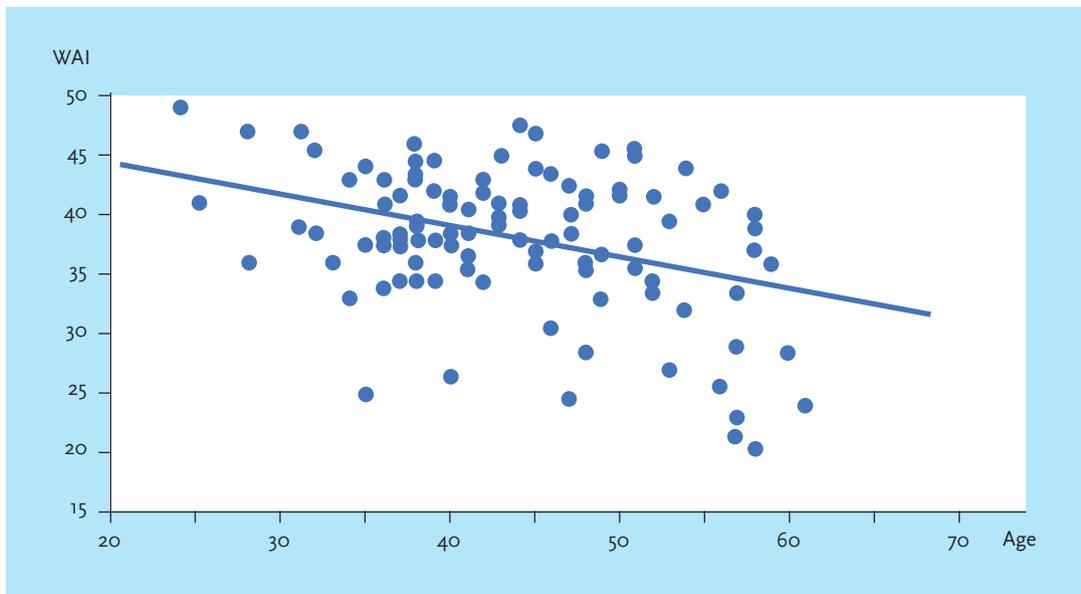
This concept forms the basis of a tool which measures the work ability index (WAI). This, too, was developed by the Finnish Institute of Occupational Health. It is a prevention tool for occupational safety and health and mainly consists of a questionnaire which is completed by the workers. The questions relate to the physical and mental

demands of the work, their own state of health and their own performance reserves. Marks are given for the answers, producing a score of between 7 and 49 marks. The score reached shows, on the one hand, how high one’s own work ability is now and will be in the future, on the other hand, targets can be derived from it (Table 1).

Owing to its subjectivity, the WAI improves the possibilities of individual and tailored advice and solutions. Whereas statutory regulations define the standard of a workplace according to the principle “one size fits all”, here the individual with his strengths and weaknesses moves into the focal point of the design considerations. The optimisation of the workplace and the work is based on his subjective assessment of the workplace and, as a result, new health and performance potentials can be exploited. It is often only minor details, especially in the office sector, which convert a workplace which complies with regulations into a workplace satisfactory for the individual. More about that later. Anyone who is interested in the WAI is recommended to visit the website of the national WAI network at www.arbeitsfaehigkeit.net!

Marks	Work ability	Alm of measures
7–27	poor	To recreate work ability
28–36	average	To improve work ability
37–43	good	To support work ability
44–49	very good	To maintain work ability

Table 1



Are older workers less efficient than younger workers? Does work ability decrease in old age automatically and as part of fate? Anyone who takes a closer look at the diagram will find: A load of nonsense! The WAI can be seen as a function of age, determined among workers in an actual company. The large interindividual differences as regards the work ability of workers of the same age are obvious – for example, one almost 60-year-old has only achieved a

modest score of 21 and therefore has a poor work ability whereas his colleague of the same age scored over 40 marks and is therefore well ahead as regards work ability. Another aspect becomes also evident: Older workers can definitely have a higher WAI than younger workers – the calendar age alone says little about the work ability of an employee!



4

Field of action 1: Safety and health

Health is more than the absence of illness and ailments. As far back as in 1947, the World Health Organisation (WHO) defined health as the state of complete physical, mental and social well-being. Today, health and illness are understood less as static conditions but as processes with flowing transitions. Health is therefore always caught between the conflicting demands of resources and loads and the aim is to reach or maintain a balance. The maintenance and promotion of health is therefore a constant task in many areas of life up until death. Here, it's not just a question of "only" preventing illnesses but also of actively promoting health. Modern approaches therefore no longer question what makes us sick but also what improves health and quality of life (salutogenesis principle). In addition to "classic" health factors, there are also those like, for example, participation in society in the sense of social integration which play a role. An aspect which did not play a role in connection with health some years ago but whose importance for mental balance is not questioned nowadays.

What do companies have to do with it?

Quite a lot! After all, health is the basic requirement for work ability. To maintain and promote it is an important task especially for companies with ageing workforces so that their competitiveness is also safeguarded in the future. There is a host of possibilities of exerting a positive influence on the health of the workers – keyword: workplace health promotion. This embraces all the measures which have a preventive action in terms of health and promote health awareness and the health resources of the workers. The following catalogue of questions shows, by way of example, that hardly any area in the company remains unaffected, given a suitably broad-based understanding of workplace health promotion. It is therefore not advisable to view workplace health promotion detached from and inferior to company decision-making processes and structures; it should rather be an equal and integral element in all decisions.

What does your company's workplace health promotion look like?

The following list of questions aims to show what direction health promotion can take and what areas can be improved through concrete measures.

The list is by no means exhaustive but is intended as food for thought!

- Are your workplaces designed according to ergonomic principles?
- Is the work offered by you health-promoting, i.e. designed to be varied and holistic?
- Do you have health circles where health problems are discussed and action also decided on?
- What about offers of sport – if at all possible for all age groups? The office worker in particular often exercises too little and thus jeopardises his health!
- Have you ever thought about offering seminars on nutrition “appropriate for office work”? Do you already have them? And what about the canteen? Sausage and chips? Or are wholesome foods offered?
- Is there a “bad” atmosphere at your company? Or do you promote the health of the workers with “quit-smoking” programmes?
- Are your managers supported with offers of seminars? Are they specifically prepared to handle older employees?
- Do older people in your company have prospects of development? Is this tackled and discussed jointly during staff appraisal interviews?
- Do older people in your company have the possibility of participating in qualification programmes? Or are older people – as so often – only involved to a below-average extent?
- And last but not least: Can older workers in your company have a break according to their individual needs?

Did you have difficulties with the questions? Would you like to tackle some of these aspects in your company but don't really know how to do so? No problem! The numerous players in occupational safety and health are only too pleased to help you. For example, the Berufsgenossenschaften (institutions for statutory accident insurance and prevention), the health

insurance funds, the guilds and local councils of skilled crafts, associations, the occupational health services and many others offer support in workplace health promotion. You can also obtain more information on this from the service telephone of the BAuA, simply ring **0231 9071-2071!**

Things in the office that make you ill

Older workers are currently still an exception as a target group for workplace health promotion – in 2003, just 12 % of the measures of the statutory health insurance system were geared especially to the more mature cohorts. In terms of content, the measures tended to focus on older workers doing physical work than on older office workers. However, office work can definitely make you ill – both young and old!

- The lack of movement through “permanently sitting” as well as incorrect postures (monitor fixation) and forced movements (keyboard) result in musculoskeletal illnesses which, at roughly 25 %, top the hit list for days lost due to illness, also in public administration.
- With more than four hours per day of pure computer work, the disorders in the shoulder and neck area increase significantly in terms of statistics.
- With roughly 14 %, illnesses of the respiratory tract, also caused by too dry office air, are another cause for the “sick note”.
- Only one third of desk workers describe themselves as being free of disorders – all the others complain about physical ailments such as headaches (57 %), disorders of the supporting and locomotor apparatus (66 %) and eye problems (42 %). Here, the eyes of ageing workers are affected by computer work – this sensory organ is subject relatively strongly to biological ageing.
- Poor lighting leads to premature fatigue, eye complaints, a lack of concentration, headaches etc. Poor lighting causes older workers more problems than their younger colleagues.

- The normal “office noise”, such as talking, telephone calls, printer noises etc., can substantially reduce well-being, have a negative impact on the vegetative nervous system and cause stress. Demanding tasks involving a high level of concentration are already disrupted at a noise level above 40 dB(A). Some studies indicate that older workers may possibly be more susceptible in this respect.

