



Co-ordination of Safety and Health at Temporary or mobile construction sites

Members of the working party «Co-ordination of Safety and Health at temporary or mobile construction sites»

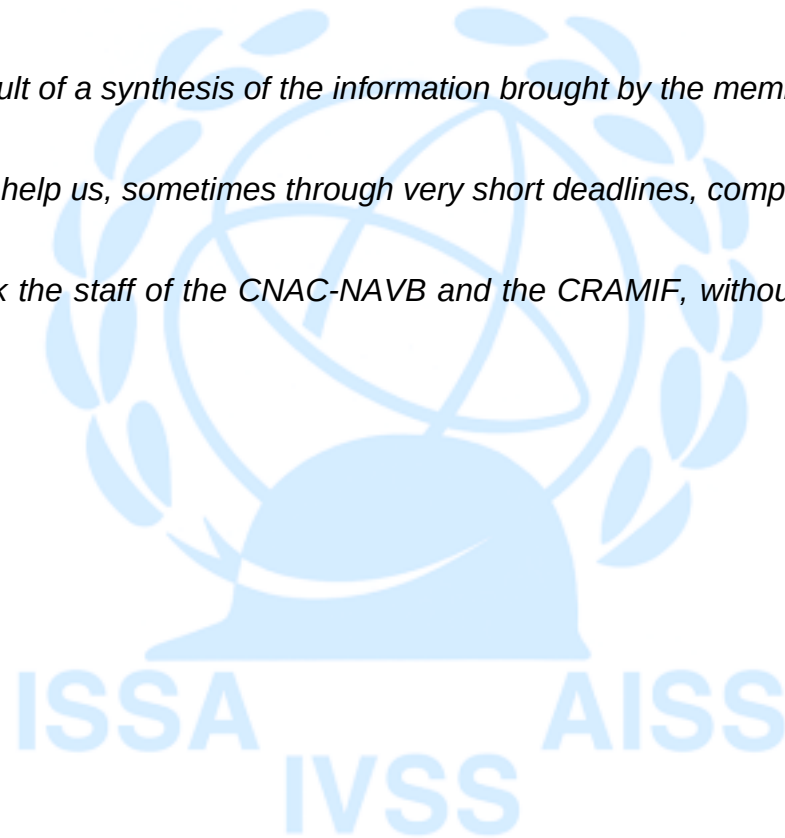
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Foreword

The brochure we present here is the result of a synthesis of the information brought by the members of the working group.

We wish to thank all those who cared to help us, sometimes through very short deadlines, completing and validating this document.

More specifically, we would like to thank the staff of the CNAC-NAVB and the CRAMIF, without whom this document would never have existed.



A word from the President

There have been enormous technical, economic and social changes in the construction industry during this century, and, as a result, this industry has become a centre for research and innovation recognized by all. Nevertheless, despite some progress varying from one country to another, the construction industry has always entailed a relatively high level of occupational risks. Internationalisation and interference of construction activities will further challenge prevention of safety and health in the 21st century.

Wishing to develop an overall, multidisciplinary approach of risk prevention in the construction industry, the International Section for the Prevention of Occupational Risks in the Construction Industry has set up a working party presided by Mr Carl HEYRMAN, Director of the Belgian Committee for Safety and Health in the Construction Industry (CNAC), in order to examine how prevention of occupational risks arising from the simultaneous presence of various contractors at the same site can be stimulated.

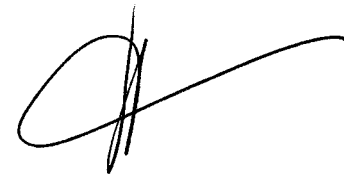
I am glad to present you herewith the result of this working group's activities. At the same time I wish to thank the representatives of the participating countries as well as Mr. HEYRMAN for having finalized their research in such a short time.

Basing itself on this study, the International Section hopes to orientate all parties concerned in the construction industry i.e. clients in the private and public industry, architects, engineers, contractors, workers, employers' and workers' representatives, occupational physicians, engineers, safety specialists, occupational psychologists and ergonomists...

We hope that as you read through this brochure, you will want to take part in our future work.

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THE PRESIDENT of the ISSA International Section for the Construction Industry



Jacques TONNER

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Introduction

A first study, realized in 1999 by the International working group "Co-ordination of Safety and Health" of the ISSA Construction Section, presented a view of the state of affairs of the practices and methods used by different EU countries and some others on the subject of co-ordination of measures for the prevention of occupational hazards in the construction industry at the design and the construction stage.

Strengthened by the good reactions and the success of this document, a new study was set up by the end of October 2000, presenting the following goals: on the one hand, updating the data of the first survey, on the other hand, contacting other correspondents in order to broaden the field of this survey and finally pursuing the question in greater depth with new questions.

In respect of this last item, we have noticed during the first study that the objective analysis of the regulations and the technical conditions of the transposition or the application of the European Directives (89/391/EEC and 97/57/EEC) really needed to be completed with a more subjective approach of the integration of Safety and Health with construction works by the client, the general contractor, co-ordinators, companies and training centres.

Thus, displaying the required caution, we were able to check the expectations and needs of the different parties concerned in the construction industry, their hopes, maybe their disillusionments towards a means that seemed to many of them quite drastic in its way of managing and promoting health at work.

