



Leonardo da Vinci – Transfer of Innovation project
Labitas – Labor et sanitas

Qualification in
SME Health & Safety management



**Basic for
the development of a country-specific
advanced training concept**

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1. Work and health protection in the participating countries

The EU guidelines (89/391/EWG) form the legal basis for the implementation of measures to improve the security and health protection of the employees and employers in the work place. The EU member states commit themselves to the protection of minimum regulations that improve working conditions and the safety and health of employees.

The treaty 187 of the ILO (*International Labour Organization*), agreed upon in 2006, determines the general principles that create a national work-protection-policy, in which the government commits itself to a continuous improvement and promotion of work protection in case of accidents, disease or death. A national policy should be developed together with social partners with the aim to, step-by-step, realize a safe and healthy work environment. This process includes the institution and continuous work protection system evolution and the

1.1 Germany

1.1.1 Nationwide organization and structure of work and health protection

In Germany, work and health protection is based on two things.

The first is the organization of a national work protection law which includes all branches for 16 federal states and the union of national trade controls or national departments for work protection. The most important duties include advising in cases of national legal regulations and in controlling compliance with them.

Important regulations are the employment protection act (in German abbreviated with ArbSchG), the law about company physicians, safety engineers, and other experts for work security (ASiG), the law protecting working time (ArbZG), the law on temporary employment (AÜG), the child labor laws (JArbSchG), equipment safety act (GSG), the law on chemical substances (ChemG), the act on genetic engineering (GenTG), as well as orders (VO) and general administrative provisions (AVV).

The other basis regulates the work and health protection through an autonomous, branch-comprehensive work protection. This is organized through professional associations (BG) and accident insurers. Important duties include advisory roles, control and prevention.

The accident insurers prepare their own regulation. Along with the prevailing legal regulations to assess and with the approval from federal and national levels, there are also the social codes SGB VII and SGB V, accident prevention regulations and general administrative provisions.

In 2008 a law was passed to modernize the accident insurer agencies which, among other things, lead to the fusion of professional associations. On the 01.01.2011 there will be only 9 professional associations. Railroad accident insurers, the national accident insurer as well as the post and Telekom accident insurer (which were previously nationalized) belong to the accident insurer agencies.

Furthermore private law in the form of an individual work protection (Civil Law Code) and collective work protection (Company and personnel law of constitution, tariff law of constitution) influence work protection.

In Germany, work and health protection is financed through obligatory contributions from the employers in a cost-splitting way. It is assumed that prevention has priority over rehabilitation and it is also estimated as more economical. The trade control is financed through tax money.

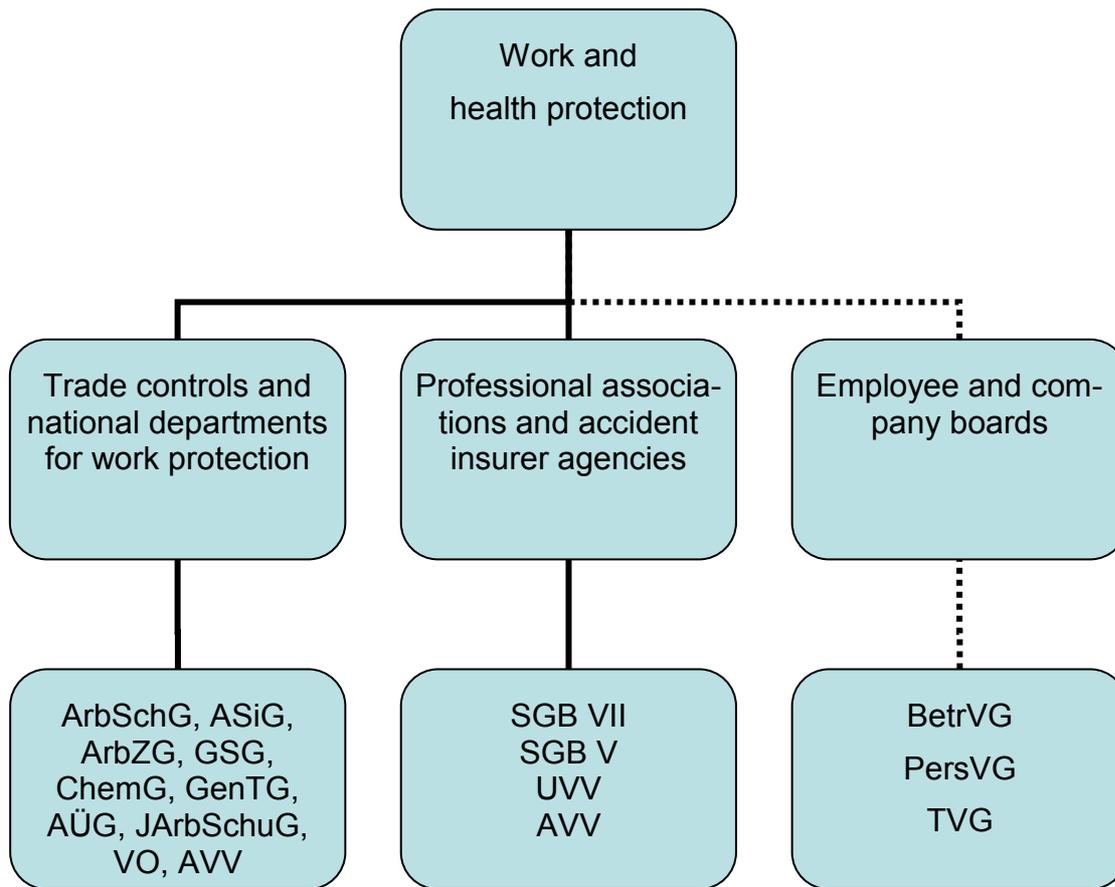


Fig. 1: Work protection in Germany

1.1.2 Relevant country specific initiative appraisal

The joint German Work Protection Strategy between the federal government, the federal states, and the accident insurer agencies is derived from the work protection goals 2008-2012 Areas and Work Program. These include:

- Decrease the frequency and difficulty of work accidents in the areas of construction, temp work, driving and transportation, school. To reach this goal, measures should be included that decrease the psychological strain and advocate the systematic realization of work protection in businesses. .
- Decrease the strain on muscle-bone and diseases in the areas of care, office, production work places in the nutrition industry and in the area of fine mechanical construction, in restaurants and hotels, the promotion of personnel in public transportation. Small and middle businesses are the focus. Also the ergonomical and age-based formation of work, psychological strain and the avocation of a systematic realization of work protection in business should be taken into account.
- Decrease the frequency and difficulty of skin diseases in the areas involving wet work and work with skin irritating substances. The substitution of substances should especially be taken into account.

