Healthy Employees in Healthy Organisations

European Network for Workplace Health Promotion

Report

Making the Case for Workplace Health Promotion

Analysis of the effects of WHP

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Prevent, NCO Belgium

Preface

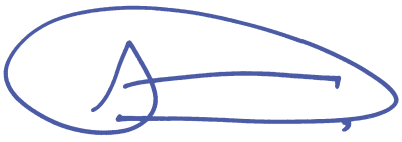
The conviction that the struggle for a healthy work environment and healthy workers is not only ethically a good thing but also a prerequisite for innovation and productivity in a knowledge-based economy, is gaining more and more ground in society. At the same time, changes are taking place in company management where success and company excellence are not only measured in financial terms but where indicators are increasingly sought that emphasise business performance in a balanced way. The success of management concepts such as the balanced scorecard is proof of this.

This company and society wide trend is not sufficiently translated into practice. Yet this is a significant challenge for the European economy. It was stated in the Barcelona Declaration[1] that "the challenge for Europe is to become the most innovative and dynamic region in the world and thus to develop a new balance between economic efficiency and social cohesion. This challenge can only be met by combining technical and economic innovation with social innovation. Health and all its various dimensions, including workplace health, has turned into a strategic asset for our communities to reach this goal. No innovation without health and workplace health promotion is the basis for a succesful strategy for preparing European industries and other businesses to respond to the new challenges".

In order to meet this challenge the concept of workplace health promotion has to make his way into every workplace. This is the only way to arrive at a situation of healthy employees in healthy organisations. This goal can only be reached by introducing health promotion into every workplace, by convincing companies and stakeholders to integrate health promotion concepts in their policies. In order to convince companies and stakeholders, it is necessary to propose arguments and justifications that show the advantages of workplace health promotion activities. This report provides elements for making the case for workplace health promotion and is the result of a project within the 4th Iniative of the European Network for workplace health promotion (ENWHP). Prevent, as the national contact office for Belgium, assumed the task of coordinating this project. The Case for WHP tries to answer *why* WHP is important and forms an element of a global strategy, together with *how* WHP can be implemented (toolbox project) and the building of infrastructures to disseminate WHP (forum project).

Special thanks to everyone who contributed to this project, and particularly to the Case project group for their input and feedback and also to the ENWHP secretariat for their support.

Brussels, May 2004



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[1] *Barcelona Declaration on developing good workplace health practice in Europe, based on the results of the 3rd European Conference on workplace health promotion held in Barcelona on June 17-18, 2002*

Contents

1. Introduction to the projet

This report is the result of activities within the European Network for workplace health promotion. It forms part of the strategy of the network. A strategy which is furthermore linked to the priorities of the European Union (1.1.). To develop the report, data was collected which was brought togehether with the additional support of the network (1.2.).

1.1. Project context

Proposing arguments and justifications for setting up workplace health promotion activities, forms part of a strategy that can be noted both at both European Network for workplace health promotion level and European Union level.

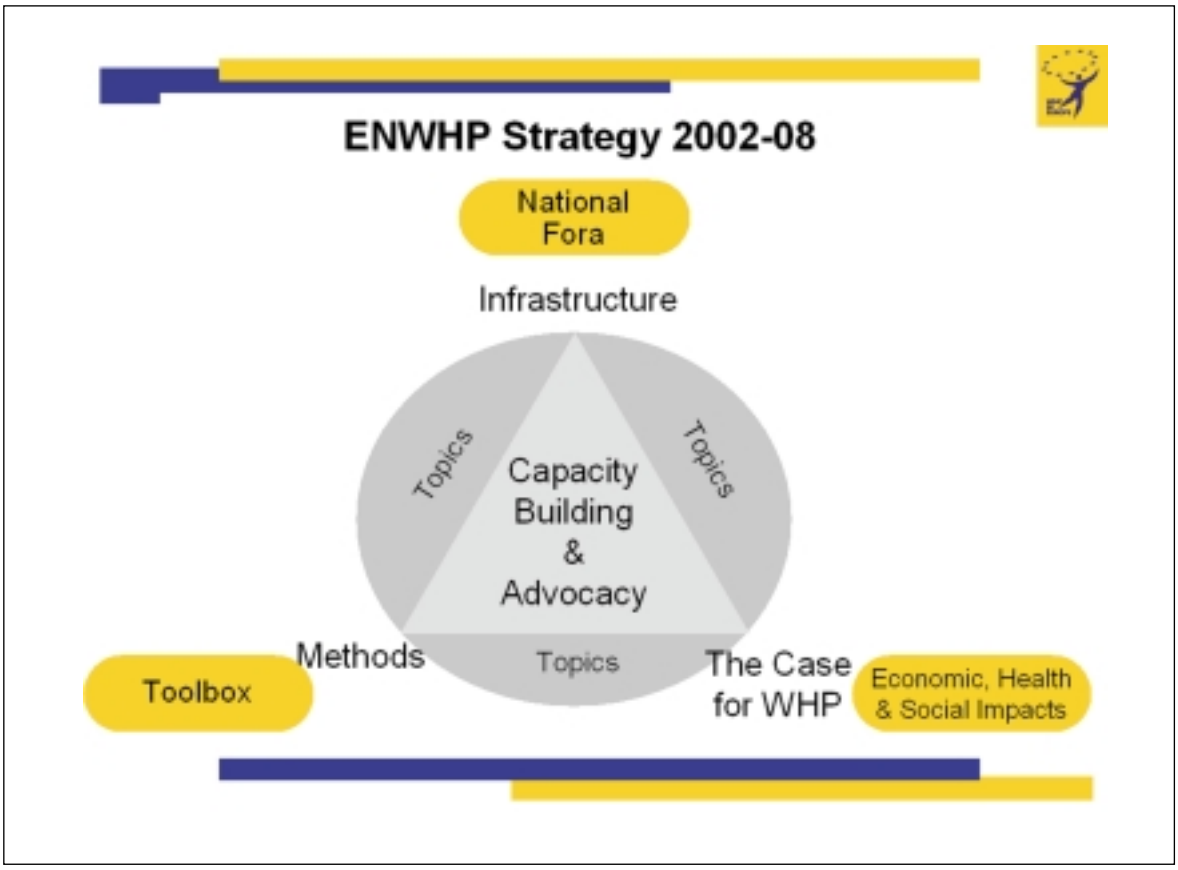
1.1.1. Part of the ENWHP strategy

The European network for workplace health promotion was established in 1996. It is an informal network of national occupational health and safety institutes, and public health, health promotion and statutory social insurance institutions. It aims through the combined efforts of all its members and partners to contribute to improving workplace health and well-being and reduce the impact of work related ill health on the European workforce[2]. The 1st initiative of the network (1997-1999) aimed to identify companies that clearly demonstrated good practice in workplace health promotion (models of good practice) and to disseminate this information in order to encourage the implementation of WHP in workplaces all over Europe. Since small and medium sized enterprises (SME) often show different needs and operate within a different structure to large companies, the 2nd initiative (1999-2001) focused on models of good practice in SMEs. The 3rd initiative (2001-2002) presented models of good practice for the public sector.
The 4th initiative (2003-2004) of the network proposes a strategy for further disseminating the concept of WHP into the workplaces based on three pillars.

These three pillars are (figure 1):
- building the infrastructure: setting up national forums to support, develop and create network initiatives and other suitable infrastructures on a national level to facilitate the implementation of European strategies and policies for WHP in the individual countries: Project *The Forum approach*.
- making methods available: a basic inventory of methods and practices for WHP to support the implementation of workplace health promotion: Project *the Toolbox*.
- delivering the arguments: making an analysis and documenting the benefits and effectiveness of WHP to increase the relevance for stakeholders (companies, employers' and employees' organisations, government, social bodies, decision-makers in politics etc.): Project *Making the Case for WHP*.

[2] *More information about the network, its activities and members at www.enwhp.org*

Figure 1 – ENWHP strategy 2002-2008



G. Breucker, Business Meeting Copenhagen, November 2002

1.1.2. A EU priority

Making the case for workplace health promotion connects with the priorities of the European Commission regarding health promotion and workplace safety and health.

'Health equals wealth' stated European Commissioner David Byrne (European Health Forum, 3 October 2003). He said that in order to win the political argument on health at European level, it is necessary to make the economic case. 'For finance ministers, the words "health", "spending" and "bottomless pit" tend to go together. Therefore, if we are to win the argument for greater European cooperation on the protection and promotion of health, we must speak to Finance Ministers on their terms and in their own language. They must be convinced that intelligent investment in health increases financial choice and feeds economic productivity. To do this, the argument about health needs to be turned on its head. To cut a long story short, we must begin to ask simply not what economists can do for health, but what health can do for the economy.' (European Commissioner David Byrne, European Health Forum, 3 October 2003)

The European Union also considers the development of knowledge about the economic and social costs that arise from 'non-quality' work a priority for the years to come. The Community Strategy states that is necessary to set up initiatives to 'Develop knowledge of, and follow-up to, the "cost of non-quality", i.e. the economic

and social costs arising from occupational accidents and illnesses.' (A new Community strategy on health and safety at work 2002-2006, European Commission, Brussels, 11.03.2002, COM(2002) 118 final).
Furthermore, the Commission states 'that a safe and healthy working environment and working organisation are performance factors for the economy and for companies.'
Moreover, the European Union's employment strategy stresses the importance of quality at work. Improving quality and productivity in work is one of the main objectives of the EU's Employment Guidelines for 2003-2005. Anna Diamantopoulou, former EU Commissioner for Employment and Social Affairs, stated that "we will not be able to create more jobs if we do not invest more in quality at work; it is striking that the Member States that are investing most in quality in work are also those with the best employment and productivity performances" (Commission reviews progress towards more and better jobs, IP/03/1628).

The concept of quality in work has been defined in relation to ten dimensions which encompass: intrinsic job quality; skills, lifelong learning and career development, gender equality, health and safety at work; flexibility and security; inclusion and access to the labour market; work organisation and work-life balance; social dialogue and worker involvement; diversity and non-discrimination; overall work performance. These dimensions are measured by a set of 31 indicators. In the latest progress report, the Commission noted encouraging trends and performances in relation to the ten dimensions of quality at work but stated that there still remains scope for improvement. Quality promotion is still an important guiding principle in the modernisation of the European Social Model (*Improving quality in work: a review of recent progress*, European Commission, Brussels, 26.11.2003, COM(2003) 728 final).

1.2. Project description

1.2.1. Objectives

The project of Making the case aimed to develop arguments to justify investments in workplace health promotion. These arguments should allow individual companies to set up workplace health promotion activities.

In general, this project is aimed at
- Contributing to the exchange of knowledge on the economic impacts of workplace health promotion between Member States
- Serving as an additional tool for marketing and promoting the ideas of workplace health promotion
- Creating a framework for the development of topic-related tools
- Providing input for the national forums and the Dublin Conference

The set of arguments that will be developed within the framework of this project can be used to convince companies to set up a programme on workplace health promotion. This set of arguments should be considered as an input to the communication process aimed at convincing the company of the need for workplace health promotion. In presenting the arguments, it would be preferable to use frameworks and models that are familiar to companies (management models e.g. balanced score-card, cost-benefits analysis etc.) and to focus on benefits that can be expressed in financial value.

1.2.2. Approach

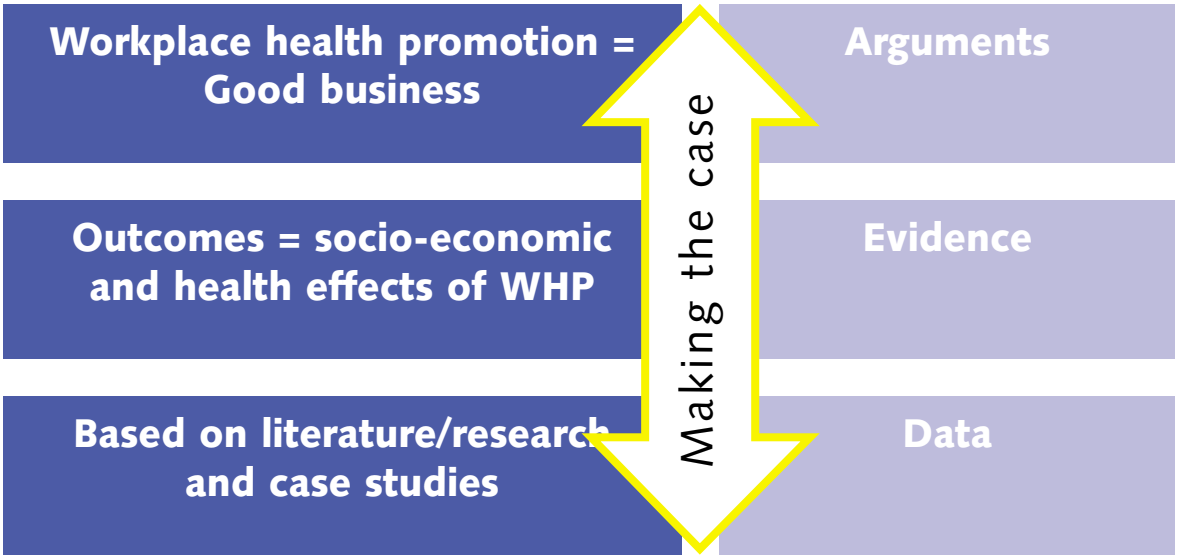
The project Making the Case was coordinated by the Belgian National Contact Office, Prevent, and developed throughout the network.
The project was supported by a project team composed of the representatives of the national contact offices from France, Germany, Ireland, Italy, the Netherlands, Norway and Spain (annex 1). The concept and the progress of the project were discussed within the meetings of the project team and also presented at the Business Meetings of the European network both in Athens (June 2003) and Rome (November 2003).

In *the first phase* of the project, arguments were developed. Experts, consultants, and researchers are already using arguments to justify activities on workplace health promotion or to convince management. In order to bring these arguments together, discussions took place within the Making the case project team and at the Business Meeting of the European Network. The arguments were collected and sorted into 2 categories (annex 2):

- Organisational benefits
- Individual benefits

The *second phase* focused on finding evidence to back up these arguments. This evidence was collected using a template send out to all national contact offices of the European Network. The evidence consists of quantitative and qualitative information found in data sources such as research studies, literature, case studies and testimonials. The case studies that were collected are described in chapter four.
The data collection resulted in an overview of the evidence available, which was brought together and described in this report (*third phase*).

Figure 2 – project Making the Case: approach



1.2.3. Definition of workplace health promotion

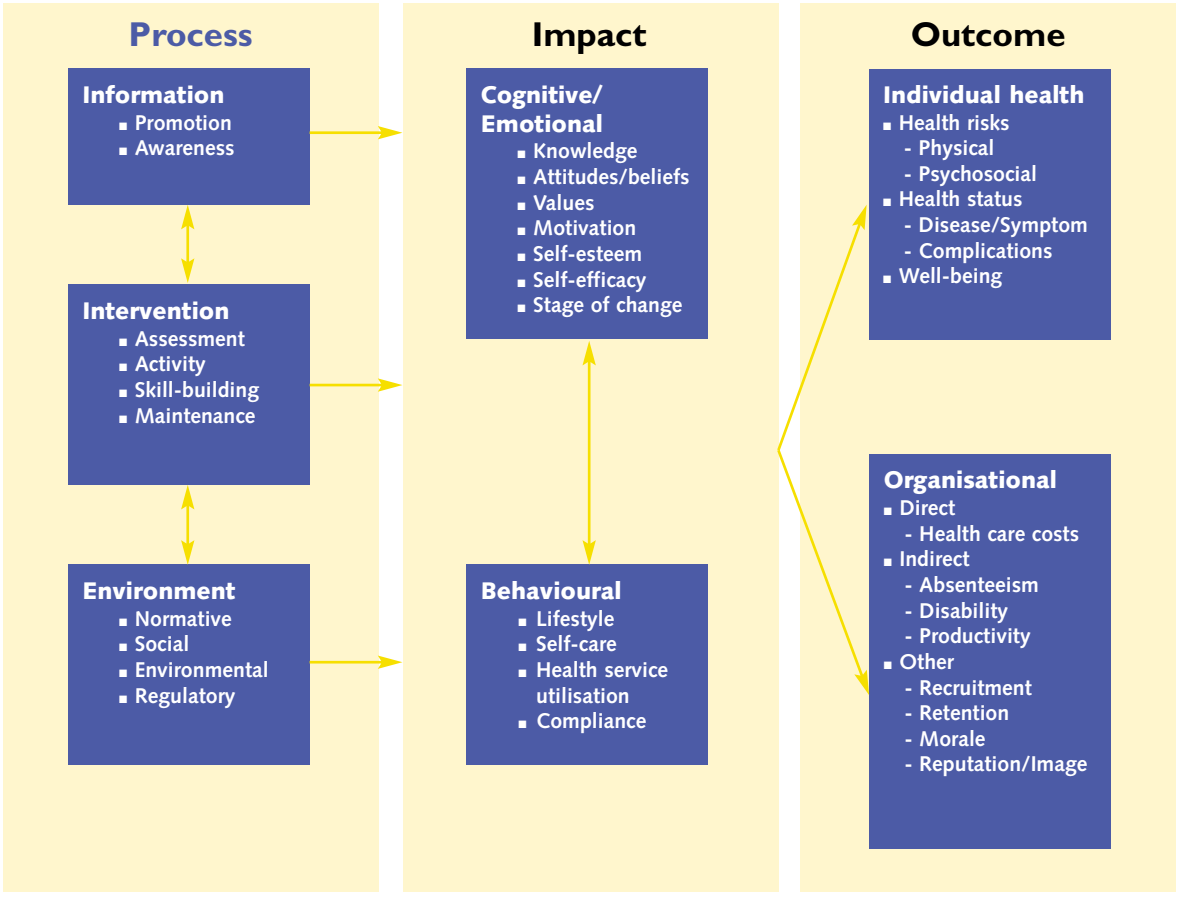
The definition of workplace health promotion used in this report is the definition developed by the European Network, as described in the Luxembourg declaration (1997):
Workplace Health Promotion (WHP) is the combined efforts of employers, employees and society to improve the health and well-being of people at work. This can be achieved through a combination of:

- improving the work organisation and the working environment
- promoting active participation
- encouraging personal development

WHP is based on multisectoral and multidisciplinary cooperation and can only be successful if all the key players are committed to it.

WHP programmes and interventions encompass a wide range of activities and measures with outcomes at both individual and organisational level. For instance Anderson et al. (2001) provide a conceptual model incorporating key concepts of the major theories of change. The model (figure 3) encompasses health promotion process (the operation of the programme), impact (the direct results of the programme) and outcome (the desired goal of the programme).

Figure 3 – Conceptual model of health promotion (Anderson et al. 2001)



2. Making the case for workplace health promotion

"Making the case for" implies putting together an argument to prove something, i.e. like a lawyer does for a client. Making the case for workplace health promotion would therefore signify putting together an argument to demonstrate the positive impact and outcomes of WHP programmes. It is of course taken into consideration that the effects and outcomes of such programmes will differ according to various factors including the level and the group they are targeted at.

2.1. European policy level

Towards a sustainable economy

At European policy level, the case for workplace health promotion should be linked to the concept that creating a more qualitative working environment is necessary to create the conditions for an innovative and sustainable economy. It is a clear that the world of work faces many challenges due to the shift of the economy toward a global knowledge-based economy. These challenges are linked to the degree that the world of work can provide solutions to problems arising from the shift toward a global knowledge-based economy. These problems are e.g.

- increased flexibility
- increased mobility
- telework
- the use of new technologies
- higher (knowledge) demands on workers
- an ageing workforce
- downsizing

These problems already indicate that the solutions must be based on investments in human capital. As Graham Lowe pointed out in his presentation for the European Commission's Mid-Term Review of the Social Policy Agenda "the most convincing case for improving the quality of work rests on arguments and evidence showing how quality work environments create the human resource capacity needed to strengthen a company's performance". Considering the challenges of the world of work, it becomes clear that workplace health promotion contains powerful assets for tackling issues such as an ageing workforce, health problems related to high psychosocial demands, flexible work organisation (Lowe, March 2003). This means that policy makers must find ways to convince employers of the value of the human resource capacity, adopting a longer-term perspective.

One way to do this might be to give more visibility to the economic role and benefits of workplace health promotion activities within companies or organisations (see also box 1). Another – complementary – approach is to link the valuing of human capital with the concept of Corporate Social Responsibility. This concept considers socially responsible enterprises to be an important criterion for business success. In addition, it can be noticed that the importance of socially responsible enterprises is often substantiated by economic and performance arguments. The distinction often made between enterprises based on corporate social responsibility on the one hand and those based on shareholder value on the other need not be a contradiction. Shareholder value emphasises profit for the shareholders as the most important goal for a company. However, since corporate social responsibility, investing in quality at work and workplace health promotion are essential for business success, one could easily argue that this corresponds with optimising the shareholder value in a longer-term perspective.

Box 1 How to give more visibility to the economic role of occupational safety and health within the enterprise?

- Making enterprises aware of their costs e.g. by developing instruments to estimate the hidden costs of poor working conditions
- Adapting accounting methods: most human resources, including the health status of the workforce, are not done justice using existing accounting methods
- Supporting qualitative aspects of enterprise costs: the costs that firms incur (and therefore the benefits of their investments in OSH) depend on the overall strategy they adopt toward production. If the main objective is to produce at the lowest cost, and if labour supply is sufficiently abundant, then the cost of injury and illness will be relatively slight. If quality, reliability, productivity, and innovation are valued, on the other hand, the capacity of the workforce becomes crucial, and the costs of disruption and chronic disability are much greater. As a result, there are important consequences for OSH in terms of the firm's choice of productive strategy. This in turn raises research and policy questions concerning the factors that influence this choice-market organisation, support services, regulations, etc. Broadly speaking, it should be the goal of governments to have all enterprises value and nurture the human capabilities of their workforce and determining how best to do this should be a priority of social and economic policy.
- Internalising costs: many costs of poor working conditions are externalised e.g. the costs are compensated by national social security bodies. If (some of) these costs are internalised, this could be an important incentive for companies.

P. Dorman, 2000

Towards a healthy society

The public health strategy is aimed at improving the standard of health. Health promotion forms an integral part of this strategy. Health promotion is an important element, as it aims to improve the general standard of health within the [European] Community by improving knowledge on risk factors and encouraging people to adopt healthy lifestyles and behaviour. (Community action programme on health promotion, information, education and training within the framework for action in the field of public health 1996-2000).

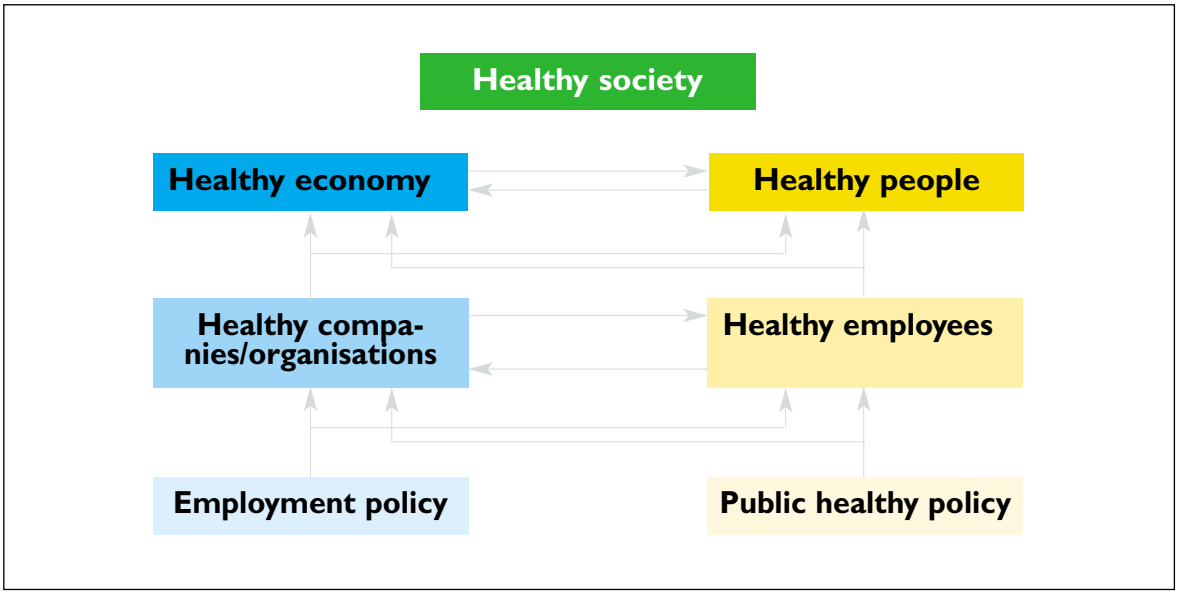
Moreover, the public health strategy of the European Union defines three main areas of activity within its public health strategy. In addition to improving health information and establishing rapid reaction mechanisms to respond to major health threats, tackling health determinants with a focus on lifestyle issues is a main area of activity. This requires a wide range of health promotion activities accompanied by measures and specific instruments to reduce and eliminate risks (Communication from the Commission to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions on the health strategy of the European Community. Brussels.16.5.2000, COM(2000) 285 final).

The workplace is a preferable setting for workplace health promotion activities. The reason is that the workplace is a defined community with access to the population at large and social support and has economic reasons for improving health and productivity (O'Donnell, 2001). Furthermore, work is an important social determinant of health. Not only does unemployment have a detrimental effect to health, a clear link is noticeable even among employed people between the grade of employment on the one hand and mortality and morbidity at the other hand. This relationship seems to be explained by the higher levels of control, challenge and support enjoyed in higher grades of work (The European health report, WHO, 2002).

