



Improving safety and health in construction: the need for action during procurement, design and planning, construction and maintenance

The results of the European Construction Safety Summit, Bilbao, Spain, 22 November 2004

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1. INTRODUCTION

The European Week for Safety and Health at Work in 2004 focused on the construction industry. It was launched in April 2004 and is the largest occupational safety and health campaign ever to take place in Europe, with over 30 countries taking part. The national campaigns were promoted under the slogan 'Building in safety'. This first pan-European campaign was significant as it coincided with the entry of 10 new Member States into the European Union. The campaign was backed by all the Member States, including the new Member States, the candidate and European Free Trade Association (EFTA) countries, the Irish and Dutch EU Presidencies, the European Parliament and European Commission, trade unions and employers' federations.

It was the first time that the Agency had held a campaign focusing on one industrial sector. The issues covered all risks, both those causing ill-health to construction workers and those causing injury and deaths through accidents. It also emphasised how all those involved in the industry can play a part to improve the



standards of occupational safety and health (OSH) in construction. All these key players, the clients who procure construction work and the architects, designers and engineers involved in planning, as well as the contractors, employers and workers carrying out construction work, were targeted. In fact the aim was to get everyone involved in construction, building, civil engineering and maintenance work involved in the campaign, and recognise the important part they can play in ensuring standards improve.

The campaign culminated with the European Week for Safety and Health at Work from 18 to 22 October 2004. Trade unions, companies, managers, employees and safety representatives, as well as safety and health institutions and organisations, took part and organised their own events during this week.

To stimulate debate and action in the industry, the European Construction Safety Summit, organised jointly by the European Agency for Safety and Health at Work and the Dutch Presidency of the European Union, was held on 22 November in Bilbao.

During the summit, three workshops were held dealing with:

- procurement, design and planning;
- management of OSH on construction sites;
- prevention of ill-health problems in construction.

Consequent discussion and debate followed on from these morning workshops.

This edition of *Forum* is based on the workshop sessions and the afternoon discussions.

2. KEY FACTS

Background to the industry

Nearly 13 million people work officially in the EU construction industry and possibly many more.

- The EU construction industry is estimated to be worth EUR 902 billion a year (1).

(1) FIEC, 'Construction in Europe — key figures' (<http://www.fiec.org/main.html>).



- Officially, there are 12.7 million employees in the sector, equivalent to 7.9 % of the total EU workforce (2). The real number, however, is likely to be substantially higher as it is estimated that a significant proportion of the labour force in construction is undeclared in the industry.



Health and safety

The construction sector has one of the worst health and safety records in the EU.

- Using the latest available statistics from the EU-15 Member States, more than 1 200 workers are killed each year, which is equivalent to 13 employees in every 100 000 (3), i.e. more than twice the average of other sectors.
- Nearly 850 000 construction workers suffered accidents that entailed over three days' loss of work in 1999 (3).
- In the 10 new Member States, it is estimated that construction accounts for 20 % of all work-related accidents (3).
- The incidence rate of non-fatal accidents in construction is nearly twice the average of the other work sectors. Falling from heights is one of the biggest problems, along with accidents involving transport, both on and off site (4).
- Construction workers suffer musculoskeletal disorders, such as back, neck and limb problems, significantly more than other workers (5).
- Each year, 600 000 construction workers are exposed to asbestos (6), a potent carcinogen that causes fatal diseases such as mesothelioma and asbestosis.
- Carpenters have an elevated risk of contracting nasal cancer as a result of breathing in wood dust.
- Dust generated from cutting or handling crystalline silica-based products, such as sand, can lead to silicosis, a serious respiratory disease.
- Frequent contact with liquid-based substances, such as oils, resins and cement-based products, can cause skin problems such as occupational dermatitis.
- Many construction workers who use machines, such as hand-operated power tools, drills and mechanised hammers, are exposed to high noise and vibration levels. High noise levels increase the

(2) Eurostat (the statistical office of the European Communities), Labour force survey 2002.

(3) International Labour Organisation, *Yearbook of labour statistics, 2003*, ISBN 92-2-014184-1.

(4) Eurostat (the statistical office of the European Communities), *Accidents at work in the EU, 1998-99*, ISSN 1024-4352.

(5) Paoli, P. and Merllié, D., *Third European survey on working conditions 2000*, European Foundation for the Improvement of Living and Working Conditions, Office for Official Publications of the European Communities, Luxembourg, 2001.

(6) 'Occupational exposure to carcinogens in the European Union 1990-93', Carex, International information system on occupational exposure to carcinogens, Finnish Institute of Occupational Health, Helsinki, 1998.

risk of hearing difficulties and hand-arm vibration syndrome (HAVS) is a serious disease caused by using vibrating tools.

Research has shown that many of these risks can be eliminated or reduced by planning decisions taken before any building work starts.



Pictured from left to right are; Hans-Horst Konkolewsky, Director, European Agency, Bernhard Jansen, Director, European Commission, Henk van Hoof, Secretary of State for Social Affairs and Employment, Dutch EU Presidency, Valeriano Gómez Sánchez, Spanish Secretary of State for Employment and Social Affairs and Joseba Azkarraga Rodero, Minister for Justice, Employment and Social Security, Basque Government.

Financial implications

The construction industry in the EU-15 is estimated to be worth EUR 902 billion a year (7). Using a UK study (7), the costs of occupational accidents and ill-health in the construction sector, including the costs of delays, absenteeism, and health and insurance charges, among others, accounted for 8.5 % of project costs. These poor standards of health and safety could cost the EU and its taxpayers over EUR 75 billion each year. This works out at almost EUR 200 for each member of the population.



Peter Andrews, Vice-President of the European Construction Industry Federation (FIEC)

Objectives of the summit

The summit brought together representatives of the construction industry, the social partners, labour inspection authorities, health and safety experts and the European Parliament and European Commission. It was an opportunity to exchange knowledge and experiences, and to discuss strategies that are required to improve health and safety in construction throughout Europe. Construction is a huge industry with many different types of construction projects, enterprises and people involved. There is no universal solution to

(7) Health and Safety Executive (United Kingdom), *The costs of accidents at work, HSG96*, 1997, ISBN 0 7176 1343 7.





solving the health and safety problem in the industry. Solutions must be matched to the particular issues found on the construction project concerned. Nevertheless, the solutions are rarely unique. By learning from others, and working together, health and safety can be improved, no matter what type of construction project it is, or where it is. By bringing together the architects, engineers, construction employers and employees, together with the European Parliament and European Commission, it was hoped to encourage cooperation between these key partners, to adopt and develop good practice in construction, and improve health and safety. The main objective of this summit was to develop the mechanism for this to be achieved at a European level.

3. WORKSHOPS — PRESENTATIONS AND CONCLUSIONS

The aim of the Agency is to encourage and catalyse the translation of knowledge and research into practical solutions to improve occupational safety and health.

Ensuring good standards of health and safety in construction starts before builders arrive on site. The management of all construction projects is complex. Decisions made during procurement, and the coordination between the different parties involved, influence the standard of health and safety during the construction phase. For this reason, workshop 1 dealt with the procurement, design and planning of construction projects.

It is during the construction phase that accidents and the causes of ill-health actually occur. The risks that occur, in many cases, are not specific to construction. What is frequently different is the management of these risks. Effective management, during the construction phase, is a key ingredient in preventing accidents and ill-health. Workshop 2 dealt with these management issues.

Ill-health of construction workers is of great concern. The health risks faced by workers are numerous, and the nature of their work, moving from one construction site to another, means that occupational health provision and care are difficult. Workshop 3 therefore dealt with the prevention of ill-health among construction workers.