For the current project the goals and information about the project plan for construction are very important. The accident percentage in the construction field for 2007, with 66.60 certifiable work accidents per 1000 full-time employees for 2007, was still twice as high in comparison to the rest of the economy (26.81 accidents per 1000 full-time employees). Emphasis on the event of an accident are, among other things, working with frames and demolition and

deconstruction work. Reducing accident numbers is the core goal of the work program for construction work, which is to be fulfilled by:

- Improvement of the systematic realization of work protection
- Planned and coordinated work plans in construction
- Increase safety awareness.

Reasons for accidents are, for example

- High risk potential based on type of work (ex: working up high, heavy construction material, tight spaces, dangerous substances)
- Non-stationary temporary work
- Weather influenced
- Pressure to meet deadlines ex: bad project and action planning or contractual guidelines
- No or insufficient coordination, communication, and cooperation
- Determining requirements for work and work protection through external planners and constructors without modifying to fit the actual action.

Consequences of the accident are:

- High costs for the branches invested in the construction;
- Strain on the social security system, human suffering;
- Increased personnel, earlier retirement, people change their jobs more, problems recruiting and holding employees.¹

The following initiatives have already begun or are already finished in small businesses with less than 10 employees in the areas of construction and construction related companies dealing with the topic work and health safety:

Project: Healthy and safe in small businesses - GUSIK

Basis for the implementation for the required measures of company work protection are on the one hand determined in the employment protection act and the industrial safety act. On the other hand the accident insurer agencies are legal required to reduce or avoid accidents, work-related diseases and work-related health risks.

In 2005 the professional association regulations in the BGV A2 “Company physicians and experts for work protection” was reformulated. The goal was to make the company physician and security expert guidance more practical.

The important introduction for companies with up to 10 employees exists in the extent of the guidance, which is definable through the implementation of the basic guidance, the special-purpose guidance and the possibility of combinations. Furthermore the binding minimum application times for company physicians and experts for work security are omitted and replaced with branch-based regulation values (see BGV A2 attachment 1).

To support the employer in fulfilling their legal obligations, the ministry for employment and social (BMAS) advocates initiatives, in which praxis oriented, simplified, and improved concepts of company physician and expert guidance is developed and tested.

In a 3 year project, “healthy and safe in small businesses” (GUSIK) was developed to the ideal model for the implementation of the BGV A2 branch-based business model. This was

¹ Source: http://www.gda-portal.de/cin_134/gdaportal/de/Arbeitsprogramme/Bau-Montage.html, accessed on 01-Jan-2011

built out of many small businesses in the branches metal and stonework business pools, which was advised in cooperation with company physician and experts for work safety.

These tested operation supports were implemented in new unions and regions. The first pools, in the trades metal, carpentry, and the home automation area.²

Project: Work security and health protection – sustainable – simple – secure (AGnes)

AGnes offers small businesses regulations and instruments for the company practical implementation of the BGV A2. The new BGV A2 “company physician and experts for work security” has been in effect since February 1, 2005, changes were added 01.01.2011. Simultaneously the accident prevention regulation “experts for work security” (BGV A6) and the “company physicians” (BGV A7) were no longer in effect. The legal basis for guidance remains in the words of the Occupational Safety Legislation and the Labor Protection Act.

A company with up to 10 employees must fulfill the requirements of the regulation support. The regulation support for small business is based on two things: basic support and special-circumstance support. The business must employ external experts for his, if they do not have sufficient expertise within their own business.

The Agnes project derives directly from three model intentions from the research emphasis 2005 from the model program to fight work related diseases, promoted by the federal ministry for work and social (BMAS) and expert accompanied through the Federal Agency for work protection and work medicine (BAuA). The three projects Amadeus, basic-net, and GUSIK the exemplary solutions for the regulation support in small businesses was developed and successfully tested in companies. Approximately 250 small businesses participated in the three projects as practice partners.

These three projects have now combined to form the project collective Agnes. Their goal is to distribute practiced action concepts on company physician and expert support in small businesses and also to continuously monitor their use. These goals directly correlate to INQA goals. The INQA strives to combine healthy and health promotional work conditions for employees with economic interests. Agnes implements these for small businesses. There is a strong connection to the thematic initiative circle (TIK) “INQA – small and medium sized business”. Small businesses fall into the TIK small and medium businesses rubric, however this group lacks tailored instruments for healthy and safe work, which are accepted in small businesses.³

1.1.3 Work protection in small businesses

Regulation support in businesses with up to 10 full-time employees incorporates a written hazard assessment in which businesses determine the potential health risks, determine measures that will help, and with the help of a company physician or expert, implement them. This hazard assessment is to be updated every five years, in special cases such as new or reconstructions, changes in the company plans, etc.

Alternatively companies with up to 50 employees can choose a case-oriented support. In certain branches, e.g. in care, and in certain regions, businesses can be educated further. After a basic qualification consisting of 6 sessions of 45 minutes, they can take over the support by themselves, educate themselves further and can consult a company physician or expert when there is an important change in the company.

² Source: <http://www.gusik.info>, accessed on 01-Jan-2011

³ Source: <http://www.ag-nes.de>, accessed on 01-Jan-2011

1.1.4 Implementation of work protection and health promotion in trade companies: a problem outline

When looking at the whole economy, small trade employs around 4.8 Million people, and 90% of the companies have less than 20 employees. Small trade trains almost a third of all apprentices and has an annual turnover of more than 490 Billion Euro.

Comparatively little attention receives the ergonomic research in small trade. The preventive creation of safe, healthy and environmentally-friendly working conditions in a company is a big challenge.

Although there is no founded information about levels of endangerment, risk of disease and accident frequency, key data still can be calculated from the Deutsche Gesetzliche Unfallversicherung (DGUV) statistics.

If you compare for example the accident quotas from companies with more than 1000 employees and the companies with less than 50 employees, you notice a 50% higher rate of reportable accidents in small businesses. For serious accidents, including those, which lead to acquisition of an accident benefit, the difference is even greater. The quota is twice as high.

In companies with up to 9 employees the difference in reportable accidents is similar. For serious accidents the quota is 2.7 times higher.⁴

For the more than 960,000 craftsman's establishments, which on average have 5 employees, regarding the approximated quarter higher risk you can calculate the following:

- The average level of endangerment is about 39 reportable work accidents for every 1000 full-time employees, which means,
 - That the risk of having an accident is twice as high for small trade employees than it is for manufacturing and trade employees,
 - That in an average sized small trade company a reportable accident happens every 5 years,
 - And that every year one employee out of approx. 160 companies has an heavy accident.
- In comparison to the employees in all the companies in Germany the possibility of having a serious accident is 2.5 times higher.

It is much more difficult to draw a conclusion about the situation of health promotion in small trade companies.

Several pilot projects developed and tested small trade health promotion concepts.

Health insurance agencies, here especially the health insurance of guilds, offer many services for behavioral preventive measures (e.g. back exercises, nutritional advice etc.)

In order to include these measures in the creation of a safe and healthy work place, particularly company internal health circles are offered.