Mental health in the office

Many of the above-mentioned physical “things that make you ill” can be eliminated or alleviated by appropriate action. The matter is more difficult in the field of mental and social loads. Almost all relevant studies also highlight the increase in mental loads in the office. Stress, underdemanding or overdemanding work, pressure from time and performance, work intensification and bullying are everyday companions for many workers. The consequence: One third of the workers feel stressed from the pressure of time and a high level of responsibility, and complain about fatigue and a lack of enthusiasm. These figures underline the assumption that some of the workers are exposed to inappropriate loads with all the negative consequences for their well-being and health. Psycho-social and psychomental strains always result from a mixture of the following factors

- objective load
- subjective perception and evaluation
- individual possibility of coping with the situation.

If these factors are in an unfavourable constellation, typical stress reactions are the result:

Tension, internal anxiety, nervousness, exhaustion and helplessness. In the long run such mental workloads also culminate in physical complaints and illnesses; the muscle and locomotor apparatus, the gastro-intestinal tract as well as the cardiovascular system are frequently affected. In addition to strengthening internal coping resources, above all the design of the work assumes preventive significance. Studies have shown that older employees with restrictive, undemanding work tasks have a higher risk of mental and cardiovascular illnesses than older employees with varied work activities. Accordingly, the duration of monotonous office work, such as writing standard letters or entering data for hours on end, should be limited.

If older workers are asked under what working conditions they can imagine still working when they are older or what health-promoting measures they would like, no shift work and offers of exercise training and stress management are at the top of their list of wishes. This illustrates two aspects: Firstly, there is a desire to decelerate daily work, secondly, older workers (too) would like to develop possibilities for themselves to be able to better cope with the stress. From the aspect of the prevention of inappropriate mental workloads, workplace health promotion must therefore keep two things in mind, especially for older workers: the cause of stress and the management of stress. Here, it is generally easier to diagnose stress and to determine it in the company than to initiate change and see it through.

The reason for this is

- that there are no patent recipes, solutions must be developed individually and adapted to suit the situation in the company.
- that changes normally involve processes which may take a longer time.

However, basic factors can be mentioned which promote well-being at the workplace and improve mental health:

- adequate latitude for taking decisions and actions
- support from colleagues and supervisors
- possibilities of learning and developing
- variety and change in the requirements
- task identity and completeness of the work
- recognition
- transparency of company decisions and the setting of clear objectives
- tasks to suit requirements
- job security.

Principles of company stress prevention

The following principles not only apply to stress prevention but to occupational health protection in general.

- **The integrative principle:** Stress prevention measures are integrated into all company decisions.
- **The design-oriented principle:** Prevention is not based on a repair model but must be included in the design and planning of investments with foresight.
- **The co-operation principle:** Stress prevention is not the task of individual experts but is also the responsibility of supervisors, works councils and employees. Co-operation means establishing co-operation structures.
- **The participation principle:** Inclusion and activation of those affected; whoever is asked, whoever participates in activities, whoever is included, identifies with the project.

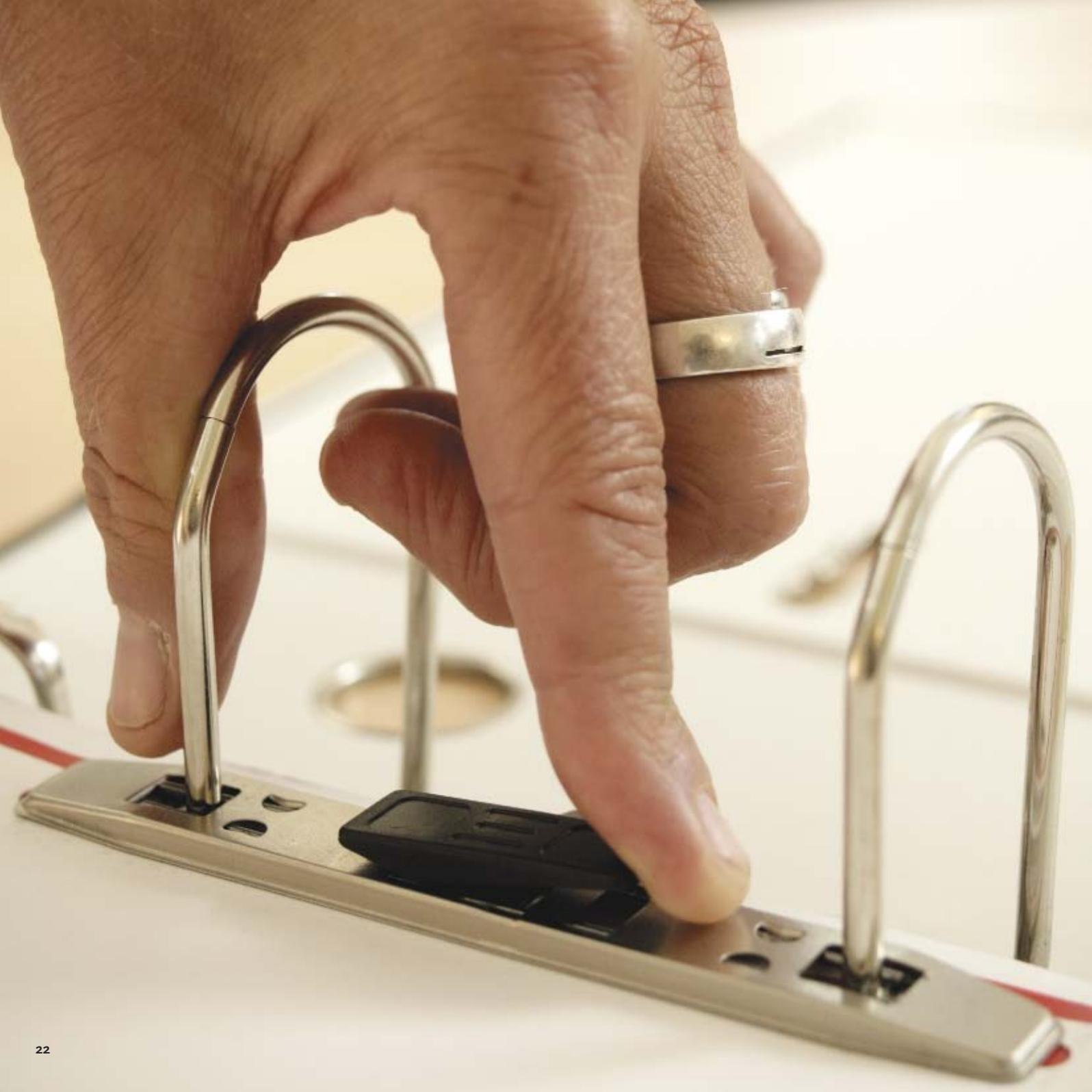
(Karl Kuhn, Health and social well-being at the workplace)

Interesting facts from research

As part of the joint project Ccall (headed by: Berufs-genossenschaft in the administrative sector) to improve the working conditions in call centres, it was also examined how older workers in call centres differ from their younger colleagues. Some of the results are amazing:

- Call centre agents over 50 have fewer psychosomatic disorders and are less emotionally exhausted than the comparison groups.
- On the whole, they are more satisfied with their work than their younger colleagues. The assumption that older workers are not highly efficient must be questioned according to these results. On the contrary: many over-50s are very resistant to stress and therefore, in the authors' view, are also suitable for the "stressful" work in a call centre.

Two current projects of the BAuA (Ergonomics Unit) are ascertaining what special cognitive, dimensional and strength-related requirements older workers in particular place on the work equipment and products for private consumption. Initial results show that older people do not, in general, want any special "products for the elderly" as they are stigmatised in addition to having a bad design (sanitary household articles). Instead, examples of good practice illustrate that a "design for all" permits both older workers and their younger colleagues the satisfactory and performance-enhancing use of the products.



5

Field of action 2:

Work organisation and work design

A satisfying task which demands and challenges to a reasonable extent cannot be overestimated for the well-being and health not only of older workers. It is the crucial factor that governs the level of job satisfaction and work motivation. To ensure this is as high as possible, the aim should be to achieve a work organisation especially for older employees which affords a high level of autonomy in the choice of

- their own method of working
- the work equipment
- the times of breaks
- the working time
- the working pace
- the work planning.

Such a possibility of self-organisation is important, especially with a view to the timing of the work sequence. In this way the risk of possible over-demanding work can be counteracted through a self-chosen work rhythm and an autonomous, age-appropriate organisation of the breaks.

Mixing impossible?

Work should not be boring – neither for young nor old. Undemanding activities with a high proportion of routine work make you physically and mentally ill

in the long term as they have a one-sided and therefore incorrect impact on people. The following also applies in the office: If a person is not challenged on the whole during his work, if only some of his knowledge and skills are demanded, the unused potential inevitably becomes stunted. By contrast, a mixture of activities which challenges and fosters the physical and mental performance potential to a reasonable extent promotes health. Work should therefore be designed so that both alternating body postures and movements (sitting, standing, walking) as well as highly varied mental and cognitive requirements are necessary to perform the task. Moreover, creative activities should alternate with problem-solving and routine activities for example. This basically applies to younger and older workers alike with the difference that work designed in this way has a largely preventive impact on the maintenance of the work ability of younger workers whereas it can improve the work ability of older workers.