3.1. Workshop 1: Procurement, design and planning

- Procurement: obtaining best value (quality, timelines, control), client leadership and link to OSH
- Design: designing out risk, highlighting residual risk and the role of the designer in the project team
- Planning: early appointments, integrated team and design review

The chair of this workshop was Henk Schrama (Government Member of the Agency's Administrative Board) and the rapporteur was Piet-Jan op de Hoek (Member of the Senior Labour Inspectors' Committee's Working Group on Construction).

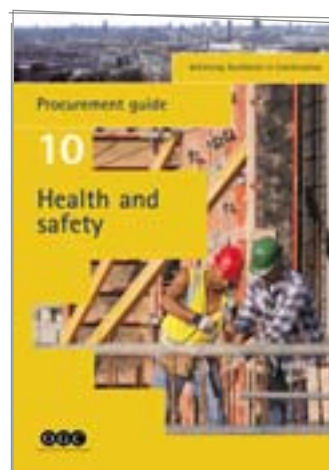
Kevin Myers (Chief Inspector of Construction, Health and Safety Executive, United Kingdom)

Procurement: achieving excellence in construction — UK Office of Government and Commerce Guidance



In most countries, the public sector is responsible for a significant proportion of the expenditure on construction work. The UK government is currently responsible for some 40% of the UK's construction work. 'Achieving excellence in construction' is a procurement strategy, which commits the UK government to maximising, by continuous improvement, the efficiency, effectiveness and value for money of its procurement of new works, maintenance and refurbishment. This strategy recognises that

health and safety is an enabler in supporting its delivery. It has produced a procurement guide for use by government departments to explain how 'achieving excellence in health and safety' can be delivered through the procurement process.



As a client, the government has a crucial role to play in the health and safety performance of the construction industry. Clients:

- set the tone for projects;
- have overall control over how contracts are set up and how the work is done;
- make crucial decisions on, for example, budget and time for projects; and
- select the designers, contractors, etc. who carry out the work.

However, traditionally, government procurement has been approached from a lowest-cost perspective. In direct business terms, accidents on site may involve client liability and will lead to delays. Unhappy workers produce defective work. This waste is avoidable but clients pay for it.

Sadly, too few clients view the design and construction of their projects as part of their business. Nor do they realise that they have responsibilities towards the health and safety of people who construct and maintain their buildings. Indeed, many difficulties faced by designers and contractors are the result of unreasonable pressures put on the price and time by the client.



There are good business and ethical reasons why good clients create an environment, throughout all stages of the project, that seeks excellence in health and safety performance. Such clients understand that an approach based on best value for money (rather than lowest cost) is more likely to:

- result in a more committed and focused project team with tangible benefits for all;
- produce projects that run to time, budget and quality;
- protect or even enhance their business reputation; and
- deliver a better health and safety performance.

Pascal Perrin (Engineer, Regional Health Insurance (CRAM), France)
Incentives to encourage clients, architects and designers to take OSH into account in the design phase

Health and safety should be an integral part of the construction process from the start. The aim of the Rhône-Alpes CRAM was to convince architects or engineers and their clients that this is their responsibility. CRAM based the action on three principles.

- Technical: prevention is better than the cure — it is therefore better to make health and safety an integral factor at the design stage rather than having to take corrective measures later. For example, fitting non-slip tiles from the start is better than laying other tiles which subsequently need to be replaced.
- Economic: the costs of design changes during the construction phase or later are much greater than those during the design and planning phase.
- Strategic: architects and designers are an unavoidable part of the construction process and they meet their clients every day.

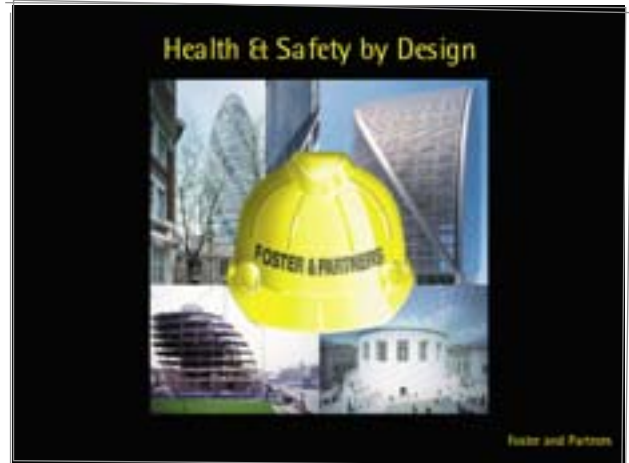


The campaign has now been operational for 10 years. It has resulted in the Arch'Enge club, which furthers dialogue and presents subjects for discussion to architects and designers. It currently has 600 members who meet four times a year to discuss and find out about new areas of prevention. Six trophies have been awarded to 21 clients, architects and engineers, and a brochure entitled *Programmer la prévention* (*Programming prevention*) has been published and distributed; it can be found on the Internet (www.cramra.fr).

Thouria Istephan (Associate Partner, Foster and Partners, United Kingdom)

Designing out risks and construction project integrated teams

Foster and Partners, headed by Lord Foster, is based in the United Kingdom, with headquarters in London. There are two permanent offices based in London and Berlin. Additionally, offices are established wherever Foster and Partners have a building project. Approximately 650 people work for the company. It is a



multidiscipline practice, but does not provide services beyond architecture and design.

Designers are key to implementing the requirements of the UK construction (design and management) regulations (which transpose the temporary or mobile construction sites directive into UK legislation). More specifically, the regulations can be integrated into the processes that designers already use. In doing this, the design philosophy for Foster and Partners is to integrate health and safety into the design process.



Foster and Partners manages the design process in terms of assessing health and safety risks as an iterative process. Risk management has been integrated into the design tools it already had, and developed further to incorporate health and safety requirements. Making this change involved an understanding of the construction procurement process and merging the health and safety requirements into it. Central to this is how Foster and Partners collaborates with the clients, contractors and other project participants of the construction project team who build, manage and maintain the structure.

Ulrik Spannow (Health and Safety Policy Adviser, Nordic Federation of Building and Wood Workers, Denmark)
Public construction procurement in the EU: the view of employees — Making the best of public money

The image of construction in Europe is that it is difficult, dirty and dangerous. Much attention has been paid to urging employers, managers and workers to improve occupational safety and health in the construction industry, unfortunately with little success. Lack of success in managing and improving occupational





safety and health is tied up with too little client commitment to this during the earliest stages of the construction process. By not integrating occupational safety and health into the procurement and design phase, the chances of good standards of occupational safety and health later on, in the construction phase, are much reduced.

The new EU directive on public procurement has given some freedom to governments and public authorities to pay special attention to occupational safety and health in the public procurement process. Now it is high time to implement the results into construction procurement.



Public clients must be committed to caring seriously about the occupational safety and health standards on sites. Otherwise, there will be only a minor improvement, if any. A key way is to make clear that caring for workers is not only a matter of decency, social responsibility and sustainable development, but also a matter of good business both financially and morally.

In order to improve client commitment to the occupational safety and health standards during the construction phase, the clients must also pay attention to the construction process as well as to their main interest in the construction product (providing the public with buildings and infrastructures, etc.).

The Public Procurement Directive 2004/18/EC allows the public clients to pay attention to the occupational safety and health of construction workers by using 'the most economically advantageous' tender, as this can include management and maintenance costs for the building. Additionally, this helps the public clients to comply with the obligations laid down in the Construction Site Directive 92/57/EEC. The public clients have to 'mainstream occupational safety and health into construction

procurement'. Awareness has to be raised among client decision-makers and advisers.