The access to companies as well as raising awareness and motivating of employers and employees for internal health promotion is still difficult. Personal speeches to employers at assemblies have proven to be positive. But there is no founded information about the realization and outcome of the health promotion. Studies, random investigations in small companies⁵ as well as experiences reveal that in the majority of small trade companies awareness

⁴ In German Statutory Accident Insurance (Ed.): GSAI statistics in practice 2007, Berlin 2008, p. 17

⁵ E.g. project "UbeG - Unternehmensgewinn durch betriebliche Gesundheitspolitik" (corporate profits by operational health policy"

of the problem is starting to grow, even among the background of demographic change. The major deficits and difficulties when implementing efficient work protection and efficient health promotion in small trade companies are:⁶

- The pressure and hazard potential in many small trade companies is above average high because of a wide field of activities
- Especially small companies have little knowledge about required creation and regulations or specific competences.
- Many responsible parties in small trade companies feel overstrained by the extensive and complex rules and regulations of work protection
- Generally being aware of the problem in small companies is below average developed. The high strain and higher-than-average accident risks are noticed provisionally because accidents happen rarely, work-related diseases are seldom seen as consequences as bad working conditions, and the contact with greater strain is thought to be normal
- Smaller small trade companies do not care about the phrase „effective work protection sinks the number of accidents and work-related absences“
- A courageously realization faces having not enough time or financial resources, emotional reservations of the proprietors due to the number of rules of work protection as well as the overload from the above-drawn “Bottleneck-effect”. A number of the proprietors take a more waiting stance and acts only when accidents occur or external pressure from agencies, insurance agencies and customers force them to.
- Many small trade companies do not implement work protection measures. Calculating on random investigations based on expert assessments (e.g. the national work protection administration in NRW⁷) the following becomes clear:
 - Less than half of the small trade companies can prove a documented hazard assessment.
 - Less than a third of these companies can prove initial and regular restrictions.
 - Interaction with the hazardous material is – mostly out of ignorance – careless. Current company regulations are missing and only a few small trade companies have a sufficient organization of work protection (delegation of duties, regulation of safety-related and company physician support/ employer model, first-aid training, regulation of medical prevention, planning safety-related checkups etc.)

The situation in small companies, which chose a safety-related and company physician support is not much better. Many small trade employers see the legally imposed guidance from expert service as obligatory and as a “costs causing compulsory guidance”. The misinterpretation is more deeply anchored because many services are probably not able to convince small trade of the usefulness of their support. Even while choosing the services companies concentrate on the costs. Normally the safety experts on duty expose weak spots, create necessary documents or suggest the importance of their creation and they run standard regulations. Normally they are not able to ignite any excitement for realization of work protection-and many do not account it as their job. For that reason in practice you don't really see interest coming from the company, there are reservations about security expert given preventive measures as well as experts, who maintain, that they just advise.

⁶ Ritter, A. and Schulte, A.: Work protection management in trades? In: Die BG, 121(2009) 5, p. 252

⁷ Information from ZDH (German Confederation of Skilled Crafts) 2008 (see www.zdh.de → Daten und Fakten)

In the sense of an initial conclusive evaluation the following insights can be derived from testing the NOAH-concept⁸:

- An effective preventive work and health protection is realizable.
- The current interpretation of work and health protection in small trade is counterproductive to an efficient implementation .A positive example of a small trade suitable work and health protection, which also includes the company, is necessary.
- TO promote work protection and health promotion in small trade, the personal speech with the employer is necessary. Brochures, articles in small trade newspapers, internet presentations, etc. have a limited efficiency. The predestined transfer partners are the small trade organizations, especially their company advisors.
- Key actors for an efficient implementation of an extensive work and health protection are the employers. Many have a latent positive attitude which only needs to be freed and supported. Important in doing so is the personal speech to the employers (language of small trade).
- The aspect of personal use is influenced by actively initiating one's self and by employers and employees, which is why the use should be experiencable and realizable.
- A small trade suitable organization of work and health protection must be manageable, systematic, and integrable in company processes.
- An efficient implementation can be both the internal „caretaker“ or the external support.
- Especially in work protection, the classical tools, such as the hazard assessment are more expert oriented. This is why workers have difficulty using them without expert instructions. IT makes small trade suitable tools, such as construction-based hazard assessment, necessary.
- The Arbeitsbewältigungs-Coaching® has not only proven itself as a suitable method to initiate individual and company measures, but also as a model for investigating organizational hazards and psychological strain. The Arbeitsbewältigungs-Coaching® is a tested tool for assessing hazards.
- The managers (masters, service engineers, construction leaders, etc.) must be shown their responsibilities and duties in preventive work and health protection as well as the necessity of their positive role model function.
- Innovative small trade suitable support concepts are necessary for external support. The following concepts have proven successful:
 - A cooperation between work and health services with many small trade companies (network structure),
 - Guidance in a combination of on site guidance, company workshops, and telephone support, and
 - An organization and placement through a small trade organisation.
- Necessary for an efficient small trade suitable guidance is small trade related knowledge, abilities, and the speaking and understanding of the „language of small trade“.

⁸ Schulte, Achim and Dr. Ritter, Albert in: Institut für Technik der Betriebsführung (Management Technique Institute) (Ed.): Innovation and Prevention, Munich, Mering 2009

1.2 Austria

1.2.1 Nationwide organization and structure of work protection

The organization of work protection in Austria is comparable to that in Germany. 19 work inspectorates as well as country and forest inspection of the federal states are in charge of the duties of support and control.

Furthermore the social security agencies advise on work protection and instigate preventive work.

The most important legal regulations are the employment protection legislation (ASchG) and the accompanying directives, the work protection, child and youth labor legislation, work break times law, and the legislation on night shifts, the construction coordination legislation and the accompanying construction workers protection directive.

To finance the accident insurance, monthly contributions of about 1.3% of the income tax are taken from the employees.