The idea that people who are financially better off have better access to health care and are therefore healthier is challenged by economists, who believe that "good health leads to enhanced income". This means that health

improvements stimulate economic development. Health is not the effect of success but the reason for it (Mc Cunney, 2001).
Work also has an influence on health and disease in various ways. Work can cause ill-health if employees have to work within health-damaging working conditions, the skills available are inadequate, or the mutual support between colleagues is lacking (The Luxembourg declaration on workplace health promotion in the European Union, ENWHP, 1997). This means that in order to be successful workplace health promotion activities cannot only be focused on individual lifestyle aspects but must also be aimed at the work organisation.

Figure 4 – Policies toward a healthy society



2.2. On the level of national social security bodies

Making the case for national social security bodies relies mainly on the argument that workplace health promotion results in a reduction in the use of the healthcare system. Healthy working conditions improve the health of the population as a whole. The reduction in people using medical and rehabilitative services leads to savings in public health service expenditure. Furthermore, workplace health promotion programmes can make a contribution to the issue of extending working life. The ageing of the workforce brought about by demographic change is one of the major challenges facing the future world of work, which workplace health promotion can help to master by helping workers to remain employed throughout their working life (www.enwhp.org).

The costs compensated by national social security systems are not the only costs due to ill-health and poor working conditions borne by society. Looking for instance at the costs of occupational injuries and diseases, this cost could be valued as an opportunity cost: the value to society of the goods or services (including leisure) it could otherwise have enjoyed had there been no diversion of resources resulting from accidents or illness at work. In general, the main sources of opportunity cost are lost output, costs of treatment and rehabilitation, and the cost of administering the various programmes to prevent, compensate, or remedy occupational injury and disease. Of these, the last two are the most readily calculated, since they are generally reported by social insurance or other

similar programs (P. Dorman, 2000). However, several researchers have tried to estimate these costs. According to the European Agency of Safety and Health at Work in Bilbao the costs from Member States of all work-related diseases range from 2.6% to 3.8% of GNP (see also table 1).

Table 1 - Estimates of the Aggregate Economic Cost of Occupational Injury and Disease for Selected European Countries

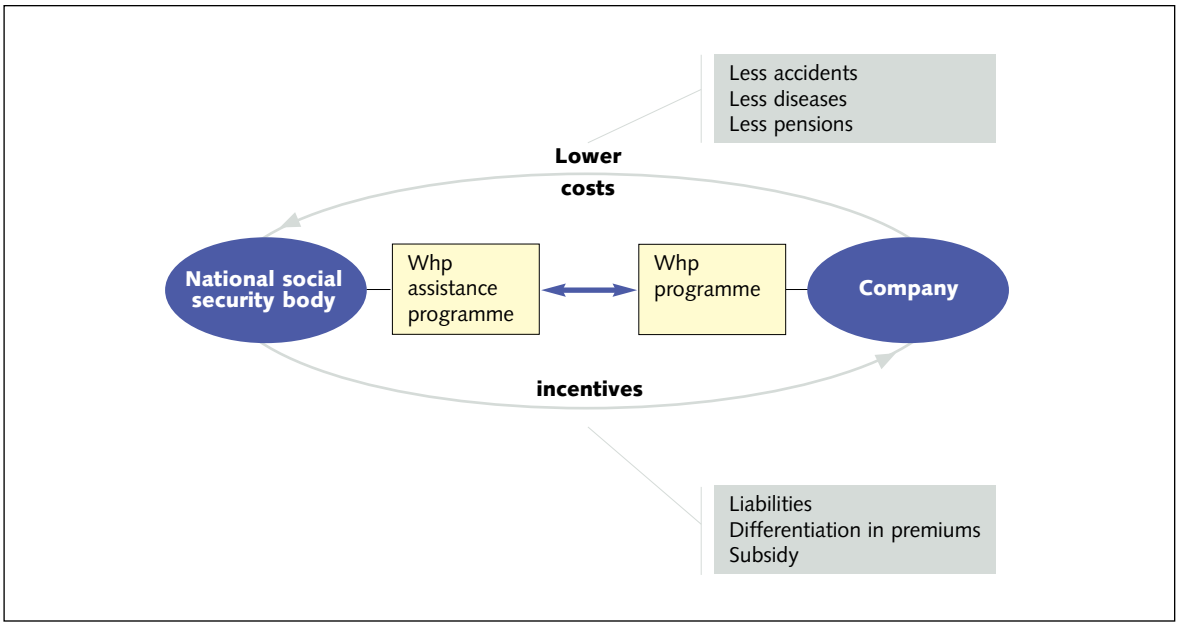
Country	Base year	Cost as % of GDP/NI
Great Britain	1995/96	1.2-1.4
Denmark	1990	2.5
Finland	1992	3.6
Norway	1990	10.1
Sweden	1990	5.1
Denmark	1992	2.7
Norway	1990	5.6-6.2
Australia	1992/93	3.9
Netherlands	1995	2.6

Source: P. Dorman (2000)

A research project in Germany showed that the costs of work-related diseases amount at least to 28 billion Euro. In terms of physical demands, these figures are based on 15 billion euro direct costs (disease treatment) and 13 billion euro indirect costs (loss of productivity years by sick leave). The work-related aspects "heavy work/lifting" and "low control" account for the biggest share with respect to attributive risks and direct and indirect costs (Bödeker et al., 2002).

The costs of occupational injuries and illnesses (costs of not implementing preventive OSH measures and/or workplace health promotion activities) are influenced by the national social security system. In addition, the national healthcare system may have cost effects. The extent to which these costs are borne by those who caused the injuries or illnesses differs from country to country. In many countries systems exist that bring the costs back to the company or the person who inflicted the costs (cost internalisation). Methods for cost internalisation are e.g. liabilities, legal sanctions, differentiation in premiums, etc. (J. Mossink, M. De Greef, 2002). Some of these methods can be used by national social security bodies as incentives for companies to implement workplace health promotion.

Figure 5 – Interaction between the case of national social security bodies and companies

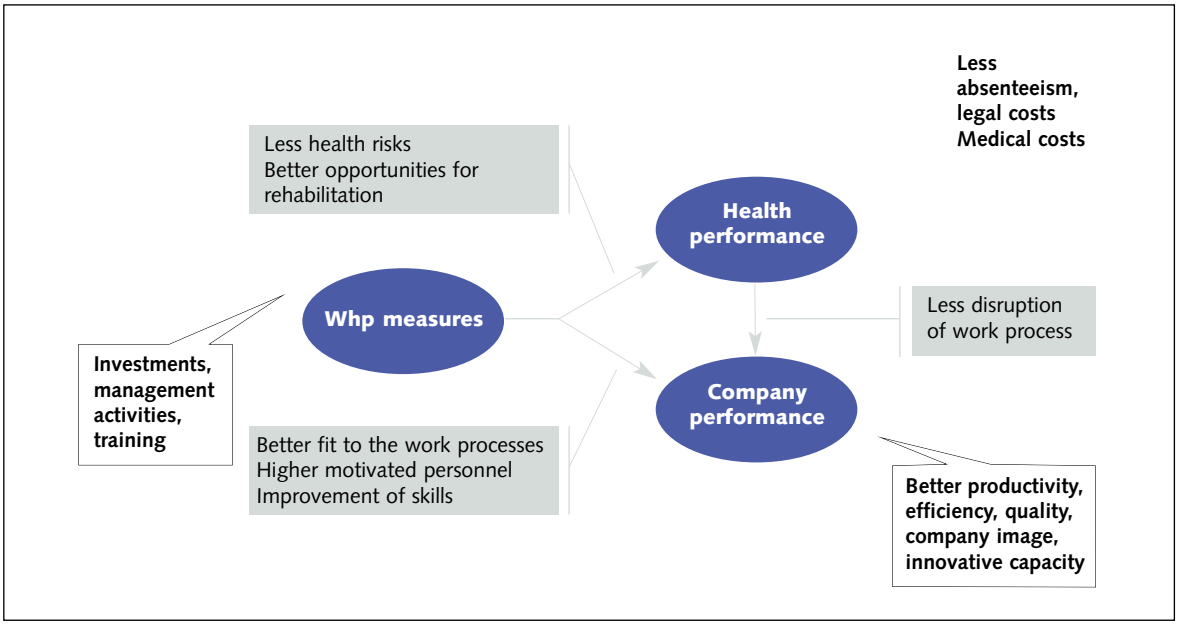


2.3. The company level

The case for workplace health promotion states the effects of healthy workplaces on the organisations and on the individual workers. Organisations that place value in and continuously improve the health of their workplaces gain through improvements to their profile as well as to their bottom line. The improved profile generates advantages such as motivating employees, improving company profile, and attracting more applicants. These factors are strategically important but difficult to quantify. Other benefits result in a positive return on investment through measurable improvements for example in absenteeism, employee health, and productivity.

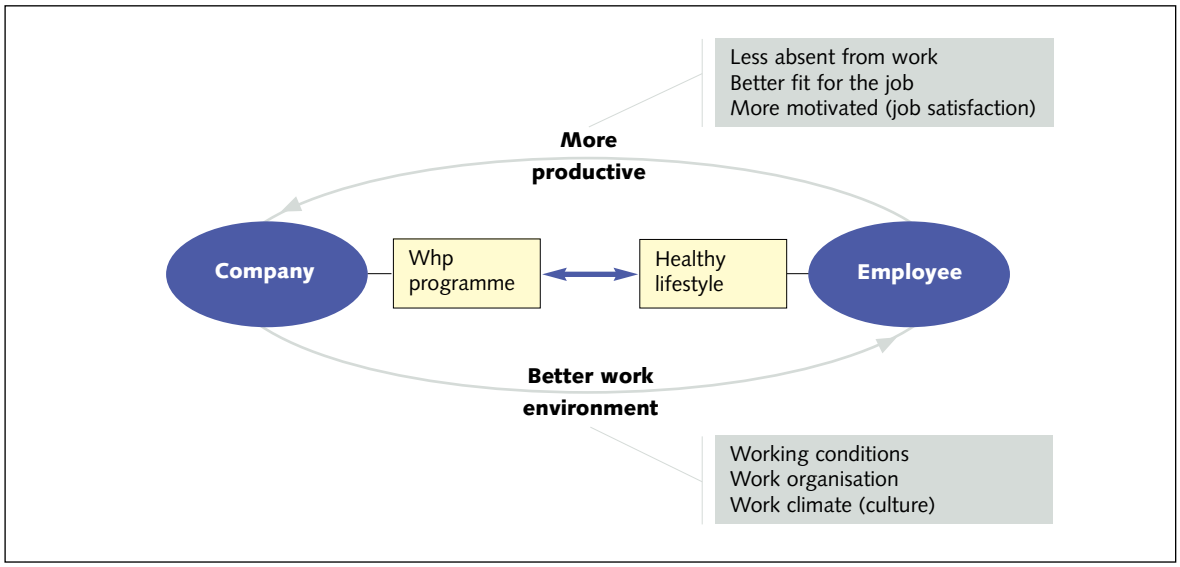
The model as shown in fig. 6 indicates the results of investing in activities on workplace health promotion. The effects of workplace health promotion programmes are measured both in terms health performance and company performance. A better health performance is achieved as a result of lower rates of absenteeism, less medical costs, less legal costs, etc. The performance of the company improves due to more motivated staff, which in turn results in higher productivity, more quality, efficiency and an improved company image. The effect of workplace health promotion on company performance is even strengthened by the additional effects of health performance on the performance of the company. Lower absenteeism rates, less legal and medical costs etc. have a positive influence on the production costs, thus improving the productivity of the company (Mossink, De Greef, 2002).

Figure 6 - Economic effects of workplace health promotion at company level (adapted from Mossink, J., De Greef, M., 2002)



In addition, individual workers profit from workplace health promotion programmes, since their health improves along with their working conditions and job motivation (Berger et al. 2001). Due to workplace health promotion activities individual workers can adapt their health lifestyle thus improving the state of their health. Furthermore, individual employees will benefit from an improved work environment and organisation. This clearly shows that workplace health promotion programmes on company level create a win-win situation for both the company and the employees, thus giving weight to the motto of the European network on workplace health promotion: Healthy employees in healthy organisations!

Figure 7 – Interaction between the case of a company and the case for the individual worker

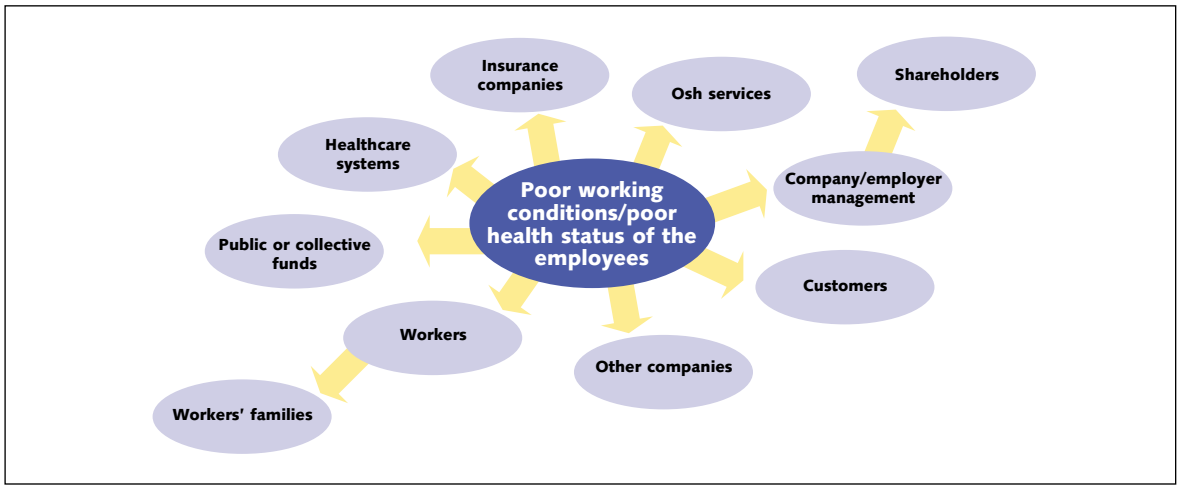


2.4. Target groups

Who are the target groups of workplace health promotion programmes? The answer to this question is clearly that every group who gains by workplace health promotion is a possible target group. Fig. 8 shows the different groups that are affected by poor working conditions. These are also the groups that will benefit – directly or indirectly – if the working conditions improve and if the health of the employees improves. These target groups can be sorted into three levels:

- Societal: public or collective funds, healthcare systems, insurance companies
- Company: OSH services, company/management, shareholders, customers, other companies
- Individual: workers, workers' families

Figure 8 – Poor working conditions/poor health status of the employees inflict costs on many parties (adapted from Krüger, 1997 and from Mossink, De Greef, 2002)



However, the target groups that benefit from workplace health promotion are not necessarily the same target groups that should be addressed by the case for workplace health promotion. The aim of "making the case" is to convince companies or national social security bodies to set up workplace health promotion programmes. Looking at a company, it means that whoever takes decisions needs to be convinced that workplace health promotion is good for business. However, decision-making is a complex process that is often influenced by groups and representatives. This means that the target groups are to be found among the decision makers and decision influencers. These decision makers and influencers can be found within or outside the company.

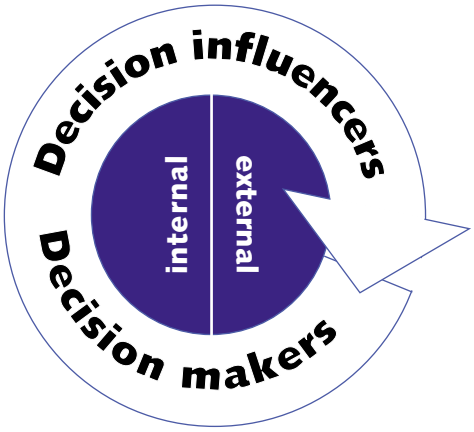


Table 2 – Internal and External Decision makers and influencers

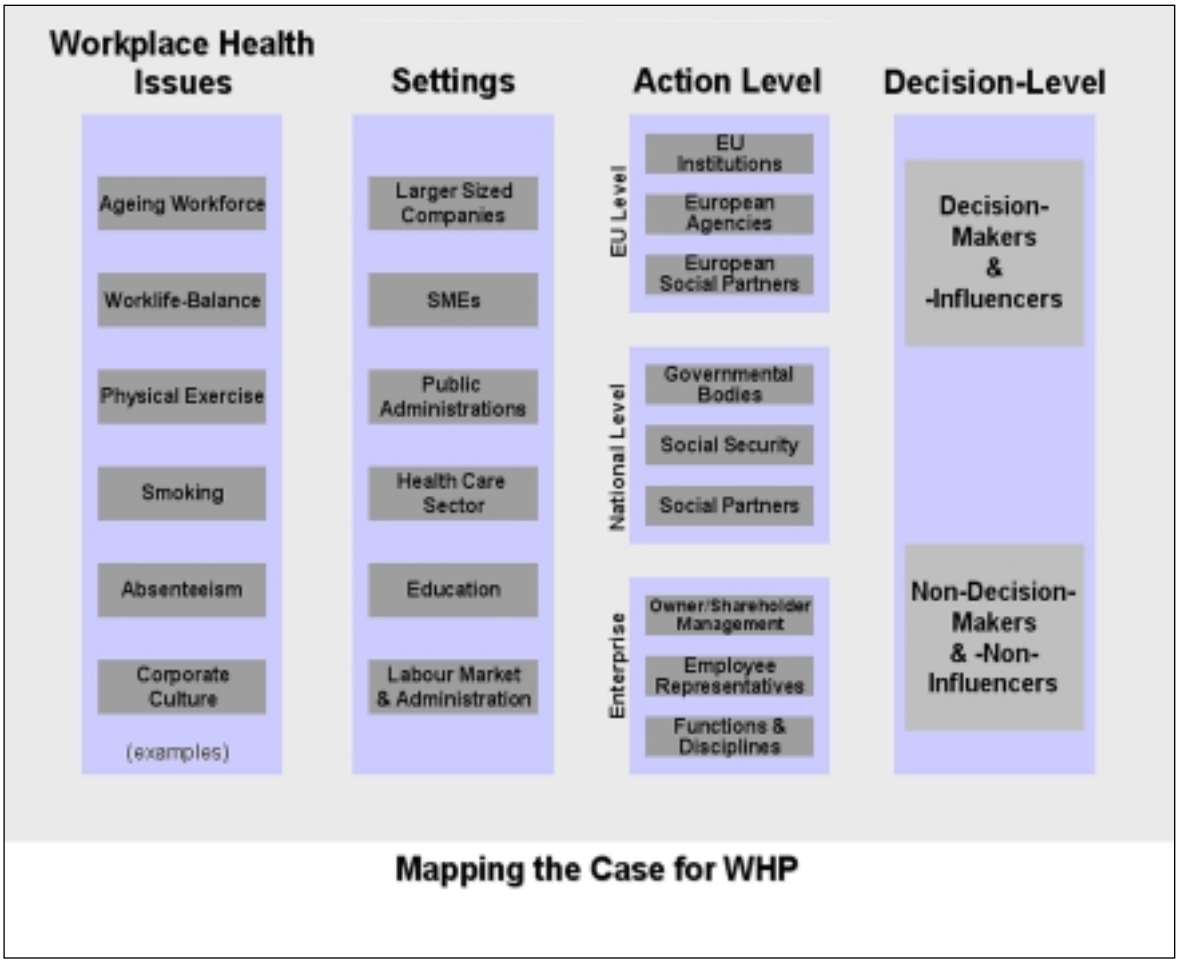
	Internal	External
Decision makers	Strategic management	Legislator
	Administrative board	
Decision influencers	Health/OSH professionals	National social security bodies
	Workers' representatives	Trade unions
	HR managers	Employer organisations
	Operational management	Other stakeholders e.g. local community

2.5. (EN)WHP Case Model

Based on the description of the different levels and target groups for making the case of workplace health promotion, a model can be developed. This model (figure 9) gives an overview of the different levels, settings and stakeholders that could be targeted while making the case for WHP. Along with these three pillars, one should also consider the topics of workplace health promotion relating to lifestyle topics and corporate health issues. The elements of the Case Model are especially important for setting up the communication process in order to convince stakeholders. For example the case regarding the ageing of the workforce made to members of the European Parliament would use a totally different set of arguments to the case made to CEOs regarding setting up an integrated health management system.

The focus of this report is on the "company" level ("organisations" of the pillar target level). Future work of the network could focus on other target levels, on specific settings or topics, or on groups of stakeholders.

Figure 9 – the (EN)WHP Case model



3. Arguments for workplace health promotion

In this chapter, first the motivations companies have for introducing workplace health promotion will be looked at. In 3.1. it will be seen that workplace health promotion is not commonly seen as a priority for management, and that programmes are primarily initiated to improve health, and that these programmes are successful if they are integrated and comprehensive and in line with company goals and strategies.

In 3.2. measuring effects and outcomes will be discussed. Convincing arguments are based on evidence that often relate to the effects of existing workplace health promotion programmes. Evaluations of WHP remain difficult and there are methodological problems too. Workplaces are no laboratories. Nevertheless evaluation remains important and several guides exist to help with the design of evaluations. Furthermore, many case studies and research studies exist that report on the effects of workplace health promotion. One problem, at least for European needs, is that most of the evidence available comes from North America, where for example the social security systems differ greatly from those in Europe.

In 3.3. the conceptual framework in which the effects of workplace health promotion can be looked at is explored. The framework proposed in this report offers an insight into the relationship between the WHP process and the outcomes.

In 3.4. it will be seen how most convincing arguments refer to the effects and outcomes of WHP programmes. This is especially the case when linked to company performance and goals. Several case studies are given to demonstrate WHP programmes.

3.1. Why?

Emphasis on health

Looking for arguments for workplace health promotion raises the question: why do companies invest in workplace health promotion? At present several companies set the example by successfully implementing and executing programmes to promote the health of their employees. A survey of more than 1400 European companies (Wynne, Clarkin, 1992) revealed that there were two sets of reasons why organisations undertook workplace health activities. One group of reasons refer to the expected benefits, the other group comprises reasons based on a need to solve a specific problem. Some companies stated that they implement workplace health actions because they are convinced that it will result into improved health, staff morale, etc. However, most companies (60%) gave reasons that relate to a specific problem or situation. Examples are legislative provisions, health problems, employee morale problems, etc.

Surveys in the UK revealed that the main barriers to running health promotion activities were the limited size of the workplace concerned (55%), people being too busy (11%), people thinking that they were unnecessary (9%) and not worth doing (9%). However, around 60% of those surveyed considered that such activity was important, suggesting that they would respond to efforts to facilitate health promotion activity (Gee et al., 1997)

"Improving health" this still seems to be the most important reason for investing in workplace health promotion. In Canada the National Wellness Survey Report (2000) showed that 17.5% of the employers offer comprehensive worksite wellness programmes and 64% are offering some wellness initiatives. The main reasons were:

healthy employees are a valuable asset (27.3%), the aim to promote a healthy lifestyle (25.6%), the aim to reduce absenteeism (14.3%) and the containment of costs (10.1%) (Buffett Taylor, 2000). A US survey in 2000 found that "keeping employees healthy" was cited by 84% of employers as an important reason for establishing a programme. Reducing medical care costs was listed by 75% and improving productivity was listed by 64%. Cost containment was important but not the most important reason (Association for Worksite Health promotion, 2000).

These findings support the fact that health promotion programmes are often only considered as a health issue, thus forming a barrier for a holistic and integrating approach. In addition, only integrated and comprehensive workplace health promotion programmes can reach the aim of having healthy people in healthy organisations (ENWHP, the Luxembourg declaration, 1997). Few companies tend to treat health promotion as a strategic issue. A Swiss study revealed that workplace health promotion is less integrated in corporate management than human resources management (Bauer et al., 2002). In Canada for instance, a survey among human resources managers found that 11% said that wellness and disability management are 'very important' to top management in developing the organisation's business strategy, while 27% said 'important'. In terms of importance to the overall human resources strategy, wellness and disability management were considered to be important by 30% and very important by 16%. According to Lowe this indicates "employee health management is typically viewed by management as just that – a health issue" (Lowe, 2003).

The situation in Europe differs from the situation in the United States and Canada due to differences in the national social security systems. These differences can have an influence on decision-making regarding workplace health promotion. A study in the UK found that there are two main factors there that motivate both SMEs and large organisations to initiate health and safety improvements, namely the fear of loss of corporate credibility and a belief that it is necessary and morally correct to comply with health and safety regulations. Information on costs and benefits of health and safety at work was not considered as a main factor. The researchers stated that there is however research – especially in the USA – that indicates that the need to reduce the costs of ill-health and injury are strong motivating factors but this finding is not corroborated in the UK and other countries. The researchers argued that this could be related to differences in health care insurance and compensation arrangements. US organisations directly bear a high proportion of the cost of injury and ill-health (health and worker compensation insurance premiums), whereas the state bears the main cost of injury and ill-health in the UK. Furthermore, the researchers state that the perception that health and safety improvements are a cost rather than an investment is a significant demotivating factor among the management. Based on this finding the researchers concluded that there is a need to demonstrate the commercial benefits of health and safety improvements in order to – at least – neutralise cost concerns (Health and Safety Executive, 1998).