Call for tools to 'mainstream OSH into construction procurement'

European level

- A policy underlining that construction projects funded by the European Community must be based on the idea of mainstreaming OSH into public procurement
- Up-to-date EU guides, such as Commission communications and handbooks, including good examples on mainstreaming OSH into public procurement

National level and national sub-levels

- Policies adopted by relevant bodies underlining that public-funded projects are based on the idea of mainstreaming OSH into public procurement
- Practical guides, to be understood by decision-makers and advisers at public level, as well as by external architects and engineers designing the public projects in detail

*André Pelegrin (FIEC, Member of the Agency Administrative Board)
Public construction procurement in the EU: the view of employers*



It is important to emphasise that all the European directives on health and safety are applicable to both private and public contracts. The directives governing health and safety such as, for example:

- Directive 83/477/EEC on the protection of workers from the risks related to exposure to asbestos at work,
- Directive 86/188/EEC on the protection of workers from the risks related to exposure to noise at work, and
- Directive 92/57/EEC on the implementation of minimum safety and health requirements at temporary or mobile construction sites,

are mandatory laws, in Member States, that apply to all building sites irrespective of the capacity of the employer or contracting authority: private individual, company or public authority.

The new Directive 2004/18/EC of 31 March 2004 relating to the coordination of procedures for the award of public works, supply and service contracts does not contain any special provision relating to the health and safety of workers. It is no longer a matter of dispute that carrying out work safely means that safety has to be taken into account right from the design stage of the work.

However, when it comes to works on behalf of public authorities, the working documents, which are drawn up by the contracting authority, too often fail to take into account the requirements for carrying out the work safely. Furthermore, the tenderer is often



prohibited from inserting one or more variations that would help to improve safety when carrying out the work, under penalty of having his tender rejected as being invalid.

It has to be said that, in awarding the contract to the lowest tender, the tenderer is very often tempted to limit his costs as much as possible, sometimes including those allocated to safety measures.

It is regrettable that, in the procedures for awarding contracts, Directive 2004/18/EC failed to deal specifically with the health and safety legal requirements with which contracts will have to comply.

Conclusions from workshop 1

- Procurement
 - Client leadership is vital in achieving good health and safety
 - Contracts, budget, and time have to be realistic
 - Quality and best value need to be a priority
 - Selection of designers, contractors, etc. should ensure competence
 - Public procurement accounts for a high proportion of construction work and needs to ensure it sets the best example for others to follow
- Design and planning
 - Health and safety needs to be taken into account for the whole life cycle of the building
 - Health and safety is an integral factor in design and planning
 - Early appointments are important in achieving good standards
 - Collaboration/cooperation of all partners is vital
 - Integrated teams achieve the best results
 - Designing out risks is easier, and cheaper, than dealing with them later
 - Education of designers needs improving

3.2. Workshop 2: Management of OSH on construction sites

- Importance of training and competence of both workers and managers
- Monitoring OSH performance during the construction phase
- Cooperation with the workforce and subcontractors

The chair of this workshop was Joe Delia (Employer Member of the Agency's Administrative Board) and the rapporteur was Zofia Pawlowska (Head of OSH Management, Central Institute for Labour Protection, Poland)

Robert Byrne (*Foras Áiseanna Saothair (FÁS), National Training and Employment Authority, Ireland*)
Training in construction, 'Safe pass' programme and transferability

The purpose of the FAS 'Safe pass' health and safety awareness training programme is to ensure that all workers in construction will have a basic knowledge of health and safety and be able to work on site without being a risk to themselves or others who might be affected by their acts or omissions.

The FAS 'Safe pass' programme has been developed following an initiative by the Construction Industry Training Committee. This initiative was incorporated into the construction safety partnership plan. Detailed consultation took place between FAS and expert working groups representing the social partners. The consultation focused on the content and delivery of the 'Safe

pass' programme and took into account the target group to whom it will be delivered.



It is supported by legislation in Ireland, i.e. by the 2001 construction regulations. These require persons employed in construction work to have mandatory 'Safe pass' training. Additionally, project supervisors for the construction stage were given additional responsibilities under the regulations to ensure each construction worker on site had the approved FAS 'Safe pass' card as evidence of training. The Health and Safety Authority enforced the legislation during site inspections.

To ensure demand for training was met, FAS adopted a strategy based on a social partnership approach at both a regional and a national level. To ensure training was made available to construction workers on demand, FAS, together with the social partners, organised and delivered tutor training programmes. Candidates attending these programmes consisted of trade union representatives, employer representatives, FAS staff and private consultants.

To ensure a consistent standard of training was delivered, FAS issued each tutor with a set of course manuals and criteria. Tutors were required to notify FAS of courses 10 days in advance. This facilitated course monitoring and ensured a level of inspection and control by FAS. Tutors were invited to have their names and contact details placed on the FAS website allowing employers and other interest groups access to the approved list of accredited tutors.

The effectiveness of 'Safe pass' training is currently being evaluated; however, the fatality rate within the industry dropped from 15.0 per 100 000 at work in 1998 to 6.4 per 100 000 in 2004, and the number of construction workers participating in 'Safe pass' training far exceeded the official figures recorded within that sector. In 2004, the records show that 202 300 workers were employed in the construction industry; however, as a result of the definition of construction within the 2001 construction regulations, the mandatory requirement for 'Safe pass' training was extended to a much wider audience.

The employers' body, the Construction Industry Federation, has described the 'Safe pass' programme as being unprecedented within the European context. The construction trade unions have embraced the 'Safe pass' programme and continue to deliver 'Safe pass' training to their members. The Health and Safety Authority has supported 'Safe pass' from its inception and has ensured that its own inspectors have been trained in it.

Keijo Päivärinta (*Inspector, Occupational Safety Inspectorate of Uusimaa, Finland*)

The TR safety monitoring method for construction work

Safety management on construction sites is often poor. One reason for this is that monitoring safety performance during the



construction process is difficult. Those systems which have been commonly used identify defects, and therefore report back in a negative way. Negative feedback creates negative attitudes and does not encourage action to improve conditions.

The basics of the TR safety observation method

ITEM	CORRECT	NO	INCORRECT	NO	Comments	Other	Improvement plan
1. Working habits					Site of materials to be arranged up		
2. Scaffolding and ladders					Clear ladders for building entry		
3. Machinery and equipment					Clear steps for storage		
4. Protection against falling					Lighting gas valves on 8 sections		
5. Electricity and lighting					Markings on gas meters		
6. Order and tidiness					Marking access for forklifts		
Correct, total		Incorrect, total					
TR LEVEL = $\frac{\text{CORRECT}}{\text{CORRECT} + \text{INCORRECT}} \times 100$ %							

The TR method monitors risks in the working environment and the safety of the employees' working methods on the construction site. The method is flexible for changes in legislation and for use in different countries. Importantly, the method measures things that are correct, but in the process identifies things that need improving. The result is a measure, known as the 'TR index', that gives positive feedback.

The method records observations into safety topics:

- working habits;
- scaffolding and ladders;
- machines and equipment;
- protection against falling;
- lighting and electricity;
- order and tidiness.

Each observation is scored as 'correct' if it meets the safety standards, otherwise the item is scored as 'not correct'. The safety index is calculated as a percentage of the 'correct' items related to all the observed items and it may vary from 0 to 100 %.

Management can clearly see, from the results, which items need improvement. Management also will be able to see the defects in the management system or in the performance of individuals. An electronic communication system, or mobile telephone, can be linked to the TR method. Such a system enables reporting from the site to head office, and from subcontractors. This can be of use when selecting contractors.