Mixed work is the keyword for such a work organisation and there are concepts of mixing work to varying degrees:

Job rotation: Several workers rotate at several workplaces with different tasks which are comparable in terms of the qualifications required. A change of

This is what well-designed work looks like

If work is well designed, it can promote and improve health and efficiency. And this principle applies to both young and old. The following criteria provide information on when work is well designed:

- **User orientation:** The task allows for the experience and skills of the person who is supposed to perform them.
- **Diversity:** The task requires more than just a “movement of the hand”. It permits the development of many skills and abilities.
- **Holistic:** The task comprises planning, performing, control and inspection elements.
- **Significance:** The task is an important contribution to the whole, which is also obvious to the worker.
- **Action latitude:** The task does not prescribe every step in detail, there is reasonable latitude in terms of sequence, pace of work and procedure.
- **Feedback:** The task takes place in a social context, i.e. the worker receives feedback about the quality of his work from supervisors and colleagues, who also support him.
- **Development possibilities:** The task sets challenges without being over-demanding. It offers opportunities to learn, acquire new knowledge and further develop existing know-how.

physical and mental workloads occurs, monotony is prevented, the development and interaction possibilities with one another are limited.

Job enlargement: Several activities of the same quality are combined at one workplace. This, too, offers possibilities of changing the physical and mental workloads. However, the development possibilities are also limited here, just as the interaction with others.

Job enrichment: Here, activities with different qualifications are combined, including planning, control and inspection tasks. In addition to the change of physical and mental workloads, this also offers possibilities of personal further development. However, the socio-cooperative dimension is also neglected here.

Tandem formation and mentoring: These forms of work organisation will in future assume greater importance against the background of ageing workforces. With mentoring, which is used in particular in management circles, an experienced person (mentor) passes on his or her knowledge and skills to a still inexperienced person (mentee) in order to support him or her in the company. A similar situation applies to tandem formation where a younger and older worker form a team with the aim of performing projects together and learning from each other – keyword: knowledge transfer!

Group work: Several workers form a group which is given a certain task. Performance, assignment of the tasks, time schedule etc. are the responsibility of the group within a certain framework. Group work can offer excellent development opportunities for the workers if certain requirements are satisfied, see next page. Far-reaching possibilities of co-operation and communication can also arise.

In view of the ageing workforces, group work appears to be a concept well worth discussing as it can accommodate the strengths of older employees (communication, moderation, work experience). Moreover, it offers, at least in theory, the possibility of forming mixed-age teams, where all group members can learn from older or younger team colleagues, which may help to secure the transfer of

knowledge in the company. Take note, group work may have these advantages but whether they actually arise mainly depends on the relevant conditions. For example, the pay concept as regards the group performance determines whether conflicts arise or not. And the chemistry must be right between the group members, which need not always be the case with newly formed groups. It often helps if the process of group formation is initially moderated until the group is “up and running”. But regardless of whether there is a moderator or not: If the introduction of group work in the office involves a reduction in personnel capacity, all possible positive effects are seriously at risk. Studies show that then the load intensity will increase, new loads arise, job satisfaction declines and increases in performance compared with organisational forms based on the division of labour cannot be expected.

Marathon in sitting and lack of movement

In addition to mental agility, physical movement is also indispensable for people. Above all, the locomotor apparatus and the cardiovascular system do not remain healthy in the long term without them. Movement in the office tends to be in short supply – the “office inmate” spends roughly 80,000 hours or approx 80% of his working time hunched at his desk over the course of his working life. This not only slows down the circulation but also results in atrophy of the muscles. And muscles are already on the decline in older people due to biology. Studies show: With age the muscular strength of a person decreases and his weight increases. Purely intellectual workers lose a considerable amount of muscle strength particularly after becoming 50 according

to the studies if they allow everything to take its course. As the muscles play a load-bearing and supporting role for the spinal column and joints, shrinking muscles mean foreseeable problems with the back and spinal column.

Not a lot helps – except movement! For that is the second message: The muscles can be trained at any time and performance can be maintained or improved – even in advanced years. To this extent the company sports programmes for all age groups already mentioned are more than necessary, they also ensure low sickness rates in the medium and long term. However, above all as much movement as possible should be integrated directly into the work, for example by means of

- mixed work, i.e. the enrichment and enlargement of computer work with other tasks, e.g. telephoning, meetings, copying, moderating etc.
- the conversion of the sitting workplace into a standing/sitting workplace, if possible by means of a sitting/standing desk whose height can be infinitely varied and which also permits activities in front of a monitor
- the “banning“ of frequently used utensils, e.g. printer, telephone, out of reaching distance so that the person has to repeatedly stand up in-between.

Mixing is the thing!

A study by the Federal Institute for Occupational Safety and Health (research report Fb 878) proves in practical terms what most people know in theory: Sitting/standing desks whose height can be infinitely varied can counteract the lack of movement and the constraint postures in the office. A field study of the IAS (Institute for Work and Social Hygiene Foundation) shows that this is the case for all user groups, i.e. managers, skilled workers and clerks: A significant improvement in the experience of strain was discovered after just three months following the installation of an integrated sitting/standing desk whose height can be infinitely varied as well as a brief training course and instruction in the new work system. The majority of the probands already preferred the dynamic compared with the static work system after just a short period and agreed with the study criteria

- creates physical variety
- keeps me fit
- facilitates my work.

However, in order to bring more movement into the office, it is not sufficient to merely change the “hardware”. This becomes clear on the basis of the recommendations which the IAS makes

on the strain-optimised and therefore the age-appropriate design of office work:

- Selection of suitable organisational work measures to achieve workflows which permit dynamic working in the office
- Creation of workplaces appropriate for the requirements with individually and flexibly adjustable equipment components which support dynamic office work
- Development and use of ergonomic sitting/standing desks specially for computer work, which permit an optimal arrangement and height adjustment of larger or several monitors on the worktop (e.g. through split worktops whose height can be infinitely varied)
- Recommendations with regard to work postures to be preferred for certain office activities
- Participation of the employees in work organisation and workplace design

Instruction of the employees after the reorganisation or redesign of the workplace as well as regular refresher courses on ergonomic body posture and implementation of measures on changing the posture, movement and load at the workplace.

(acc. to: M. Rentsch, R. v. Kiparski, Mensch – Technik – Arbeitsumwelt, 2005)

The aim of these measures is to ensure that 50% of the working day is spent sitting and 25% standing and in motion, respectively. An undoubtedly ambitious target but the most important work tool of the modern office worker – the computer – has, after all, contributed to the fact that hardly anything in the office moves apart from the “mouse hand”. Nevertheless, it is worthwhile for all those involved to tackle immobility in the office. Just two to four changes of position per hour verifiably promote health in that they stimulate the circulation and prevent tension. Studies prove: More motion in the office not only increases motivation, commitment and performance but also reduces the time lost due to illness. Studies also reveal that the inertia of the permanently seated should not be underestimated. Merely the provision of, for example, standing desks or extremely height-variable desks will “bowl no one over” immediately – Here, both older and younger workers are persistent in remaining seated! If the standing desk is not to be misused as another filing area and the adjustment mechanism of the desk is not to rust, education and flanking competence training courses are indispensable. However, the sitting times can then be reduced by some 30%. And that – how could it be any other way? – is the result of one study...

Tips for a dynamic office day

- Travel to the office by bike if at all possible
- Park the car some distance away from the workplace and walk to the office
- Use the stairs instead of the lift
- If you must sit, then “dynamically”, i.e. change between upright, forward and backward sitting posture
- Use the height-adjustment mechanism of standing/sitting desks as often as possible
- Always stand to telephone, discuss, read the post
- Within the company, make use of your own movement apparatus now and again instead of using the phone or e-mail
- Use breaks as exercise breaks

Flying blind?

Nowadays, office work is generally computer work and therefore hard work on the eyes. No sensory organ is subject to greater strain in the office and so frequently overdemanded as the eye. The consequences are eye disorders, for example pain, prickling, burning, itching, which have become undesirable companions in everyday office life both with young and old. However, the “silver generation” is more strongly affected as the efficiency of

the eye is subject to ageing. For example, the vision function of an ageing worker may be impaired in several respects:

- As a result of the decreasing lens elasticity, the accommodative capacity is reduced and so nearby objects are no longer shown sharply on the retina. This old-sightedness (presbyopia) generally occurs between the age of 40 and 50.
- The speed and accuracy of accommodation, i.e. the ability of the eye to adjust quickly and accurately to see changes in the distance of an object, diminishes from the age of 40. As a result, an additional load may occur. The consequence: In the case of frequently necessary accommodation, e.g. when changing a look from the monitor to the desktop, an older eye tires more quickly than a younger one.
- The visual acuity, the most important visual function, decreases with increasing age. One of the reasons for this is the declining elasticity of the cornea and the resultant change in transparency. Opacity (yellowing, lack of blue), which makes a darker picture appear on the retina.
- The absolute visual threshold (from when something can actually be seen) is much higher in old age. This relates both to the reduction in transparency of the cornea and the increasing narrowing of the pupil (senile miosis).
- The sensitivity to glare of a 60-year-old is three to four times higher than that of a 20-year-old.
- The perception of contrast deteriorates with increasing age, i.e. different shadings and small colour differences may be more difficult to differentiate.