Emphasis on perception

The emphasis on the (economic) benefits might influence the fact that it is not always necessary to have financial arguments to initiate a workplace health promotion programme. For example, a Canadian survey of worksites found that senior managers and executives considered cost savings to be less important than did health professionals involved in planning and operating the health promotion programme. Other important criteria include altruistic concerns for employees' health, the perception that such programmes are appreciated by employees as a benefit, and a desire to keep up to date with trends to improve recruitment and reduce turnover. A senior manager may see a programme with a positive impact on recruitment, productivity, turnover and/or morale as a better investment than one which provided a 25% annual return on investment in health benefit costs and disability claims (Literature review, Health Canada).

This means that workplace health promotion programmes will only be initiated when there is an emotional buyin by top management. According to O'Donnell we have to recognise the fact that the process of deciding to start or continue a programme is not fully rational. The cost of a workplace health promotion programme can be – at most – compared with landscaping or carpeting a new facility. Spending at this level requires close supervision but not sophisticated cost/benefit analyses in order to defend investments. If a health promotion programme has the emotional buy-in from top management, it will be approved and continued (O'Donnell, 2001).

The conviction that maintaining a healthy organisation is the main driver for the success of a business, is shared by the companies of the European Network of Enterprise for health (www.enterprise-for-health.org). This conviction is driven by commonly shared values and both scientific evidence and evidence based on practice alone. The central value is expressed by the belief that the quality of the human capital is the decisive factor for the economic and social success of the company and the society at large. The European Network for Enterprise for health uses the following justifications:
Workplace health promotion

- reduces costs of ill-health and poor work quality
- drives innovation and productivity
- addresses the challenge of an ageing workforce
- satisfies employees, customers, shareholders and public stakeholders
- aligns with corporate social responsibility, a central pillar for future welfare and economic prosperity

(Breucker, 2004, draft executive summary)

This means that if one wants to target the case for workplace health promotion at senior management level, one has to determine which argument or arguments can trigger this emotional buy-in. In some cases, it might still be economical arguments, supported with hard data of profits in the years to come. In other cases, a company might be more open for arguments emphasising qualitative or health benefits. This means that from a policy perspective, it is important to provide a variety of arguments that will build employers' commitment to healthy workplace practices (Lowe, 2003).

Emphasis on business strategy

The problem however remains that for most companies workplace health promotion programmes are not linked with the core corporate strategies. According to the survey conducted by the Association for Worksite Health promotion only in 4% of the companies does employee health and well-being appear on senior management's list of priorities (Association for Worksite Health Promotion, 2000 and table 3). This finding is confirmed by a Canadian survey stating that even though the prevalence of workplace health promotion programmes has increased, workplace health issues do not appear on the list of top priorities for senior executives (Lowe, 2003 and Bachman, 2002).

Table 3 – where does employee health and well-being appear on senior management's list of priorities? (percentage of companies)

The number one priority	4%
Near the top of the list of priorities	35%
At the middle of the list of priorities	33%
Low on the list of priorities	16%
Not on the list of priorities	12%

However several studies indicate that the best practices can be found in companies where workplace health promotion is linked with the core strategy of the company. A Swiss study found there is a higher correlation between effects such as an improved job satisfaction, improved customer satisfaction etc. in organisations where workplace health promotion is integrated into the corporate strategy (Bauer et al., 2002). In a benchmarking study carried out to identify best practice companies, some interesting common success factors were established for these best practice companies (see box 2) (Goetzel et al., 2001). One of the most important facts was that in best practice companies health management was aligned with the business purposes of the organisation.

Box 2 Success factors

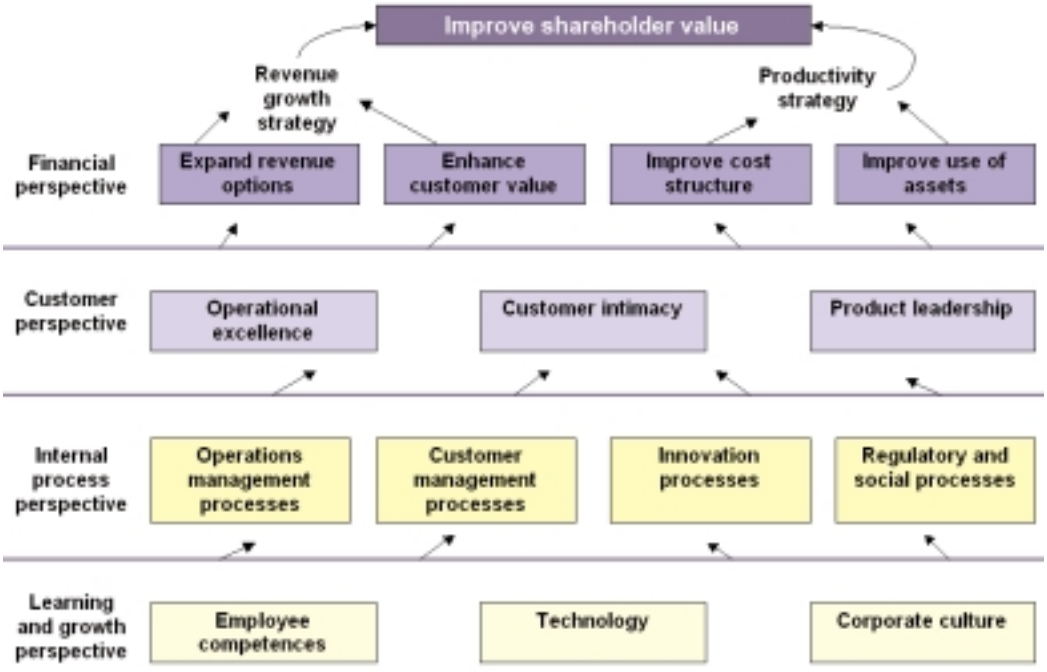
1. There was an alignment of Health and Productivity Management and the overall business strategy of the organisation
2. There was an interdisciplinary focus
3. There was a champion or a team of champions (1 person or a group of key individuals drove the process)
4. Senior management and business operators were key members of the team
5. Prevention, health promotion, and wellness staff were heavily engaged in the process
6. The emphasis was on quality-of-life improvement, not just costcutting
7. Data, measurment, reporting, evaluation, and return on investment studies became increasingly important over time
8. Communication was constant and was directed throughout the organisation
9. There was a constant need to improve by learning from others
10. The team was having fun

Goetzel et al., 2001

Another study also confirmed this finding. Here the researchers found that the best programmes not only had well-structured studies on health improvements, medical care cost savings and absenteeism savings. The best programmes also had qualitative impressions on how their programme contributed to the mission of the company and to the (long and short term) goals (O'Donnell, 2001). Often it is not the return on investment that drives a workplace health promotion programme but the fact that the programme can be aligned with and support key business initiatives and goals (Webster, 2001). This means that to survive and be successful, a health promotion programme must contribute to the mission, long-term goals, and short-term priorities of the organisation it serves and to be to the special interest of those who approve its budgets (O'Donnell, 2001).

This idea can be linked to changes in company management concepts. Here the concept of the balanced scorecard sets a good example. Company performance is not only measured in financial terms but other aspects such as the customer, internal business, innovation and learning factors are also taken into consideration (Kaplan and Norton, Harvard Business School). An important element in implementing the balanced scorecard management system is the tool of strategy maps (figure 10). These maps show the cause and effect links by which improvements can create desired outcomes. The strategy maps can show how "an organisation will convert its initiatives and resources – including intangible assets such as corporate culture and employee knowledge – into tangible outcomes." (Kaplan and Norton, 2000). The best way to build strategy maps is according to Kaplan and Norton, from the top down, starting with the destination and then charting the routes that will lead there. This way company executives tend to invest their focus on *measures that drive strategy*.
This top down approach has been complemented with a bottom-up approach in the Healthy scorecard (Pratt, 2001). The author shows that for strategic success to be sustainable, corporate scorecards should also be built from the bottom-up in order to capture *measures that drive people*.

Figure 10 - The balanced scorecard management system: strategy maps (Kaplan and Norton)



Other management approaches offer interesting work possibilities, along the lines of an integrated vision of a company, combining both the social and economic dimension. The management model developed by the "Institut de Socio-Economie des Entreprises et des Organisations" (ISEOR) is an interesting example (see box 3 and case study 12).

Box 3 The ISEOR model

The socio-economic management model from the "Institut de Socio-Economie des Entreprises et des Organisations" (ISEOR) integrates the social dimension of the company with its economic performance. The model brings various factors together that are tradionally seen as opposite: human considerations v. economic ones, satisfaction v. profitability, productivity v. quality, financial advantages v. qualitative ones, ethics v. efficiency.

An important concept within the model are dysfunctions resulting from "poor" working conditions, work organisation, communication – coordination – conciliation, time management, training, implementation of strategy). The result of these dysfunctions are hidden costs which are not measured nor controlled.

Based upon this management model an approach was developed integrating the human and economic dimensions of a company. The approach is aimed at identifying the hidden costs, the causes of these costs, and implementing a process to tackle these dysfunctions.

See also case study 12

www.iseor.com

These management developments provide possibilities for identifying workplace health promotion as an important business enabler that can push companies to perform better. The consequence of this is that it is necessary less to show which costs investment in workplace health promotion brings and more to indicate to what extent workplace health promotion can make a contribution to the achievement of company objectives.

A research by Smallman and John on occupational safety and health concluded for instance that good health and safety performance is perhaps increasingly seen as part of corporate culture and a source of pride among company bosses. The arguments for health and safety are evolving away from mere legal compliance towards competitive advantage and world-class business performance. Among the most sophisticated firms, health and safety is viewed not as a separate function or responsibility but as a consequence of broader initiatives targeting productivity, competitiveness and profitability. The authors concluded that it seems likely that the 'high ground' in health and safety lies in thinking about moving beyond monetary values or indeed corporate reputation. It seems the target is to bind health and safety in with business excellence within which health and safety is a performance determinant rather than an end in itself. Health and safety should not be seen as the aim but as a determinant to measure the performance of the company. The answer may lie in the use of more novel models, relating to corporate social performance (Smallman and John, 2001).

The corporate perspective on the health promotion programme at the Dow company confirms this viewpoint. The director of the health department, Catherine Baase, declares that "what really matters to my senior management and me is that health promotion is aligned with corporate priorities and contributory to business success. Health promotion should not be viewed as an independent objective but as a critical mechanism enabling success in our pursuit of the Triple Bottom Line [economic prosperity, environmental responsibility, social equity]" (Baase, 2001).

Conclusions

- Workplace health promotion is not commonly seen as a priority for management
- Workplace health promotion programmes are mostly initiated to improve health (a mere health issue)
- Workplace health promotion programmes are successful if they are integrated and comprehensive
- Workplace health promotion in best practice companies is aligned with the companies' goals and strategy

This means that justifications for workplace health promotion should be aimed at showing the contribution to the main goals of the company. These justifications do not always require arguments based on hard evidence. A variety of arguments offer the best possibilities in obtaining commitment. Companies that are already considering their company goals and strategy in a balanced manner offer the best possibilities to do so.

3.2. Measuring effects and outcomes

Evaluation methods

Convincing arguments are based on evidence related to the effects of existing workplace health promotion programmes. This evidence is based on the measurement of outcomes of interventions and/or programmes. Several methods exist to evaluate the effects of workplace health promotion programmes. Robson et al. (2001) distinguish 6 types of interventions evaluations (table 4).

Table 4 - Types of intervention evaluations (Robson et al., 2001)

Types of evaluations	Purpose
Needs assessment	Determines what type of intervention is needed
Process evaluation	Assesses the quality of the intervention delivery and identifies areas for improvement
Effectiveness evaluation	Determines whether an intervention has had the effect intended on out comes and estimates the size of the effect
Cost-outcome analysis	Determines the net cost of an intervention relative to its health effect
Cost-effectiveness analysis	Compares different intervention alternatives using cost-effect ratios
Cost-benefit analysis	Compares different intervention alternatives using net benefits

A needs assessment can be carried out to determine exactly what type of intervention is required in a workplace. Analyses of data such as absenteeism statistics, employee surveys, etc. can identify particular health issues. This determines what type of intervention(s) should be chosen or designed to address an identified need. After choosing and introducing a new health promotion initiative to a workplace, a process evaluation can be used to evaluate if the initiative is being implemented as planned. It assesses to what extent new processes have been put in place and the reactions of people affected by the processes. A process evaluation should take account of the cultural context in which the intervention is implemented; some now consider it an essential part of rigorous evaluation design (Dugdill, Springett, 2001).

The effectiveness evaluation determines whether a workplace health promotion initiative has had the intended effect. In this respect it can be the 'check' portion of the plan-do-check-act continuous quality improvement cycle.

Lastly, economic analyses can be used to evaluate workplace interventions, including cost-outcome, cost-effectiveness and cost-benefit analyses. The first two analyses estimate the net cost of an intervention (i.e., the cost of the intervention minus the monetary saving derived from the intervention) relative to the amount of safety improvement achieved. (Monetary savings include reductions in workers' compensation premiums, medical costs, absenteeism, and turnover, etc.) This yields a ratio such as net cost per injury prevented. In a cost-benefit analysis, monetary values are assigned to all costs and outcomes resulting from an intervention, including health outcomes. Furthermore, a net (monetised) benefit or cost of the intervention is calculated (Robson et al., 2001). In cost-benefit analyses, the ratios most used are the Net Present Value and the Benefit/Cost Ratio (box 4).

Box 4 Cost Benefit Analysis: Net Present Value and Benefit-Cost Ratio
The Net Present Value of a workplace health promotion programme is defined as the difference between the total discounted inflation adjusted benefits and the costs of the programme over its useful life
The Benefit-Cost Ratio or Return on Investment (ROI) ratio is the ration of discounted, inflation adjusted benefits to costs
Ozminkowski et al., 2001

Evaluation: problems

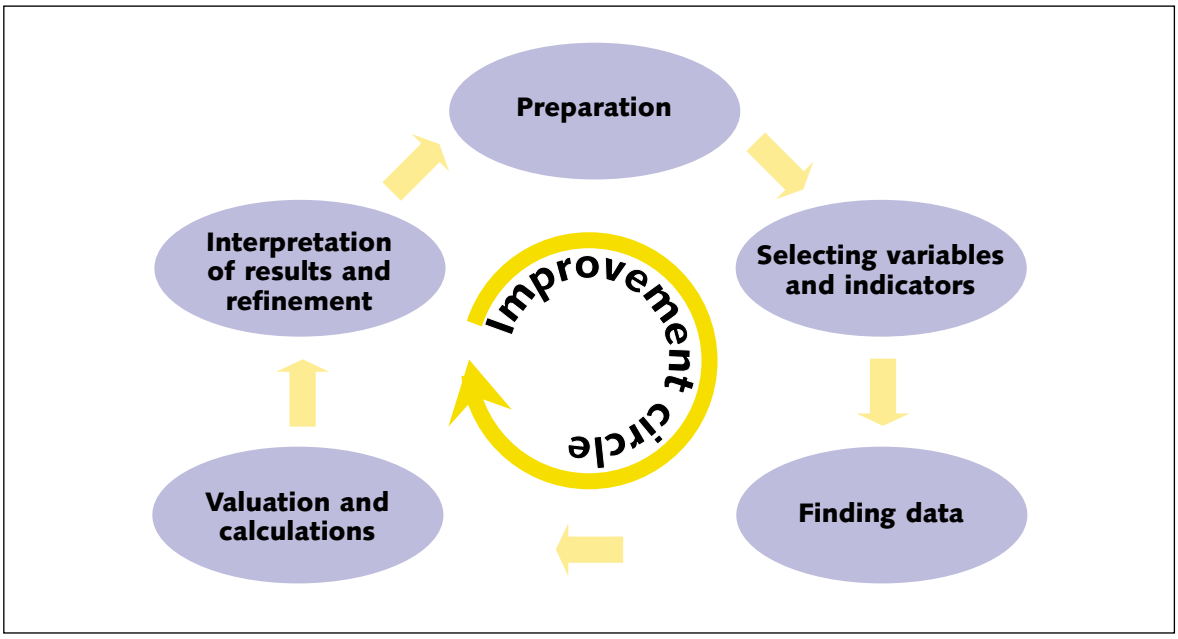
Although measuring results of workplace health promotion programmes is part of the quality criteria of WHP (ENWHP, quality criteria; Demmer, 1995) and different methods exist, the evaluation of whp programmes remains very difficult. Furthermore, these kinds of evaluation and research designs face various methodological problems. Workplaces are no laboratories, which makes it very difficult to come up with an evaluation design.

One of the problems is that it is very difficult to establish the cause-effect relation. Often several measures and programmes are initiated at the same time (not only workplace health promotion initiatives but also other human resources actions) which makes it difficult to link a specific outcome to a specific measure. It might also be the case that employers who are already profitable may be more likely to afford such programmes (Gunderson, 2002).

The problem with evaluating the economic return of workplace health promotion programmes is that small changes in the analytical procedure, the choice of variables, and the timeframe of the analysis are some of the factors that can markedly change the results of economic evaluations. The choice of the technique often already reflects value judgements and one could argue that when developing cost-benefit models it is best to take into account the relevant values of decision-makers and stakeholders (Literature review, 2003; Dugdill, Springett, 2001). Moreover, it is often very difficult to measure or to quantify health benefits. The sheer number of factors involved make measurements in monetary units impossible. This difficulty can be solved by determining the (cost/effect) variables and to use a cost-efficiency model that takes into account effects that cannot be 'monetarised' (Krüger et al. 1998).
For economic evaluations, timeframe is a crucial factor. Studies often show a significant return on investment but they tend to be based on a relatively short frame of time (2 to 5 years). The long-term perspective is not considered (Literature review, 2003; Dugdill, Springett, 2001).
These comments should not lead to the conclusion that cost-benefit analyses or cost-effective analyses do not offer interesting evaluation instruments. On the contrary, maybe the challenge lies in combining qualitative evaluation designs, or designs based on behavioural science with financial models. Furthermore, the review of Pelletier (2003) shows the cost-effectiveness outcomes of workplace health promotion programmes, reviewing the methodology (Dugdill, Springett, 2001). Some guidance on how to proceed when setting up cost-benefit analyses and cost-effective analyses can be found for instance in Krüger et al. 1998, Mossink and De Greef, 2002, Mossink, 2002.

The measurement of effects is often based on "before-and-after" design comparing the situation before the intervention with the situation after. Although this kind of analysis can offer evidence on the effectiveness, several dangers can be identified that threaten the internal validity. These dangers are:
- History: some other influential event(s) which could affect the outcome, occurs during the intervention
- Instrumentation/reporting: validity of measurement method changes over course of the intervention
- Regression to the mean: change in outcome measure might be explained by a group with a one-time extreme value naturally changing towards a normal value

Figure 11 - A step-by-step approach on how to go about analysing the costs and benefits of health and safety programmes (Mossink and De Greef, 2002)



- Testing: taking measure (e.g. test) could have an effect on the outcome
- Placebo: intervention could have a non-specific effect on the outcome, independent of the key intervention component
- Hawthorne: involvement of outsiders could have an effect on the outcome, independent of the key intervention component
- Maturation: intervention group develops in ways independent of the intervention (e.g. aging, increase experience, etc.) possibly affecting the outcome
- Dropout: the overall characteristics of the intervention group change due to some participants dropping out possibly affecting the outcome

(Robson et al., 2001)

Furthermore, studies on evidence often use data on absenteeism as a surrogate for measuring productivity. The use of absenteeism data is logical because this data is widely available and closely linked with costs. However, it also poses some problems. Lowe (2003) states that absenteeism data cannot always be considered valid data. Some or the problems he indicates are:

- not all absent employees are automatically non-productive and not all employees present are automatically 100% productive
- the impact of absences varies depending on how work is organised
- employers' records of absenteeism do not reflect informal practices in some workplaces, such as taking vacation days for family reasons
- absenteeism data is highly skewed because most employees are not absent at all while a relatively small number are frequently absent
- the problem of presenteeism: coming to work when sick or injured, resulting in not working to full capacity

Furthermore, absenteeism rates are not exclusively linked to health factors. Aldana and Pronk (2001) found that approximately 15% to 23% of the variance in absenteeism can be explained by health risks. This means that

even the most effective workplace health promotion programmes can only affect a portion, 0 to 20% according to the authors, of all absenteeism. However, the economic benefit that will result from such a reduction in absenteeism rates would be more than enough to pay for the costs associated with health promotion programmes.

Listing problems on evaluating workplace health promotion programmes might lead to the conclusion that setting up evaluation designs is unnecessary an not worth the effort. However, evaluation is an important element of the process. It brings about the information needed to monitor and measure the programme performance in order to adjust programme elements or introduce new elements. It is also important for convincing management and gaining sustained commitment in implementing a holistic and integrated programme. Several guides exist to help in setting up an evaluation design. Examples are Robson et al. (2001), Goetzel and Ozminski (2002). Dugdill and Springett (2001) outline a series of steps that an evaluation process should follow (box 5), and indicate a set of principles to ensure that the evaluation is worth the effort spent on it.

Box 5 Participatory evaluation of a health promotion programme: main actions

Step 1. Clarify the aims and objectives of the proposed programme
Step 2. Design the framework for evaluation and what questions to ask
Step 3. Design the framework for evaluation and decide how to measure change
Step 4. Collect the data
Step 5. Evaluate the results to determine the effectiveness of the programme
Step 6. Make recommendations

Dugdill and Springett, 2001

Influence on evidence

Although the methodological problems exist, there is an extensive number of case studies and research studies available reporting on effects of workplace health promotion. In this respect it must be noted that the practice of evidence-based medicine is also spreading to health promotion. Evidence-based medicine is widely disseminated on an international basis by the Cochrane Collaboration and the national Cochrane centres. The Cochrane Collaboration is an international organisation aiming at carrying out systematic surveys on the effects of disease treatment and medical care, keeping these up to date and making them available (Cochrane library, www.update-software.com/cochrane/) (box 6). Whereas the original activities were closely oriented towards medical care and predominantly served the systematic appraisal of therapy studies, the fields of activity have now also expanded to health promotion and prevention. Systematic Cochrane reviews use assessments based on schemes as presented in box 6 (Kreis and Bödeker, 2003).

Box 6 Widespread evidence class scheme of evidence-based medicine

I	Evidence on account of at least one adequately randomised controlled study
II-1	Evidence on account of a controlled, non-randomised study with adequate design
II-2	Evidence on account of a cohort study or case control study with adequate design, executed if possible by several research centres or research groups
II-3	Evidence on account of comparative studies, comparing populations in different time segments or at different locations with or without intervention
III	Opinions of respected experts, according to clinical experience, descriptive studies or reports by expert bodies

Since the Cochrane centres have only recently expanded to the field of health promotion the number of reviews is very limited but it holds interesting perspectives for the future of evidence-based workplace health promotion.

However, a number of reviews exist that have assessed the methodical quality of the studies on the effects of workplace health promotion. Kreis and Bödeker (2003) have given an overview of these reviews. They reviewed 25 reviews of reviews and more then 400 studies for programmes in the workplace on alcohol, nutrition, stress, tobacco, etc. They commented on the effects that were found and the methods that were used. An overview table brings the results together. An important part of these studies can be found in the literature synthesis on the effectiveness of occupational health promotion in the American Journal of Health Promotion series. These studies attribute ratings (box 7) to the different studies reflecting the scope of the literature, the appropriateness of the applied study design, sample size and 'representativeness', reliability and validity of the dimensions as well as the eligibility and completeness of the data analysis.

Box 7 assessment ratings for studies on the effects of whp

Conclusive:

Cause-effect relationship between intervention and outcome supported by substantial number of well-designed studies with randomised control groups. Nearly universal agreement by experts in the field regarding impact.

Acceptable:

Cause-effect relationship supported by well-designed studies with randomised control groups. Agreement by majority of experts in the field regarding impact.

Indicative:

Relationship supported by substantial number of well-designed studies but few or no studies with randomised control groups. Majority of experts in the field believe that relationship is causal based on existing body of evidence but view as tentative due to lack of randomised studies and potential alternative explanations.

Suggestive:

Multiple studies consistent with relationship, but no well-designed studies with randomised control groups. Majority of experts in the field believe causal impact is consistent with knowledge in areas but see support as limited and acknowledge plausible alternative explanations.

Weak:

Research evidence supporting relationship is fragmentary, non experimental, and/or poorly operationalised. Majority of experts in the field believe causal impact is plausible but no more than alternative explanations.

Anderson and O'Donnell, 1994

Although, these ratings offer possibilities in assessing the quality of evidence, Kreis and Bödeker argue that these ratings should also be regarded critically because the rating is awarded on the basis of expert opinions and not on the basis of the evidence at hand alone. There was seemingly no systematic process for the collation and assessment of the expert opinions.

Furthermore, attention must be given to the fact that most of the evidence available comes from the USA or Canada. This clearly has an influence on evidence since the social security system differs greatly from the European social security systems (Health and Safety Executive 1998, Maes, 1997)

Box 8 Research studies on evidence: examples

■ Peersman, G., Harden, A., Oliver, S., Effectiveness of health promotion interventions in the workplace: a review, Centre for the evaluation of health promotion and social interventions, Social Science Research Unit, London University Institute of Education, Health Education Authority, 1998.

The authors assessed a total of 139 separate outcome evaluation studies. Only 50 studies matched their inclusion criteria. Based on these studies, the authors conclude that it is not possible to identify clear trends in effectiveness in relation to certain types of interventions. Comprehensive programmes combining screening and risk assessment with a choice of education programmes and/or environmental changes have been effective. However, with few sound studies to draw on, replicating these interventions cannot guarantee success

■ Pelletier, K., 'A review and analysis of the health and financial outcome studies of comprehensive health promotion and disease prevention at the worksite', American Journal of Health Promotion, 1997, Updates: July/August 1999, November/December 2001.