On the site, the results of the measurements are put up on a 'TR feedback' board for everyone to see. Goals regarding the TR index can also be set for employees and a reward can be agreed in advance.

Laitinen, Marjamäki and Päivärinta (*Accident Analysis and Prevention*, 31, 1999, pp. 463–472) strongly supported the validity of the observation method for predicting accidents in the building construction industry.

Working conditions on building sites have improved radically since using the TR method and its use has spread following a safety competition. Before the competition, only a quarter of the building sites reached more than a TR index of 75 %. Now three quarters of the companies have a TR index greater than 75 %.

The TR method has been published in five languages and it is implemented at least in Estonia, Iceland, Latvia, Lithuania, Russia and the United Kingdom.

Bernd Eisenbach (Chair of the EFBWW Health and Safety Committee, Germany)

Cooperation with workforce and subcontractors

Construction work cannot be done without cooperation. Workers are working together in teams. Teams are cooperating with other teams. Contractors are also working together as main contractors and/or as subcontractors.



Construction workers' safety and health is often threatened simply because of mistakes in cooperation, such as wrong time management, or missing common safety protection measures.

To avoid or to minimise safety and health problems, it is necessary to integrate safety and health into the design process from the beginning, and into the cooperation on site.

EU Directive 92/57/EEC on temporary construction sites, with its requirements for planning and coordination of safety and health, brought a major breakthrough for safer work on sites. In reality, in Europe, the biggest challenge is the implementation of this directive.

There are still many cases where planning and coordination of cooperation are not functioning well enough.

In Germany, therefore, the directive on temporary construction sites is being implemented by the new 'BGI A1'. This regulation provides that not only the client shall be responsible for coordination, but also the contractors themselves have responsibilities for safety and health in other subcontracting enterprises. Their duties will be not only to coordinate but also to control the prevention measures of subcontractors.

José Gascón y Marín (Chair of the FIEC Health and Safety Committee, Spain)

Cooperation and employer responsibility

In accordance with the EU framework directive on the prevention of risks at work, a safety and health management system must be set up in all construction companies. The requirements of national law and local standards must also be met. Safety and health management services must be established in the company, and must be able to manage the risks that occur in the company's work. Their function is to enable the company to manage safety and health risks for all workers, and in different geographical locations.

The safety and health services must be resourced adequately to perform their functions.

Procedures should be developed for managing risks at work and carrying out effective preventive planning. They should describe the obligations concerning prevention at different company levels, including:

- specific aspects of the planning work;
- accident control;





- the evaluation of preventive actions;
- measures to be adopted;
- auxiliary measures;
- actions in specific situations; and
- the internal audit systems established, including the scope and number.

The procedures should be revised and updated periodically, and an annual plan for internal audits should be prepared to control the effective application of the management system and to establish the appropriate improvements.

Risk assessments should be used as the basis for obtaining the information necessary for planning preventive actions. On the basis of the findings, a site safety plan must be developed to cover the construction processes. The site manager, with the support of the site safety officers, must set the training requirements and ensure the availability of the workers and safety equipment needed for each work phase. In addition, overall prevention of risks at the group level should be given priority.

Training must be planned and initiated. It should be both a continual process on site (using instructions and recommendations of the site technical personnel) and involve specific events such as lectures and courses.

All accidents must be investigated and the necessary reports made.

All company personnel must undergo a pre-employment medical examination and annual medical check-ups. In exceptional cases, in accordance with the law, and whenever considered necessary, special check-ups should be carried out.

François Liet (Technical and Development Manager, Occupational Organisation for the Prevention of Accidents in Building and Civil Engineering (OPPBTB), France)
Promotion of effective safety management in SMEs

The OPPBTB is a French professional organisation which advises the construction industry on prevention, safety, health and working conditions. It promotes prevention of harm to workers, and develops different consulting and training actions for all parts of the construction industry, including small and medium-sized companies and craftsmen.

The OPPBTB has developed systems to carry out this function.

- A practical tool which is easily accessible: this consists of a 'self-diagnosis' tool including 10 questions on main topics of prevention of harm to workers and verification checklists. It is available on the Internet (www.oppbtp.fr).
- Specific training courses aimed at spouses and other safety partners: these short training courses (two days) increase the awareness of spouses of the general risks in the construction

industry, and thus allow them to become influential in improving health and safety. Committees involving workers' wives have now been created in professional unions. In 2004, 20 cities in France welcomed these events.

- Implementation of forums and information conferences throughout France, promoting health and safety through amusing movies, sketches, or other short comedies.



Conclusions from workshop 2

- Provide training and increase competence
- Develop and implement easy-to-use tools for on-site performance monitoring and measurement
- Ensure employees' participation
- Ensure good cooperation with subcontractors
- Active involvement of client/main contractor in on-site safety is important
- Develop health and safety management procedures
- Legal requirements are still an important factor in motivating employers to improve OSH management
- Development of easily accessible tools and promotion of OSH management rules are necessary to improve safety level, especially in SMEs, using all communication routes (e.g. spouses)

3.3. Workshop 3: Prevention of ill-health problems in construction

- The occupational health problems in construction — an overview
- Preventive intervention strategies
- Health monitoring and surveillance
- Member State initiatives

The chair of this workshop was Fergus Whelan (Employee Member of the Agency's Administrative Board) and the rapporteur was Jorma Lappalainen (Finnish Institute of Occupational Health).



Bernd Hartmann (Head of Unit, BAU BG, Germany)
Health of construction workers — Needs and solutions for prevention

Construction has one of the highest incidence rates of occupational disease. Health risks are numerous and include dust, noise, manual handling and ergonomic problems. Construction took last place in the 2000 OSHA–EU survey with respect to ergonomics in the workplace. Issues such as long working hours can also lead to ill-health.

Small and medium-sized enterprises (SMEs) are of particular concern, and require special strategies to ensure ill-health is prevented. Ergonomics has become an issue for external national and international organisations such as ISSA Construction, which has devoted many resources to this issue. Management systems such as the German AMS-Bau (labour protection management system construction) help in this case by taking the particular circumstances of small companies and subcontractors into consideration.



Employees themselves can help to minimise individual health risks through their own behaviour and lifestyle. Target groups are young people and persons with individual health risks. Rehabilitation for workers under the age of 50 years promotes the working ability for the future years of life.

Anneli Kaukianen (Senior Researcher (Health Sciences), Finnish Institute of Occupational Health)
Preventing ill-health and strategies for successful health monitoring and surveillance

Strategies to prevent ill-health in construction workers require:

- identification of ill-health causation factors;
- health surveillance for those diseases that are known to be caused by the work;
- overall health monitoring to identify and provide early diagnoses of diseases that are not anticipated; and
- health promotion.

Prevention of musculoskeletal disorders is of particular concern. Construction work frequently involves high loading tasks such as floor laying, concrete reinforcement work, and highway work.

Inspection, enforcement, consultation, and safety training are used as intervention methods and are important to ensure ill-health prevention systems are in place.

Health promotion programmes are effective in enhancing the health status of the workforce when intervention focuses on both the individual and the environment. In the construction industry, the extent of illness and injury has repercussions on



productivity. Therefore, health promotion strategies should be developed for the construction industry. This indicates that a model broadly focusing on the environment in which the employers and employees work should be developed and continually refined by occupational health experts in order to promote the health of construction workers.

The negative factors in the work environment and conditions influencing health should be determined, and the preparedness of the workers to change health behaviour must be assessed. The degree of motivation of the employer to develop healthier work conditions should also be assessed and supported. Implementation needs collaboration between the employer, employee and occupational health services. If new methods or new tools are to be adopted at the workplace, the involvement of the workers in the choice and implementation is necessary for a successful result. It is important to motivate the employer to initiate health promotion, by emphasising possible economic benefits and the easy feasibility of improvements at the worksite.