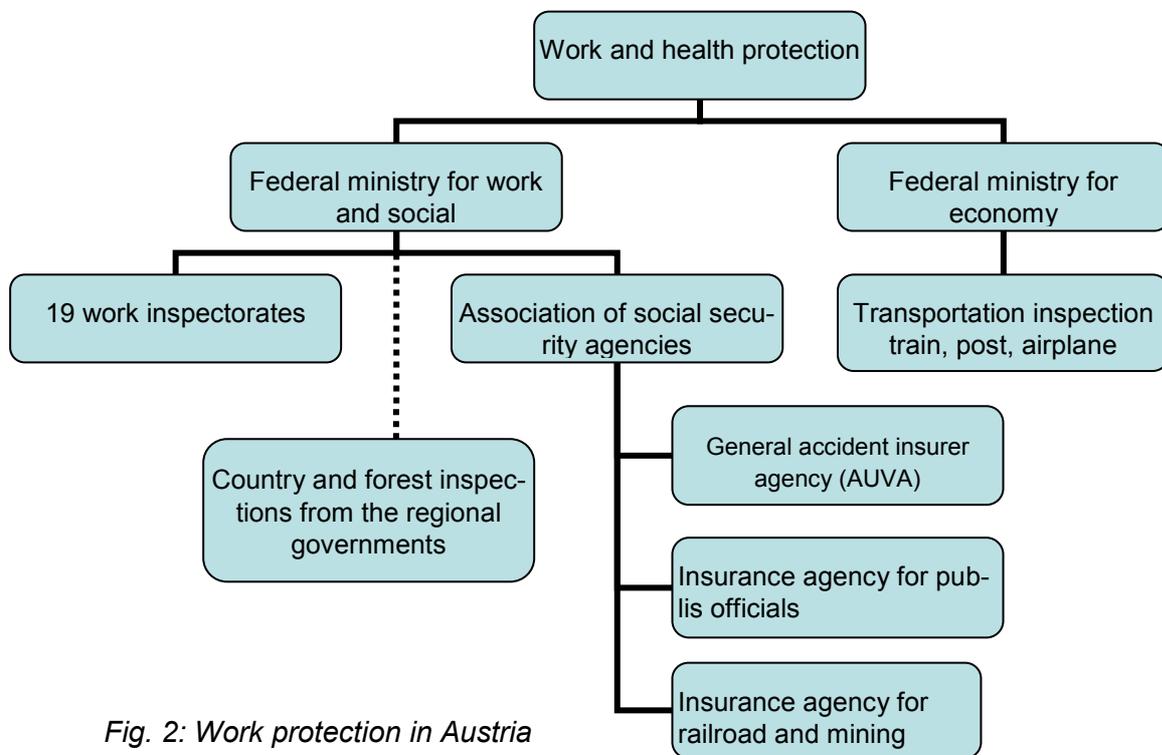


Fig. 2: Work protection in Austria

1.2.2 Bestandsaufnahme relevanter länderspezifischer Initiativen

The work protection strategy 2007-2012 was formulated as a joint cooperation between national ministers, social partners, lobbyists, and accident insurance agencies. The participation of all for the employee-protection concerned institutions is realized through the triangle – employee protection advisory board, committee of experts, and work groups. The committee of experts compiles suggestions for topics and structure of implementation, and delivers them to the employee protection advisory board. Based on these suggestions, the employee protection advisory board set up five work groups which set up projects based on these five topics:

- Hazard awareness and hazard assessment (evaluation)
- Preventing accidents (here SME in accident-prone areas such as construction, forestry, wood, and metal, are meant)
- Preventing work-related diseases and work illnesses.

- Training and further education as well as information about work protection, improving the prevention experts' duties
- Strengthening the awareness of safety and health at work (here the integration of employees protection in schools is meant)

The following initiatives in small businesses with less than 10 employees in the area of construction and construction-related fields have already begun or finished:⁹

Project: Good Practice – Manual hand operation

Good Practices are more or less successful creation, implementation, solution or approaches following the legally given recognized standards. The example "Good Practice – manual hand operation" it can be seen that by decreasing high strain following heavy work/manual hand operation a little more than 10% of the absences due to musculoskeletal disorders are potentially avoidable.

About 20.7% of all sick days are due to musculoskeletal diseases and 38% of them are work-related. This almost 8% section of work-related absences due to musculoskeletal disorder causes direct economic costs (sick leave) of up to 200 million €.

A study on work-related diseases from 2008 shows another estimation of economic costs related to physical strain. This was done by the Austrian Institute for Economic Research on behalf of the Vienna Chamber of Employees.

Project: Good Practice – Manual hand operation in construction

The contribution „good practice – manual hand operation in construction“ demonstrates reality-tested solutions from companies through which manual hand operation and thereby the absences and costs (company, health, pension) can be noticeably reduced.

1.2.3 Work protection in small companies

The employee protection act considers work medical and safety support for all employees as independent from company size. Accident insurance agencies are required to take over the support for small businesses. The AUVA set up this task in their national and international prevention centers.

In places of work with up to 50 AN, the AUVA offers support services for free. They consist of an annual company inspection by a company physician and a security expert. In companies with less than 10 employees, the company inspection happens every two years.

According to the company model, the employers in Austria can take over the role of security expert themselves if they are trained security experts and employ up to 50 people. They can also take over the role if the company has up to 25 employees and the employer has sufficient knowledge in the field of security and health protection. This knowledge must be proven in courses and further education in an apprentice institute for security experts. It is legally impossible to transfer the responsibility to preventive experts.

1.2.4 Implementing work protection and health promotion in business and craftsman's establishments: a problem outline

92 % of the companies in Austria have less than 20 employees and employ more than 90% of the working population in Austria.

In general the awareness for security and health protection in companies has become positive since the introduction of the employee protection law in 1995. The small and medium

⁹ Source: <http://www.arbeitsinspektion.gv.at/AI/Arbeitsschutz/GoodPractice/default.htm>, accessed on 06-Jan-2011

business had warmed up to the idea of a comprehensive employee protection law by the beginning of the century, through the gradual introduction of preventive service care, depending on the number of employees. This regards especially the small trade companies, which are essentially the first in this group. At the moment, the coverage of free preventive service support through general accident insurance in about 55% of the companies with less than 10 employees. Because these companies can organize private offers in rare cases, a higher number of unsupervised companies can be assumed. Such companies must fulfill the Austrian Chamber of Commerce and craft guilds required work-related documents and attend the required training programs and hazard assessments regarding the fulfillment of the legally requirements. A statement cannot be reached about the value of the employee protection in these companies.

The qualification of security trust persons (SVP) by accident insurance agencies from economic promotion or from free agents is successful. The motivation of the SVPs for company prevention work does not last in the long-term. This could be due to the deficient integration of the SVP in the company work protection committee or to the unclear role of the trust person in the company.

The engagement of employers, who work in the company, is assessed as very differently. On the one hand, they can see and feel deficiencies and holes in work protection, so solutions for these problems are more personal. On the other hand, there is the experience that managers overlook the problems due to deadlines, are unwilling to invest the time and money into a more sound work protection.

The scheduled minimum support time in companies by the work medical service and the security expert are seen as too short in the field of small trade. Experience shows that the seeds of employee protection awareness have been planted in many supported companies, and now the time has come to inspire and implement a deeper awareness of employee protection from a pure security aspect.

A good solution could be the union of many small companies. A union could be positive for the occupational careers of the older employees, who could for example take care of the younger trainees from many companies. Cooperation could also be positive if many small companies could, together, be able to take on larger contracts.¹⁰

1.3 Ireland

1.3.1 Nationwide organisation and work protection structure

The Health and Safety Authority (HSA) is the department in Ireland responsible for the implementation of work security and health promotion as well as for the promotion and stabilization of accident prevention regulations.

It was established in the year 2005 with the law on „Safety, Health and Welfare at Work“ and reports to the Ministry for Enterprise, Trade and Innovation.

The HSA is divided into four departments: Prevention, Chemicals, Compliance, and Corporate Services. They inform and advise, train, research and oversee the fulfillment of legal requirements and is financed by taxes.