The articles provide critical reviews of the clinical effectiveness and cost-effectiveness studies of comprehensive, multifactorial health promotion and disease management programmes conducted in worksites. The results suggest that providing individualised risk reduction for high risk employees within the context of comprehensive programming is the critical element of worksite interventions. Despite the methodological limitations of the studies, the vast majority of the research to date indicates positive clinical and cost outcomes.

■ Kreis, J., Bödeker, W., Gesundheitlicher und ökonomischer Nutzen betrieblicher Gesundheitsförderung und Prävention, Zusammenstellung der wissenschaftlichen Evidenz, IGA, 2003.

Project report of the initiative Health and Work (IGA), a collaboration between the Federal Association of Company Health Insurance Funds and the Federal Association of the Accidents Insurance Funds in Germany The authors studied the evidence for the effectiveness of workplace health promotion that can be found in literature sources. They reviewed 25 reviews of reviews and more then 400 studies for programmes in the workplace on alcohol, nutrition, stress, tobacco, etc. They commented on the effects that were found and the methods that were used. An overview table brings the results together.

The positive effects they have found in the literature were:

- reduced health risks e.g. for indicators such as blood pressure, cholesterol, smoking, alcohol consumption
- improved work climate e.g. job satisfaction
- reduced costs e.g. less absenteeism, less sick days.

In addition to reviews of studies and the research studies on specific interventions, there is also a large amount of data available from descriptions of health promotion programmes, case studies, testimonials, etc. Although it is difficult to assess the quality of the evidence on the effects that could be found in these data, this type of evidence is valuable. It is true that often there is not enough information on the methods used, the scope of the evaluation, the validity of the data used, etc. However, this type of evidence is often closely linked to practice and can be particularly convincing because the evidence is brought forward by the stakeholders. The companies and organisations testify about their experiences and this provides strong arguments for other companies and practitioners. In the framework of the European Network for workplace health promotion (ENWHP), the collection and dissemination of good practices is particularly important. In the context of previous initiatives (see www.enwhp.org and 1.1.1.) several case studies have been collected and disseminated across Europe, providing effective tools for advocacy.

Conclusions

- Successful workplace health promotion programmes have to be evaluated
- Evaluation often poses methodological problems

- Reviews of evaluation studies on WHP are available presenting a high quality source of evidence
- Additional evidence can be found in sources such as case studies and testimonials, offering convincing arguments

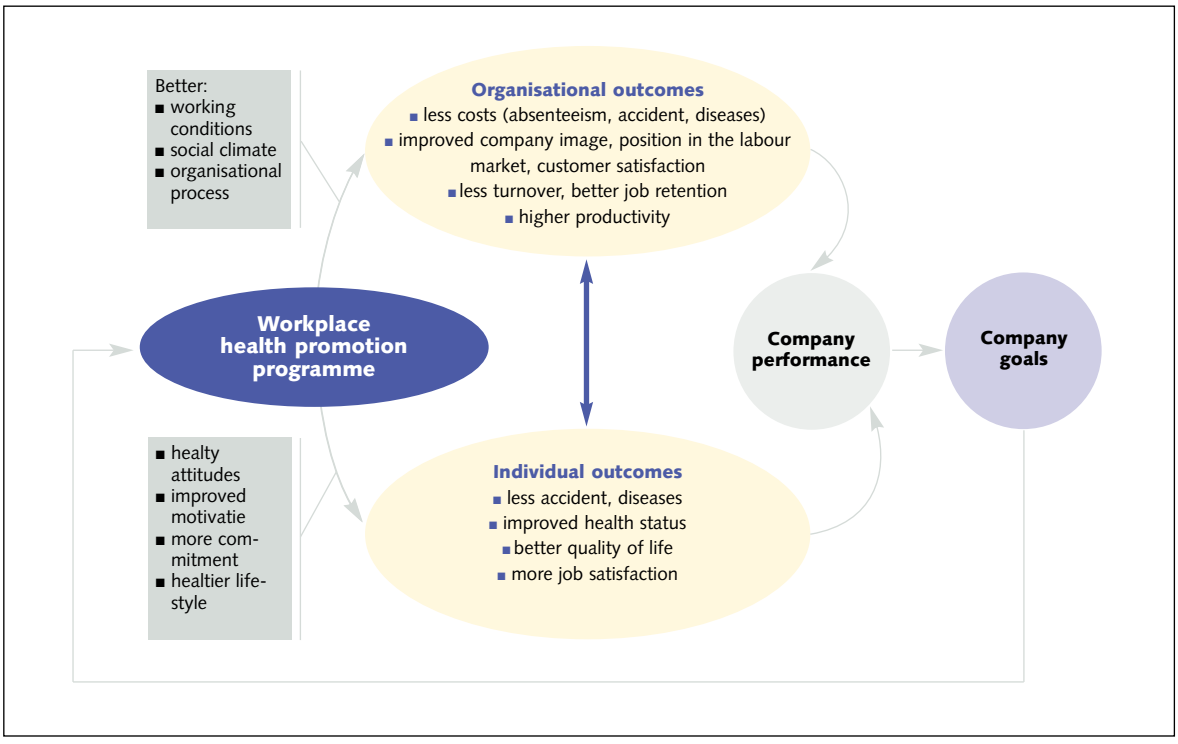
Evidence for backing up arguments for workplace health promotion can be found in research and case studies describing the effects of programmes on workplace health promotion. And although the quality of this evidence varies due to methodological problems, interesting findings support the case of workplace health promotion.

3.3. Conceptual framework

Describing the effects of workplace health promotion requires a conceptual framework. Such a framework offers an insight into the relationship between the workplace health promotion process and the outcomes.

The conceptual framework developed in this report (figure 12), proposes a concept of workplace health promotion, integrated in the business strategy and aligned with the company goals, influencing both individual and organisational components. The workplace health promotion programme generates effects and outcomes that influence company performance positively and which contribute to the company goals.
In order to have an effective influence on company performance, the workplace health promotion programme must be aligned with the company goals. In this respect, it forms part of the business strategy and also the continuous improvement circle that drives a company towards excellence.

Figure 12 – Framework for describing arguments based on the effects and outcomes of workplace health promotion



On the organisational level, a workplace health promotion programme leads to change by creating better working conditions, improving the social climate and the organisational process. The results are organisational outcomes such as

- Less costs: costs due to absenteeism, accidents and diseases reduced
- Improved company image: the company becomes more attractive both to customers and to employees
- Less job turnover and retention: the human resources management becomes more effective in retaining employees
- Higher productivity

On an individual level, a workplace health promotion programme leads to a greater health awareness (healthier lifestyle) and an improved motivation and commitment. These changes result in several outcomes:

- Less accidents and diseases
- An improved state of health
- More job satisfaction

Moreover the framework shows that important additional effects and outcomes can be obtained since there is a clear link between the different outcomes and between the organisational and individual level. Individual effects such as an improved job satisfaction will have an additional positive impact on the organisation, leading for instance to lowered costs due to absenteeism or a higher productivity.
On organisational level, workplace health promotion can lead to better working conditions, e.g. adapting a workstation in order to prevent back pain, resulting in less diseases, an improved image, less staff turnover, etc. But at the same, this can have a positive impact on the individual worker improving motivation and job satisfaction.
It becomes clear that the added value of workplace health promotion programmes lies especially in these additional effects.

Based on this framework, arguments can be described relating to the effects and outcomes on individuals and organisations.

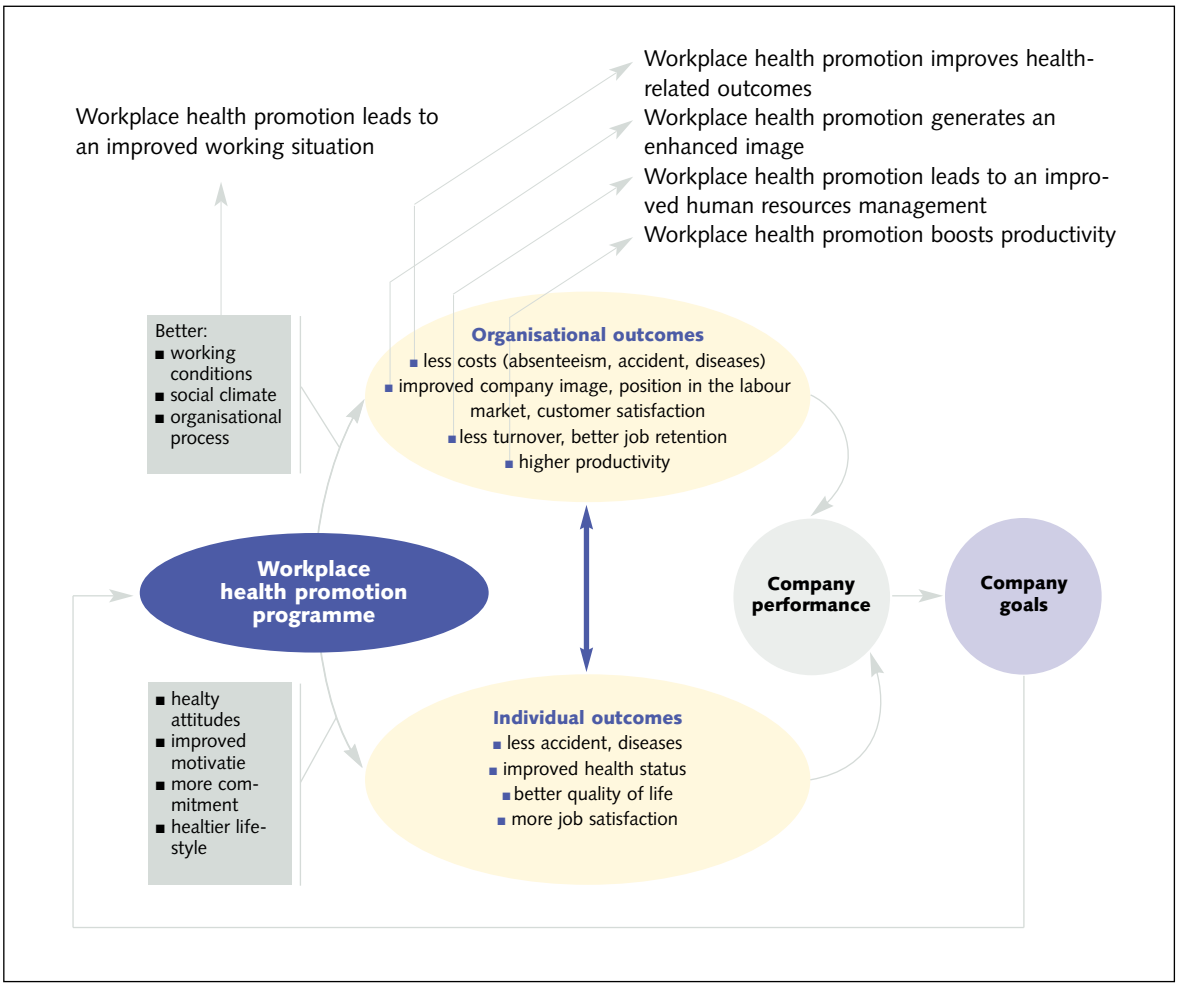
3.4. Describing arguments

Most (convincing) arguments will refer to effects and outcomes of workplace health promotion programmes, especially when they are linked to the performance and goals of companies and organisations. According to the framework described in 3.3., the effects and outcomes of WHP can be situated on the organisational level and the individual level, but there is a strong interaction between the two levels, thus strenghtening the effects of WHP.

3.4.1. Organisational level

Investing in workplace health promotion and implementing programmes leads to changes in the work situation such as an improvement to the working conditions and generates outcomes linked to health, social, image and economic aspects.

Figure 13 – Arguments on organisational level



Workplace health promotion leads to an improved working situation

A holistic and integrated workplace health promotion programme focuses not only on the individual well-being of the workers but also aims to improve the working conditions. Several indications can be found to back up the fact that workplace health promotion programmes can be successful in achieving this goal. Bunn et al. (2001) for instance note that the implementation of the Health and Productivity Management Model at the Truck and Engine Corporation lead to significant improvements in the safety audit. The audit performance improved by 33%.

A research study on the health circle approach (see box 9) (Sochert, 1999) indicated improvements on several aspects of the working conditions:

- Social support: 72% of 2 244 employees directly and indirectly involved with health circles noticed an improvement
- Work equipment: 69% noticed an improvement
- Work control: 65% noticed an improvement
- Environmental working conditions: 57% noticed an improvement
- Physical and psychosocial working conditions: 58% noticed an improvement

Several case studies (see annex 3 and box 10) report improved working conditions. At the City of Berlin for example (case study 21) an average of 40 to 50 recommendations for the improvement of the working conditions was made, especially with regard to psycho-social and organisational issues. This resulted in an improvement of the working situation. 50-75% of those surveyed in the intervention area and the vast majority of those who were directly involved felt that their working situation had changed for the better.

The project at the City of Rejkjavik (case study 26) showed by the results of the post-evaluation that the number of employees working in a forward or bent position decreased from 71% to 45%. Also, the number of those who were kneeling down in their work decreased from 64% to 45%. Furthermore, number of complaints about back, knee and ankle pain decreased and fewer employees visited their doctor because of back pain. Finally, the number of those who felt mentally exhausted decreased by half (from 21% to 11%).

Box 9 Study on the health circle approach

A research project carried out by the Federal Association of Company Health Insurance Funds (BKK) in Germany studied the health circle approach. It presents an evaluation of the social, economical and health related effects of the above-named approach in about 50 companies of different trades, investigating the estimation of the concerned work, company experts, management and company documents.

The implementation of the health circle approach consists of 6 succesive time stages that are subdivided into different steps:

1. Prerequisites
   - Consensus – company agreement
   - Project steering group
2. Preparation – needs analysis
   - Company health report (analysis of sickness leave data)
   - Employee survey
   - Observation of workplaces
   - Expert discussion
3. Implementation
   - 1st circle meeting
   - 2nd to penultimate meetings
   - Last circle meeting
   - Public relations
4. Presentation
   - Interim presentation of results to the project steering group
   - Final presentation to the project steering group
   - Presentation to the staff
5. Realisation
   - Realisation of measures of a small financial and organisational range
   - Realisation of measures of a larger financial and organisational range
6. Evaluation
   - Evaluation by the circle participants
   - Evaluation by the staff and management in the intervention area
   - Evaluation of company documents

Sochert, R., 1999

Box 10 Some findings on improved working situation

- Case sudy 5 Dienst Waterbeheer en Riolering (DWR) (NL): The WHP measures at this company show that work satisfaction and the working atmosphere, as well as the leadership style, have improved considerably since the introduction of the health promotion measures.
- Case study 16: Netcare (A): Regular meetings and an info point were introduced. They serve as a means for regular information and generate better understanding between the employees. They also help reduce friction losses. The workplaces were designed according to the results of an ergonomic analysis.
- Case study 17 Sab tours (A): The workload was reduced.
- Case study 18 Steyrermühl AG: the results of two surveys, one before and one after the implementation of the WHP programme show that strain could be decreased, especially strain due to improper behaviour of the supervisors, as well as postural strain. Also a lot of organisational resources could be increased. The staff reported improvements in the following: variety of tasks, potential for development, wider scope of action, potential for participation
- Case study 19 Angelantoni (Italy): improvement in work atmosphere; reduction of hazards
- Case study 22 Rewe (Germany): REWE has been able to substantially reduce work stresses of all kinds
- Case study 23 Volkswagen (Germany): Physical stress in the workplace has been substantially reduced, e.g. through the elimination of overhead work
- Case study 26 Pre-schools Rejkjavik (Iceland): The results of the post-evaluation showed that the number of employees working in a forward or bent position decreased from 71% to 45%. Also, the number of those who were kneeling down in their work decreased from 64% to 45%. Furthermore, the number of complaints about pain from back, knees and ankles decreased and fewer employees visited their doctor because of back pain. Finally, the number of those who felt mentally exhausted decreased by half (from 21% to 11%).
- Case study 27 City of Dortmund (Germany): The experience gained by appraisal interviews with participating employees and with involved management staff show that improved levels of ability (advanced qualifications) and revised work sequences.
- Driver and Vehicle Licensing Agency (UK): The Driver and Vehicle Licensing Agency introduced workplace health promotion as part of a strategy to reduce sickness absence levels in the mid 1980's. Consequently staff enjoy excellent working conditions within a supportive environment. Source: Health at Work

Workplace health promotion improves health-related outcomes

A healthy work environment results in positive outcomes related to the safety and health performance of a company. Implementing workplace health promotion programmes leads to success with regard to decreasing absenteeism rates, occupational accidents and disabilities. These outcomes can be backed up by several studies because the measurement of these health outcomes is a technique often used to evaluate workplace health promotion programmes.

According to Aldana (2001) most health intervention studies are evaluated by the impact on absenteeism and health care costs. Moreover there is a sufficient body of literature to suggest that stress, excessive body-weight, and multiple risk factors are associated with increased health care costs and illness related absenteeism. Reductions in absence from work range from 12% to 36% for participants in WHP programmes (Aldana, 2001). Gee et al., 1997 report falls in absence ranging from 9% to 29% often in contrast to increases in absence among control groups where no health promotion programme had been put into effect.

Reductions in absenteeism rates can often be directly linked to cost savings. Aldana (2001) who studied the financial impact of health promotion programmes based on a comprehensive review of the literature, reports ratios ranging from 1:2.5 to 1:10.1 meaning that for every dollar spent on the programme, 10.1 were saved from reduced absenteeism-related expenses.

Chapman (2003) also reports in his meta-evaluation of worksite health promotion economic return studies that there is strong evidence for reductions in sick leave, health plan costs and workers' compensation and disability costs of slightly more than 25%.
The study on the health circle approach in Germany (Sochert, 1999) revealed that the sickness leave rate (including diseases, accidents and curation) dropped from 10.1 % to 4.8% in a company involved in the project during the period 1991-1997. The costs due to absenteeism in a company involved in the project dropped by about €1 500 per employee per year (= 1 billion euros in total) during the period 1991-1997 (under condition of average €40 000 annual salary per employee) (Sochert, 1999).

Several companies have reported on results regarding sickness absenteeism rates (see also box 10). The Live for life programme at Johnson & Johnson for instance resulted in a decrease of the absenteeism by 18% (Fikry and Flynn, 2001). A study of the impact of a worksite health promotion programme on short-term disability (Serxner et al., 2001) revealed that participants in the WHP programme used an average of 6 fewer net disability days than similar employees thus saving the company $396 900 during the 2 years of the programme.
A quasi-experimental study in order to investigate whether preventive intervention affected sickness absence costs at company level in Sweden showed interesting results. The intervention comprised occupational organisational measures, competence development, physical and psychosocial working environmental measures and individual and rehabilitation measures involving cleaning jobs at predominantly female workplaces. The results showed an average net effect of €266.50 per person (full-time working) during an 8-month period (Landstad et al., 2002)
Also at Katjes (Germany) they found that the number of sick days lost due to musculo-skeletal disorders decreased from 2 011 to 752 (from 1995 until 2002). Katjes, a producer of sweets such as fruit gums (440 workers), put in place a comprehensive back health programme. The project involved training of the workers and adaptation of the workplaces. The project was evaluated using health insurance sickness leave records, ergonomic analysis and discussion groups. The sickness leave cases due to musculo-skeletal disorders have been reduced (per 100 employee) from 42.69 in 1995 to 27.14 in 1999. The number of days lost due to musculo-skeletal disorders dropped from 2 011 in 1995 to 752 in 2002. This way, Katjes saved up to €1 583 600 in the last 7 years. Some other interesting findings have been brought together in box 11.

Several case studies collected through the ENWHP network reported significant decreases in absenteeism rates (see box 12 and annex 3). The workplace health promotion programme at the Greek company ELAIS (case study 13) for instance resulted in a reduction of costs due to employees' absenteeism, since absenteeism severity rate has fallen significantly from 5.5 to 3.4. More specifically, absenteeism due to musculo-skeletal problems has decreased significantly due to work re-design in the shopfloor and to the in-house gym facilities. Over the last years, the sickness severity rate has also dropped by 10% and the accident frequency rate by an impressive 77.5%.

Box 11 Some findings on absenteeism/accident/disease rates

- Katjes (D): The sickness leave cases due to musculo-skeletal disorders have been reduced (per 100 employee) from 42.69 in 1995 to 27.14 in 1999. The number of days lost due to musculo-skeletal disorders dropped from 2 011 in 1995 to 752 in 2002. This way, Katjes saved up to €1 583 600 in the last 7 years. Source: Best practice, 2001
- BC Hydro (CAN): Data from a cost/benefit study in 1996 showed that BC Hydro's Lifestyle Program had reduced sick leave costs annually by CAN$1.2 million. Source: Health Canada, 2001
- MDS Nordion (CAN): Since their Corporate Health Plan was introduced, absenteeism was reduced from 6 days in 1993 per year to an average of 4 days in 1999. Source: Health Canada, 2001

- DMM Engineering (UK): This company employing 100 people manufactures industrial safety equipment and mountaineering products. Current policies and practice have largely been developed in response to the needs of their employees. This has contributed to low levels of absenteeism, i.e. 4%. Source: Health at Work
- Driver and Vehicle Licensing Agency (UK): The Driver and Vehicle Licensing Agency introduced workplace health promotion as part of a strategy to reduce sickness absence levels in the mid 1980's. This strategy reduced the sickness absence level over the years from 7.9% in 1985 to 3.5% at the end of July 2000. Source: Health at Work
- Standard Life Healthcare (UK): Standard Life Healthcare's integrated strategy involving HR initiatives, business drivers, health and wellbeing, and a committed, visionary management team have together created a healthy, happy company. And this has completely turned around the business. Absenteeism has decreased by an average of 27% at one site (Guildford) and 31% at another (Stockport).
- NHS Trusts (UK): An initiative regarding lifting and handling was implemented in a UK NHS Trust. Reductions in staff absences resulted in savings of almost £100 000 per year.
- Academy Briefs: A study published in "Influence of Participation in a Worksite Health-Promotion Program on Disability Days" tracked male manufacturing workers over six years. 62% of these participated during that time in workplace health promotion programmes. For them, the rate of absences due to disability decreased significantly. The costs saved for the company (on the basis of $200 per lost day) were estimated at $623 000. The programme cost $274 000 and the return on investment was estimated to be 2.3:1.
- The N.E. Essex Mental Health Trust (UK): The North East Essex Mental Health trust was one of several trusts invited by the UK National Health Service (NHS) to try out an approach they had outlined on reducing stress and report on their experiences. The trust piloted the approach from 1995-1997. The rate of sickness absence fell from 6% to 4.8% in three years and the proportion attributable to stress fell from 25% (1995) to just under 17% (1997). However, a cause and effect link between these changes and the project could not be proven for definite.
- Port of London Authority (UK): 70% drop in overall absence rates from 11-12% in 1999 to 3-3.4% in 2003. Source: Health and Safety Commission, 2004
- Bridgend County Borough Council (UK): This local authority introduced a health promotion programme for its workforce. Injuries and ill-health have been reduced and they have achieved a reduction of sickness absence of around 5% over four years. Source: Health at Work
- COD – Co-op (DK): The most significant success of the programme was the reduction of absenteeism due to illness from 9% to 4%. Source: enwhp.org
- Brabantia (NL): the comprehensive health programme at Brabantia comprised two types of interventions measures: healthy habits and lifestyle; and Job content and work organisation. Results showed a decrease of the absenteeism rates by 8.1%. Source: S. Maes et al., 1994
- Dofasco (CAN): decrease by almost half in non-occupational musculo-skeletal injuries from 5 cases per 200 000 working hours in 1991 to 2.7 in 2001. Source: McKeown, 2002.
- Chep (UK): the lost time incident rate has fallen from around 44 per 1 000 000 hours worked in 1999 to 11.8 in 2003. Source: Health and Safety Commission, 2004
- South West Water (UK) managed to decrease the number of occupational accidents from 136 accidents per 1000 employees to 53 accidents after implementing a health and safety management system.
- Astrazeneca (UK): 53% reduction in ergonomic-related cases per million hours worked by UK employees in first 6 months of 2003; downward trend in number of work-related stress cases; absence levels are 31% lower than average for the UK. Source: Health and Safety Commission
- Enterprise for health (Germany): WHO and AOK, the association of local sickness funds of Lower Saxony, one of the Länder in Germany, have launched a pilot project to measure the effects of comprehensive health promotion in and from the workplace, involving 37 companies. The results in one company show an improvement of worker communication and job satisfaction. The number of accidents per year dropped by more than 4%; days missed from work due to sickness or accidents fell by nearly 80%. Source: WHO

Box 12 Case studies: results on absenteeism/accident/disease rates

- Case study 2: Fluxys (B): the number of occupational accidents has decreased by 50% between 1998 and 2003
- Case study 4 DuPont (NL): Absenteeism has fallen by 0.5% since 1994.
- Case sudy 5 Dienst Waterbeheer en Riolering (DWR) (NL): Absenteeism due to illness has declined dramatically from almost 15% to 7.8%.
- Case study 6 Siemens (NL): The rate of absenteeism fell from 4.3% to 2.95% between 1993 and 1997 and the number of accidents reduced from 55 in 1994 to 40 in 1997.
- Case study 7 Municipality of The Hague's Facility Department (NL): The WHP activities of this organisation has recorded positive results regarding absenteeism. Unlike almost all other municipal departments, absenteeism dropped in 2001 from 9.95% (2000) to 9.27%.
- Case study 8 The Ministry of Finance (NL): Absenteeism percentages and reports during 2001 on the frequency of illness show that the employees were less frequently ill and ill for shorter periods of time than in previous years (a decrease from 5.1% to 4.9%). This makes The Ministry of Finance one of the departments with the lowest absenteeism (average absenteeism is 8% for ministries).
- Case study 11 Siemens (the Netherlands): Absenteeism in the period October 2001 to October 2002 was 2.7% which is much lower than the average of 6.1% for The Netherlands.
- Case study 15: Agroplastica (Italy): the company achieved a zero accidents rate
- Case study 13 ELIAS (Greece): absenteeism severity rate has fallen significantly from 5.5 to 3.4.
- Case study 20 Ivoclar Vivadent (Liechtenstein): significant reduction in staff absences and decrease of health expenses due to illness and work place accidents
- Case study 22 Rewe (Germany): Over a period of 4 years, absenteeism due to illness fell by 0.8% to 5.7%, the number of accidents has almost halved over the last 10 years.
- Case study 23 Volkswagen (Germany): Between 1988 and 1999 the health rate rose from 91.6% to 96%, the number of industrial accidents fell from 13.7% to 10.7% per one million hours worked. Considering that a 1% rise, in the health rate results in savings of about 45 million euros the financial potential is obvious. As a result of the introduction of therapeutic measures for 25 alcoholic employees, the number of sick days from this group fell within a year from 1 420 to only 351 per year.
The health rate of employees having taken part in a special rehabilitation programme showed an increase from 68.1% to 91.8% three years after the measures.
Health promotion measures focusing on work design and personal behaviour in one production department resulted in a decrease of the sick leave rate by 2%.
Employees who were freed of shift work on medical advice had substantially less absence days due to illness after one year. The sick leave rate dropped from 20.5% to 9.5% in a one year period.
- Case study 24 ROSU (Romania): Absenteeism rate for 2003 was 6% (a 25% decrease compared with 2002).
- Case study 25 Autoliv (Romania): Absenteeism rate is 0.99 % (2003) decreasing with 10% since the last year. Absenteeism due to work related illnesses 0.47 % for 2003 (from the total number of lost days used to calculate the absenteeism)

Workplace health promotion generates an enhanced image

Companies and organisations are often market (or society) orientated. Image building plays an important role in building a sustainable relationship with external stakeholders such as customers, neighbours, trade unions, etc. Setting up workplace health promotion programmes has a significant influence on the image of a company or organisation. Individual companies relate that workplace health promotion contributed to a positive image and that in some cases this was confirmed by customer satisfaction studies (see box 13). Also Award schemes or indicators such as the Dow Jones Sustainability Index (www.sam-group.com) deliver an important added value to the corporate image.