Cor van Duivenboden (Head of Research and Development, Arbouw, the Netherlands)
Successful concepts in improving the occupational health of construction workers

Heavy workload, awkward postures, work stress, chemical hazards/toxic substances, noise and vibration characterise the construction industry in the Netherlands. High sick leave and disability rates are the consequences of these. To improve the working conditions of the construction worker and to reduce disability to work, occupational healthcare was collectively organised.

Every worker in the construction industry in the Netherlands is entitled to have preventive occupational healthcare (OHC) on a voluntary basis. The task of Arbouw is to coordinate the OHC and to guide its quality and quantity. Arbouw has a contract with 22 occupational health services (OHS). This collectively financed package of preventive occupational healthcare consists of the following items:

- pre-employment examinations for worksite personnel only; for office personnel, these are forbidden by the government;
- periodic occupational health examinations (POHEs);
- specific risk examinations, depending on job title, are carried out yearly or every two years;
- consultation hours;
- workplace visits/research for work-related problems of the individual worker.

There are about 50 000 POHEs annually. For each POHE, hundreds of relevant items are registered. Since 1993, the Arbouw





Foundation has collected and stored all these individual data concerning occupational health, safety and work environment relating to all construction workers. These data are used for benchmarking, monitoring and surveillance purposes.

To improve the quality of OHC in the construction industry, Arbouw has developed guidelines and procedures. Furthermore, educational activities for health and safety professionals are carried out on a regular basis. Yearly, Arbouw evaluates the performance of each OHS. Every five years, there is an extended evaluation among employees and employers on quality and their satisfaction with the preventive occupational healthcare.

Significantly, over the past 20 years, there has been a strong decline in sick leave and disability rates in the construction industry.

Montserrat García Gómez (Head of Occupational Health, Ministry of Health and Consumer Affairs, Spain)
Member State initiatives

Many Member States have various initiatives to prevent ill-health in construction workers. Some are mandatory legal systems, others are voluntary.

In Finland, the construction industry was one of the first sectors in which occupational healthcare, involving workplace examinations and health examinations, became mandatory (in 1979). There has been an expansion of the occupational health services to improve coverage in small enterprises. The 'Raketti' register maintains the data so that reminders can be sent out to workers when their health examination is due.

In Germany, under the federal 'Initiative for a new quality of work', the social partners, inspection authorities, experts, etc. are looking at the health issues concerning various completed projects. Additionally, the inspection bodies are focusing on occupational health and the implementation of legal provisions on construction sites.

In Greece, a project-specific initiative, 'Health risk prevention and health promotion', has been undertaken on the Athens metro construction project.

In Spain, there are social dialogue agreements on health risk prevention. The Spanish occupational disease system identifies occupational diseases following the guidelines from international institutions. The number of doctors specialising in occupational health is increasing, and this should improve the provision of health surveillance for workers. In all, 19 specific surveillance protocols for health examinations are available (for asthma, occupational dermatitis, noise, etc.).

The objectives of the Spanish occupational health information system (SISAL) are the improvement of the current knowledge on health problems and risk exposure of the working population and the increase in operational information for efficient planning in occupational health.

The plan is now to improve the health surveillance of construction workers by:

- extending the coverage of health surveillance to the whole working population;
- improving the quality of the actual health surveillance of the workers; and
- organising post-occupational programmes of health surveillance.

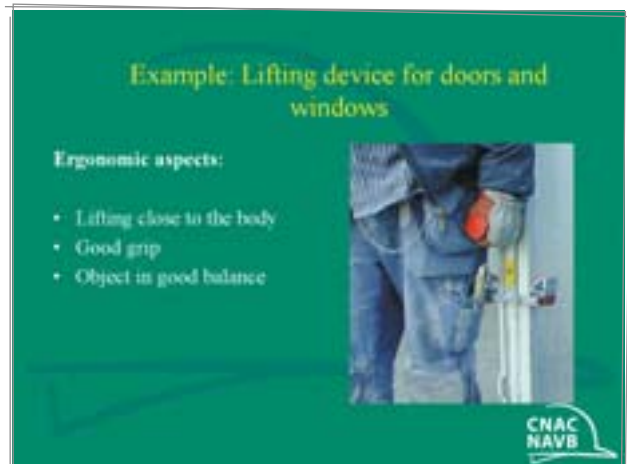
Carl Heyrmann (Vice-President of the ISSA Construction Section, Belgium)

Occupational diseases in the construction industry: international survey by the ISSA Construction Section

The XXVIth International Symposium of the ISSA Construction Section took place in Lisbon in 2003. For this, an international working group was set up. Company doctors, ergonomists and engineers from six different countries participated in the working group. Ergonomic and manual handling problems are widespread in construction. The working group was to investigate these problems, and to develop a strategy to improve the flow of information about practical solutions that could help improve matters.

It appeared from the analysis of the data in the participating countries that musculoskeletal disorders (MSDs) occur extremely frequently in the construction industry, despite increasing mechanisation. They are also an important source of disability causing high costs. Manual handling of loads, attitude to safety and repetitive actions are important contributory factors.

The working group decided to produce a catalogue of effective good practices regarding ergonomics, with each practice satisfying a certain number of criteria. The practices included in the catalogue had to have been proved by the workers who used them giving a positive feedback. The practices also needed to comply with the regulations, and they could not create any new risks. Their impact on efficiency also had to be evident.



The catalogue is aimed at employers and health and safety experts from the construction industry and will be disseminated via the ISSA Construction Section website.

Conclusions from workshop 3

- **Ill-health problems**
 - Heavy loads
 - Forced postures
 - Noise
 - Vibration



- Dust
- Time pressure
- Long working time
- **Prevention strategies**
 - Systematic risk assessment
 - Extensive health surveillance
 - Collaborative health promotion
 - Tailor-made preventive occupational healthcare
- **Initiatives with Member States**
 - Good examples from Germany, Greece, Spain and Finland
 - Plans to improve the health surveillance of construction workers
- **Good practice**
 - Medical protocols for examinations
 - Guidelines for guidance and assessments
 - ISSA Construction Section: working group (ESCI); case studies of ergonomics



4. PLENARY SESSION AND ROUND TABLE

During the plenary session, representatives of the European Commission, the EU Presidency, industry and the social partners took part in a round-table discussion.



The participants were:

- **Michael Stabenow (MS)**, *Frankfurter Allgemeine Zeitung* (moderator)

- **Bernhard Jansen (BJ)**, Director, European Commission, Adaptability, Social Dialogue and Social Rights
- **Henk Schrama (HS)**, Director, Ministry of Social Affairs and Employment, Dutch Presidency of the European Union
- **Ulrich Paetzold (UP)**, Director, European Construction Industry Federation (FIEC)
- **Harrie Bijen (HB)**, General Secretary, European Federation of Building and Wood Workers (EFBWW)
- **Stephen Hughes (SH)**, MEP — European Parliament rapporteur on Community OSH strategy
- **John Graby (JG)**, Architects' Council of Europe (ACE)
- **Greg Brown (GB)**, European Council of Civil Engineers (ECCE)
- **J. Antonio Calvo Delgado (JACD)**, President of the European Builders' Confederation (UEAPME)
- **Pablo Bueno Tomás (PBT)**, Vice-President, European Federation of Engineering Consultancy Associations (EFCA)

Michael Stabenow asked the participants questions. The following summarises details of the questions, answers and comments.

- **MS:** Accidents in the construction industry — Who thinks that enough has been done to improve the accident figures?