Good view thanks to glasses!

- For working at a monitor special glasses may be necessary which permit sharper vision at a distance of 50 cm to 70 cm and which are matched to suit the special task on hand. They should have a non-reflective coating but should not be tinted. If such special glasses are required, the costs must be borne by the employer in accordance with the ordinance on VDU work!
- Regular eye examinations for older employees are in the interests of both the employer and the employee as the wrong glasses or no glasses at all result in eye disorders, headaches and tiredness and therefore in limited well-being and the loss of efficiency and health.
- The wrong glasses or no glasses at all may also subject the spinal column to an excessive extent. Anyone who sits too close or too far away from the monitor, anyone who has to do all sorts of contortions in order to recognise something, anyone who cannot adopt an ergonomically favourable working position ends up in a constraint posture – and that is a guarantee for tension in the shoulder and neck area as well as in the spinal column.
- And anyone who looks at the monitor through varifocals risks constraint postures. The close vision range is located on these glasses at the lower edge. If the head is frequently tilted backwards to see better, this may lead to neck and back pains.

How older people can gaze at the monitor without any worries ...

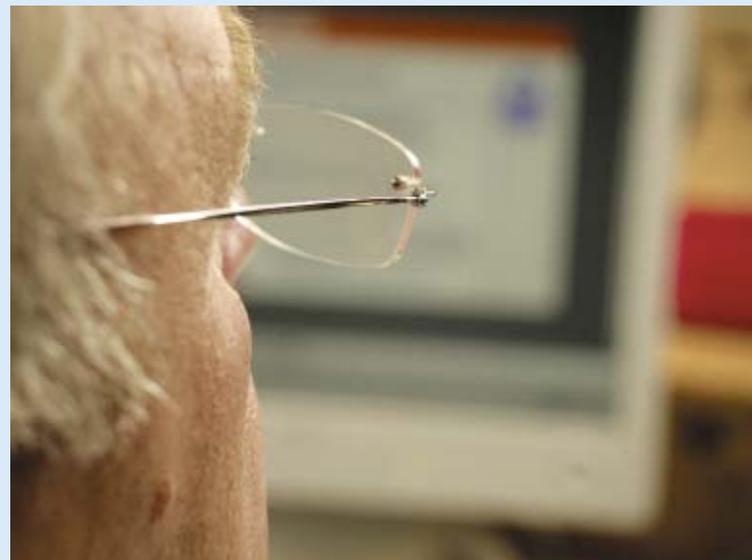
Whether and how well older employees can recognise the signs of the time – those on the monitor – depends not least of all on its quality and setting. The following design notes not only facilitate older workers to have a good view but them in particular!

Principle: The best is just good enough! Saving on the monitor may ultimately become more expensive ...

If you want to obtain more details, we recommend the information sheet 650 (BGI 650) of the Berufsgenossenschaft which also contains the expertise of the Federal Institute for Occupational Safety and Health.

- To achieve maximum character sharpness, the monitor should be operated in the highest possible resolution.
- The display luminance (brightness of the display) should be at least $100/\text{cd}/\text{m}^2$. The contrast between characters and character background should be at least 4:1.
- A positive display (dark characters on a bright background) is to be given preference.
- Not least of all the size of the letters and the distances between them govern good legibility. For example, the height of the capital letters without ascender should not be less than 3.2 mm at a viewing distance of 500 mm.
- For normal office applications at least a 17-inch monitor is recommended, for CAD, layout and graphics processing it should be a 21-inch monitor. If a “modern” LCD monitor is used, it may be 2 inches less in each case – for cost reasons.
- A flicker-free image is particularly important, especially for older workers. With an LCD monitor this may already be achieved with a vertical refresh rate of 60 Hz. Sharpness and contrast are increased through the use of a digital connection between the graphics card of the computer and the flat screen. With a CRT monitor 100 Hz are recommended, but 85 Hz should not be undershot.

- To obtain a sharp and clear image, the colours of characters or graphics and the screen background should be matched, annoying convergence errors (overlapping) are to be avoided. For older workers the blue/green differentiation should be removed from the signal supplied.
- Brightness and contrast should be adjustable.
- The monitor surface should have a good anti-reflection coating to avoid glare.



However, all of that in no way leads to a technical knock-out of ageing workers in the office – after all, there are also solutions to all the above-mentioned problems, e.g. appropriate glasses and ergonomically, age-appropriate lighting concepts. In this context, it is merely important that the employer is aware of these problems so that suitable action may be taken (see box).

Age-appropriate lighting in the office

In the dark you may be able to cheat well but certainly not work well. And brightly illuminated offices or offices with high brightness differences cause annoyance and then nervousness, headaches and eye complaints. Things that the older office worker with possibly an already slightly opaque lens can really do without. Therefore, greater attention

should be paid to the lighting in offices with older workers – for light is not just light, its quality depends on some design factors:

- The level of illumination: Daylight is particularly important for well-being and health, especially for ageing workforces. This means that older workers should work near the window if possible. Whereas the former recommendations for the illumination at a workstation depended on the size of the room (e.g. between 750 and 1000 lux were recommended for open-plan offices), we now know today that older workers may be dazzled by excessively high luminous intensity. This is termed the so-called ambient glare. Therefore, nowadays a (so-called cylindrical) luminous intensity of 500 lux in the reference plane (i.e. at working level) is recommended for workstations.

Ergonomically well-designed workplaces help older workers – and younger ones, too.

From an ergonomic point of view, a mixture of general lighting and individually adjustable single workplace lighting is advisable.

- The luminance distribution: Even if the speed and accuracy with which objects at different distances are reproduced sharply diminish, at least the luminance and contrast at the workplace and in the environment should be designed so that no further difficulties arise as a result. This applies in particular to the diminishing accommodation ability of the human eye in old age. The ratio between the brightest and the darkest surface in the direct working area should be 3:1, no more than 10:1 between the workstation and the area further away. A completely uniform illumination must also be avoided as such rooms have a monotonous and tiring effect.
- Reflections and glare: They must be avoided with the incidence of daylight (desirable, see above). This can be achieved through a mixture of various measures: For example, a room designed with higher degrees of reflection is advantageous so that the room as a whole appears bright. Grid lamps which have to be arranged parallel to the window and the direction of view are nowadays increasingly being replaced by modern office lights which permit a free arrangement in the room. Equally, individually adjustable light protection settings which permit a free view to

Orientation on the Internet – A comparison between old and young

The fact that prejudices often do not stand up to empirical knowledge has been shown by the Institute for Work and Health of the Berufsgenossenschaft (BGAG) in a recent study. The widespread assumption that older workers cannot find their way around the Internet and websites as well as younger workers was examined. For this purpose an eye tracker was used to record how many fixations took place, i.e. how frequently a position was viewed for more than 200 milliseconds and how long the fixations lasted. Moreover, it was examined how long the people needed to find a certain link and how the websites were judged on the basis of several criteria. People over 45 years of age were regarded as being “older”, the people studied were between 24 and 55.

The results show that it is not age but rather the personal web skills, i.e. the experience in working with the Internet, that plays an important role in how well someone “copes with” the web. Apart from the orientation time, there were no differences between young and old with any of the variables. The results indicate that a special website design is not necessary for older workers. On the contrary, criteria which increase the user-friendliness should in general be observed in the design of websites.

the outside should be the standard. And that the monitor is to be positioned free of dazzle and reflection is in fact nowadays already general knowledge...

Leaving aside all DIN standards and recommendations, individual satisfaction with the lighting situation is, of course, an important factor. Therefore, ageing and older workers should be included in the light planning.

The office as a “wellness oasis”

Regardless of how old – anyone who does not feel “at home” with his workplace will hardly devote all his efforts to his work. However, there are differences regarding the conditions under which the feeling of well-being occurs in the relevant age group. For example, older workers on average react more sensitively to unfavourable climatic influences in the room such as draughts, cold and low relative humidity. Therefore, the upper limits of the climate reference values of the Workplaces Ordinance should be aimed for – in consultation with the workers:

- room temperature 24° rather than 20°
- relative humidity 70% rather than 30%.