Aside from the below-mentioned laws, the following cooperations and initiatives are of great importance for work security and health promotion:

- Participation in the Construction Safety Partnership (CSP)

¹⁰ Interviews with Austrian ergonomics scientists on 11-Nov-2012 in Vienna: Dr. Kaspar Vogel and Dr. Ing. Martin Zak (www.artofwork.at), Dr. Heinrich Geissler (www.bf-geissler.com)

- Safety Management Pack 20 Program (SMP20 - Initiative of the Construction Safety Partnership on the topic of work and health protection for small companies in construction – for more information see 1.3.2.)
- Company inspections by security inspectors (for more information see 1.3.3.)
- Simple Safety Approaches (Initiative for small businesses with less than 10 employees – for more information see 1.3.2.)
- Taking Care of Business (an initiative especially for small businesses in general – for more information see 1.3.2.)
- BeSMART (Online tool to assess risk - more information see 1.3.2.)

It is important to note the according to HSA small businesses are businesses with less than 50 employees. The SMP20 is conversely special for businesses in construction with less than 20 employees.

Important Acts and Regulations are:

- Safety, Health and Welfare at Work - 2005 with the following assigned acts:
 - General Application Regulations - 2007
 - Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Regulations 2006)
 - Safety Health and Welfare at Work (construction Regulations 2006)
 - Exposure to Asbestos – SI 589-2010
 - Construction – 2010
 - Construction (Amendment) Regulations 2010
 - Repeals and Commencement – SI 300-2007
- Chemicals Acts - 2008 and 2010
- Carriage of Dangerous Goods by Road – 1998
- Organisation of Working Time - 1997
- Safety Health and Welfare – Offshore Installations
- Safety in Industry - 1980
- Dangerous Substances – 1979 and 1972
- Mines and Quarries - 1965
- Factories Act - 1955
- Boiler Explosions – 1890 and 1882

Further regulations:

- Safety, Health and Welfare at Work – 1989
- European Communities Act - 1972

The „Guide to the Safety, Health and Welfare at Work Act 2005“, the „Guidelines on Procurement, Design and Management Requirements of the Safety Health and Welfare at Work (Construction) Regulations 2006“ support the companies in the implementation.

1.3.2 Relevant country specific initiative appraisal

For the field of construction and construction-related companies, the Irish Ministry of Labour is supporting an initiative which aims to reduce the unacceptably high number of accidents and deaths at construction sites. Work at construction sites in Ireland has the highest risk,

and annually an average of 1000 employees injure themselves; in 2010 there were 6 deaths at Irish construction sites. According to Dermot Carey from the Construction Industry Federation (CIF) small business in the construction sector portray the problem as part of the work and health protection area. This is why the CIF specifically designed the SMP20 Program for small business with less than 20 employees in the area of construction. According to Carey the project has so far been successful, but still needs to be implemented further on the market.¹¹

A committee of employers, unions, professional associations, and government authorities approved the program „Construction Safety Partnership“ (CSP) in 1955. The goal was to continuously improve health and security on all levels inside the Irish construction industry. The last measure plan was created in June 2008.

The following organisations are involved in the program:

- Health&Safety Authority (see 1.3.1.)
- Construction Industry Federation
- Irish Congress of Trade Unions
- Department of Enterprise, Trade and Innovation
- Department of Finance
- Foras Aiseanna Saothair
- Engineers Ireland
- RIAI
- Society of chartered surveyors Ireland

The program reports the following initiatives:

- Mediate the importance of health and security in the work place especially in small business with up to 20 employees
- Provision of benchmark tools
- Identifying current trends in the sector and development from joint information and advertisement material
- Sinking the high accident percentage of non-Irish employees
- Maintenance and continuous improvement of core efforts of the „Construction Safety Partnership“ (explanations of the core efforts in the next point)

The program „SMP 20“, developed for small business in construction with less than 20 employees, has proven to be an important medium in the support of the Health & Safety Authority. It has brought about by the CSP with the goal of supporting small businesses with the introduction and implementation of effective work protection management. In this concept, the duties and responsibilities of the company management, taken from the „Safety, Health and Welfare at Work Act“ were created comprehensively and practically. The SMP20 is so devised that small businesses fulfill all of the relevant work and health protection regulations when they implement the SMP20 contents.

For the year 2011, the CSP, according to the CIF (Dermot Carey), among other things, has set the goal of strengthening work and health protection in small businesses. The development of the Safe T-Cert for small businesses raises the incentives for business to visually distinguish themselves from other companies that have not fulfilled are not certified. It is

¹¹ Interview of the German-Irish Chamber of Industry and Commerce Dublin with Dermot Carey (CIF) on 09-Feb-2011.

based on the knowledge that the ISO 18000 for small businesses is not suitable for small businesses.

The following initiatives also support the work of the Health & Safety Authority (and are in regard to the small businesses in the construction sector):

- **Taking Care of Business:** This initiative teaches small businesses with up to 10 employees the importance of health and work security in the work place in order to reduce the frequency of accidents and health damage and to support the work force in their engagement of company success.
- **Free Online Risk Assessment & Safety Tool (BeSMART):** free, easy-to-use online tool for the risk assessment and creation of security statements. Since February 2011, the feedback has been showing the registered users that almost 90% time and costs can be saved in the risk assessment and a considerable improvement in the elaboration of security statements is achieved.
- **Simple Safety Approach:** many practical tools (e.g. leaflets and briefings) that improve health protection and security in the work place (retail, food, drinks) of small businesses with less than 10 employees.

1.3.3 Work protection in small businesses

The HSA conducts about 16,000 inspections annually with the focus of prevention. The goals are:

- ascertain the fulfillment of the legally required regulations,
- assess significant risks,
- lead employers, support them in the identification of strengths and weakness in their work protection, and illuminate good and bad practices,
- advise the crew in areas of health and security protections,
- strengthen the awareness for security in the work place.

During an inspection the HAS inspector attempts to deal with the manager of the company to whom they can give the overview of the inspection. They will insist upon meeting the company's security and health manager or the security expert (if such a post exists). After the official introduction of the inspector, then the security and health documents regarding the security and health plans are examined. Then there is a random inspection of individual work places, in order to uncover possible risks.

In the end there is a meeting with the manager who receives an oral or written report of the results of the inspection. In some situations the manager must explain the existence of security risks or show the instructions for the workers. In this meeting, the inspector also tests the manager's general knowledge about legal regulations in regard to the „Safety, Health and Welfare at Work 2005“, as well as the degree on of implementation in the company.

In small businesses with less than 50 employees, a weekly inspection by internal security and health managers of about an hour is scheduled. In medium companies the length of such an inspection is an hour, but the company is randomly inspected. In large companies the inspection is two hours, concerns random departments and locations.

The qualification in the area of safety awareness is legally required for every construction worker, trainee, craftsman, security personnel, and deliverer for construction sites. There is no pool-support like the German NOAH project for the companies.