SH: The aim is zero accidents, to make sure that the existing legislation is properly applied, and to ensure every firm has the information needed to properly comply with the legislation.

HS: The ultimate goal is to improve safety and health at work. There is a variety of means to reach that goal. We don't want to focus only on legislation. A good balance of the measures — that's what we are promoting. Employers and employees have to do it. The role of the governments is important; they have to provide the facilities and the information.

UP: An example is a worldwide operating Swedish SME contractor that arranged a health and safety day. It managed one whole day in 10 countries with 100 000 workers and 1 million working hours without a single reported accident — if it is feasible for one day, it is feasible for one week and for one month. We should start immediately.

HB: Some other steps have to be taken before. The measures required need to reach the level required by the legislation. We can do it by paying more attention to the health and safety issues in vocational training and by making it one of the top priorities of education.

- **MS:** The views of the social partners don't differ so much. The emphasis is different when it comes to the size of the company, 97 % of the companies are SMEs ...

JACD: We represent 92 % of the companies and 80 % of the workers. In order to implement prevention, legislation is required. But we need to consider the workers on the sites. Training should start at school. The prestige of the sector is very bad. The workers who come to work in the construction industry often do so because they can't find any other job. It is necessary to raise the prestige of the sector. The coordinators should spend much more time on the building sites and the people who make safety plans and studies should be competent. Very little is said about liability; the worker and the employer can't be made responsible for everything — there are also the prevention services and coordinators.

- **MS:** Do you have problems due to the EU legislation?

JACD: The people who write the safety plans and studies have the problem. The effective part of a constructive safety study can't be 200 pages long, and accompanied by a project execution part.

- **MS:** According to a Senior Labour Inspector Committee report, on only half of the construction sites are the health and



safety standards properly implemented and fulfilled. What is the view of the European Commission on the implementation?

BJ: Why do we need legislation? Market forces drive down the prices, and there are limits on how far you can drive down the prices when it comes to safety. To give an example, the construction of the Øresund bridge between Sweden and Denmark. On the Danish site, the accident rate was twice as high as on the Swedish site. Why? The workers on the Swedish site were hired on long-term contracts and well trained. On the Danish site, they were hired on short-term contracts, with no training and no prospects for the continuity of their contracts. Training is therefore an additional factor, which is very important. Legislation is necessary but not sufficient. The Commission is acting in accordance with directives that have to be enacted by the legislation of the Member States. If the legislation adopted in the Member States is not sufficient to comply with the directives, the Commission has to take the necessary measures. In addition, control is needed on the building sites. It is the task of the labour inspectors in each Member State to ensure compliance. This is why the role of the labour inspectors is important.

- **MS:** Member States are responsible for ensuring that the standards are met ...

HS: Implementation is very important. Labour inspectorates have a very important function and they have to be given sufficient means to carry out this function properly.

SH: In this area of policy, the Commission produced excellent legislation. The legislation is very straightforward and very easy to read, with the exception of the working time directive, but even so we need simple guidance, information and training packs. Fifty per cent of the sites inspected have deficiencies and 10 % of the sites were closed because they were so dangerous. The Commission can be more rigorous in ensuring compliance.

PBT: We are fully involved in health and safety issues because half of our activities take place on the construction sites and we are involved in the supervision process and sometimes we are witnesses to accidents. The goal that we have to achieve is to reduce the number of accidents to the minimum — zero accidents. We have to discuss how to achieve this goal. In my contribution to the Bilbao declaration, I referred to the budget, to the economic side of things. Occupational safety and health inspection cannot be hired on the basis of the price and price cannot be the determining factor to carry out an inspection process. I believe that the activities targeting health and safety should not be seen from an economic aspect.

- **MS:** Investment in health and safety is also investment in competitiveness. If 10 % of the sites were to be closed, is that normal?

UP: Not normal, but if the authorities decide to go this way, they will have their reason to do so. The market forces do not work. Why? If investment in health and safety is economically beneficial, they should work. But effectively, the market doesn't work. If you look at public procurement, health and safety is a cost factor, and if the clients go for the cheapest, if you do everything properly, you never get a contract. The tender should be evaluated on a number of criteria, including health and safety aspects, life-cycle costs, etc. Instead of that, the client goes for the cheapest price. The attitude of the public client should be changed.

HB: We should try to identify the different roles we have. We should not point to other stakeholders; everybody has to carry their own weight. We have a gap in the regulatory framework in which construction projects are commissioned and processed. We should address this gap. We could develop model contracts when all parties involved in the project are obliged to sit down in a round table before the contract is commis-

sioned and consider all the aspects, including health and safety and environmental issues, before the final signature is put on the contract. It is also about creating the right climate. When you have a company that is outsourcing the work to subcontractors based on the cheapest price, then you know in advance that you will have difficulties with health and safety. If you analyse the health and safety records, especially when it comes to subcontractors, they have the worst performances. Subcontractors that were not in the project from the beginning, competing with each other, are not creating the right climate.

- **MS:** How can you explain that quality is really something very important, and that a client is responsible for ensuring quality, and not the people providing the service or product?

UP: If you show your client that, in the long run, quality is beneficial. The problem is that the public clients are not allowed to take this into consideration because they have an annual budget and it has to fit into that annual budget. It is the practice of spending over the life cycle that is not taken into consideration. Over the long term, the public client ...

JACD: I completely agree with what has been pointed out by the FIEC representative with certain nuances — safety costs money.

HB: Something about the quality — SMEs need straightforward information.

JG: Promote safety on all levels, design, management; the behavioural level is the most difficult. More information is needed for the clients.

HB: More information.

PBT: There are three points that are extremely important: one of them has to do with the budget issues — the amount of money that goes into the prevention of occupational risks — you can't discuss these issues; the second point is how independent the health and safety coordinators should be on the worksite, independent of the builder; and there are the subcontracting issue and management shortcomings — most accidents happen at the lowest level of subcontracting.

JACD: We are talking about subcontracting as if it were the evil; if the subcontractor is not doing his homework, the main contractor is failing. Who is responsible for the safety plan? The coordinator is failing, so who is responsible for the implementation of the safety plan? On the site you need someone who is dedicated to safety; coordination is a fallacy, it is written down, but isn't carried out. You can't pay what they deserve for the coordination carried out between 10 and 15 sites. We see on site the architect and the engineer more often than a safety coordinator. What I propose as an SME entrepreneur is more dedication from the coordinators. For certain sites, you need a diploma. People that handle site management should handle the safety coordination.

- **MS:** The role of public procurement. The new regulation. Public authorities are responsible for a lot of tendering and commissioning of contracts. How do you make sure that certain standards are applied?

HS: What we are doing is that we are building our mechanisms to be able to do that; it is in progress at the moment.

BJ: I would look at the government procurement issue. We need a good guarantee that quality criteria have been implemented. We are discussing here the construction process. The clients have to respect the legislation; that is the bottom line that has to be guaranteed.

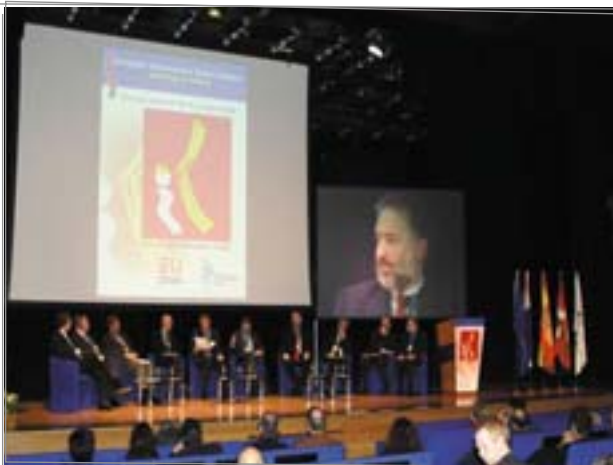
SH: Procurement directive.