As regards draughts, the sound knowledge according to the relevant Codes of Practice (maximum air speed 0.1 m per second) should definitely be observed for older workforces. The general rule applies to young and old: A naturally air-conditioned working environment is to be given preference over artificially air-conditioned rooms. Moreover, natural air-conditioning offers the possibility of exerting an influence within limits on the office climate. Where people think they cannot do without an air-conditioning system, individual regulation or zone-specific self-regulation is indispensable. Green plants can also have a positive impact on the mind and room climate. You will find more about this in the BAuA brochure “Well-being in the office” (see Links and References).

In addition to the room climate, attention should also be paid to noise and its reduction. Studies have shown that above all the connection of pressure

from time, disturbed attention and noise can lead to greater stress among older workers than younger workers. The noise limit value for offices of 55 dB(A) (corresponds roughly to the loudness of a normal conversation) is therefore much too high for older workforces – it should definitely be much quieter and a figure of 35 to 45 dB(A) should be aimed for. That is possible with appropriate noise control measures the significance of which can scarcely be overestimated for the well-being and performance of older workers.

Working time – less is more!

It is difficult to provide general recommendations regarding the design of the working time for older employees in an office. Both their individual capabilities and motivation are too different. In contrast to the industrial sector where shift work should be avoided for older workers and appropriate rest periods are advisable after physical work, these recommendations are largely superfluous in the office. Therefore, the individual wishes of the workers take priority due to the lack of relevant Codes of Practice. And they have so far not been clearly recorded. For example, a survey of workers over 50 years of age conducted by the BKK Landesverband Hesse and BKK Team Gesundheit GmbH showed that the four-day week and not shift work are regarded by the workers as health-promoting and desirable. By contrast, the research report “Employment-effective working time models for older employees”, which the BAuA published in 2003, paints quite a different picture. According to this report, roughly one in two of the workers surveyed, aged between 45 and 64, even wanted to

increase the working time in order to go into retirement earlier. Only a few wanted shorter working times with correspondingly less pay, even fewer were prepared to shorten the working time and, in return, postpone retirement.

As this picture is quite patchy – also due to random samples and survey tools – employers and ageing employees should always agree in individual cases on possibilities of how the working time can be made as flexible as possible and geared to the workers' individual wishes. One conceivable working time model, which also affords older workers appropriate time autonomy, is, for example, the trust-based working time model. More details on this can be found in the BAuA brochure "Im Takt" (see Links and References). And more consideration should also be given in companies (and also among the workers) to designing the retirement/part-time model as it was originally conceived, as the flexible transition into retirement with a reduced number of hours instead of a block model, as is customary today.

The following always applies: Owing to the possible changes in the physical and mental performance profile, older workers are more under burden than younger workers with the same workload. As a result, the need for individual relaxation times may increase for ageing and older workforces. It should therefore be possible for older workers to be able to freely choose the location, duration and frequency of breaks, depending on the general conditions in the company.

The decibel-saving programme

- Use low-noise office equipment
- Use sound-absorbing flooring
- Provide sound-absorbing ceilings and walls
- Set air-conditioning, heating and ventilation systems correctly
- Check sound-proof insulation of doors and windows
- Provide sound-absorbing, flexible movable walls
- Separate quiet and noisy workplaces

Model workplace office – An example to copy!

What does an optimally designed office workplace look like for ageing and older workers? The Institute for Work and Health of the Berufsgenossenschaft (BGAG) in Dresden examined this question. The result is not only very interesting it can even be touched and tried out! What is initially remarkable about the specimen workplace is that it is unremarkable. There is no particularly large monitor, and there is no special keyboard with large-sized letters on the desk. Therefore, the whole thing looks neither like a “workplace for the elderly” nor a “sheltered workplace” but “only” like a well-designed workstation. And thus the main message is already conveyed: With a good ergonomic design of the workplace, age-related changes in performance can be reduced and often even completely offset. Here and there a few adaptations to the needs of the older workers, there you are! The basic elements here are a sufficiently large, non-reflecting worktop, a height-adjustable revolving office chair with height and width-adjustable armrests, a foot support, an LCD monitor as well as a commercially available keyboard and mouse. There only need to be a few additions to make it a workstation especially suitable for older workers:

- The illumination level was increased to offset age-sightedness and the reduction in the adaption capability. Therefore, a medium illumination of 850 lux is provided at the specimen workplace instead of the 500 lux required for office workplaces. An additional asymmetrical workplace lamp suitable for computer work provides a value of 1600 lux. The positioning of the monitor prevents possible dazzle effects.
- Older workers are more easily distracted by background noise than younger workers. Therefore, the specimen workplace is also considerably quieter than is otherwise usual. This is possible by separating sources of noise from the workplace and acoustically separating the opposite workplace by means of a sound-absorbing movable wall.
- A lack of movement and one-sided strains, e.g. permanently sitting in front of a monitor, accelerate the wear of joints, discs and spinal column. In order to introduce more movement into the office, the specimen workplace has an electrically height-adjustable desk which permits people to work standing and sitting. Alternatively and less costly – but also not quite as good – is a free-standing desk or one adaptable to the worktop which equally permits work either sitting or standing. To ensure that the worker has enough movement while sitting, a revolving office chair with a special sliding mechanism ensures that the worker can change between the front and rear sitting position. Naturally, other chair models with synchronous or balance mechanisms can also be used, the main thing is they permit dynamic sitting! And to ensure that the work does not “turn your head”, attention must naturally be paid to the correct arrangement of the work equipment, i.e. monitor, keyboard, mouse and work.

It therefore does not take all that much to make a workstation suitable for older workers out of an ergonomically well-designed workstation. And that such an optimised workplace also promotes the health and efficiency of younger workers is a positive side-effect!

The specimen workplace presented here is not a one-off. The BGAG has already presented a specimen workplace for the production sector and another one for the workshop sector is in preparation.

Contact for further information:

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6

Field of action 3: Corporate culture and leadership

Nothing is so important for maintaining and improving the work ability of those between 51 and 62 years of age than good leadership conduct of the supervisors. Finnish studies have proven that increased satisfaction with the leadership skills of the boss improved the work ability of employees by a factor of 3.6 compared with those who were dissatisfied with their bosses. There are four main areas where leadership qualities become visible from the point of view of older workers – or possibly not:

- attitude towards age
- willingness to co-operate
- communication skills
- ability to provide individual work planning.

It's all a matter of attitude!

We live in a youth-centred time in spite of, or perhaps even because of, the demographic reality. Grey hairs are dyed, anti-ageing products are on the increase, and one's own age is gladly reduced. Naturally, managers are also affected by this Zeitgeist. Therefore, age is also often linked here with diminishing vitality, sickness and infirmity – not good preconditions for an open-minded and prejudice-free way to handle older employees. By contrast, those supervisors who can also recover

positive aspects from ageing – perhaps even based on their own experience – find it easier to take an objective look at the ageing process of people, including their own. Composure, the ability to solve even complex tasks, greater experience with people and the company workflows: whoever discovers these potentials in himself will also credit them to his older employees. To this extent self-reflection is the first and most important step as a manager to cope with older employees, accept their weaknesses and promote their strengths.

On the other hand, any supervisor who takes the prejudices of the deficit model at face value will have them confirmed. For a negative attitude to older workers acts as a self-fulfilling prophecy: As the older employee is not given encouragement, support and ultimately also social recognition, he will react to this with dejection, reduced performance, internal resignation and perhaps even illness – just as the boss of older workers expected. He will then scarcely ask about his share of the blame ...

Practical aids

Would you like to know more about the subject of “good leadership”? Would you like to do something for the motivation and working atmosphere in your company? The BAuA/INQA brochure **“Mitarbeiterorientiertes Führen und soziale Unterstützung am Arbeitsplatz”** (see Links and References) shows in a practical and illustrative manner how that works. In addition, there is also the BAuA toolbox **“Instrumente zur Erfassung psychischer Belastungen”** with numerous practical aids on this subject. Here you will find, for example the **“Erhebungsbogen zur Erfassung des Betriebs- und Organisationsklima”**.

Questions of style

Word has now got out that steep hierarchies in a company do not also ensure steep profit curves as they do not necessarily result in a good and therefore productive working atmosphere. By contrast, leadership styles which see the opposite party as being less of a subordinate and more as a partner who has to be supported, fostered and motivated show promise of success. Moreover, flat hierarchies permit the supervisor to integrate himself into the work of the team as the “first among equals” in order to better get to know all the capabilities of each individual and support him accordingly. In the long run this increases the work ability of all team members, in contrast to the hierarchical “top and bottom”. Leadership styles which permit this to a greater or lesser extent are, for example:

- **The consultative and participative leadership style.** The superior informs the employees about planned decisions. They can then express their opinions on this. The supervisor then takes the final decision.
- **The co-operative leadership style.** The supervisor

decides jointly with the employees about their tasks.