Image enhancement is rarely backed up with hard evidence but it can be noted that in testimonials of companies, the corporate image argument is often cited. For instance Hartwig Eugster, plant manager at HILTI, Austria states the following: "At HILTI we have found that satisfied staff are synonymous with improved customer satisfaction and an upward trend in profitability." (www.enwhp.org)

Box 13 Overview of some findings on the enhancement of corporate image

- Case study 4: Dupont (NL): Improved company image was reported as one of the results of Dupont's workplace health promotion leading to savings of €1 million.
- Case study 5: Dienst Waterbeheer en Riolering (DWR) (NL): The WHP measures at this company show that the changes have also had a positive impact on the company image and the vitality of the organisation.
- Case study 6 Siemens (NL): Health Promotion led to higher customer satisfaction.
- Case study 7 Municipality of The Hague's Facility Department (NL): Customer satisfaction studies and benchmarking in regard to the catering and events services show that clients are satisfied with the Facility Department.
- Case study 13 ELAIS (Greece): Improved company image is reported as one of the main positive impacts of the implementation of WHP programme activities in ELAIS S.A. Through itsThe systematic work over the years the company has established for itself a reputation and recognition from the Greek local market, the authorities, the trade unions, the local workforce and the local community in general.
- Case study 15 Agroplastica (IT): The publicity that was given to the results led to a positive image of the firm in the community and nationally
- Case study 16 Netcare (A): Senior management reported that the WHP programme improved the company image
- Case study 25 Autoliv (Romania): The image conveyed by Autoliv not only to the local business community but also abroad established for it a well deserved place and helped it to win bids and accordingly to improve its economic status.
- The Social Appeals Board (DK): Satisfaction surveys among users and other interested parties show that in most areas there is reasonably high satisfaction with the Board's work and that user satisfaction is rising in areas where special efforts have been made, based on previuos surveys. Source: enwhp.org
- Standard Life Healthcare (UK): Standard Life Healthcare's integrated strategy involving HR initiatives, business drivers, health and wellbeing, and a committed, visionary management team have together created a healthy, happy company. And this has completely turned around the business. Customer satisfaction rates are now achieving 98% and fewer customers are leaving. Source: Colling J., 2003
- Dofasco (CAN): named 1 of the world's most sustainable companies by the Dow Jones Sustainability World Index for 4 consecutive years (1999-2002) based on financial, social and environmental performance. Source: McKeown, G., 2002.
- BC Hydro (CAN): Data from a cost/benefit study in 1996 showed that BC Hydro's Lifestyle Program had increased the company's corporate image. Source: Health Canada, 2001
- Bridgend County Borough Council (UK): This local authority introduced a health promotion programme for its workforce. As a result, its corporate communications and industrial relations were improved. Source: Health at Work
- MDS Nordion: This company introduced a system to improve health at work. This resulted in improved performance etc. It also improved corporate communication etc. Source: Health at Work
- Dow: achieved several external recognitions such as the Corporate Health Achievement Award (2000); listed in the Dow Jones Sustainability Growth Index as best in the chemicals sector (2000) Source: Baase, 2001
- Astrazeneca: ranks in top 10% of Dow Jones Sustainability Performers worldwide, in top 20% in Europe.

Source: Health and Safety Commission, 2004

Workplace health promotion leads to an improved human resources management

Human resources management has to focus on creating the human resource capacity needed to strengthen business performance. Management concerns for recruitment and retention of qualified staff offer possibilities for the implementation of workplace health promotion programmes. Testimonials of companies often use this argument. For instance, Robert Foldesi, Associate Vice-President and Director of 'Human Resources' "the University of Iowa wellness programme and its commitment to developing a humane and healthy work environment have served as excellent recruiting and retention tools for the university in a highly competitive labour market. The wellness programme has helped identify the University of Iowa as an employer of choice" (Healthy workforce 2010).
Workplace health promotion helps in becoming an employer of choice. O'Donnell (2001) describes in this respect the cluster effect. Workplace health promotion can be found in industrial clusters. Companies try to look at the benefits offered by their primary competitors and try to match those benefits.

Workplace health promotion programmes lead to a better work organisation thus improving the human resources management. Sochert (1999) reports that the health circle approach contributed highly to the improvement of the organisational development process, which clearly has a strong influence on human resources. Bauer et al. (2002) concluded based on a survey in Swiss service companies that most of the companies state that the workplace health promotion measures have contributed to less staff turnover and an improvement of the organisational structures.
Job retention and job turnover offer interesting indicators for this argument. However they are not always measured or related to the WHP programme. Some examples can be found in box 14. In a Norwegian company Standard Telefon og Kabelfabrik (STK) labour turnover fell from 30.1% per year preceding the programme to 7.6% in the period following it (Dugdill and Springett, 2001).

Box 14 Overview of some findings on the improvement of human resources management

- Case study 13 ELAIS (Greece): ELAIS is considered by the Greek workforce a very attractive employer in the Greek labour market and as one of the best ten companies in Greece for employment. The company has a minimal employee turnover rate and one of the best remuneration packages in the local market.
- Case study 25 Autoliv (Romania): Autoliv positioned itself as an attractive employer by promoting a Human Resources Policy that also has social dimensions. It is the case for several examples when social reasons were taken into account when hiring personnel. The turnover of the personnel was 0.4 % for 2003 (an average of 1 person / month)
- BC Hydro (CAN): Data from a cost/benefit study in 1996 showed that BC Hydro's Lifestyle Program had increased the company's ability to retain employees. Employees enrolled in the work-sponsored fitness programme had a turnover rate of 3.5% compared with the company average of 10.3%. Source: Health Canada, 2001
- MDS Nordion (CAN): Since their Corporate Health Plan was introduced, 92% of their employees are reportedly proud to work at MDS Nordion and turnover is at an average of 6% compared to 10% in the high tech industries sector. Source: Health Canada, 2001
- Canada Life (CAN): The Canadian Life Assurance Company found that the turnover rate for participants of their fitness programme was 32.4% lower than the company average over a seven-year period. Source: Health Canada, 2001
- Toronto Life Assurance (CAN): Turnover for those enrolled in the company's fitness programme was 1.5% compared to 15% for non-participants. Source: Health Canada, 2001

- Anglesey Aluminium (UK): This company is a large organisation with 553 employees. It has invested heavily in training and development in support of a comprehensive occupational health and safety programme. As a result, staff turnover is at less than 1%, which is very low for this type of industry. Employees are also loyal and motivated. Source: Health at Work
- DMM Engineering (UK): This company employing 100 people manufactures industrial safety equipment and mountaineering products. Current policies and practice have largely been developed in response to the needs of their employees. As a result, staff turnover is low. Source: Health at Work
- Standard Life Healthcare (UK): Standard Life Healthcare's integrated strategy involving HR initiatives, business drivers, health and well-being, and a committed, visionary management team have together created a healthy, happy company. This has completely turned around the business. Turnover has dropped from more than 20% to 6% (in a call centre environment, 30%-40% is not abnormal). Source: Colling J., 2003
- Glaxo Wellcome (USA): the value of health promotion programmes in support of employee attraction, retention and morale was clearly demonstrated when Glaxo Wellcome was named the best place to work in North Carolina in 1999. Source: Stave, 2001
- Ibstock Brick Ltd (UK): by taking a new approach to manual handling injuries, the company has reduced injuries and absences benefiting employees, managers and the company; one result was an improvement of staff retention – workforce more stable. Source: Health and Safety Commission, 2004.
- Farrelly Facilities & Engineering Ltd (UK): work-life balance project improving staff satisfaction and effectiveness by reducing hours to a standard 35 hour week. The reduction in hours was implemented through careful planning and preparation, staff training and above all teamwork. Increased staff retention: 5% turnover rate (very low for the sector). Source: http://www.employersforwork-lifebalance.org.uk

Workplace health promotion boosts productivity

Productivity can be briefly defined as the amount of output per unit of input (labour, equipment, and capital). Productivity is a measure of the efficiency with which productive resources are used. It is the ratio of the output quantity (the number of correctly produced products that fulfil their specifications) divided by the input quantity (all types of resources that are consumed in the transformation process).
There are many different ways of measuring productivity. For example, in a factory productivity might be measured on the basis of the number of hours it takes to produce an item. In the service sector productivity might be measured based on the revenue generated by an employee divided by his/her salary.
Productivity links together economic outcomes (such as value-added or physical output) with the resources used to create them. Improvements in productivity can take two forms: through producing more output with the same input and through producing the same output with less input. The principal drivers of improvements are product, process, service, and organisational innovations and the upgrading of human and physical capital.

Evidence for a direct link between workplace health promotion and productivity cannot easily be established. However, strong indications are available that workplace health promotion has a positive influence on productivity.
A Finnish research study examined the link between productivity and a good working environment. Four different companies were involved in the study: one construction company and three companies of the metal sector. The project was carried out in cooperation between the research programme Workplace 2000 of the Finnish Institute of Occupational Health and the Tampere University of Technology's Institute of Industrial Management. It was financed by the Finnish Work Environment Fund. Safety and health performance for these four companies was compared with their productivity. Several quantitative and qualitative analyses were used in order to measu-

re safety and health and company performance. Results demonstrated that the quality of the working environment has a strong influence on the productivity and profitability of the company (Kemppilä et al. 2002).
Also some case studies (case studies 15 and 25, see box 15 and annex 3) report improved productivity rates after the implementation of a workplace health promotion programme.

On the financial benefits of workplace health promotion more evidence is available since this topic has been the subject of several studies. The most comprehensive is the 'Review and analysis of the health and financial outcome studies of comprehensive health promotion and disease prevention programs at the worksite' by Kenneth Pelletier, although it only analyses research conducted in the United States. He concludes that the research indicates that there is moderate to strong evidence that comprehensive health promotion and disease management programmes have evolved in worksites to the point of demonstrating both clinical effectiveness and cost-effectiveness. This findings are confirmed by other studies such as Aldana (2001) and Chapman (2003).
Goetzel et al. (1999) concluded that only a few rigorous return on investment (ROI) studies were found. These studies noted also a wide range of ROI estimates (from $1.40 - $13.00 in savings per dollar spent on these programmes). They state that the wide range of ROI estimates may be due to variety in programme design features. Maximum health impact may come from programmes directed at improving organisational health, employee absence patterns, worker disability, and safety. Although most costly, these are likely to also be the most cost-beneficial.

Lowe (2003) cites several cases and research studies that prove a positive return on investment. He concludes that the cost-benefit ratios of workplace health promotion programmes vary between USD $3 and $8 for every $1 invested.

A return on investment evaluation of a comprehensive health management programme at Citibank in California showed positive results. A large-scale external evaluation of the programme documented a financial return on investment of 4.5:1.0 for the programme, with savings attributed to lower medical expenditures for participants compared to non-participants. The programme was designed to help employees improve health practices and behaviours, reducing prevalence of preventable disease, help them better manage their chronic medical conditions, and reduce demand for unnecessary or inappropriate health services. The positive return on investment was mainly due to the low cost of the programme, the high participation rates among employees, the inclusion of education and awareness building, and the provision of more intensive resources to high-risk groups. (http://healthproject.stanford.edu/koop/)

The study on the health circle approach also revealed financial benefits (Sochert, 1999).
The study found 15% less costs of rejects and supplementary production (Zusatzfertigungskosten) in a company involved in the project during the period 1991-1997. In another company there was a 10% increase of suggestions for improvements at the workplace during the period 1991-1997. Using the company scheme criteria as a basis, more than half of the suggestions have a positive cost/benefit impact (return on investment >1).

WHO and AOK, the association of local sickness funds of Lower Saxony, one of the Länder in Germany, have launched a pilot project to measure the effects of comprehensive health promotion in and from the workplace. A total of 37 companies were recruited for the 5-year project. The project follows a regular and comprehensive self-assessment method. The companies are assisted by experts. Criteria for assessing the results include the effectiveness of company health promotion in relation to customers and suppliers; indicators of employee satisfaction, objective indicators for corporate health status; or the impact of company health promotion on the national economy, in order to show the responsibility towards society.

The appraisal of the projects undertaken by the participating companies shows that new work and health measures lead to a decline in the number of sick days, and improvements in staff morale, employee-employer relations and productivity (WHO).

The case studies collected troughout the ENWHP network give also indications of improvements in productivity (see annex 3 and box 14). The WHP programme at the Romanian company Autoliv for instance contributed to a raise in productivity and improvements of the quality of the products.

In addition, research and case studies on ergonomic interventions and interventions in occupational safety and health at the workplace have established the fact that investing in these areas saves money and creates financial benefits. Examples are Hendrick (2003), Mossink and De Greef (2002), ASSE (2002), Langhoff (2002).

The financial benefits of the WHP programmes are mostly calculated in terms of a significant cost reduction that can be obtained by reducing absenteeism, accident rates and medical care costs (see also argument: workplace health promotion generates health benefits). A direct link with an increased level of productivity is not always established. However, taking into account the definition of productivity as explained above, cost reduction leads to higher productivity. If less input is required (cost reduction) to obtain the same amount of output, productivity rises.

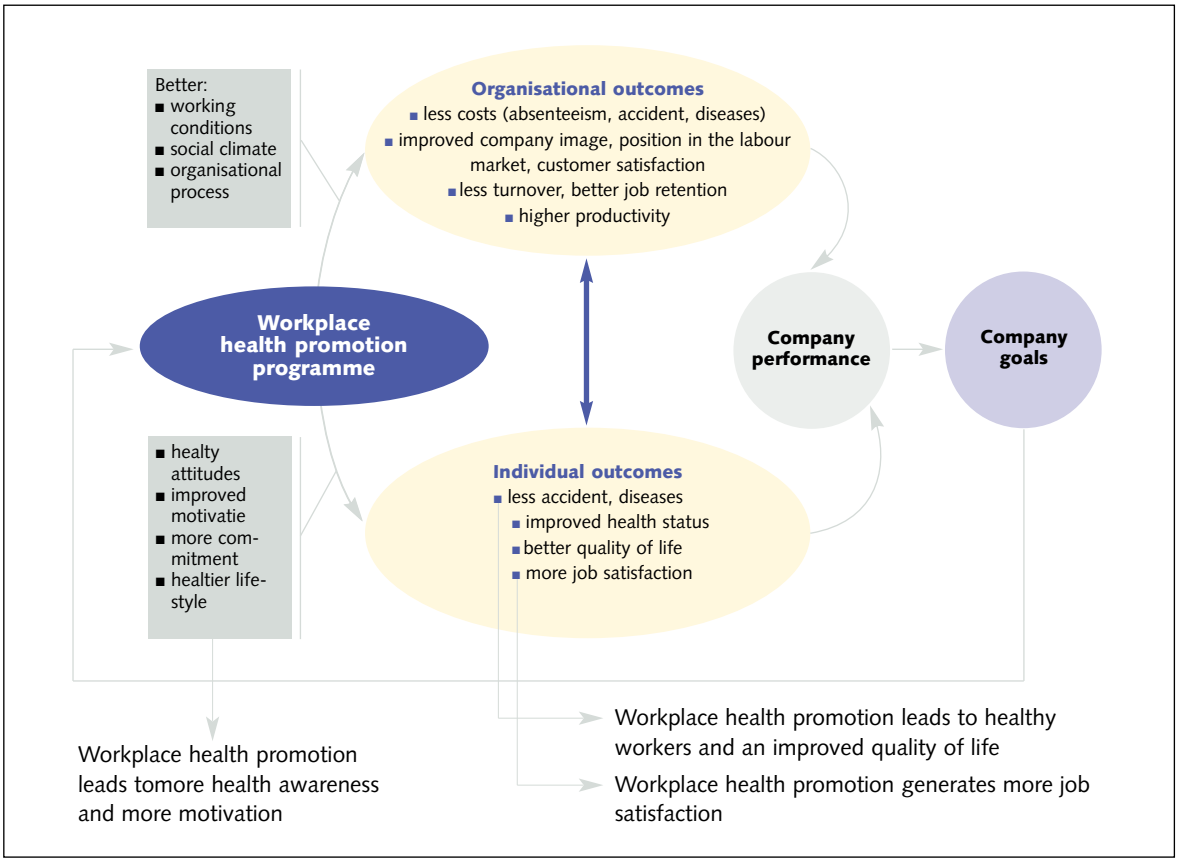
Box 15 Some findings on higher productivity and cost reduction

- Case study 3 Unilever Bestfoods (NL): The Fit for the Future programme is part of the company policy Competing for the Future, under which employees are given more control over their own working situations and activities are organised through autonomous highly effective teams. The approach is highly effective, since Unilever Bestfoods consistently experiences an annual growth of 3% to 5%.
- Case study 4 DuPont: DuPont has developed a process, the so-called Wellbeing Checkpoint, to enable it to analyse the health and wellbeing of its employees. In terms of profits, the company has made savings of roughly 1 million euros, increased productivity, gained a more attractive image and recorded a lower staff turnover.
- Case study 15 Agroplastica (IT): Productivity raised by 6.7% (year 2000); Energy saving: 9.3%
- Case study 24 Rosu (Romania): Increase of the productivity: 26% in 2003
- Case study 25 Autoliv (Romania): Increase of the productivity (10 % in 2003), Increase of turn-over (the global figure for 2003 is 30% and the figure obtained after adjusting with the inflation rate is 16%), High quality of the products (an average of 20 P.P.M for 2003 compared with the figure for the general industry in Romania of around 200 P.P.M.)
- DMM Engineering (UK): This company employing 100 people manufactures industrial safety equipment and mountaineering products. Current policies and practice have largely been developed in response to the needs of their employees. Productivity has increased as a result. Source: Health at Work
- BC Hydro (CAN): Data from a cost/benefit study in 1996 showed that BC Hydro's Lifestyle Program had resulted in productivity gains CAN$919 000. Source: Health Canada, 2001
- Canada Life (CAN): Canada Life in Toronto showed a return on investment of CAN$3.40 on each corporate dollar invested, in terms of reduced employee turnover, productivity gains and decreased medical claims. Source: Health Canada, 2001
- NHS Trusts (UK): An initiative regarding lifting and handling was implemented in a UK NHS Trust. Initial costs were recovered 3 years into the programme and ongoing costs should continue to be low if the currently low levels of staff turnover remain that way. The main benefit was the reduction of serious injuries to staff resulting from lifting and handling (reductions in litigation costs and anticipated damage claims, which had been £200 000). The consequent reductions in staff absences resulted in savings of almost £100 000 per year. Source: Health Education Authority, 1999

- BT (UK): Improving work-life balance moving from a more static, office-based workforce to an 'e-BT' of employees who work flexibly and/or from home. BT's 'Self Motivated Team' project involving around 6000 employees associates reward with output rather than attendance – participants now work fewer hours and are more productive; 7 000 BT employees now work from home with productivity gains of 31%.Source: http://www.employersforwork-lifebalance.org.uk
- Dofasco (CAN): The company's payments to the Ontario Workplace safety and Insurance Board dropped considerably (by 63%) from $4.71 per $100 of payroll in 1995 to $1.76 in 2001. Source: McKeown, G., 2002.
- Standard Life Healthcare (UK): Standard Life Healthcare's integrated strategy involving HR initiatives, business drivers, health and well-being, and a committed, visionary management team have together created a healthy, happy company. Productivity has increased and sales are up by 26%. Furthermore, the company is now making money. Source: Colling J., 2003
- BC Hydro (CAN): Data from a cost/benefit study in 1996 showed that BC Hydro's Lifestyle Program had reduced accident costs by CAN$97 000 and reduced WCB (Workers Compensation Board) rates by CAN$35 000. Source: Health Canada, 2001
- MDS Nordion (CAN): Since their Corporate Health Plan was introduced, the number of lost time injuries per 100 person years has dropped from 2.5 in 1993 to 0.5 in 1999. Source: Health Canada, 2001
- USA: Savings from small decreases in absenteeism alone can more than offset the cost of a health promotion programme. For example, a 1998 analysis of five absenteeism studies determined an average programme savings of almost $5 for every dollar spent. Days lost to illness or disability were reduced by 14% (after implementation of a health programme at DuPont) to 68% (as a result of a rehabilitation programme for 180 post-coronary patients at Coors Brewing Company). (Healthy workforce 2010)
- Transco (UK): Through the integration of health and safety into overall business management at Transco (a British utilities company), and a partnership approach with employees and safety representatives, injuries have been substantially reduced, resulting in approximately £4.5 million savings. Source: Health and safety commission, 2004
- STK (Norway): the Standard Telefon og Kabelfabrik (STK) implemented ergonomic changes in order to prevent musculoskeletal disorders thus saving more than 3.2 million Nkr in operating costs Source: Dugdill and Springett, 2001
- Faber Electronics (NL): implemented a new assembly concept, based on flow assembly; six subjects experienced in assembling in the original and the improved situation took part in an evaluation experiment; results showed a significant improvement of productivity (e.g. the number of products per person per day increased by 44%) Source: Groenesteijn et al.
- ECHO (Belgium): Adapted the working process in order to avoid risks for slips and falls for the workers; the number of occupational accidents dropped to zero. Productivity increased. The production costs dropped dramatically. The new technique also improved the quality of the product. In addition, there were positive effects on the external environment (reduction of waste). These results had a positive impact on the competitiveness of the company. The return on investment for this project was 11.8%, with a payback period of three years. Source: De Ryck et al.

3.4.2. Individual level

Figure 14 – Arguments on individual level



Workplace health promotion leads to more health awareness and more motivation

WHP contributes to the fact that workers become more aware of health risks and adopt healthier lifestyles such as smoking cessation, greater fitness, healthy nutrition, etc. It also has an impact on the commitment of workers and their motivation for the job. The evidence for this argument is based on the participation of workers in the workplace health promotion programmes and on the fact that workers actually change their lifestyle as a consequence of the WHP programme.

In most populations, 15% of people are already health conscious and actively interested in improving their health. 15% of people are not at all interested in improving their health and 70% are generally interested in improving their health at various stages of awareness about how to do so (Heirich). These figures indicate a large potential for workplace health promotion programmes to actively influence and change health behaviour. On the other hand, it gives an indication of an important pitfall in evaluating changed health awareness/behaviour. Workplace health promotion programmes tend to be based on voluntary participation, thus the results might reveal the positive impact of a group that was already "health conscious". This fact is also acknowledged by Kreis and Bödeker (2003) arguing that in order to obtain significant effects on health awareness and changes in health behaviour with respect to a relevant comprehensive company effect, a high participation rate is the

primary prerequisite. However, the authors also state that there is abundant evidence supporting the idea that workplace health promotion has a positive influence on health risks. Also Breucker and Schroër (1999) found evidence for the fact WHP programmes have a positive effect on individual health awareness and behaviour. This is confirmed in the evaluation of several company projects. An evaluation of the Heart of the Grampians workplace project (Denner), an Australian project aimed at reducing cardiovascular disease, revealed several improvements. For instance:

- 87% of respondents said the programme had influenced their awareness of health issues
- 67% indicated that they had improved their eating habits
- over half of the respondents said that they would increase or change the way they exercised

The evaluation of the Happy heart at work programme (Mc Mahon, 2001) also showed positive results. Participants in the programme mentioned an increased awareness on nutrition and exercise.