HS: Safety and health should be taken out of the directive.

UP: Write down in clear words what the Commission means.



HB: You can't change the situation by publishing directives — you need to change the culture with a high level of commitment from all stakeholders.



5. OVERALL CONCLUSIONS

- Health and safety in construction needs to be improved. Too many people are killed, injured or suffer ill-health as a result of construction work. The cost to individuals, enterprises and society is unacceptable.
- To improve this situation, action is required by all involved. The blame culture does nothing to improve matters. Only by working together can improvements be achieved. Clients, designers, engineers, coordinators, contractors and workers are all vital in ensuring good health and safety. Integrated teams work best.
- Good standards of health and safety start at project conception. Procurement needs to focus on good value and quality.
- Training and competence improve performance in all key areas, including health and safety.
- Designers and others involved in planning projects can improve health and safety by eliminating or reducing risk before construction starts.
- Contractors and workers need to cooperate.
- Occupational healthcare for construction workers needs to be improved.

6. THE BILBAO DECLARATION

The summit was unique in that it brought together many of the key organisations representing the whole construction industry in Europe. As a collective group, they recognised the need to take action to improve occupational safety and health in the industry. This action would have to be taken by all: the clients who procure construction work, the designers, architects and engineers, the contractors and subcontractors and their workers, and the authorities responsible for regulating the industry.

This opportunity was used to declare what this action would be. At the close of the summit, 'the Bilbao declaration' was signed by:

- Ulrich Paetzold, European Construction Industry Federation
- Harrie Bijen, European Federation of Building and Wood Workers
- J. Antonio Calvo Delgado, European Builders' Confederation
- Pablo Bueno Tomás, European Federation of Engineering Consultancy Associations
- John Graby, Architects' Council of Europe
- Diana Maxwell, European Council of Civil Engineers
- Henk Schrama, Ministry of Social Affairs and Employment, Dutch Presidency of the European Union



This declaration describes the action that will be taken, with the objective of reducing accidents and ill-health.





BILBAO DECLARATION

‘BUILDING IN SAFETY’

European Construction Safety Summit

22 November 2004

Introduction:

Construction is one of Europe's largest industries. Unfortunately, it also has the most problematic occupational safety and health record. The human and financial costs to society and the industry are huge. Although significant progress has been made in improving standards in the industry, there is still much that can and needs to be done.

The European Union strategy on health and safety at work 2002-2006 requires the construction sector, given that it is one of the highest risk sectors, to make efforts towards a continuous and sustained reduction of occupational accidents and diseases. These efforts must be adopted by all actors involved in the activities of this sector.

This is why in 2004, the European Week for Safety and Health at Work focused on construction. Run by the European Agency for Safety and Health at Work in close co-operation with its focal point network in 31 countries as well as the European social partner organisations, the campaign was designed to help all stakeholders in the industry realise this potential and build a safer, healthier and more productive working environment.

On 22 November 2004, a European Construction Safety Summit was held in Bilbao, Spain, gathering together industry representatives from across Europe. The summit recognised that more needs to be done by all parties to decrease the number of accidents and enhance occupational disease prevention.

Reputable and sustainable occupational health and safety standards can only be secured within an overall context of high quality standards being achieved. The *Building in Safety* campaign is quality driven and the pursuit of high calibre buildings and civil engineering projects a central tenet. It also recognises that cooperation between competent construction partners is a key factor in achieving this.





The European Construction Safety Summit calls upon all relevant parties in the construction sector to commit to resolute actions to achieve the permanent improvements that are required by the EU health and safety strategy, notably through a full and effective application of the national legislation transposing Directive 92/57/EEC.

Call for action:

- **Procurement - building in safety**

Safety and health issues are integral to the construction project process. They are not confined to the construction phase of a project but occur throughout the entire lifetime of the finished project: design, construction, maintenance and demolition. Many safety and health problems encountered during construction and operation could be avoided by ensuring that due consideration is given to these issues during the design and procurement process. Projects that are well planned, well designed, carried out by competent, trained designers and contractors are not only inherently safer, but also enable the client to achieve good value for the money invested.

Directive 2004/18/EC of 31 March 2004 on the coordination of procedures for the award of public works' contracts, public supply contracts and public service contracts enables, in article 27, the contracting authorities to ask for confirmation that the tenderers have respected their obligations relating to employment protection provisions and to working conditions in force in the Member State.

This provision should be used to ensure that safety and health requirements laid down by the Health and Safety at Work directives, in particular by Framework Directive 89/391/EEC, by Work Equipment Directive 89/655/EEC (as amended by Directives 95/63/EC and 2001/45/EC) and by the Temporary or Mobile Construction Sites Directive 92/57/EEC are applied. In particular, these requirements shall be taken into account during the project preparation stage, as required by Directive 92/57/EEC.

This declaration welcomes initiatives already taken by some **Member States**, such as the United Kingdom's guidelines on public procurement. It gives its full support to the **Commission's Directorate General for Employment and Social Affairs** plan in 2005 to integrate good standards of safety and health into public procurement, including publicly funded construction projects. In this context, this declaration also welcomes the preparation of practical guides on safe and healthy procurement. It recognises that investment in health and safety through systematic budgeting during all phases of projects makes good business sense.

- **Enforcement - improving compliance**

Prevention is the guiding principle for occupational safety and health legislation in the EU. This legislation not only provides protection for workers, but also a level playing field for businesses operating in the European market. Enforcement authorities in all Member States monitor compliance with the legal requirements. The Senior Labour





Inspectors' Committee (SLIC) carried out a European Construction Inspection Campaign in 2003. The results indicated a high level of non-compliance in those projects inspected and also differences in the enforcement of legislation between Member States. The high incidence of accidents and occupational ill health in the industry and the level of non-compliance found by SLIC is not coincidental.

This declaration calls upon the **Member States** to ensure the effective enforcement of all safety and health legislation applicable to the construction sector. In the first instance, the recommendations of the SLIC working group on construction, from the 2003 campaign, should be acted upon. In particular, the ongoing attention to safety and health in the construction sector should be maintained and developed by the inspection authorities, ensuring that effective methods and systems of enforcement are used in all Member States¹.

- **Guidelines - sharing good compliance practice**

Safety and health legislation needs to be accompanied by guidelines that can help to explain how the legal requirements can be implemented and in this way share good compliance practice. This is of particular importance for the many small and medium-sized enterprises (SMEs) in the sector.

This declaration calls upon the Member States in co-operation with the social partner organisations to develop specific guidelines which:

- ensure effective implementation of the legislation;
- describe good practice during the project preparation stage to ensure that, in particular, the clients, designers, contractors, subcontractors and coordinators are aware of their obligations;
- ensure that any guidance and information is targeted and specific to the needs of the industry.

Additionally, this declaration calls upon the **European Agency for Safety and Health at Work** to support this process by making available all relevant information on good practice.

- **Designing safe and healthy construction work**

This declaration calls upon the design community in Europe, through its representative organisations such as the **Architects' Council of Europe (ACE)**, the **European Council of Civil Engineers (ECCE)** and the **European Federation of Engineering Consultancy Associations (EFCA)** to build on existing work in this area and to maximise to their full potential the safety and health aspects of design which are an integral part of the construction process.