All people working in the Irish construction branch as well as small trade must carry around a Safe Pass as obligatory identification (implemented by the CSP). In order to obtain a Safe Pass, the individual must attend a day-long seminar and the costs are covered by the com-

pany. Additionally the craftsmen and construction workers must prove that they have ascertained a certain level of education regarding the use of specific machines and vehicles.

These seminars can be proven by the Construction Skills Certification Scheme (CSCS) Training Card der Foras Áiseanna Saothair (FAS), the FETAC (Further Education and Training Awards Council) or by one of the FAS authorized institutes. Obtaining this training card can, depending on the topic, last between one day and three months.

Companies with less than 10 employees must orient themselves according to the SMP 20 regulations, which all companies with less than 20 employees must fulfill (for further information see 1.3.2). For them there are no further regulations.

Furthermore, a safety representative, chosen by the crew, should be stationed in every company. The safety representatives are able, to advise and inform the employees about security, health, and well-being, especially in situations involving renewals or changes, such as new technologies, changed work organization, or safety plan designs. The safety representatives also accompany them on inspections and inquisitions. The safety representatives can inspect the entire work place, especially in cases of accidents or hazards threatening the health and security of the employees. The frequency of inspections is approved of in a time table with the managers. The HAS suggest using safety representatives for about three years, with annual reviews for management and employees.

The safety representatives are organized and trained by the unions and other organizations.¹²

There is a possibility in the companies of assembling a safety committee in order to support the safety representatives. At least three employees must be represented in the committee, in order to deter that this offer not be used by small businesses.

A specialty is the formality of electing a site safety representative in the construction sector. In case a result is not reached, the project supervisor for the construction stage nominates the representatives.

The occupational health care is taken care of through the Construction Workers Health Trust. Each construction worker pays an obligatory fee of 1€ per week through their pension dues to a trust. In return, the trust organizes health checks at construction sites. Due to the construction crisis, the checks occur less at individual construction sites and more for weekly visits at central regional points with mobile vehicles

1.3.4 Implementing work protection and health promotion in business and craftsman's establishments: a problem outline

Over 95% of Irish companies are considered „small“ by the HSA (with up to 50 employees). There are more than 200,000 small businesses with a total of 750,000 employees (of which there are 150,000 in construction). It is not a surprise that the HAS sees these companies as the backbone of the Irish economy.

The Health and Safety Authority filtered out the needs of the small companies in comprehensive studies:

-
- Higher awareness for a comprehensive work protection.
- The publication of easily understandable brochures and information
- Training and advise
- Suitable, implementable approaches

¹² Detailed information about *Safety Reps* on <http://www.tuc.org.uk/workplace/index.cfm?mins=167&minors=124&majorsubjectid=2>

- Fewer labour laws
- Sector-specific risk statements
- Free support with personal contact
- Reliable partners
- Practical aid
- Implemented an improved „step-by-step“
- Regulating suggestions

The Safety Management Pack (SMP 20) for construction companies with up to 20 employees aims to make companies able to do the following:

- Recognize their responsibilities and competences
- Implement work protection gradually and comprehensively
- Examine the necessary insurance
- Authenticate the obligatory training of the employees (Safe Pass, CSCS Card)
- Examine and maintain tools, machines, and vehicles
- Be able to handle hazardous substances
- Take care of the necessary environment for the well-being of the employees (e.g. kitchens, washrooms, toilets)
- Be able to conduct reports on accidents and injuries
- Document the work protection measures.

According to Dermot Carey (Construction Industry Federation), the SMP 20 has been positively accepted by small businesses. The CIP is planning an award giving ceremony for small businesses that implemented especially innovative and successful work and health protection measures.

On the side of the unions, the safety representatives were questioned about their assignments and the manager support. 65% of the questioned reported that the employers reacted to the raised problems. Only a minority complained that nothing was undertaken or even responded to. Furthermore, it was reported that 27% of the safety representatives consulted regularly with the employers; 24% said that employers wouldn't act of their own accord. Another survey showed that almost 46% of the employers integrated the safety representatives in their risk management.¹³

From a conversation with Dermot Carey from the Construction Industry Federation, showed the following problems that small companies in the construction industry face:

- Businesses see work and health protection as „paper-heavy“.
- Prevention is not really a motivating factor.
- Improving efficiency is not directly viewable.

¹³ Source: <http://www.tuc.org.uk/extras/safetyrepscharter.pdf>, accessed on 09-Jan-2011

2. Evaluation and review

2.1 Survey of laws, directives and regulations regarding the implementation of work protection measurements

	Germany	Ireland	Austria
EU framework directive	89/391/EWG	89/391/EWG	89/391/EWG
Work protection laws	<p>Arbeitsschutzgesetz (German Occupational Safety and Health Act)</p> <p>Gesetz über Betriebsärzte, Sicherheitsingenieure und andere Fachkräfte für Arbeitssicherheit (Company Medical Officers, Safety Engineers and Other Occupational Health and Safety Specialists Act)</p> <p>Arbeitszeitrechtgesetz (Working Time Act)</p> <p>Arbeitnehmerüberlassungsgesetz (German Law on Labour Leasing)</p> <p>Jugendarbeitsschutzgesetz (Youth Employment Protection Act)</p> <p>Gerätesicherheitsgesetz (German Equipment Safety Act)</p> <p>Chemikaliengesetz (Chemicals Act)</p> <p>Gentechnikgesetz (Act on Genetic Engineering)</p> <p>Legal orders</p> <p>General Administrative Provisions</p>	<p>Safety, Health and Welfare at Work – 2005:</p> <p>Procurement, Design and Management Requirements of the Safety, Health and Welfare at Work (Construction)</p> <p>General Application Regulations – 2007</p> <p>Exposure to Asbestos – SI 589-200</p> <p>Construction – 2010</p> <p>Construction (Amendment) Regulations 2010</p> <p>Repeals and Commencement – SI 300- 2007</p> <p>Chemicals Acts – 2008 – 2010</p> <p>Carriage of Dangerous Goods by Road – 1998</p> <p>Organisation of Working – 1997 Time</p> <p>Safety, Health and Welfare – Offshore Installations</p> <p>Factories Act - 1995</p> <p>Boiler Explosions – 1890 and 1882</p>	<p>ArbeitnehmerInnen-schutzgesetz (Austrian Occupational Safety and Health Act)</p> <p>und associated legal orders</p> <p>Arbeitszeitgesetz (Working Time Act)</p> <p>Kinder- und Jugendlichenbeschäftigungsgesetz (Children and Youth Employment Act)</p> <p>Arbeitsruhegesetz (Work Break Act)</p> <p>Nachtarbeitgesetz (Night Employment Act)</p>
Relevant orders and directives for the construction industry	<p>Arbeitsstättenverordnung (German Regulations on Workplaces)</p> <p>Arbeitsstättenrichtlinie (German Directives on Workplaces)</p> <p>Baustellenverordnung (Construction Site Ordinance)</p> <p>Betriebssicherheitsverordnung</p>	<p>Construction 2010</p> <p>Construction Amendment</p> <p>Personal Protective Equipment (PPE) Use</p>	<p>Bauarbeitenkoordinationsgesetz (Act On Construction Work Coordination)</p> <p>Bauarbeiterschutz-Verordnung (Construction Worker Protection Ordinance)</p>