Other approaches go even further and recommend leadership styles, particularly with a view to older workers, which permit great latitude. The basis for this is the recognition that the more mature generation prefers the possibility of self-initiative and independence in a defined latitude of action and responsibility. The so-called delegative leadership style satisfies these wishes. Here, supervisors and employees work much more independently of each other, the workers largely determine on their own responsibility what, when and how the work is performed. The supervisor merely has a moderating function with regard to the definition of the result.

Talk to each other

A good work culture requires a good communication culture in the company. Only those who talk to the others learn something about existing problems and overdemanding work, can praise and express constructive criticism. If there is no dialogue, the

workers – both young and old – will have the feeling sooner or later that neither work nor their person is of importance. And that definitely destroys any motivation. It is particularly problematic when changes in the company are not communicated, when there is a lack of transparency and openness, when participation is not possible. Then there is a need for changes in the dark with the consequences that they are not borne by the employees.

Plan work, agree targets

It's great when everyone talks to each other in the company. Even greater when they also talk about the right things! This undoubtedly includes the issue of "individual work planning", also for older workers. For ageing-related changes of a mental, physical, intellectual and social nature require the gradual adaptation of the work planning to the individual's work ability. Competent managers know that and will search in good time with their employees for appropriate solutions and correspondingly tailored tasks. Such person-related solutions which reasonably allow for the strengths and weaknesses of older employees place high demands on the leadership quality of supervisors, but ultimately determine whether older workers can introduce their skills for themselves and the company to produce profits.

The same applies to the long-term prospects. Scarcely anything is mentally so stressful for older workers and jeopardises well-being, health and motivation as uncertain prospects in the company. Therefore, the aim is to develop work biographies jointly and at an early stage (keyword: horizontal career) which are viable over a long period – if

possible up to retirement. Here, both companies and supervisors but also all the workers themselves are called upon. The BAuA brochure "Mit Erfahrung die Zukunft meistern" (see Links and References) provides information on how something like that can work. And at www.demowerkzeuge.de there are notes on practicable tools, for example the instrument "Zukunftsgespräch".

Tips for the good leadership of ageing workers

- Make the corporate objectives and decision-making criteria transparent to all employees.
- Include the employees in decisions.
- Do not use praise and recognition sparingly.
- Offer interesting activities/projects also to older employees.
- Ensure in-house job changes for older workers as well.
- Make health a corporate objective in addition to others.
- Take into account the working time wishes not only of your older employees.
- Always talk to the older workers in the workforce.
- Provide regular further training for the older workers as well.
- Give older workers recognition and respect.
- Ask about the motives and needs of older workers which relate to the work and then match tasks and requirements, incentive systems, training etc. to them.

Manager training

There may be managers who intuitively do everything right as regards the topic of “leadership of older workers”. The following applies to all the others: Training or further training may sensitise them to the positive handling of ageing workforces and focus the managers’ eyes on the changed needs and motives. However, ultimately only learning-by-doing helps for there is no “standard style formula”. Those responsible for human resources must therefore learn to adapt their leadership style as much as possible to the respective employee under the corporate cultural, structural and task-related conditions.

Here, the company should offer assistance as a good leadership culture in the company crucially governs commercial success. Therefore, appropriate attention should also be devoted to the subject of the “leadership of older workers” – after all, this group will represent the majority in the workforces of the future.

The objectives of such management training are the preparation, communication and establishment of a “new” leadership culture in the company which is in line with the company’s future development, also with regard to the demographic changes. To this end, structures must be implemented in the company which promote a change of attitude and values of the managers and adequately support them in their leadership tasks. At the end of this process there should be a leadership style practised throughout the company which is geared to defined principles and exhibits high consistency.

The contents of such a management training course should include the following points, for example:

- Sensitisation of the managers to the subject “older workers in the company” by means of information on the strengths and weaknesses of ageing and older employees.
 - Presentation of a concept on company age management with the sub-points health, work design and work organisation, leadership and further training.
 - Presentation of different leadership models with focus on those with an approach based on partnership (e.g. consultative, co-operative, delegative leadership style).
 - Description and preparation of the managers for their changed task and requirement profiles.
- Keywords here are, for example
- from control and instruction to co-ordination, integration, moderation
 - leadership by role models
 - leadership as a service
 - leadership tasks – advising and coaching

You will find, for example, information on so-called respect training courses at www.demowerkzeuge.de. Moreover, the BAuA also offers in its seminar programme events on the subject of age management, corporate culture and leadership.

Demografischer Wandel – Werkzeuge für betriebliche Personalarbeit – Werkzeugkasten

http://www.demowerkzeuge.de/index.php

Demografischer Wandel - (k)lein Problem!

Werkzeuge für betriebliche Personalarbeit

SUCHE

Demografischer Wandel
Kurz-Check
Werkzeugkasten, was ist das?
Werkzeuge im Überblick
Argumente und Gegenargumente
Demografieorientierte Analyse und Planung
Unterstützung von Personalfunktionen
Unternehmenskultur
Service
NEWS
Redaktionsgruppe, Autoren, Autor:in

Suchen wählen



Mit dem Werkzeugkasten für eine demografieorientierte Personalarbeit sollen Anreize und Hilfestellungen zu einem betrieblichen Transfer auf breiter Basis geschaffen werden – in der Unterstützung an einer flächendeckenden Vernetzung.

Das Bedingte, dass betriebliche Hemmnisse, wie unzureichende Verfügbarkeit praxisprober Arbeitshilfen und schlechtere Ächtlngigkeit von externen Expert(in)en, abgebaut werden.

Logo: Bundesministerium für Bildung und Forschung
Logo: Bundesagentur für Arbeit
Logo: GfAH
Logo: ISO
Logo: IAP

Demografischer Wandel – Werkzeuge für betriebliche Personalarbeit – Werkzeugkasten

http://www.demowerkzeuge.de/index.php?ID=289-160&ID=163&lang=de&SID=

Demografischer Wandel - (k)lein Problem!

Werkzeuge für betriebliche Personalarbeit

SUCHE

Demografischer Wandel
Kurz-Check
Werkzeugkasten, was ist das?
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Service
NEWS
Redaktionsgruppe, Autoren, Autor:in

Suchen wählen

Wertschätzungs-Trainings

Um was geht es?

Wertschätzungs-Trainings sind Instrumente der Personal- und Organisationsentwicklung für verschiedene Zwecke wie:

- Verbesserung der sozialen Integration von „Auenberatern“ und der Auseinandersetzung mit Vernetzung
- Lösung von Konfliktkulturproblemen und Konflikten zwischen „Krankheiten“ und „Technikern“, sowie zwischen „Hilfen“ und „Machern“
- Weckung des Verantwortens für Vielfalt und Andersartigkeit im Betrieb, im Arbeitsbereich, im Team
- planmäßige Berücksichtigung persönlicher Stärken beim Personalinsatz, bei Gruppeneildung und Teamarbeit
- Weckung von eingehenden Denke- und Handlungsstrategien, Entwickeln von Offenheit für Perspektivenwechsel, Freisetzen von Kreativität für Produkt- und Prozessinnovationen
- Vermittlung der Führungsaufgabe, mit Unterschiedlichkeit positiv umzugehen

Zusätzlich über Wertschätzungs-Trainings werden diese Ziele aber nicht erreicht: Einzelungs- und Verhaltensänderungen setzen immer begleitende Maßnahmen zur positiven Umgestaltung von Arbeits- und Beschäftigungsbedingungen voraus. Darunter fallen z.B. die Verbesserung von Zugangsvoraussetzungen für Führungskräfte bei unterschiedlichen Alters- und Personalgruppen – unabhängig von Alter, Bildungsniveau, Tätigkeit und Lohnausstattung oder die Einführung von Spielregeln zur Verbesserung der Zusammenarbeit zwischen jüngeren Nachbarn (Arbeitskollegen) und älteren Mitarbeiter(innen).

Mit demografischem Wandel, mit In-Integration, Zusammenarbeit und Einbeziehung gewinnt die betriebliche Belegschaft an „Lustigkeit“ und sozialer Vielfalt. Das sagt sich – insbesondere in kleineren, mittleren und mittelständischen Betrieben – in einer nach Alter, Geschlecht, Nationalität, Bildungsniveau und anderen Merkmalen buntgemischten Zusammensetzung.

Logo: Bundesministerium für Bildung und Forschung
Logo: Bundesagentur für Arbeit
Logo: GfAH
Logo: ISO
Logo: IAP

You will find a toolbox with numerous tools for demography-oriented HR work at www.demowerkzeuge.de.