The Dupont Worksite Health Promotion programme led to significant decreases of lifestyle risks, such as excess alcohol consumption, excess weight, smoking, lack of exercise (Literature review, 2003).

The evaluation of the Johnson and Johnson Live for life programme revealed positive effects on health behaviour. This programme is well-known since it was one of the early programmes driven by the belief of its group chairman that unhealthy behaviour leads to an increase of costs. This belief resulted in the introduction of the Live for life programme encouraging a healthy lifestyle. Evaluation of the programme shows positive results for indicators such as smoking, blood pressure, exercise, etc. (Fikry and Flynn, 2001).

A project in 9 plastering companies in the south of Germany showed results that the workers adopted a healthier lifestyle. The number of participants that took care of their health has doubled. The participants eat less meat products and more vegetables, salads and whole cereal products. Two third of the participants regularly practice back strengthening exercises (Demmer, 1995).

A study in 11 Austrian companies on the process of workplace health promotion also indicates some results on job motivation. Based on interviews within the companies 45% of the participants stated that the whp process positively influenced their job motivation (Obernosterer, 2001).

Box 16 presents some more findings to indicate that health awareness, healthy lifestyles and job motivation are positively influenced by programmes on workplace health promotion.

Box 16 Some findings on improved health awareness and more motivation

- Case study 2: Fluxys (B): increased staff motivation
- Case study 17: Sab tours (A): There was an increase in health awareness. The self confidence of the employees increased. Competence in health-related matters increased.
- Case study 23: Volkswagen (D): The company has created a wide variety of programmes to promote health-conscious behaviour among the employees, such as back and posture courses, lifting/carrying fitness training and relaxation courses - with great success. A works agreement on cooperative behaviour at the workplace indicates that the company actively combats bullying, sexual harassment and racist actions - these extensive measures are clearly having an impact on motivation.
- Marks and Spencer (UK): as a result of their health promotional activities the company reports a reduction of staff turnover, an increased demand for high fibre foods in the canteen and less demand for high fat and sugar foods as well as an increasing request for non-smoking areas, exercise classes and weight watchers groups – altogether indicating that the health consciousness and healthy lifestyle are positively influenced by the programme Source: Demmer, 1995
- Heart and Stroke Foundation & NBTel (CAN): The Foundation gave a series of heart related talks over two years leading to the development of a Workplace Wellness Program to broaden the scope: The Workplace Wellness Planner. At NBTel, the WHP activities have begun to raise awareness among workers on the importance of looking after their health. Source: Health Canada

- Vancouver Hospital (CAN): The Workplace Wellness: Wellness Works programme idea was conceived in this hospital when a Wellness Program Steering Committee was developed in the Spring of 1995. Its aim is to promote individual and organisational well-being at Vancouver Hospital & Health Sciences Centre through initiatives which positively affect the workplace culture, and to be a leader in workplace wellness. A pilot project was been initiated within the hospital to assess the impact of the wellness initiatives. In the absence of a more formal evaluation, the hospital considered the programme to have been successful in increasing awareness with regard to organisational wellness. Source: Health Canada
- Anglesey Aluminium (UK): This company is a large organisation with 553 employees. It has invested heavily in training and development in support of a comprehensive occupational health and safety programme. As a result of the initiative, employees are loyal and motivated. Source: Health at Work
- Bridgend County Borough Council (UK): This local authority introduced a health promotion programme for its workforce, resulting in improved staff morale. Source: Health at Work
- DMM Engineering (UK): This company employing 100 people manufactures industrial safety equipment and mountaineering products. Current policies and practice have largely been developed in response to the needs of their employees. Motivation has increased as a result. Source: Health at Work
- Driver and Vehicle Licensing Agency (UK): The Driver and Vehicle Licensing Agency introduced workplace health promotion as part of a strategy to reduce sickness absence levels in the mid 1980's. Staff enjoy excellent working conditions within a supportive environment. As a result, morale is high which means that the agency consistently delivers its demanding objectives. Source: Health at Work
- NHS Trusts (UK): An initiative in a UK National Health Service (NHS) Trust concerned the introduction of a staff gym to reduce staff sickness absences. Staff in focus groups claimed the gym made them feel better about themselves and better about the Trust. Source: Health Education Authority
- Quaker Oats Company (USA): one of the results of the health management programme was significantly lower health risks as the average population for indicators such as eating habits, stress, cholesterol, smoking, etc. Source: Cantwell J.
- Feel good (Sweden): a project for SMEs showed positive results; for instance beased on the health profile test in a public organisation employing 35 people, was determined that the proportion of employees with a healthy life-style increased from 48% to 72% by the end of the project. Another example is a retail business with 70 employees; here the proportion of employees with a healthy life-style increased from 14% to 27% within a three-year period. Source: enwhp.org
- Donegal County Council (Ireland): The County Council is a local authority; it implemented a WHP programme; bi-annual satisfaction surveys and indications are that staff satisfaction has greatly improved. Morale is higher among staff and there is evidence of greater organisational commitment. Source: enwhp.org
- The Northern Ireland Court Service (UK): Health and Fitness Assessments conducted during 2001 were evaluated using a sample of questionnaires returned by 50 respondents and results show that staff had made significant changes to their diet and increased the duration and frequency of physical exercise. There are reports of increasing numbers of staff participating in health and fitness activities (i.e. 35% - 40 %) and improved diet, i.e. a 40% increase in fruit and vegetable intake, and greater awareness of health in general. Source: enwhp.org
- Lucent Technologies (USA): a survey showed that over 50% of the respondents perceived improvements in energy levels, productivity, morale, ability to manage stress, and increased strength and cardiovascular levels. Source: Shoner et al. (2001)
- Applied Wellness (USA): A pilot stretch break programme was introduced to manufacturing employees to address the rising rate of strains and sprains. Employees participated in up to two 5-minute stretching sessions per shift at their work stations. Pre and post test readings were conducted on all participants. Results for those participating in at least 70% of stretch sessions show: 58% reduction in monthly average strains and sprains (Safety Accident and Injury Report), decreased tension, anger, and confusion scores (Profile of Mood States), increased esteem (Self-Esteem Scale) improved overall mood scores (POMS), Increased overall job satisfaction scores (Job Satisfaction Scale). Source: http://healthproject.stanford.edu/koop/

Workplace health promotion leads to healthy workers

A healthy lifestyle improves the health of the worker. Harris and Fries (2001) conclude that evidence is available that workplace health promotion increases the health of the workers.

- the effectiveness of worksite fitness programmes show a reduced body mass by 1-2% with a reduction of body fat of 10-15% among the participants; muscle strength and aerobic capacity increased by up to 20%; the impact on high risk persons is substantial when fitness programmes are combined with cholesterol and blood pressure reduction, weight control and other applicable heart disease prevention interventions
- worksite weight control programmes can produce weight loss of 1 to 2 pounds in weight per week among participants
- cholesterol reductions in the 5-9% range were achieved
- group programmes on smoking cessation have reported success rates of 20-60% at 6 to 18 months; minimal interventions report success rates ranging from 1 to 20%hypertension controls: between 60 and 85% of those with high blood pressure report pressure control to normal limits while programmes are in place

Heaney and Goetzel (1997) argue that almost two thirds of the reviewed studies confirm the effectiveness of comprehensive programmes on occupational health promotion with regard to the reduction of the employee health risk.
Pelletier (2001) says that the weight of the evidence confirms that multi-component or comprehensive interventions have higher clinical effectiveness (and cost effectiveness) than single factor programmes e.g. a programme on tobacco. A comprehensive programme focussing on multiple risk factors reduce the risk of chronic diseases for the workers.

The study on health circles showed that 54% of 2 244 employees directly and indirectly involved with health circles noticed a reduction in work related health disorders. The most significant improvements have been achieved in relation to disorders of the musculo-skeletal system and in psychosomatic disorders. A correlation could be seen in particular between improving social support and enhancing the employee's control over the workplace on the one hand and a reduction in muscular/skeletal and psychosomatic disorders on the other (Sochert 1999).
In a project for promoting health in the workplace improving individual cardiovascular risk profiles, positive outcomes could be established. After a detailed health check-up, the study participants were informed about their individual cardiovascular risks. Over the next four months the participants were helped to follow a healthier diet, improve their level of physical activity and stop smoking. The effects of this intervention were measured and evaluated in a second check-up after an additional eight months. The score for cardiovascular risk, calculated from the BMI, systolic blood pressure, total cholesterol and smoker status, decreased. Consequently the cardiovascular risk of employees in power plants can be reduced by health-promoting intervention programmes, that is to say by getting the employees to give up smoking and to increase their level of physical activity. (Bünger et al., 2003)

The comprehensive health programme at Citibank included an evaluation (based on the Health Assessment Questionnaire) of the programme's ability to modify population risk in the following 10 risk factor areas: dietary fiber, fat consumption, salt intake, diastolic blood pressure, total cholesterol, exercise, obesity, stress, seatbelt use, and cigarette smoking. Data analysis revealed statistically significant improvements in 8 out of 10 risk categories (organised by greatest to least change over time) which included seatbelt use, exercise, stress, fiber intake, fat and salt consumption, smoking, and diastolic blood pressure http://healthproject.stanford.edu/koop/.

Some cases collected through ENWHP indicate improvements in health (see annex 3 and box 17). At Volkswagen, the health rate of programme participants increased from 68.1% to 91.8% three years after the measures.

There is a link between the health status of a worker and absenteeism. Aldana and Pronk (2001) reviewed studies on workplace health promotion and absenteeism stating that there are some links between health risks and absenteeism. Their findings are summarised in table 5. Taken together with the fact that a healthy worker has a positive effect on productivity (Lowe 2003), one can only conlude that healthy worker are an important asset to a company.

Table 5 - Level of association with elevated rates of abesenteeism (Aldana and Pronk, 2001)

Risk/programme	Strength of association
Body mass index/obesity	Moderate-to-high
Hypercholesterolemia	Unknown
High stress	Moderate-to-high
No fitness programme participation	Low-to-moderate
Low fitness/physical activity	Unknown
Hypertension	Unknown
Multiple risk factors	Low-to-moderate
No health promotion programme participation	Low to moderate

Box 17 Some findings on the improvement of the health of the workers

- Case study 13 ELAIS (Greece): Long term programmes such as blood pressure and weight control, anti-smoking campaign, cholesterol levels and diabetes control are in progress and their results up to now are considered as positive (for example cholesterol levels for men drastically reduced from 82.1% to 66.1% and for women from 60% to 42%).
- Case study 23 Volkswagen (Germany): As a result of the introduction of therapeutic measures for 25 alcoholic employees, the number of sick days from this group fell within a year from 1 420 to only 351 per year. The health rate of employees having taken part in a special rehabilitation programme showed an increase from 68.1% to 91.8% three years after the measures.
- Programme "have a heart for your heart" (D): a multi-factoral, company oriented programme to prevent cardio-vascular diseases, tested in several companies between 1989 and 1991; hypertonic blood pressure levels were discovered for the first time at almost 30% of all screening participants, in the control screening after 2 years risk levels of cholesterol were significantly reduced (from 26 to 19%) and the same is true for hypertonia (from 29 to 17%) Source: Demmer, 1995
- Standard Life Healthcare (UK): Standard Life Healthcare's integrated strategy involving HR initiatives, business drivers, health and well being, and a committed, visionary management team have together created a healthy, happy company. This has completely turned around the business. Among other things, health fairs were held at several sites (each with more than 200 participants). This helped to make workers more aware of their own health, integrate this into their daily lives, and improve nutrition within the company. Source: Colling J., 2003
- IBM (US): At IBM, a study examined whether participation in the company's voluntary health programmes had had an effect on the programme participants. The programmes concerned four broad health categories: Blood pressure; Serum lipids; Weight; Cigarette smoking. Changes were assessed over a five-year period with regard to: blood pressure; serum total, high density lipoprotein cholesterol (HDL-C), body mass index, and cigarette smoking. Participation in relevant courses was associated with significantly greater improvement in the risk status of employees in the areas of blood pressure, total and non-HDL-C, and smoking cessation.

More than 60% lowered their blood pressure by 140/90 mm Hg, and more than half reduced their total and non-HDL-C levels to less than 240 and 190 mg/dL respectively. Roughly half of the programme participants stopped smoking, compared to only a third for non-participants. However, programme participation was not significantly associated with improvement in HDL-C or body mass index (BMI).

- Brabantia (NL): the comprehensive health programme at Brabantia comprised two types of interventions measures: healthy habits and lifestyle; and job content and work organisation. Results showed reduced health risks. The risk for cardiovascular diseases decreased. Source: S. Maes et al., 1994
- Scotland's Health at Work case studies: one large case study workplace was able to confirm that over a 6-7 year period there had been an increase in the levels of exercise undertaken by staff and reduced levels of alcohol consumption. However, cholesterol levels and self reported stress levels had increased (Hardin, 1999).
- Northeast Utilities (USA): the health risk assesment showed that the programme resulted in 31% decrease in smoking, 29% decrease in lack of exercise, 16% decrease in mental health risk, 11% decrease in cholesterol risk, 10% improvement in eating habits, 5% decrease in stress. Source: http://healthproject.stanford.edu/koop/
- Applied Wellness (USA): The purpose of the project was to study the efficacy of two types of workplace stress and coping interventions. Significant improvements in different areas could be established: total physical symptom counts; total psychological symptom counts decreased; health habits scores increased; overall social support values increased; positive responses to stress improved; negative responses to stress improved; stress scores decreased; stress and coping balance improved; scores on the State-Trait Anxiety Inventory decreased (improved). Source: http://healthproject.stanford.edu/koop/

Workplace health promotion generates more job satisfaction

Workplace health promotion motivates employees, resulting in increased job satisfaction.
An analysis of workers' perceptions of the extent to which their work environment is healthy and how these perceptions influence job satisfaction, employee commitment, workplace morale, absenteeism, and intent to quit provides some evidence for this argument. Employees in self-rated healthier work environments had significantly higher job satisfaction, commitment and morale, and lower absenteeism and intent to quit (Lowe et al., 2003). The study confirms the importance of creating healthier work environments to achieve both worker well-being and organisational performance. It also indicates that worker's perceptions, how they feel about the job and their work environment etc. can influence desired health related and human resources outcomes such as absenteeism, job satisfaction, and staff turnover.

The survey of Bauer et al. (2003) showed that workplace health promotion mostly results in improved levels of job satisfaction. Almost 80% of the respondents agree with this statement. The study on the health circle approach revealed that more than 60% of 2 244 employees directly and indirectly involved with health circles noticed a rise or at least a partial rise in overall work satisfaction (Sochert 1999).

Box 18: Some findings on the improvement of job satisfaction

- Case study 13: ELAIS (Greece): Consecutive employee satisfaction surveys show a steady improvement of satisfaction with regard to working environment and impressive levels of overall employee satisfaction (about 75%).
- Case study 15: Agroplastica: The programme contributed to increased satisfaction for employees and their families
- Case study 16: Netcare (A): Following the WHP programme, improved job satisfaction was reported by staff
- Case study 18: Steyrermühl AG: The results of two surveys, one before and one after the implementation of the WHP programme show an improved job satisfaction in various aspects
- Case study 20: Ivoclar Vivadent (Liechtenstein): periodical employees satisfaction examination
- Case study 21: City of Berlin (Germany): Implementing the recommendations for health appropriate improvements proved to be positive both for individuals and their departments as a whole. 50-75% of those surveyed in the intervention area and the vast majority of those who were directly involved felt that their working situation had changed for the better. Job satisfaction also increased. It is probable that staff performance and productivity have also been affected.
- Case study 22: REWE Handelsgruppe (Germany): Working atmosphere and job satisfaction have improved considerably, which has also been rewarded with greater customer satisfaction
- Case study 25: S.C. AUTOLIV ROMANIA S.A. – BRASOV (Romania): Another component is the evaluation of the employees made also using a Satisfaction Questionnaire applied once a year, anonymously and having an open one question in addition to the closed ones where comments can be made. It is worthwhile to mention that one of the questions inside this questionnaire refers to WHP and tries to asses the need for such activities.
- The Social Appeals Board (DK): job satisfaction studies show that there is great satisfaction. Source: enwhp.org
- Applied Wellness (USA): A pilot stretch break programme was introduced to manufacturing employees to address the rising rate of strains and sprains. Employees participated in up to two, 5-minute stretching sessions per shift at their work stations. Pre and post test measures were conducted on all participants. Results for those participating in at least 70% of stretch sessions show: 58% reduction in monthly average strains and sprains (Safety Accident and Injury Report), decreased tension, anger, and confusion scores (Profile of Mood States), increased esteem (Self-Esteem Scale) improved overall mood scores (POMS), increased overall job satisfaction scores (Job Satisfaction Scale). Source: http://healthproject.stanford.edu/koop/
- Applied Wellness (USA): Wellness Employee Satisfaction Survey 1996 and 1997. A randomised sample of North American employees was conducted in 1996 and 1997 to evaluate employee participation, behaviour changes and customer satisfaction with regard to the Applied Wellness programme. Response rates were 31% and 35% respectively. Results demonstrate self reported improvements in health, lifestyle and level of fitness, morale, job satisfaction, productivity, and work/life balance. Source: http://healthproject.stanford.edu/koop/
- National Agency of Public Servants (Romania): the evaluation of the WHP project showed that there has been an increase in staff satisfaction. This satisfaction was measured through the increase of addressability, which was made possible by diminishing the time needed per task. Source: enwhp.org
- The Northern Ireland Court Service (UK): From the staff satisfaction survey, staff reported a high awareness of health and well-being. Source: enwhp.org
- MDS Nordion (CAN): Annual grievances have been reduced significantly from 50 to 5 since the early 1990s. Source: Health Canada
- BT (UK): Improving work-life balance moving from a more static, office-based workforce to an 'e-BT' of employees who work flexibly and/or from home Customer and employee feedback shows increases in customer satisfaction (8%), employee 'happiness' (14%). Source: http://www.employersforwork-lifebalance.org.uk

4. Conclusions

Workplace health promotion: a EU priority

In the new Community strategy on health and safety at work for the period 2002-2006 the Commission states that a safe an healthy working environment and work organisation are performance factors for the economy at large as well as for the individual company. The creation of a more qualitative working environment is considered to be necessary to create the conditions for an innovative and sustainable economy. At the European Health Forum in 2003 David Byrne, EU Commissioner stated that "Health equals wealth"; this statement supports the idea that health promotion must be backed up by economic facts and figures.

The project "Making the case for Workplace health Promotion" tries to answer why WHP is important and forms an element of a global strategy of the European Network of Workplace Health Promotion within the framework of the 4th Initiative, together with how WHP can be implemented (toolbox project) and the building of infrastructures to disseminate WHP (forum project).

The mapping of the business case

There are numerous "cases" for workplace health promotion, depending on the target group, the setting, the decision level and the health topic. Each target group of a specific setting requires a specific set of arguments. The model "Mapping the Case for WHP" gives an overview of the different levels, settings and stakeholders that can be targeted, as well as of the type of topic (workplace health issues) that can be considered. This model allows the development of the various cases for investing in workplace health promotion.

This project focuses on the contribution of WHP investments to the core targets of private sector companies. It was decided to set the first focus on the private sector because of the enormous political relevance of economic performance-related arguments. Moreover, this case for WHP investments is of particular importance because it challenges the contribution of health and social investments to economic performance. Because economic performance (economic growth and productivity) is a key success factor, the "business case" can be seen as a leading argument for WHP investments in general.

The private sector company case

The main result of this project is a detailed analysis of the private sector company case for investing in WHP based on an extensive literature review and a description of selected models of good practice provided by a number of ENWHP member organisations.

On the basis of these data, the following arguments for workplace health promotion can be identified; workplace health promotion:

- leads to an improved working situation.
- improves health-related outcomes
- generates an enhanced image
- improves human resources management
- boosts productivity
- increases health awareness and motivation
- leads to healthy workers
- generates more job satisfaction

This analysis will be used as a starting point for developing and identifying instruments for marketing the business case and other WHP investment cases which will be provided as part of the ENWHP toolbox.

A supportive asset in the economic chain

It has been demonstrated that workplace health promotion is not commonly seen as a priority for management, that WHP programmes are mostly initiated to improve health (a mere health issue) and that these programmes are only successful if they are integrated and comprehensive; in best practice companies WHP is always aligned with the companies' goals and strategy. The arguments for workplace health promotion have to be aimed at showing its contribution to the main goals of the company.

The business case project demonstrates that both employee health and company performance can be improved by focussing on critical business factors such as job design, production systems, organisational structures, human resources management as well as on the overall corporate culture.

It can be concluded that the principal benefits of WHP investments include health-related, social and economic benefits. Research findings as well as case studies demonstrate that arguments for WHP should not/can not always be based on hard evidence, but that a variety of arguments offers the best guarantee to obtain commitment. Companies that are already considering their goals and strategy in a balanced way do have an important advantage to develop a successful WHP programme.

Sustainable success is often driven along the employee-processes-customer-profit chain; indeed, satisfied and committed employees, supported by clear and well-defined structures and processes, lead to satisfied and loyal customers, ensuring a financially stable performance of the company. This chain is the core of the strategy map that shows how an organisation can convert its initiatives and resources – including intangible assets such as corporate culture and employee knowledge – into tangible outcomes. This corporate perspective puts WHP in line with business excellence, linking economic prosperity with environmental responsibility and social equity.

A core element of corporate social responsibility

In general, the project identified the following main drivers for the WHP business case:

- Corporate values that recognize the social and economic relevance of a participatory workplace culture;
- Social and demographic trends with significant impacts on the labour market as external drivers;
- The impacts of workplace health investments along the employee-customer-profit-chain also highlighting the role of workplace health investments for improved business processes.

This conclusion has to be seen in perspective with important socio-demographic changes that are influencing today's economy and society such as the ageing of the workforce, the increase of the wage inequality and the erosion of job security, thus creating a series of disadvantaged workers. The report shows that supporting and developing the quality of work by initiating workplace health promotion programmes will help to reduce/eliminate inequalities within the workforce. Workplace health promotion can thus be considered as a strategic asset to - proactively - respond to the important changes in today's society and as a core element of corporate social responsibility.

Annex 1: Project team

The Making the Case for Workplace Health Promotion report was produced thanks to the active contribution of the project team and the ENWHP secretariat.

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Annex 2: Arguments

Overview of the arguments collected within the Project group and the European Network

Organisational benefits	**Individual benefits**
Economic Benefits Better quality of products Better competitiveness Contribution to economic sustainability Higher productivity Reduction of costs Increased production (turnover) Reduction of costs due to absenteeism	Improved job satisfaction Improved motivation/commitment towards the company Better quality of working life Less accidents, diseases Improvement of the working conditions Improvement of the workers' health Increased health awareness
Company image Improved customer satisfaction Improved company image Contributes to corporate social responsibility Benchmarking WHP is ethical Healthy workplaces = demand from society Good health management = good management	
Social benefits Higher performance Better social climate Job retention/reduction of turnover Position in the labour market (attractive employer) Improvement of the organisational development, process Improved management image Contributes to quality management	

Annex 3: Case studies

Within the European network for workplace health promotion (ENWHP) several cases were collected to support the Business Case.

Case	Organisation	Country
Case study 1: Healthy School of Íslandsbanki	Islandbanki	Iceland
Case study 2: A participatory programme	Fluxys	Belgium
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Case study 6: Employability	Siemens Groep Nederland	the Netherlands
Case study 7: WHP policy in a municipality Hague's Amenities Department	The Municipality of The	the Netherlands
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Case study 15: Corporate social responsibility	Acroplastica	Italy
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Case study 21: Health Management in the City of Berlin	City of Berlin	Germany
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Case study 23: Health management in a multinational company	Volkswagen	Germany
Case study 24: A female programme	S.C. ROSU S.R.L. - SIBIU	Romania
Case study 25: Continuous improvement S.A. – BRASOV	S.C. AUTOLIV ROMANIA	Romania
Case study 26: Health promotion of employees in pre-schools in Reykjavik	City of Reykjavik Pre-school Services	Iceland
Case study 27: Workplace Health Promotion in a Municipal Administration	City of Dortmund	Germany

Case study 1: Healthy School of Íslandsbanki

Organisation: **Islandbanki (Iceland)**

Aims

- to help employees balance work and private life
- to raise awareness for children on health issues

Short description

Unlike most European countries, winter breaks for children during the school year are very new to Icelandic society and parents and companies are often not prepared for tackling the time gap of the break. Parents often forget to make plans for taking breaks from work to spend time with their children, and to inform their employers in advance of the dates of the winter breaks. In the same manner companies are not prepared for the situation when large number of parents need to take leave from work outside the time-span of the typical holiday period and therefore do not have extra employees to cover the duties of the employees who ask for leave from work. Being understaffed can understandable negatively affect the operation of companies and therefore many are trying to find ways to solve this issues.

Íslandsbanki (ISB) is working on finding new ways to help employees balance work and private life. In the spring 2003, the human resource department of the bank started gathering information of proposed school holidays in the capital Reykjavik and the suburbs and found out that the school holidays are scheduled at very similar time in this most populated area in Iceland. In order to meet this demand, the bank decided to offer leisure activities for children of the employees of ISB.