	<p>(Occupational Safety Ordinance)</p> <p>BG-Regeln und Informationen (Employer's Liability Insurance Association regulations and informations)</p> <p>BG-Vorschriften: BGV A1, A2 (Employer's Liability Insurance Association directives)</p> <p>Gefahrstoffverordnung (Ordinance on Hazardous Substances)</p> <p>PSA-Benutzungsverordnung (PPE Personal Protective Equipment Use Ordinance)</p>		
<p>Regulations for the implementation of Health & Safety in small enterprise with < 10 employees</p>	<p>BGV A1 (Employer's Liability Insurance Association Directive)</p> <p>DGUV 2 (German Statutory Accident Insurance Directive)</p> <p>Regular support service – e.g. pool mentoring – without periodic involvement of medical officers or health & safety officers (basic support and event-driven support)</p> <p>or</p> <p>Employer model = alternative support through medical officers and health & safety officers depending on requirements (event-driven support, tailored support, information and motivation measurements)</p> <p>1 first-aider from 2 persons employed</p>	<p>Orientation according the regulations for enterprises with 20 or less employees</p> <p>HAS recommendations</p> <p>HSA site inspections</p> <p>Annual reviews generating a <i>Safety Plan</i></p> <p>Medical health care free of charge by the Construction Workers Health Trust</p>	<p>Free of charge support by the Austrian Statutory Accident Insurance (AUVA)</p> <p>1 site inspection in a 2 years period</p> <p>Employer model:</p> <p>Employers take over health & safety officers tasks if they have the qualification and if their company has a maximum of 50 employees</p> <p>or</p> <p>Employers can take over health & safety officers tasks if they have verified sufficient knowledge about health & safety an a maximum of 25 employees</p>

2.2 Health & Safety specialists and qualification providers

	Germany	Ireland	Austria
Health & safety specialists and <u>qualification providers</u>	Qualified Employers (Health & Safety officers or qualification according the employer model) <u>Employer's Liability Insurance Associations</u> <u>Statutory Accident Insurance</u>	Employers <u>FAS, CIF</u> <u>CSP</u>	Employers <u>AUVA</u>
		Employees (especially construction workers) <u>FAS (Safe Pass)</u> <u>FETAC (Construction Skills Certification Scheme)</u>	
	Safety committee (not compulsory)	Safety Committee (nicht verpflichtend)	Safety committee (not compulsory)
	Occupational medical service	Occupational medical service of the Construction Workers Health Trusts	Occupational medical service <u>Labour Inspectorates, Chambers</u>
	Health & Safety Officer Employer's Liability Insurance Association	Safety Manager	Health & Safety Officer <u>Educational facility for Health & Safety Officers</u>
	Safety representatives in companies with more than 20 employees <u>Employer's Liability Insurance Associations</u> <u>Statutory Accident Insurance</u> <u>Labour unions</u>	Safety representatives in companies with more than 20 employees <u>Trade Unions</u> <u>Other organizations</u>	Safety representatives in companies with more than 20 employees
	Health and quality circles as company boards covered by employees and external specialists <u>Health insurances</u>		
	First-aid staff <u>Workers' Samaritan Federation Germany, German Red Cross, Order of St. John medical help organization, Order of Malta help organization</u>		

2.3 Country-specific initiatives

Germany	Ireland	Austria
<p>Joint German Strategy in Work Protection (GDA) 2008-2012 with spheres of activity in:</p> <p>Reduction of frequency and severity of work accidents (e.g. construction and assembly)</p> <p>Reduction of musculoskeletal disorders and stress (e.g. by ergonomic and age-based design of work environment, psychological stress reduction, promotion of a systematic perception of health & safety issues in companies)</p> <p>Reduction of frequency and severity of skin diseases (e.g. caused by work in wet environment)</p> <p>Project plan for construction and assembly work with the targets:</p> <p>Enhancement of a systematic perception of health & safety issues</p> <p>Planned and coordinated work flow for construction and assembly work</p> <p>Increase of safety awareness</p>	<p>Safety Awareness Programme</p> <p>The Construction Safety Partnership (CSP) initiates the implementation of safety management systems, the promotion of Safety Representatives and Safety Managers collaboration, the qualification regarding the Safety Awareness Programme and the provisioning with information, instruction and advice.</p> <p>Simple Safety Approach (HSA) intended to implement health & safety in small enterprises step by step (SMP 20 qualification concept).</p>	<p>Work Protection Strategy 2007-2012</p> <p>Accident prevention in SME</p> <p>Safety awareness and risk assessment</p>

2.4 Congruent experiences implementing initiatives in small enterprises

Conducive criteria	Obstructive criteria
<p>Less cumbersome laws</p> <p>Safe Pass and CSCS (Construction Skills Certification Scheme) as proper possibilities to support companies in the construction industry</p>	<p>Large and extensive directives and regulations overstrain companies and employees</p> <p>High degree paperwork</p>
<p>The expectation of personal benefits determines own engagement of both, the management and the employees. Benefit and efficiency should be designed as „perceptible“.</p> <p>Providing incentives (e.g. through Safe-T-Cert in Ireland) allows a better position compared with non-certified competitors.</p>	<p>Deficient awareness for an integral health & safety management at both, management and employees.</p> <p>Awareness is a result from necessity (e.g. own safeguarding in case of accidents, skills shortage) instead of prevention mind.</p> <p>Companies don't know about supporting servic-</p>

	es.
<p>The management staff has to be demonstrated their responsibilities, tasks and prospects regarding a preventive health & safety management. Suitable measurements are qualifications with modular content which lead stepwise to an integral health & safety management.</p> <p>CSP in Ireland has designed and proved the extensive SMP20 qualification program for SME with up to 20 employees.</p>	<p>Small and micro enterprises have low knowledge about health & safety regulations and responsibilities. Employers have also no specific organisational skills.</p>
<p>Employers are the marquee figures for an effective integral health & safety management implementation.</p> <p>Efficient implementation needs on the one hand an internal „care taker“ and on the other hand an external supporter.</p> <p>External support organized and arranged by a trade organization would have a positive effect.</p>	<p>Problem awareness is generally unincisive in trade enterprises. Burdens and accident risks are at a limited perception: an accident is a relative rare event, work related diseases were not identified as result of bad working conditions and capacity overload is calculated as normal.</p>
<p>Trainings and advice; placement of conversation or moderation technique basics strengthen management quality and conflict resolution</p>	<p>Lack of involvement of employees resp. representatives</p>
<p>Ideal adaption of adequate solutions into the particular work environment</p>	<p>Unclear roles and competences of operational representatives</p>
<p>The health & safety management organization has to be trade related, manageable, systematic and capable of being integrated into operational work, management and decision making processes.</p>	
<p>Improvements have to be implemented step by step</p>	
<p>Publications have to be designed easy to understand and offer information at a single glance</p>	<p>An efficient trade related mentoring requires trade related knowledge and performance. It is also necessary to speak and to understand the „craftmen’s language“.</p>
<p>It is indispensable to talk to employers in person to be able to improve health & safety management in trade enterprises. Brochures, trade magazine articles, internet presentations etc. have only limited effect.</p>	
<p>Development of best practices tools with easy intelligible speech.</p>	
<p>Trade related tools are required. Some tools are ready to use, such as construction site risk assessments, the NOAH short check, working capacity index or working capacity coaching which are approved instruments for risk assessment.</p> <p>The Irish SMP20 workshops offer large tools.</p>	<p>Mainly in safety at work management classic tools like risk assessment are designed more expert-oriented. Exercising those tools by small enterprises is not at all possible without the instruction of health & safety officers.</p>
<p>Trade specific risk statements</p>	