7

Field of action 4: Qualifications, further training and lifelong learning

The times vocational training was sufficient for an entire working life are long since over, assuming there was ever such a time. And in the office numerous new technical developments such as PCs, Internet, e-mail etc. provide more changes than many people would like. Older workers in particular have the dubious reputation among many of those responsible for human resources of not being capable of learning and not very motivated to learn. They complain about a lack of open-mindedness and flexibility to new things and a tendency to stick with what they are used to. Therefore, many of those responsible for human resources are of the opinion that older workers cannot keep pace with developments and cannot master the change. Objectively speaking, there is nothing wrong in older workers maintaining, updating, expanding their knowledge base and even acquiring new qualifications. For, in contrast to physical performance, mental agility is not subject to any real ageing – and an older person can learn even though he learns in a different way to younger people. The reasons why older workers often cannot cope with learning generally tend to be home-made or company-made. The following may be

mentioned as possible causes:

- a lack of further training possibilities or those which are not adequate for the target groups
- undemanding activities which do not promote personality
- qualification cul-de-sacs
- a lack of communication and co-operation with colleagues.

A lack of learning possibilities or those which are not adapted

Older workers are not exactly in the focus of staff development measures. Only 18% of the 50 to 64-year-olds participated in vocational training in 2000, the figure was 31 % for the 19 to 34-year-olds, and 36 % for the 35 to 49-year-olds. Many companies appear to shy away from the investments in their “silver human capital” as they are already planning their departure from working life – keyword: early retirement – and prefer to invest the existing funds in the younger workers. Not a viable idea either for the workers or the companies. The former lose touch and, in the medium term, pay with their employability, the latter risk their competitiveness as the time is drawing near when qualified young

people will be more difficult to recruit than before. Therefore, everyone, workers and companies, must get used to the fact that remaining longer “on board” will in future become the rule.

However, this requires a corporate culture which understands learning as an intergenerational task of staff development and organises it accordingly. Only in this way can it be avoided that workers forget how to learn, therefore become unaccustomed to learning and then confirm the prejudice according to which older workers tend to be less capable and motivated to learn because of their age. On the other hand, the workers must also show that they are open to lifelong learning. They should use offers of specialised and general qualifications in order not

to limit their possible choices within the company and on the labour market in the medium and long term and make a change of activity more difficult. In principle, further training is the precondition for safeguarding employability and chances of employment throughout one’s entire work biography. You will find requirements placed on company further training and guidelines on designing age-appropriate further training at www.demowerkzeuge.de.

Undemanding activities and qualification cul-de-sacs

Work which offers incentives to learn is just as important for the concept of lifelong learning as an innovation-friendly environment which forgives mistakes. For there is no greater obstacle to learning than an activity where, objectively speaking, there is nothing to learn. In this context, there is a lot to do in the administrative area of many companies as office activities are frequently characterised by a high degree of standardisation and therefore monotony. Such activities with a high proportion of repetition and a low requirement profile can, in the long term, make people become accustomed to not learning and have a dequalification effect if the activity does not correspond to the qualifications and individual needs. Help is provided here mainly by a work organisation which mixes different work contents – keyword: mixed work, job enrichment.

One variation of an undemanding activity is the so-called specialisation trap into which many workers fall or are “pushed”, thus jeopardising their employability. For example, anyone who had a command of the programming languages Fortran or Cobol some years ago was regarded as a sought-

Untapped wealth of experience

Companies appreciate the potential of their older workers and consider it indispensable within the company – by contrast, only a few recognise the need for higher qualifications of the older workers: Merely 18% of companies see an increasing need for qualifications for the over-50s, almost 30% consider qualifications necessary in some cases – and over 50% see little or no need for action. This was the result of a survey conducted by the Federal Institute for Vocational Education and Training (BIBB) in the summer of 2004 at 537 companies in Germany. However, companies should consider that, in future, the economy will require more highly qualified workers. And so the demand for workers with a completed vocational training will rise from today’s figure of about 20 million to over 25 million by 2030 – the positions for workers with a university degree will increase from about 6 million to over 11 million, according to the figures from the Deutschland Report 2030 of Prognos AG.

after expert. Anyone who rested on these laurels and mastered nothing else is nowadays regarded as a superfluous employee with obsolete knowledge. Avoiding such cul-de-sacs is mainly the task of those responsible for human resources and staff development. The important aspect here is that workers are employed in the long term so that they can introduce and expand their skills and potential, that they can tackle new technologies and processes during the work itself. Models which permit this and prevent people from forgetting how to learn may be:

- ageing-oriented career design with possibilities of horizontal careers,
- rotation models where the workers are deployed at different workplaces,
- qualification-promoting group work which is also possible in an office.

Lifelong learning – but correctly!

If workers are also to remain flexible and open-minded in old age, qualifications must not, however, just commence when they are old. To ensure that lifelong learning also works, the workers of all age groups must have the possibility of regularly looking beyond their own field of activity at an early stage. Various models and activities may promote this:

- Interdisciplinary and interdepartmental project work.
- Company tours where long-service employees give young people an insight into company procedures. The advantages of this easy-to-organise measure are obvious: An insight into company processes is fostered, one's own role in the production flow becomes clear, dependencies and responsibilities become transparent. This offers

the older moderators opportunities of expanding their experience and knowledge of the company and also passing it on. Moreover, they remain in contact with the young employees and experience respect in their role as mentors.

- Job shadowing at different workplaces in the company; this time-limited assistance can take place in one's own functional area but also in other areas down to the production shop.
- In-house, on-the-job training for employees goes beyond job shadowing and grants them a greater insight into other work areas. It permits and facilitates a change of activity within the company and fosters the workers' willingness to learn and change.

Above all, job shadowing and on-the-job training produce numerous positive effects in the company and among the workers. Co-operation between young and old is also fostered as well as the understanding of work and production flows. People get to know new work areas, the interdepartmental sharing of experience and the transfer of ideas are promoted. As a result of the personal contact with other workers, the social and communicative skills of the workers grow, the work atmosphere and productivity may improve – in short: The horizon is extended!

The learning success is governed by the “how”.

Learning to learn again ...

Each individual has different learning preconditions, learning experience and learning strategies. Therefore, the following tips may help both young and old to achieve learning success, but above all also counteract the “education abstinence” of older workers:

- Anyone who has not learned for a long time – whether young or old – generally needs a longer time to learn than someone accustomed to learning. Therefore, those learning should be able to determine the speed themselves.
- Anyone who has not learned for a long time often has a fear of learning. Therefore, competitive situations should be avoided as they tend to strengthen existing fears of failure. If such fears exist, they should be thoroughly discussed.
- Learning new things should be linked to what is known, taking into account the empirical knowledge and the contents of the learner’s activity. The learning material should be geared to the purpose, related to its application and, if at all possible, can be used directly.
- Forms of informal learning should be intentionally fostered. Among the possibilities of acquiring competence, self-learning through observation and trial-and-error as well as instruction from supervisors and colleagues rank at the top of the popularity scale of the learning activities most frequently mentioned. The advantages are mainly the closeness to the workplace and work content as well as the immediate closing of knowledge gaps.
- In principle, the learning groups should be of mixed ages as special “further training programmes” are often perceived by older workers as discriminatory. One exception is those further training courses where the prior knowledge may differ greatly between young and old, e.g. in the computer area. Here, learning should (initially) take place in homogeneous age groups in order to avoid “fears of being embarrassed” which do not promote learning.
- As regards the didactics, “lecture-style teaching” should be avoided. A better solution is active teaching methods such as teaching and instruc-