Íslandsbanki hired an outside health-consulting agency Life and Health (Líf og heilsa). Life and Health organised a 5-day programme for the children of employees of ISB. The parents were able to enrol their children for the whole 5 days or only parts of the time. The parents paid a minimum fee per day and the bank paid the difference between the fee and total cost of the programme.

The chosen leisure activity was called the Healthy School of ISB. In the 'school', children took courses focusing on health - prevention and promotion. Emphasis was placed on making children aware of the importance of exercising, eating healthy food, and learning to respect oneself, the body and others around. The programme consisted of in and outdoor thematic activity such as friendship and 'travelling around the body' and the children were offered healthy food during these 5 days. The Healthy School was open to children aged 6 through 10 years of age.

Results

The Healthy School programme was a pilot project and was evaluated positively by the children, their parents, and ISB too and the programme will consequently be repeated during the school break in the Spring of 2004.

Case study 2: A participatory programme

Organisation: **Fluxys (Belgium)**

Aims

Implementing an integrated health and safety management system in order to improve health and safety at work and reduce occupational accidents (target: zero accidents)

Short description

Fluxys is a natural gas transport company with 800 employees. Some 600 collaborators are responsible for maintenance, operation and development of the gas infrastructure: a natural gas transport network in Belgium comprising some 3 730 km of pipeline, associated infrastructure, an underground storage facility and a terminal for liquefied natural gas (LNG) in Zeebrugge.

The company has set up a comprehensive safety and health programme along the lines of the integrated quality management system. The programme focuses on risk analysis and the active involvement of the workers, i.e. participatory risk analysis. The first phase of a company-wide consultative risk analysis programme was started in 2000 and completed in 2001. Every worker received interactive training where he learned to detect risks and help find solutions for safety and health risks (actions for improvements).
The project was initiated by the OSH department and carried out by a working group composed of operational managers. This working group assures the follow-up and is also responsible for the implementation of the improvement actions. The whole process is accompanied by external consultants.
The definitive analysis data were used in the autumn of 2001 as input for adjustments to the integrated incident-prevention system.

The company has also run a social sponsorship programme since 1999, with the aim of increasing staff motivation to improve safety performance. Under this programme, the various departments are given a budget which depends on their safety record and which they can use to sponsor local social projects of their choice.
Sponsorship totaling €45 000 was given in 2001 for projects relating to care of the poor, the young, the sick and the disabled.

Results

- the number of occupational accidents has decreased by 50% between 1998 and 2003
- increased staff motivation

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Case study 3: Workplace Health Promotion, An integral part of good business practice

Organisation: **Unilever Best Foods (the Netherlands)**

Aims

- better quality of products
- better competitiveness
- Increased production

Short description

"Fit for the Future" is the slogan for Unilever Best Foods of Rotterdam's health policy. A systematic, continuous and consistently innovative approach pays dividends not only in the development of new products, production methods and marketing, but also when it comes to policies on the quality of work, working and interrelationships. Health is doubly significant to Unilever Best Foods, which wants both its products and its workers to be healthy. The company has therefore set up an active integrated health policy comprising numerous facets (corporate fitness, sports - particularly running, healthy eating, etc). This policy is incorporated within a change-oriented new company policy "Competing for the future", under which workers are given more control over their own working situations and activities are organised using autonomous and highly effective teams.

Results

- The Fit for the Future programme as part of the company policy Competing for the future, under which employees are given more control over their own working situations and activities are organised using autonomous highly effective teams. The approach is highly effective, since Unilever Bestfoods consistently achieves an annual growth of 3% to 5%.
- A cost-benefit analysis showed a positive outcome of nearly 100 000 euros per year. In this analysis only the company fitness programme was looked at.

Source

Workplace Health Promotion, An integral part of good business practice (page 81), ISBN 90-6928-235-6, Baart et al, 2003

Case study 4: Health promotion = company culture

Organisation: **DuPont de Nemours BV (the Netherlands)**

Aims

- safety
- increased production
- reduction of costs due to absenteeism

Short description

DuPont of Dordrecht is active in a number of markets, including chemicals, synthetic fibres (Lycra) and pharmaceuticals. Safety is one of the company's highest priorities. It is therefore naturally concerned about people and wants its people to be healthy and to feel good about themselves.
DuPont accordingly seeks to promote healthy lifestyles in various ways. The company has its own fitness centre and physiotherapist, organises courses for people who want to quit smoking, encourages healthy eating at work, provides a help and advice service for people with personal problems and support for those facing major work-related events and has a policy for preventing inappropriate forms of interpersonal behaviour, actively monitors the health of people doing certain jobs, and organises personal health checks. None of these policies is motivated by financial concerns or sickness absenteeism reduction goals. Rather, health promotion is a natural part of the company's American culture.

Results

The list of what has been achieved so far is now very long: job satisfaction and the working atmosphere have improved as a result of better working conditions and changes in the styles of leadership. The high implementation rate of the suggestions for improvement submitted by the employees (in 1997: 292 out of 451) has contributed to improved health and satisfaction. On the profit side, the company has made savings of roughly 1 million euros, increased productivity, gained a more attractive image, and recorded a lower staff turnover.

Source

Healthy Employees in Healthy Organisations, Good Practice in Workplace Health Promotion (WHP) in Europe - Models of Good Practice (page 51)
BKK, 1999

Case study 5: An integral health management system

Organisation: **Dienst Waterbeheer en Riolering (the Netherlands)**

Aims

- integral health management
- reduction of costs due to absenteeism

Short description

Amsterdam's Water Management and Sewers Department (DWR) has integrated health promotion into its personnel policy. DWR emphasises that it is not concerned with the health of its workers alone but that the organisation needs to be healthy as well. The company health plan developed in the early 1990s led to the reformation of aspects of the business associated with physical and psychological health problems. In the meantime, following DWR's merger with another water provider, the management board has developed a new programme entitled "Improving things together". The programme brings together human resource management, health policy and other disciplines with the aim of creating a more open organisation through reform. DWR invests significantly in exercise activities in addition to providing information. A health committee reviews activity proposals and decides which will be funded. DWR also has its own fully equipped fitness centre complete with professional supervisors. A large climbing wall with appropriate safety provisions is nearby. The DWR building is designed around three former water purification system storage tanks, one of which now houses the company restaurant (in which a healthy eating campaign was run in 1998). Another houses the fitness centre and climbing wall, and the third contains the management offices. The buildings have therefore become known as the eat tank, the sweat tank and the think tank.

Results

The WHP measures at this company show that work satisfaction and the working atmosphere as well as the leadership style have improved considerably since the introduction of the health promotion measures. The changes have also had a positive impact on the company image and the vitality of the organisation. Absenteeism due to illness has declined dramatically from almost 15% to 7.8%.

Source

Healthy Employees in Healthy Organisations, Good Practice in Workplace Health Promotion (WHP) in Europe - Models of Good Practice (page 50)
BKK, 1999

Case study 6: Employability

Organisation: **Dienst Waterbeheer en Riolering (the Netherlands)**

Aims

- promoting health and well-being
- preventing damage to the environment

Short description

With sites/factories in The Hague and Zoetermeer, Siemens places great emphasis on employability. Workers are expected to be able to deal with new challenges, which means having the right tools. The company's view is that a worker who is physically and psychologically fit is more likely to be creative and responsive, and to be ready for a challenge. Despite the fact that sickness absenteeism at Siemens is less than 3%, the company is always on the lookout for problems that might lead to absenteeism. If work-related factors are identified, the company works with the relevant groups of employees to minimise the risk of absenteeism (eg, by addressing issues such as lumbar problems and stress). Preventive programmes are also organised for people in risk groups, such as those with cardiovascular problems and those whose work involves lifting. In addition, periodic health checks are organised.

Other features of Siemens' health policy are: strategies on smoking, alcohol and drugs, driver training courses, the making available of a company dietician, active reintegration and the prevention of RSI. The company also offers its staff access to fitness facilities and the opportunity to participate in various sports. The staff council has a major say in Siemens' health policy, with all decisions in this field being referred to the council for approval before they are implemented. Finally, important health themes are drawn to workers' attention by information campaigns and through the toolbox meetings.

Results

Health Promotion has raised morale and increased employee job satisfaction. This is also reflected in higher customer satisfaction. The absenteeism rate fell from 4.3% to 2.95% between 1993 and 1997, while the number of accidents went down from 55 (1994) to 40 (1997).

Source

Healthy Employees in Healthy Organisations, Good Practice in Workplace Health Promotion (WHP) in Europe - Models of Good Practice (page 52), BKK, 1999

Case study 7: WHP policy in a municipality

Organisation: **The Municipality of The Hague's Amenities Department (the Netherlands)**

Aims

- healthy organisation
- positive leadership
- company image

Short description

The Amenities Services Department is part of the municipal authority organisation in The Hague. Its core business is the provision of services to the community. The Amenities Services Department regards WHP as something inherently worthwhile and consistent with a good working atmosphere and low staff turnover within the organisation. The staff is able to cope with the workload because of the self-determination they are allowed in the definition of their duties and the direction of their personal development. The organisation has been streamlined in recent years and production increased, yet social cohesion has been retained and even improved, with managers and general staff all looking out for one another. Themes of the department's health policy include exercise, stress, workplace organisation and attacks against staff.

Results

- The WHP activities of this organisation show positive results regarding absenteeism. Unlike almost all other municipal departments, absenteeism dropped to 9.95% in 2001 from 9.27% in 2000.
Efforts are being made to ensure that this downward trend continues.
Frequency has also dropped below the average for the Municipality of The Hague.
- Customer satisfaction studies and benchmarking regarding the catering and events services show that clients are satisfied with the Provision Department.
- In 2000, the director of the Facility Department was nominated for best provisions manager in the Netherlands.
- The WHP evaluation of this organisation show that employees are generally satisfied with the WHP activities.

Source

Healthy Workplaces Towards Quality and Innovation, Working Together for a Social and Competitive Europe - Models of Good Practice for Workplace Health Promotion in the Public Administration Sector (page 77), BKK, 2002

Case study 8: feel good – be fit culture

Organisation: **The Ministry of Finance (the Netherlands)**

Aims

- healthy company (feel good – be fit culture)

Short description

The Ministry of Finance in The Hague is an example of an organisation with a sound and appropriate health policy that is systematic, programmatic and aimed at the entire workforce. The management accepts responsibility for WHP policy, which is realised professionally, with the assistance of external service providers. Programme monitoring, staff satisfaction surveys and awareness raising regarding developments in the field of occupational health lead to the formulation of new initiatives that are implemented by a group of enthusiastic workers. The commitment of this team contributes to the "feel good – be fit" culture of the organisation, in which WHP policy is regarded as a priority. Health is particularly/conspicuously important in the organisation culture. Employees routinely go running or do other sports together before or after work or during the lunch break, and cycling to work is a well-established practice.

Results

- Absenteeism percentages and the illness frequency reports during 2001 show that the employees were ill less often and for shorter periods than in previous years (a decrease from 5.1% to 4.9%). This makes The Ministry of Finance one of the departments with the lowest absenteeism (average absenteeism is 8% for ministries).

Source

Healthy Workplaces Towards Quality and Innovation, Working Together for a Social and Competitive Europe - Models of Good Practice for Workplace Health Promotion in the Public Administration Sector (page 80) BKK, 2002

Case study 9: Workplace Health Promotion, An integral part of good business practice

Organisation: **Interpay (the Netherlands)**

Aims

- involvement
- positive leadership
- reduction of costs due to absenteeism (focus on Repetitive Strain Injury)

Short description

Interpay of Utrecht is an inter-bank organisation with an exemplary health policy. Derived from the strategy of the company's management board, this policy seeks to involve the entire workforce and enjoys active management support. Health policy is developed with practical input from the HR Management Department but is primarily the responsibility of the management staff in each organisational unit. Health policy is regarded as an essential and integral component of the company's operations. Workers' representatives from the staff council are actively involved in health policy design and support.

Interpay's health policy covers working and leisure time, fitness (in the form of participation allowances), social support, childcare and complaint mechanisms for inappropriate behaviour. Particularly noteworthy is the company's energetic approach to combating RSI, which is not only beneficial to its workers but has also succeeded in reducing occupational disability and the major associated costs.

Results

- The WHP programme leads to good results in terms of employee satisfaction and adds to a positive sense of the company taking good care of its employees.

Source

Workplace Health Promotion, An integral part of good business practice (page 81)
isbn 90-6928-235-6, Baart et al, 2003

Case study 10: A hospital tackling absenteeism

Organisation: **Waterlandziekenhuis (the Netherlands)**

Aims

- healthy organisation
- communication

Short description

The Waterland hospital wants to be more than just a good organisation for its employees. The focus in recent years has been on absenteeism but now there is a shift towards being a healthy organisation. The hospital has ambitious health policy goals for patients and employees and has set up a special project team. Ideas for improvement are thought of during round table meetings, which creates the necessary commitment for this new policy. The management underlines this healthy initiative in a letter of intent, which states that a healthy lifestyle and the realisation of healthy workplaces are the main focus.

The WHP main components are: healthy timetables for employees, employability training, nutrition programmes, fitness and other activities, training for proper lifting of patients, aggression handling and trauma teams.

Results

- Employee satisfaction shows a better score in comparison with the average hospital.
- absenteeism was 6.1% lower than the average of 7.8% for the sector.
- communication has much improved.

Source

GBW in bedrijf, januari 2003, publication of the Dutch Center Workplace Health Promotion.

Case study 11: Happiness and health

Organisation: **Siemens (the Netherlands)**

Aims

- integral health management
- focus on quality
- preventing damage to the environment

Short description

With plants in The Hague and Zoetermeer, Siemens places great emphasis on employability. Workers are expected to be able to deal with new challenges, which means having the right tools. The company's view is that a worker who is physically and psychologically fit is more likely to be creative and responsive, and to be ready for a challenge. Despite the fact that sickness absenteeism at Siemens is less than 3%, the company is always on the lookout for problems that could lead to absenteeism. Where work-related factors are identified, the company works with the relevant groups of employees to minimise the risk of absenteeism (eg, by addressing issues such as lumbar problems and stress). Preventive programmes are also organised for people in risk groups, such as those with cardiovascular problems and those whose work involves lifting. In addition, periodic health checks are organised.

Other features of Siemens' health policy include strategies on dealing with smoking, alcohol and drugs, driver training courses, the availability of a company dietician, active reintegration and the prevention of RSI. The company also offers its staff access to fitness facilities and the opportunity to participate in various sports. The staff council has a major say in Siemens' health policy, with all decisions in this field being referred to the council for approval before they are implemented. Finally, important health themes are drawn to workers' attention by information campaigns and through the toolbox meetings.

Results

- Absenteeism in the period October 2001 to October 2002 was 2.7%, which is much lower than the average of 6.1% for The Netherlands.
- Work disability and loss of employees is 0.2 to 0.3% which is much lower than the country's average of 1.5%.
- In 2002 – not an easy economic year – turnover increased by 7.5%, the number of employees increased by 13.3%, net profit improved by 28.3% and the net profit as a percentage of turnover improved by 4.7%.

Source

GBW in bedrijf, januari 2003, publication of the Dutch Workplace Health Promotion Center.

Case study 12: Socio-economic approach to management

Aims

To implement the process of socio-economic management based on the ISEOR model. This model from the Institut de Socio-Economie des Entreprises et des Organisations (ISEOR) integrates the social dimension of the company into its economic performance.

The aims are to reduce dysfunctions (poor working conditions, work organisation, communication – coordination – conciliation, time management, training, implementation of strategy) thus lowering hidden costs.

Short description

ISEOR is a management approach closely integrating the social dimension of the enterprise and its economic performance: it includes methods of overall management learning with regard to staffdevelopment as the main factor of efficiency in the short, medium and long term.

Efficacy and efficiency of firms and organisations depend on their capacity to align the methods of classical management with the human and social dimension of their overall operation and performance.

The implementation process of socio-economic management is defined along threelines:

- political and strategic decisions defining policies and strategy
- management tools facilitating communication, planning, evaluation and follow-up
- process of improvement

The improvement process consists of 4 steps:

- Diagnosis: identifying dysfunctions, calculating hidden costs, identifying the causes of dysfunctions; this diagnosis enables the actors to become aware of the impact of social factors on economic performance.
- Socio-economic project: a coordinated, participatory project to eliminate the dysfunctions; the implementation decisions are taken on the basis of cost-performance analyses: (investment) costs versus expected performance (in terms of reducing hidden costs and enhancing hidden performance).
- Implementation
- Evaluation of results: a socio-economic evaluation of the project is made, analysing the qualitative, quantitative and financial results.

Results

One example of a small team showed the following results (table 6)

Table 6 – measured performance of a small team in a large scale piloting operation (source: iseor.com)

Indicator	**Qualitative performance**	**Quantitative performance**	**Financial results** (per capita and per year) in €
Absenteeism	Increased motivation on the job Flexible working hours	Absenteeism rates: 3% reduction	750
Occupational accidents	Increased awareness for occupational risks		
Labour turnover	Reduced risk of departure among newly hired personnel Facilitating training		
Quality	Less defects Improved regulation of defects Waste reduction	Reject percentage cut by half	
(Direct) productivity	Increased pace Shorter delays	Increase by 16.2% Delivery period cut down by 2 and a half weeks	7600
Total			11 550

References/source

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www.iseor.com

Case study 13: health promotion – occupational health programme

Organisation: **ELAIS S.A. (Greece)**

Short description

ELAIS S.A. is a food processing company that produces and markets edible fats (margarine, oils, cooking fats), beverages (tea) and other food products. The company is part of a multinational group (Unilever). ELAIS S.A. employs roughly 400 people, allocated in three companies. Almost 27% of all employees work according to a shift schedule.

ELAIS S.A. leadership has a formal commitment to Workplace Health Promotion (WHP) policies, as a part of its Integrated Quality System and a declared target of "Advancing Quality of Life".

A formal written WHP policy is available to all employees, covering the entire workforce irrespective of the work level within the company's organisation. It consists of the relevant methodology and all procedures, responsibilities, and medical, educational and statistical records. Moreover, caring for the employees' and their families' well-being is an integral part of ELAIS S.A. corporate policy and strategy.

Health management is considered by ELAIS S.A. as an all-embracing task. The Occupational Health Department, established decades ago, has the responsibility for planning, implementing and monitoring health promotion plans. The company employs one part-time and two full-time professionals who deal with health promotion issues. The Occupational Health Department specialists play an integral role in job design and work re-organisation within the company.

A substantial WHP budget (approximately 80 000 euros in total or 600 euros per employee, according to the company's figures for the year 2003) is dedicated to the Occupational Health Department and it is readjusted every year according to the current needs.

Health promotion is emphasised both in employees and in their working environment (production methods/techniques used and specific qualities of end products) with settings such as smoking policy, exercise promotion, heart disease/circulatory, eating habits, cancer policy, medical exams etc. Related training courses for the employees are organised each year and the entire workforce participates in training during normal working time.

Employee active participation is ensured through quality and health teamwork. Moreover, elected representatives of the employees, who constitute according to the law the employees' Health & Safety Committee, monitor and contribute in the application of good practice in health and safety promotion.

Health indicators are presented on a quarterly and annual basis to the company's Steering Committee (senior management team) for the evaluation of the results and the suggestion of the proper corrective activities.

Results

According to the company's figures during the last seven years, a significant reduction of costs due to employees' absenteeism is reported, since the absenteeism severity rate has fallen significantly from 5.5 to 3.4. More specifically, absenteeism due to musculo-skeletal problems has decreased significantly due to work re-design in the shopfloor and to the in-house gym facilities.

Over the last years, sickness severity rate has also dropped by 10% and accident frequency rate by an impressive 77.5%.

A significant contribution to the company's increased production rates is due to the low level of employees' absenteeism, in combination with the work organisation re-design, along with the high level of employees' personal satisfaction from their working environment and working conditions.

Improved company image is reported as one of the main positive impacts of the implementation of WHP programme activities in ELAIS S.A. Through the company's systematic work through the years, it has established for itself a reputation and recognition from the Greek local market, the authorities, the trade unions, the local workforce and the local community in general.
As a result of this effort and through the years, ELAIS S.A. is considered by the Greek workforce as a very attractive employer in the Greek labour market and as one of the best ten companies in Greece for employment. The company has a minimal employee turnover rate and one of the best remuneration packages in the local market.
Consecutive employee satisfaction surveys show a steady improvement of satisfaction with regard to working environment and impressive levels of overall employee satisfaction (about 75%).
According to ELAIS S.A. figures, in the last five years no accidents and only 5 injuries have been reported. No occupational diseases have been registered during the same period.
Long term programmes such as blood pressure and weight control, an anti-smoking campaign, cholesterol levels and diabetes control are in progress and their results up to now are considered positive (for example cholesterol levels for men drastically reduced from 82.1% to 66.1% and for women from 60% to 42%).
Workforce participation in WHP activities focusing on medical examinations is encouraged and recognised. As a result, employees voluntarily participate in such programmes (percentage of participation: osteoporosis exams 100%, blood and cardiovascular control 80%, Smear test and breast exams 90% and PSA 90%).

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Case study 14: Towards durable development in organisational changes

Organisation: **City of Oulu (Finland)**

Aims

To support an organisation in its change process: in strenghtening positive elements and in correcting deficiencies of the company procedures.
To support a new type of action that pays attention to participation of the company personnel in development processes.

Short description

The City of Oulu has developed a new core municipality-service municipality model (oderer-producer) and Oulu Road Construction Company has been one pilot organisation in this process, a process from City Office to public utility. It has meant a tension between old working culture on the one hand and a new way of doing things on the other. In the development process in 2003, 15 workshops were arranged for the personnel in separate Company Units and personnel from two Units together. Group work was done on important issues concerning its future as a public utility. New ways of cooperation among the workers and between Company Units were discusssed and common developmental task were executed. Topics of the group works at workshops included: dealing with workers involvement in business processes, self-esteem among the workers, new multi-profession and learning opportunities. Representatives of workers and foremen took part in every workshop of the Unit. In the company there are 200 employees of which 50 (four developmental groups, one from each Company Unit) were taking part in the process (workshops and developmental tasks).

Results

The project was evaluated using a feedback questionnaire, by the the Developemental Groups. A new participatory way to develop company actions was accepted and learned, proposals for further actions were made, and common developmental tasks were done in the company units and by the representatives from different Units.

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Case study 15: Corporate social responsibility

Organisation: **Acroplastica (Italy)**

Aims

- to ensure sustainable development in terms of competitiveness at the local level through a globalocal process (market)
- conveying a positive image to key stakeholders (customers, employees, suppliers, investors and shareholders) and achieving a good reputation over time (public image)
- to settle relationships with its own employees and redesign its internal organisational process, the purpose being to rely on a business model truly built upon the observance of SA8000 standards.

Short description

Acroplastica S.r.l. is a small subcontractor based in the Caserta area providing plastic-made aesthetic and functional elements designed for the household appliance industry. About four years ago, it started procedures to obtain SA8000 certification. Thanks to the CSQT, Acroplastica obtained this certification and was issued with a "BVQI/CEP Certificate of Approval". The application of the SA 8000, jointly with Decree 626/94, and workplace health promotion (WHP), represents a self-monitoring process relating to the enterprise's activities.
The plant manager is responsible for the implementation of action related to health and safety.
With a separate budget for workplace health promotion, the company invests in the health of its employees.
Acroplastica operates in a particular territorial context – the province of Caserta in the Campania region – where both real as well as exacerbated problems exist, such as juvenile labour exploitation, improper staffing with workers being remunerated based on highly questionable criteria, "sweat systems", tax dodging/avoidance, a high rate of organised crime, etc. By meeting social responsibility criteria and adopting an ethical approach to business management, the company has meant to extend the quality process not only to production in the strict sense, but also to work and related lifestyles. In this repsect, today the company is – within both the province of Caserta and the relevant social structure development project – very much viewed as a guiding light by religious and sports organisations as well as universities, and has long been actively providing financial support to several charitable institutions. It also encourages the organisation of cultural events with a view to enhancing the local environment.
The written Guidelines on workplace health promotion (WHP) are intended to offer all employees safety and protection at the workplace, to promote a healthy lifestyle, and prevent potential environmental hazards. They were developed jointly by the management, the human resources department, staff representatives, the safety department and the occupational medical service.
The Guidelines are spread via Intranet for all employees.
There is also an Intranet Forum where it is possible to read their Labour Agreement.

Results

- Absenteeism limited
- Productivity raised by 6.7% (year 2000)
- Decrease in the level of conflict
- Increased satisfaction for employees and their families
- Energy saving: 9.3%
- Reduced environmental impact
- Positive image of the firm in the community and nationally thanks to publicity for the results
- Zero accidents at work from 1997

Case study 16: Health as a priority

Organisation: **NetCare (Austria)**

Aims

- participation
- improvement of working conditions
- improvement of wellbeing
- empowerment
- more understanding between the employees
- improvement in communication
- insight into the opinions of the staff regarding working conditions and health
- increased credibility as a company dedicated to health
- improvement of the image of the company

Short description

NetCare is a company specialising in health information and health services. Health is one of the company's highest priorities. It is therefore naturally concerned about people and wants its staff to be healthy and to feel good about themselves.

Results

17 measures to improve health were proposed; all of them were implemented. Job satisfaction and the working atmosphere has improved.