¹ SLIC report ECC 2003-1042, 29-04-2004 entitled 'SLIC European Construction Campaign 2003' available at http://europe.osha.eu.int/good_practice/sector/construction/slic/





In particular this declaration calls on the design community in Europe to design out risk wherever reasonably possible and to highlight any remaining residual risk in all projects in which it is involved. The ACE, the ECCE and EFCA will work with the organisations representing the various sections of the industry with a view to researching and defining the actions that the design community in Europe can reasonably take to improve safety on construction sites, and will communicate this information to their Member Organisations

- **Improving safety and health performance through social partner commitment**

Social dialogue and agreements on occupational safety and health improvements are key tools to ensure the indispensable commitment to real improvements in safety and health in construction workplaces, entered into by the key actors, namely, on the one hand, the employers, i.e. construction enterprises of all sizes from SMEs to major groups, carrying out all kinds of building and civil engineering activities, and, on the other hand, the workers.

The summit therefore welcomes and supports the actions that are included in the Joint Declaration issued by the European construction industry's Social Partners, the **European Construction Industry Federation (FIEC)** and the **European Federation of Building and Wood Workers (EFBWW)**² and in particular:

- priorities given to prevention in specific areas, including the use of reduction targets where appropriate;
- extended training action;
- cooperation between social partners at project/site level;
- measurement and reporting on performance.

The summit also welcomes and supports the actions that are included in the **European Builders' Confederation** charter³ which aims to further improve safety and health in small and medium-sized construction enterprises and among craftworkers through:

- better informing craftworkers and SMEs of their legal duties and responsibilities in the field of safety and health, as well as those of their employees. EBC's national organisations commit themselves to the creation on their website of a health and safety section and to actively disseminate health and safety information to their members;
- creating a network of health and safety experts for sharing and cooperating on initiatives and proven good practice ideas.

Referring back to the conference 'Effective Intervention and Social Dialogue in Occupational Safety and Health' (Amsterdam, 15-17 September 2004), the Dutch presidency underlines the importance of implementing these actions.

² FIEC and EFBWW Joint Declaration is available at: www.fiec.org and www.efbww.org

³ EBC Charter is available on the EBC website: <http://www.ebuilders.org/>





Next steps:

The Bilbao declaration calls upon all signatory parties to act on these commitments and report back on progress and future initiatives at a **follow-up Construction Safety Summit**, to be organised by the Agency in June 2006 and involving all key stakeholders that have joined this declaration.

In order to prepare the follow-up summit, to facilitate the exchange of information on the initiatives taken by the signatory organisations and to promote cooperation and joint action to implement the declaration, a **Construction Safety Forum** will be established.

Done at Bilbao, 22 November 2004,






Ulrich Paetzold
European Construction Industry Federation




Harrie Bijen
European Federation of Building and Wood Workers




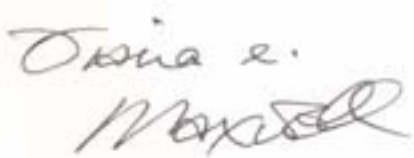

J. Antonio Calvo Delgado
European Builders' Confederation

Pablo Bueno Tomás
European Federation of Engineering Consultancy Associations




John Graby
Architects' Council of Europe

Diana Maxwell
European Council of Civil Engineers




Henk Schrama
Ministry for Social Affairs and Employment
Dutch Presidency of the European Union



7. GOOD PRACTICE AWARDS

The Agency also wanted to recognise and reward those who are already taking action to reduce risks in the construction industry. The summit closed with the presentation of the European Week for Safety and Health at Work 2004 good practice awards in a ceremony organised at the Guggenheim Museum in Bilbao.

These annual awards aim to promote initiatives to reduce occupational safety and health risks and encourage further actions by disseminating good practice information throughout Europe.

In selecting the examples, the judging panel, consisting of construction experts, and representatives of employers and employees, looked for examples that showed:

Country	Award	Title	Task/workplace	Issue	Main intervention
Austria	Y	Improving safety for work at height by using ready assembled scaffolding	Construction and maintenance	Working at height	Product – new design of scaffolding
Czech Rep.		Introducing an integrated safety management system	Plant construction and installation	Risk management	Introduction of an integrated company safety management system
Denmark	Y	Promotion of health and safety in construction by a partnership process	Construction site	Cooperation between client, project manager and contractors	Partnership approach, including involving contractors in the design phase, common policies, procedures, training and targets as well as sanctions
Finland	Y	A safety competition in the construction industry using effective monitoring systems	General construction	Making systematic and regular site safety inspections that provide objective results for monitoring	A common weekly inspection, monitoring and feedback tool and promotion of the system through a safety competition
Germany		Achieving employee participation in health and safety management systems	Medium-sized construction company	Involving employees	Integrated programme to involve workers covering regular meetings, briefings, on-going training, selection of equipment etc.
Latvia		Improvement of safety when carrying out work at height	Building, erection of glass constructions	Working at heights	Management system, including auditing, improved systems of work, procedures, equipment and training
Lithuania		Managing the health and safety of subcontractors	General construction	Working with contractors	Establishment of a management system and common procedures
Netherlands	Y	Controlling the exposure of workers to respirable dust and crystalline silica from road milling machines	Road construction/maintenance	Exposure to respirable dust and quartz from road milling machines	Modifications to the machines to extract the contaminated air
Poland		Reducing risks during the demolition of aluminium electrolysis tanks	Demolition and maintenance tasks using pneumatic drills	Exposure to noise, vibration, heavy manual work and dangerous substances	Use of a hydraulic 'puller' for safer removal of fixed metal bars etc.
Portugal		Managing safety in road construction from the client's perspective	Road construction	Project safety management and coordination	Client's integrated management system for staff and clients
Sweden	Y	The Silent Book – pictorial information and promotional material	General construction and maintenance	Providing information to workers with problems understanding the written language	Pictorial training and information resources
UK		Work at height – fall protection during roof work a partnership approach between client and contractor	Replacement of cement roofing	Working at height and removal of asbestos. Risks to workers and the public	Removable, enclosed platforms and fall protection/ debris netting



- that risks were tackled at source;
- real improvements;
- sustainability over time;
- good consultation between management and workforce, and coordination between the different construction project partners;
- compliance with relevant legal requirements, preferably going beyond minimum requirements; and
- the possibility of transfer to other construction projects, including those in other Member States.



Good practice awards 2003: award winners and commended entries

Full details of these examples are contained the good practice awards 2004 booklet *Prevention of risks in construction — in practice* which is available at <http://osha.eu.int/publications/reports/108/en/index.htm>.

8. FURTHER INFORMATION

- The Agency's magazine *Actions to improve safety and health in construction* contains articles describing actions that have been taken across Europe. The magazine is available at <http://osha.eu.int/publications/magazine/7/en/index.htm>.
- The Agency's information report *Achieving better safety and health in construction* contains a number of case studies from across Europe, which demonstrate action that has been taken to improve safety and health. It is available at <http://osha.eu.int/publications/reports/314/en/index.htm>.
- The Agency's report *Building in safety — Prevention of risks in construction — in practice* gives details of the examples of good practice that were awarded, or commended, in the good practice awards 2004. This is available at <http://osha.eu.int/publications/reports/108/en/index.htm>.
- For further information on the European Week for Safety and Health at Work 2004, visit <http://osha.eu.int/ew2004/>.
- The Agency website has sections devoted both to the good practice solutions and research for occupational safety and health, including specific information about construction issues. The site can be found at: <http://osha.eu.int/>.

European Agency for Safety and Health at Work

Gran Vía, 33, E-48009 Bilbao

Tel. (34) 944 79 43 60, fax (34) 944 79 43 83

E-mail: information@osha.eu.int

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