Best practice examples – The Mosaik programme of Deutsche Bank

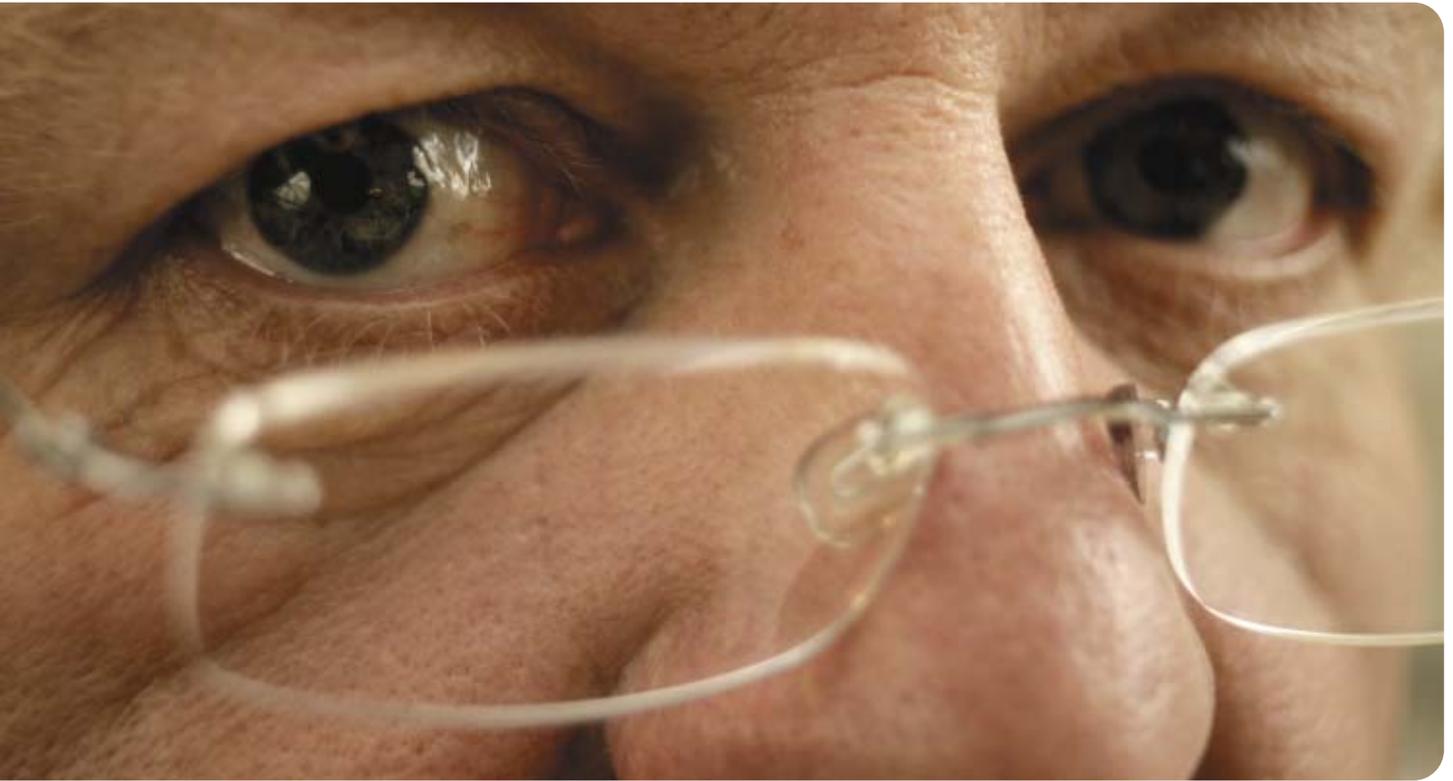
In 1998, the “Deutsche Bank mosaic for employment” was conceived against the background of far-reaching structural changes in the Group and the resultant flexibilisation requirements and has been constantly further developed up to today. The Deutsche Bank “Mosaik for employment” pursues three objectives:

- Firstly, the employees affected by a job loss or structural changes should be shown career alternatives and prospects.
- Secondly, the internal labour market should be made more flexible.
- Thirdly, “employability awareness” should be created among the workers.

Deutsche Bank is attempting with a whole package of measures to support all employee groups to develop their personalities and careers. The programme highlights their own responsibility for their professional development; employees are to be motivated and put into a position of facing the challenges of the structural changes with confidence, and becoming responsible for these changes in the company and helping to shape them.

“Mosaik” is not geared especially to older workers but to all age groups. Employees are shown possibilities of how they can reduce their fear of changes in training and coaching programmes. Qualification programmes focusing on key skills and covering all professional activities help them

to become fit for new tasks. In addition, an increasing number of project assignments are offered in order to train flexibility and mobility realistically. One of the basic convictions of Deutsche Bank is that employees who consistently remain “on the ball” by using these offers and therefore keep themselves “marketable” remain attractive to the employer at every age. And that against the backdrop that not only the workforces are affected by the demographic development but also the customers. And not every 60-year-old wants to be given advice on money matters by a 25-year-old. You will find recommended references on this project in the chapter Links and References!



tion talks, discussions, role-playing, working in small groups, the case method, the plan game etc. Active teaching methods are always better suited to older workers as they gave the learners a greater degree of self-determination and responsibility. Such self-controlled learning also regulates the learning pace automatically.

- As regards the means of teaching, audiovisual media should be increasingly used. That makes it easier to absorb information and promotes the ability to retain knowledge.
- If at all possible, a seminar room should be avoided and preference given to teaching “on site” when the work-related contents are new. Attitudes such as “We always did it like that”, which may lead to learning barriers, should be taken as an opportunity to put “traditional knowledge” to the test and show up inadequacies. Only an insight into the need for qualifications converts listeners into active learners.
- Teachers who further train older workers or those unaccustomed to learning should have experience with the requirements and needs of this group. Moreover, they should be very well trained so that they can also react spontaneously to questions from the group of learners.

A look forward

The average age of workforces will continue to rise in future, also in the office sector. There is, however, no reason to panic provided that companies do not close their eyes to the resultant challenges. Whoever tackles the tasks connected with older employees in good time, i.e. now, has good chances of also having an efficient, innovative and healthy crew on

board tomorrow. To achieve this, not much more is needed than to implement what is understood by ergonomically good work design. Where the requirements exceed this, they can be satisfied with relatively little effort. One serious difference between young and old will then no longer exist, at least in the office sector. For older workers – and this brochure has (hopefully) demonstrated this – are not less efficient, given good working conditions, than younger workers but at best efficient in a slightly different way. Many characteristics which older workers generally have, for example social skills, communication skills, well-balanced attitude etc., are, by contrast, important and significant especially for many office activities. Here, like elsewhere, the principle applies: The whole is more than a sum of its parts. A workforce comprising exclusively young people is just as less to be recommended as one which only consists of older workers. On the contrary, a balanced age mixture is important where everyone can learn and benefit from each other. If this is achieved, a lot has already been won as regards future innovative ability and competitiveness.

Links and References

This is what you'll find on the Internet

The links presented here only represent a small selection from numerous websites on the subject of “older workers and the world of work”. These links are not in any particular sequence or ranking.

www.arbid.de

“Work and innovation in the demographic change” (arbid) offers information, assistance and tools which are aimed at helping companies to master and shape the demographic change in their companies. The sponsors are Landesvereinigung der Arbeitgeberverbände in Nordrhein-Westfalen e.V., the DGB district North Rhine-Westphalia and the Ministry of Economics and Labour of North Rhine-Westphalia.

www.baua.de

The website of the Federal Institute for Occupational Safety and Health presents numerous research projects and contributions on this subject.

www.bda-online.de

The website of the Confederation of German Employers' Associations (BDA) contains under the button “Initiativen” a lot of information on “Proage”, a project which the BDA initiated jointly with the Bertelsmann Foundation as well as three European employers' associations from Denmark, the Netherlands and Ireland and with support from the European Commission in autumn 2001. The website proage-online.de contains the guidelines “Ältere Mitarbeiter im Betrieb” to download.

www.bertelsmann-stiftung.de

Here, the subject of “ageing society” is dealt with under the topic “Demographic Change Campaign”, i.e. also in a social context. Access to the campaign portal (www.aktion2050.de) with a lot of information.

www.bibb.de

Website of the Federal Institute for Vocational Education and Training. At www.bibb.de/de/wlk11792.htm you access the project WeisE (further training of older workers) with numerous interesting articles.

www.demowerkzeuge.de

The website sponsored by the Federal Ministry of Education and Research contains, among other things, 20 selected tried-and-tested procedures, processes and tools.

www.destatis.de

The website of the Federal Statistical Office provides information, among other things, on the 11th coordinated population projection. This contains the possible scenarios as regards the future population development. The annual microcensus “Living and Working in Germany” contains more interesting data.

www.gesuenderarbeiten.de

The NRW initiative “Healthier working” GIGA offers a quick-check for companies in addition to numerous articles related to occupational safety and health. There is also a possibility of contacting “Prospektiv – Gesellschaft für betriebliche Zukunftsgestaltungen mbH”.

www.inqa.de

www.inqa-demographie.de

The New Quality of Work Initiative, INQA, initiated by the Federal Ministry of Economics and Labour, offers a portal on the subject of demographic change with numerous informative articles, projects, contacts and download possibilities, in addition to other future issues from the world of work.

www.inqa-buero.de

The “New Quality of Office Work” Action Group aims to promote and further improve the quality of office work. It sees itself as an “activating platform” and an invitation to long-term co-operation of all those interested in designing office work. The initiators and sponsors of the “New Quality of Office Work” Action Group at the Federal Working Group for Safety and Health at Work (BASI), an alliance of the umbrella organisations of occupational safety and health in Germany, the Association of Office, Seating and Office Facility Furniture (BSO) as the organisation of

the manufacturers, and the German metalworkers' trade union (IG Metall) as the social partner of the office furniture industry. Other co-operation partners are also involved. The website contains everything worth knowing about the subject of office and office design with numerous download possibilities.

<http://gutepraxis.inqa.de>

The INQA database "Gute Praxis" contains examples with company solutions to overcoming the demographic change and action aids.

www.sozialnetz-hessen.de

Under the menu item "Arbeit und Gesundheit" you can gain access to the portal "Demographischer Wandel in der Arbeitswelt" with extensive information on the subject.

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