References/source

Qualität in der Betrieblichen Gesundheitsförderung. Tagungsbericht 28. 1. 2003, OÖGKK u.a.2003

Case study 17: Active together

Organisation: **Sab Tours (Austria)**

Aims

- to improve working conditions
- to improve the health lifestyle of employees

Short description

A workplace health promotion project of Sab Tours company.
Sab Tours - an Upper Austrian family company (160 employees) operating in the public and school transport sector and also as travel agency - started a WHP project to improve working conditions and the personal behaviour of employees.
A project group (management, OSH professionals, the chairman of the works council and external experts) was set up, defined objectives and was responsible for all steps of the project.
An analysis of the current situation (sick leave data, number of accidents) was carried out and summarised in a health report together with a description of the prospective procedure. The report was distributed to all employees.
In 2 health circles (bus drivers and salaried office workers) their problems were described and a long list of solutions worked out. The problems not only concerned physical strains but also organisational deficits and problems in communication.

Results

Some months later a questionnaire was distributed to ask the workforce about satisfaction both with the project and the results. A long list of solutions (more than 40) was worked out; within a short period of time more than 90 % could be realised.

References/source

Qualität in der Betrieblichen Gesundheitsförderung
Tagungsbericht 28.1.2003, OÖGKK, www.netzwerk-bgf.at

Case study 18: an ambitious WHP-project

Organisation: **Steyrermühl AG (Austria)**

Short description

The Steyrermühl AG is a paper factory. The company employs approximately 700 workers in a wide range of paper production activities. From 2002 to 2003, an ambitious WHP project was run. This project included two surveys of the personnel, one before and one after implementing improvement measures. According to the results of a 2nd survey of the staff, the WHP projects must be considered a success.

Case study 19: WHP and sustainable development

Organisation: **Angelantoni (Italy)**

Aims

The company has set up a system of Prevention and safety at work (SGPS in Italian)in order to reach and methodically check the expected safety standards. This system is founded on a dynamic and cyclic process called: "Plan, do, check - Deming Cycle". It also provides many actions intended to :

- monitor efficiency of system performances;
- make savings within the management;
- conform to the 'company culture;
- improve capacity to answer to organisational and normative changes;
- involve all the employees and their representatives in the business management system.

Short description

Angelantoni employs 183 employees at the main site, as well as 250 in 12 sister companies partially or totally controlled by the family. The company works within the sector "cold technology applied to environmental testing, biomedical research and industrial processes".

Angelantoni has adopted the concept of "sustainable development", where producing quality means not only making products and providing services which comply with the the client's express or implicit requirements but also taking into account the impact that these activities have on the environment and on the safety of the people involved in the process. Hence in 2001, the group has achieved the certification ISO 14001. In addition, the Management System for Prevention and Safety (SGPS) comply with expectations of OHSAS 18001/1999 and

aims at the improvement of prevention and safety standards, with systematic checks to make sure that all activities are carried out in conditions of safety. Lastly, Angelantoni Industrie can guarantee the principles prescribed by the SA 8000 standard and in particular those referring to the seven fundamental points: child labour; health and safety; freedom of association and union representation; sexual and racial discrimination; disciplinary action; working time etc.

At Angelantoni the employees are surveyed every six months on their job requirements and needs. The knowledge gained from these surveys as well as the data on time lost due to illness and industrial accidents serve – together with results of job analyses and an internal audit – as a basis for planning health related activities. The management regularly and systematically reviews how the various projects on health promotion can be improved. Staff involvement also includes health groups and the participation of staff representatives in steering committees throughout the organisation. All the activities implemented are also evaluated: Human Resource Management, for instance, carries out periodical surveys on staff satisfaction and working atmosphere, in order to create better working conditions and changes in leadership style, that have a positive impact on the company's image

One of the aims of the company is to redefine internal procedures, making the workflow automatic in order to coordinate production, logistics and client requirements.

A "staff development scheme" aims to help employees refine their health-related skills. Appropriate training courses are offered for this purpose. The employees are regularly informed about new concepts and strategies on workplace health promotion at staff meetings and in discussions with the executive team. Furthermore, written documentation on health promotion activities and the open door policy of those responsible for these measures make the progress readily understood by the workforce.

Results

- reduction of accidents at work
- improvement in work atmosphere
- control of safety and health costs
- reduction of hazards

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Case study 20: WHP and personnel development

Organisation: **Ivoclar Vivadent (Liechtenstein)**

Aims

The aims of the WHP project at Ivoclar Vivadent are:

- To implement both short term and long term measures
- To make health "a theme"
- To raise health awareness
- To improve job motivation
- To improve self initiatives

Short description

The WHP programme started in 1998 and which is still ongoing encompasses different activities in the area of personnel development such as management and leadership training, employee interviews, team development, coaching, change management, communication and conflict management training, team work, etc. More specific health related activities are lectures, courses, training for employees and management concerning health promotion (medical examinations, assistance with drug and alcohol problems, stress management, life time management, sports and relaxation possibilities, healthy food in the canteen etc.)

The WHP programme is evaluated within the framework of:

- annual employees interviews
- periodical health reports
- periodical employees satisfaction examination
- different statistics (staff absences, illnesses, accidents, etc.)

Results

- mprovement of job satisfaction and working atmosphere
- significant reduction in staff absences and decrease of health expenses due to illness and work place accidents

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Case study 21: Health Management in the City of Berlin

Organisation: **City of Berlin (Germany)**

Aims

The WHP programme introduced by the City of Berlin aimed improving job satisfaction and reducing absence due to illness by introducing measures appropriate to improving health - plus, for instance, using health circles (quality circles with a focus on health)

Short description

The administration of the City and Federal State of Berlin provides services to a population of approximately 3.4 million and employs around 150 000 civil servants and blue- and white-collar workers. The implementation of the project is carried out on two levels that are linked organisationally with one another:

- The centralised level includes a "Central Office for Health Management" and was established at the Senate Department for the Interior. Under its leadership, a steering committee comprised of members from various departments and organisations meets regularly and coordinates, evaluates and directs the overall process.
- On the decentralised level, in each of the departments of Berlin's administration, there is a health management working group that plans, coordinates and directs activities that promote health on-site and at departemental level: analysing risky working areas, supporting the establishment of health circles (quality circles with a focus on health), developing recommendations on practical measures to promote health resulting from the findings of the analyses and health circles.

Results

Contrary to the overall trend in public administrations absence, due to illness did not increase in Berlin's administration and even declined slightly during the observation period 2000-2002.

- An average of 40 to 50 recommendations for health appropriate improvement in the structuring of work were developed in each of 30 health circles that have been conducted in the period 2000-2002. Discussions clearly tended to focus on psycho-social and organisational issues that result, for instance, from inadequate communication and information, relationships between superiors and co-workers, and adverse work flows or organisation of work.
- Implementing the recommendations for health appropriate improvements proved to be positive both for individuals and their departments as a whole. 50-75% of those surveyed in the intervention area and the vast majority of those who were directly involved felt that their working situation had changed for the better. Job satisfaction also increased. It is probable that staff performance and productivity have also been affected.

Source

Angelika Delin, Dr. Reinhold Sochert (ed.), Models of Good Practice for WHP in the Public Administration Sector, 2002, enwhp@bkk-bv.de

Case study 22: Whp as a social and economic necessity

Organisation: **REWE Handelsgruppe (Germany)**

Aims

To improve dealing with risk factors such as alcohol, smoking, nutrition and exercise

Short description

REWE is one of the largest trading enterprises in Germany (and in Europe as a whole) with more than 170.000 employees in Germany and 210 000 throughout Europe. REWE regards the health protection of employees as a social obligation and an economic necessity. Matters of occupational health and safety and WHP are viewed as management tasks and are regularly dealt with in health circles, seminars and training courses.

Results

- Over a period of 4 years, absenteeism due to illness fell by 0.8% to 5.7%, the number of accidents has almost halved over the last 10 years.
- Working atmosphere and job satisfaction have improved considerably, which has also been rewarded with greater customer satisfaction
- Health risks were surveyed and measures were taken in the warehouse, in sales, at the cash registers and in the transport and storage sector and the organisation of work and workplace design improved accordingly.
- REWE has been able to substantially reduce work stresses of all kinds

Source

Karin Kunkel, Barbara Orfeld, Models of Good Practice, BKK Federal Association, 1999, enwhp@bkk-bv.de

Case study 23: Health management in a multinational company

Organisation: **Volkswagen (Germany)**

Aims

Both health protection and health promotion, improvements in work design, health behaviour, health quota and cost reduction.

Short description

VW has implemented a health management system that consists of basic and supplementary modules. It involves the working situation, the person, and their behaviour. Basic modules are work design, employee participation, and information/communication. Supplementary modules are health coaching, courses, counselling, etc. At Volkswagen AG, the Group Management Board and central works council have set out guidelines on occupational health and safety and health promotion that outline minimum standards worldwide. In addition to this, guidelines on health management apply to all domestic factories. About €130 is invested per employee in occupational health and safety and health promotion every year.

Results

Improvements in health standard, increased health awareness, cost reduction:

- Between 1988 and 1999 the health rate rose from 91.6% to 96%, the number of industrial accidents fell from 13.7% to 10.7% per one million hours worked. Considering that a 1% rise in the health rate results in savings of about 45 million euro, the financial potential is obvious.
- Moreover at the Wolfsburg plant alone, for example, €120 000 has been saved per year through cancelling diagnostic screenings by the occupational physicians, which has been possible on account of changes of organisational matters and work material.
- At another factory of Volkswagen the number of days lost due to contact dermatitis was reduced by about 1 000 days with a prevention programme "Skin".
- As a result of the introduction of therapeutic measures for 25 alcoholic employees, the number of sick days from this group fell within a year from 1 420 to only 351 per year.
- The health rate of employees having taken part in a special rehabilitation programme showed an increase from 68.1% to 91.8% three years after the measures.
- Health promotion measures focussing on work design and personal behaviour in one production department resulted in a decrease of the sick leave rate by 2%.
- Employees who were freed of shift work on medical advice had substantially less absence days due to illness after one year. The sick leave rate dropped from 20.5% to 9.5% in a one year period.
- The physical stresses at the workplace have been substantially reduced, e.g. through the elimination of overhead work.
- The company has created a wide variety of programmes to promote health-conscious behaviour among the employees, such as back and posture courses, lifting/carrying fitness training and relaxation courses - with great success. A works agreement on "cooperative behaviour at the workplace indicates that the company actively combats bullying, sexual harassment and racist actions - these extensive measures are clearly having an impact.
- On the whole and moreover the evaluation of the health protection and health promotion measures at the worksite of Volkswagen showed an increase of well-being of the employees, a decrease of traditional risk factors, an enlargement of the control of work from the employees point of view, a better social climate and an improvement of the organisational workflow.

Source

Karin Kunkel, Barbara Orfeld, Models of Good Practice, BKK Federal Association, 1999, enwhp@bkk-bv.de

Case study 24: A female programme

Organisation: **S.C. ROSU S.R.L. - SIBIU (Romania)**

Aims

- Investing in the workforce using preventive methods and Health Education courses as part of a campaign
- Partnership with Medical Centers and local Public Health authorities for a better Health Status of the workforce
- Medical services provided when/where are needed and free of charge for the workforce during the shifts for reducing lost time

Short description

S.C. RO_U S.R.L. SIBIU is a private company with ten years experience in the field of footwear manufacturing, morocco goods manufacturing and steel erecting.

The high quality of the products is guaranteed by the international quality certifications achieved, in accordance with ISO 9002 standards. S.C. RO_U S.R.L. SIBIU is a company with a modern management system, oriented to increase the work productivity, and providing an optimum atmosphere for the employees during production processes and phases. In March 2003, "PUMA Social Accountability & Fundamental Environmental Standards", a German audit, which evaluated the activities of the company, considered that Ro_u S.R.L. respects the safety standards, and in the meantime has a policy regarding a healthy working environment. These were the reasons the company was approved to continue to work as a subcontractor for companies like Puma and Reebok.

Therefore we could say that the Workplace Health Promotion actions launched by ROSU S.R.L. were determined by 3 main categories of reasons:

- Compliance with its own Health, Safety & Envirnoment Policy as well as with the clients' own standards
- The need for improvement of some economic indicators affected by the health status of the workforce
- The need for better positioning in the local community regarding Social aspects in the workplace

Since 2003, S.C. ROSU S.R.L. is an active member of the Romanian Network for Workplace Health Promotion.

The company has its own policy regarding the promotion of a healthy working environment and achieving and maintaining a healthy workforce. In order to sustain this policy the company has had many initiatives for maintaining its employees, most of which are women, in good health. Therefore the initiatives unfolded and targeted mainly the female section of the workforce and were designed to emphasise the importance of preventive measures. In 2002, most of the days lost due to medical issues were caused by gynaecological diseases of all sorts. Accordingly, the management thought of a solution for both improving the health of the workforce and increasing productivity.

This is how an initiative composed of a screening campaign and training courses was designed for around 250 women. Partners were involved were a Center for Diagnosis and Treatment (Ilie Craciun Center for Diagnosis & Treatment), a Family Planning Center (from the Sibiu County Hospital) and the Department of Health Promotion from the District Public Health Authority – Sibiu.

Screening campaign: during March and May 2002 the company organised a screening campaign for cervical cancer. Almost 250 women took part in this campaign organised with the support of a Medical Center ("Ilie Craciun") which provided the expertise and the required health services.

Information campaign for reproductive health: in the year 2003, 250 women participated in an information campaign organised by the Family Planning Center from the Sibiu County Hospital. The theme of the campaign was "Contraceptive methods". The Family Planning Center organised these courses by providing experts who established a schedule for the entire workforce for a period of two months. As part of a much broader campaign, the participants received free condoms at the end of these courses.

The results of this initiative were proven during 2003 when the absenteeism rate dropped to almost 6% (a decrease of 25% compared with 2002). It was mainly this indicator that proved that investing in Health Education courses and in Health Promotion can give benefits in both the long and short term.
Medical office: Besides the Occupational health aspects (the pre employment, periodical and work cessation medical exams etc) managed by subcontracting these services to a local provider, the company considered it to be very useful to organise at its own cost a medical office for the entire workforce. The benefits of this office were seen during the last 2 years when the total number of lost days started to decrease.
Better working conditions for the employees: The management has as a permanent concern the improvement of the working conditions of the employees.
In the past year, the company built a new production unit for which a prior design regarding the ergonomic characteristics of each workplace was done. The lighting, the ventilation and the sanitation were other important elements considered in the design process.
As a new facility for the employees, a store only for the use of the employees was built; it provides goods free of VAT. A canteen is under construction and will provide all the facilities the employees need.
All the employees receive free working equipment once a year as part of the Safety Policy and regulations, luncheon vouchers (the entire workforce) and protective products for the employees handling dangerous substances.
The company wants to create a good working environment through communication and team work.
Smoking and alcohol drinking is strictly forbidden and the company 'does not encourage any unhealthy behaviour.

Results

Absenteeism rate for 2003 was 6% (a 25% decrease compared with 2002).
In 2003, the turnover of personnel was 5.66% (for an average workforce during 2003 of about 497).
In 2003 there were not any work related accidents or occupational diseases registered.
A particular indicator measured at Rosu S.R.L., the maternity leave days in 2003 (5 102) showed a drop of approximately 10% compared with 2002 owing to the latest initiatives (establishing a Medical Office, the Health Education campaign and the Screening campaign)
Increase of the productivity: 26% in 2003.

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Case study 25: Continuous improvement

Organisation: **S.C. AUTOLIV ROMANIA S.A. – BRASOV (Romania)**

Short description

Autoliv Romania is a Romanian SME located in Brasov one of the central districts of Romania, approximately 150 km far from the capital Bucharest. The workforce employed averages at 230 employees and the company produces safety belts for the car industry. Its production is destined mainly for export because Autoliv (as part of the Swedish based Group Autoliv) acts as a Subcontractor for Ford, Mercedes, BMW, Renault etc. Given its economic profile, the company has very high quality standards which have been achieved through a Quality Management System and it is certified using the world wide general classification / standards (ISO 9001, ISO 14001) as well as through other car industry specific standards (QS 9000, VDA VOL 6.1, TS 16492/2002).

The health of the employees as a determinant of the quality of the products.

The development of the company over the past few years was done in a very interesting way by including the general health of the workforce as one of the key factors in building quality products, successful choices and good public image. In achieving these results, Autoliv Romania had several Workplace Health Promotion initiatives which were successfully developed over the last 3 years.

Health promotion gained a special role this year when health education courses were organised in 2003 in order to achieve a high rate of vaccination for a vaccination campaign (for influenza) funded by the company. After the health education courses a percentage of 82% of the workforce was vaccinated, compared with less than 50% achieved one year before in 2002 when no health education courses were organised.

A prevention campaign was designed in 1998 to identify the personnel suffering from ophthalmologic disorders, after a high number of lost days due to ophthalmologic diseases had been previously observed. The entire workforce was involved and the initiative was funded by the company.

Autoliv Romania has implemented a production system (APS = Autoliv Production System) which contains a very powerful tool for collecting suggestions for improvement coming from the personnel. Accordingly this system manages the suggestions (of all kinds e.g. those regarding health, safety, personal protective equipment, general well being, security, etc.) by classifying them as accepted, in the process of being implemented, implemented and rejected, by associating them with a range of symbols displayed on several panels located all over the company premises. Therefore the entire workforce can see the status of all of the suggestions, the deadlines for those accepted, the benefits etc.

Building specially designed outdoor smoking places was a part of the general trend in Autoliv to encourage quitting smoking. Further on this year, a contest with awards will be scheduled for a 12-month project to encourage those willing to quit smoking and agreeing to be monitored.

Designing several working places was an initiative raised by several suggestions gathered through the system in place mentioned above . It involved a team composed of several foremen and process engineers and the safety engineer. The results were noticed very quickly when the lost days due to occupational disorders dropped dramatically (25%) arriving at 0.47% of the total of lost days.

Last but maybe one of the most important initiatives is the monthly Newsletter edited and printed with the financial support of the company and having as the main authors of the articles the representatives of the workforce. This year, WHP initiatives were given deservedly high coverage in several issues.

Team working a key factor for general well being

One of the most significant initiatives in Autoliv is "team building" and several activities were sponsored by the company (a 10 person life-rafting expedition on one of the rivers in Romania, trips and journey in the Carpathians etc).

Evaluating the supervisors is a common practice in Autoliv were, every year, the general manager and the heads of the departments are evaluated (as part of one of the Procedures from the APS) using a questionnaire.

Another component is the evaluation of the employees which is made once a year using an anonymous questionnaire . In addition to the specific questions, there is an open one where employees can make comments. It is worth mentioning that one of the questions inside this questionnaire refers to WHP and tries to asses the need for such activities.

Strengthening the cohesion among the management and the workforce is achieved using several methods such as workshops for team building, presentations made by the general manager (in order to give an idea to everybody about the position of Autoliv etc) etc.
Work satisfaction is another component of team building and a system of rewards for the best suggestion made was established; it is important to mention that around 55% of all the suggestions made during 2003 were accepted and implemented through to December 2003.
The so called "Open day" is organised once a year during summer and is designated a free day when everybody comes to the company together with his/her family and a party is organised.
Continuous training is another activity well established in Autoliv and a matrix designed to allocate specific courses for each position has been designed. English courses are available for everybody through in-house training but also other specific topics are targeted (communication techniques, auditing, legislation, how to make a PowerPoint presentation etc).

Environment protection starts indoors
Autoliv Romania as part of the Autoliv Group has a publicly displayed Environment Policy, which is also available on its web site and which states that each Autoliv company has to keep the environmental impact to to a minimum so no harm is done to people and local communities. In this respect, a lot has been done starting with a comprehensive Waste Management System made according to a plan and audited group internally on an annual basis.
Different approaches involved also increase the quality not only of the workplaces but also the living conditions in the company. As a result, a modern good looking and well equipped canteen was built and there are facilities offered free to the workforce.
Environment, Safety and Health at work are well implemented using procedures and work instructions regulated by the APS and producing statistics compared every year within the companies belonging the Group.

Social responsibility and community involvement
Several initiatives developed in the last few years accounted for the strong involvement of the company in the life of the community where it is located. The support for several institutions managing people with disabilities was provided continuously over the last 3 years.
Autoliv positioned itself as an attractive employer by promoting a Human Resources Policy that had social dimensions too. It is often the case that social reasons were taken into account when hiring personnel.
It is also important to mention that an international and university dimension was added to the hiring policy of the company when it received Romanian as well as foreign students for training/working courses as part of a pilot project designed to raise and involve new talents in the Autoliv activities.
Therefore the image conveyed by Autoliv not only to the local business community but also abroad established for it a well deserved place and helped it to win bids and accordingly to improve its economic status.

Results

- Absenteeism rate is 0.99 % (2003) decreasing with 10% since the last year
- Absenteeism due to work related illnesses 0.47 % for 2003 (from the total number of lost days used to calculate the absenteeism)
- Turnover of the personnel – 0.4 % for 2003 (an average of 1 person/month)
- Increase of the productivity – 10 % in 2003
- Increase of turnover – the global figure for 2003 is 30% and the figure obtained after adjusting with the inflation rate is 16%
- Increase of the independence of the company – a raise of 23% of the company assets
- High quality of the products – an average of 20 P.P.M for 2003 compared with the figure for the general industry in Romania of around 200 P.P.M.

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Case study 26: Health promotion of employees in pre-schools in Reykjavik

Organisation: **City of Reykjavik Pre-school Services (Iceland)**

Aims

- Promoting general health and well-being of employees in Reykjavik's pre-schools.
- Decreasing absenteeism and lowering labour turnover.
- Improving the work environment.
- Increasing health and general well-being.

Short description

Since 1999, the City of Reykjavik Pre-school Services has emphasised health promotion as a key issue in their human resources policy. In order to form a basis for changes in the work environment and to prepare for the health promotion project, the Administration of Occupational Safety and Health (Vinnueftirlit ríkisins) conducted an extensive survey on the health, well-being and work environment of people working in pre-schools in Reykjavik. The results of the post-evaluation indicate that goal-oriented occupational health promotion activities have positive impact on employees, workplaces and society as a whole.

Method of intervention

- Pre-evaluation (questionnaires administered)
- Ergonomic evaluation
- Adapting workplaces to employee needs (reduce noise, adjust/adapt furniture)
- Training on ergonomic techniques, lifting and handling
- Post-evaluation
- 3-year plan of expanding this WHP programme to all pre-schools in Reykjavik.

Duration of the project

A Survey and an ergonomic evaluation were made in June 2000. The second part of the project: improving of the work environment, re-furnishing and providing personnel education in ergonomic and lifting techniques took place from November 2000 to May 2001. The Department of Research and Occupational Health conducted a follow-up study to investigate the results of the programme in May 2002.

Target group/Participants

Employees in pre-schools in Reykjavík, Iceland. 16 out of 72 pre-schools were chosen to participate. Those chosen were to represent new, old, big and small pre-schools. In the pre-evaluation, out of 320 employees, 287 answered the questionnaire (90%). In the post evaluation in 2002, the response rate was 88%.

Co-operation/participants' involvement

Reykjavik pre-school services, provided funding in part.

Administration of Occupational Safety and Health provided funding and professional consultation in part of the programme.

A health promotion committee, which included directors of pre-schools and pre-school teachers, participated throughout the project.

Results

The results of the pre-evaluation and the ergonomic evaluation helped to identify employees' needs. Interventions were adapted to the results. A follow-up was conducted by the Administration of Occupational Safety and Health in May 2002 to assess the results of the health promotion programme in pre-schools and to find out whether the changes in the workplace had improved general health and well-being of the employees. The results of the post-evaluation showed that the number of employees working in a forward or bent position decreased from 71% to 45%. Also, the number of those who were kneeling down in their work decreased from 64% to 45%. Furthermore, number of complaints about pain from back, knees and ankles decreased and fewer employees visited their doctor because of back pain. Finally, the number of those who felt mentally exhausted decreased by half (from 21% to 11%). Because of the success of the pilot WHP programme, a 3-year plan is currently being carried out to extend the ergonomic evaluation and health education and action programme to all pre-schools in Reykjavik. The pre-school employee health promotion project and the project leader Agusta Gudmarsdottir on behalf of Reykjavik pre-school services received an award from the Nordic Ergonomics Society in the 2003 as an outstanding Ergonomics project that year. Also, the programme was awarded as a good example of mental health promotion in the workplace in the European Mental Health Promotion Project in the year 2003.

Case study 27: Workplace Health Promotion in a Municipal Administration

Organisation: **City of Dortmund**

Aims

- To increase job satisfaction and motivation
- To promote a positive working climate and increase productivity
- To reduce medical costs by reducing absenteeism
- To yield advantages to Dortmund's citizens

Short description

With 585.000 inhabitants Dortmund is the ninth largest city in Germany. 8.500 civil servants, employees and blue-collar workers are responsible for the tasks in the administration. So far a total of 3.957 employees from 6 departments have been involved in WHP activities which comprise work design measures elaborated in health circles and lifestyle oriented training courses as well, e.g. courses on stress management, back exercises, leadership and health or diet.

Results

The experience gained by appraisal interviews with participating employees and with involved management staff so far shows that organisational and personnel development from bottom to top, i.e. utilizing the knowledge of the work force within the framework of the applied holistic concept of WHP, is a necessity in times of administrative reform. On that account those departments who have enjoyed particular workplace health promotion coaching, have succeeded in exploiting health promoting potential and minimising health risks by improved levels of ability (advanced qualifications) and revised work sequences.
In order to guarantee sustained WHP activities, following the nurturing phase by health insurance funds and accident insurance funds, the process is subsequently integrated into quality management of the respective unit. In this way WHP is firmly anchored not only in the minds of employees and senior staff alike, but also in organisational structures.

Source

Dr. Egmont Baumann, Models of Good Practice for WHP in the Public Administration Sector (ed.Dr. Reinhold Sochert), 2002.

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