<p>Credible partners</p> <p>Trade organizations are predestined transfer partners, especially their management consultants.</p>	
<p>Approved and successful mentoring concepts are co-operations between health & safety service providers and a number of small trade enterprises performing a regional network structure together with mentorship performing a combination of on-site support, internal workshops and support by telephone.</p>	<p>Innovative trade related mentoring concepts are required to establish external support.</p>
<p>Collective action groups from trade-specific enterprises to establish supporting pools.</p>	
<p>Pool mentoring according to the NOAH qualification concept.</p>	

3. Selection criteria for pilot companies and disseminators

3.1 Pilot companies

The following criteria have been defined to select employers/pilot companies:

- Motivation to participate into the project
- Requirement for an efficient, practicable and integral health & safety management (the NOAH short check can be used to determinate requirements)¹⁴
- Serious interest to implement a systematic health & safety management
- Appreciation for health & safety as part of corporate culture
- Involvement and active participation of employees
- Less than 10 employees
- Part of the construction industry. Sectors are:
 - Civil engineering surface
 - Roofing
 - Carpentry
 - Scaffolding
 - Tent engineering
 - Painting
 - Insulation and waterproofing surface construction
 - Installation
 - Furnace construction, air heating
 - Jointing, pargeting and plastering
 - Wall and floor covering
 - Glazier work
 - Assembly work
 - Decoration work
 - Mason work
 - Production of precast elements (surface construction)
 - Production of concrete goods (surface construction)
 - Chimney sweeping
 - Paviour work
 - Water well construction
 - Commercial cleaning in buildings
 - Demolition work, waste removal, blasting (surface construction)
 - Boat building, naval architecture.

¹⁴ see www.noah-projekt.de/toolbox

3.2 Disseminators

The following criteria have been defined to select disseminators:

- Health scientific/work scientific basic knowledge e.g. from activities in occupational health/occupational psychology, as safety officer, in operational health promotion, health management or work protection and prevention
- Experiences from activities as management consultant, knowledge about company organization as well as basic principles in the fields of health & safety management, ergonomics, operational health promotion, organizational and human resources development, leadership
- Experiences in qualification design, moderation and performance.

4. The NOAH qualification concept

4.1 Basic ideas of the NOAH concept

The underlying concept for a qualification of small enterprises with less than 10 employees is the well approved NOAH basic concept which was developed by the German Management Technique Institute (itb) for owners and employees in small enterprises. This concept follows an integrative, salutogenetic approach¹⁵ of health and focuses on health maintaining factors.

The superior target in this approach is to preserve, support and improve health and work ability of working people which on the one hand will be achieved by compliance and observation of country specific regulations for employment protection, work safety and health promotion.

On the other hand human work ability and the capacity to manage a given task depend also from a balance of individual resources and operational work requirements.

Age changes productive efficiency. If the work content meets changed capacities then productive efficiency can be preserved up to the high working-age. At the same time the risk of occupational exit ahead of time caused by illness can be minimized.

The question of work ability¹⁶ is determined by both the individual and the requirements and work loads each single person is exposed to.

These differentiations are intentionally adopted by the NOAH concept. The NOAH concept respects both, occupational health and work protection which are considered to be integrative. NOAH includes all operational intervention levels: organization, qualification/skills, technique/ergonomics, health and leadership.

Furthermore the preventive understanding of NOAH include relationship prevention (e.g. work place, working conditions, work flow) as well as behavior related prevention (employer attitude, management attitude, employees behavior, external stakeholder like safety officers, medical officers and management consultants from trade organizations).

4.2 Structure and elements of the NOAH concept

Based on fundamental ideas on innovative strategies in health & safety in trade enterprises NOAH has been developed as a concept for a benefit optimized and cost reducing health & safety management system. Principle elements are generally approved evaluation models like Balanced Scorecard and Business Excellence according EFQM (European Foundation for Quality Management). Experiences and knowledge from other scientific projects of associated partners have been integrated.

The NOAH concept (see fig. 4 below) includes 3 fields of observation which give information about the situation and the effect of health & safety management and which mutual influence each other:

- The importance of health & safety in a company,
- The method and the seriousness of the operational implementation and

¹⁵ Refer to Antonovsky, Aaron: *Unraveling The Mystery of Health - How People Manage Stress and Stay Well*, San Francisco: Jossey-Bass Publishers, 1987

¹⁶ The Finnish fitness for work concept referring to Ilmarinen is described in summary: Ilmarinen J. *Aging and Work: An International Perspective*. In: Sara J. Czaja and Joseph Sharit (eds.) *Aging and Work. Issues and Implications in a Changing Landscape*. The Johns Hopkins University Press, Baltimore, 2009, 51-73.

- The benefit of health & safety management perceived in the company.



Fig. 4: Structure and elements of the NOAH concept

4.3 Support for companies

Interested companies initiate continuous improvement process targeting an extensive health & safety management.

The qualification of responsible persons for the operational health & safety is a combination of 4 workshops, an on-site advice in the company, accompanied by telephone support and additional occupational health check-ups on demand. If required further implementation support will be offered. A start-up meeting for employers is intended to create regional networks and to benefit jointly from qualification and consultancy.

Workshop contents:

- Module 1: Generation of Health & Safety basics
 - Legal basics and identification of requirements
 - Survey about health & safety organization, tasks and awareness
 - Information about risk assessment and health promotion
- Module 2: Measurement plan
 - Inventory on-site (risk assessment)
 - Definition of fields of activities and determination of required operational measurements
- Module 3: Systematization
 - Operational organization of health & safety activities

- Documentation and development of an operational manual „Systematic Health & Safety Management“ (Checklists, hazardous substances index, templates etc.)
- Module 4: Process monitoring
 - Health & safety management implementation
 - Health promoting measurements
 - Information about continuation and serial updates



¹⁷ Schulte, Achim and Dr. Ritter, Albert in: Institut für Technik der Betriebsführung (Ed.): Innovation and Prevention, Munich, Mering 2009, p. 136