We have not been deceived by the results we obtained! One can indeed object that due to the inevitable doubts about the juridical application of the texts in the different countries, the application of co-ordination of safety and health has not become entirely current yet. Though it is now an undeniable fact that serious accidents and diseases are recognized as being due to the simultaneous presence of different parties who can dispose of only little space and time and to the concept itself, practicable methods and applicable means are still lacking. Particularly in the early stages, where prevention has to be integrated in the design of the works, the economical and the social logic often come into conflict.

So, one more reason to develop a real safety and health management system for the construction industry, showing the financial and human profits of co-ordination.

That is the ambition of the Symposium of the ISSA Construction Section in Paris, December 12-14.

Presentation of the study

⇒ Description of the problem

The prevention of health and safety risks in the construction industry has taken on new orientations in recent years. The control of risks in construction operations first focused on reducing dangers for the safety and health of workers on the construction site. Collective and individual preventive measures were developed to protect the workers at the place of work, independently of the nature of the project and the particular conditions at the site. Subsequently, actions have been undertaken to preserve the workers' safety and health at the design stage of the project.

Although these measures have led to a significant progress in decreasing accidents and diseases, other items remain to be examined such as the skills and company attitudes and the risks created by the presence of various contractors working simultaneously or consecutively on the same site, which creates a " mixture " of working methods and processes.

The implementation of the European framework directive 89/931/EEC on general preventive measures and of the directive on temporary or mobile construction sites (92/57/EEC) defining the principles and the practical procedures for risk prevention in a specific professional industry, should provide an answer to this problem. Knowing that safety and health co-ordination can only be effective when all stages of construction operations have been considered – from design to completion and even to the subsequent maintenance and repair operations – many countries have tried to develop strategies and analytical tools in order to control the particularly high risks in this branch. This is also true for countries outside the E.U., which have developed other orientations as well.

A previous brochure was published by the ISSA International Section for prevention of occupational risks in the Construction Industry, describing the situation on Co-ordination at Temporary or Mobile Construction Sites.

With this study, we want to focus our research on the following questions: which tools, which methods should be developed to control safety and health in cases where various contractors are working simultaneously or consecutively on the same construction site?

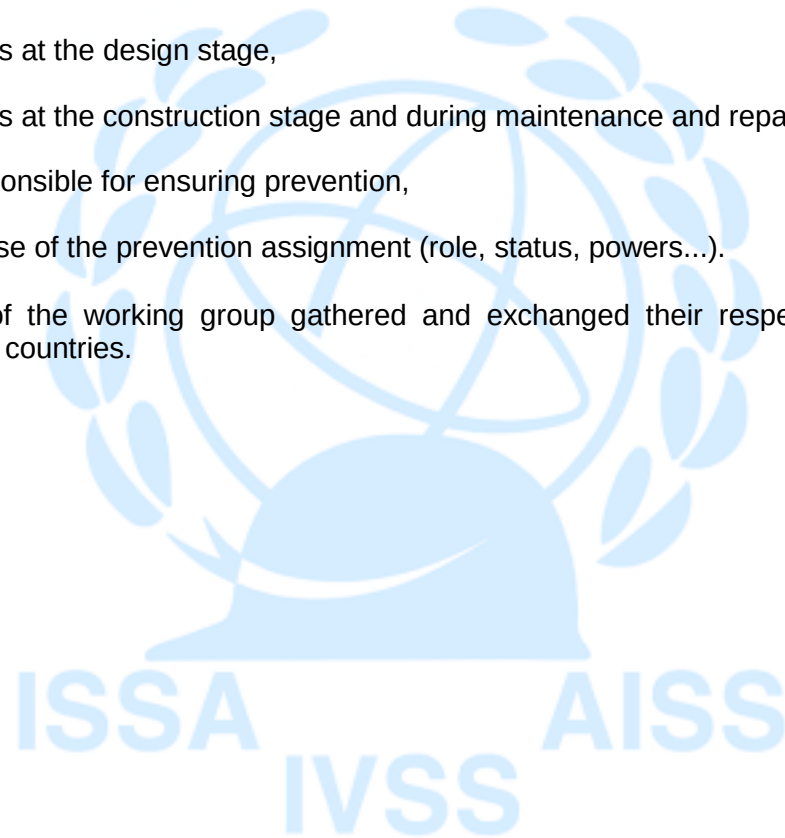
More precisely, how will the study and the implementation of the regulations and technical procedures, the development of site organisation methods, improved information and training of those involved in the construction industry, lead to a better and more effective prevention policy ?

➡ Methods

In the first stage, a questionnaire was submitted to the participants. It dealt with matters such as :

- regulations in the field of prevention of risks related to the simultaneous contractors' activities,
- procedures for preventive actions at the design stage,
- procedures for preventive actions at the construction stage and during maintenance and repair work,
- the «profile» of the persons responsible for ensuring prevention,
- the real conditions for the exercise of the prevention assignment (role, status, powers...).

In a second stage, the experts of the working group gathered and exchanged their respective contributions and assessed the information received from the other countries.



1 *General overview*

For quite some time, the construction industry has been concerned with the consequences of the simultaneous exercise of various activities on one and the same site on matters of safety and health. An essential difference in this situation in the European countries appeared when a legislative framework was put in place. Intense social and professional activity of the industry explains the delays between the adoption of the Directive and the dates of transposition, some of which are quite recent.

Application of the objectives of the Directive is based on the notion of construction activity and/or the number of parties involved in the process as well as on the duration of the execution of the construction works.

Nevertheless, we observe that all countries surveyed have developed a more or less detailed set of means and objectives to improve risk prevention and reduce the number of accidents and diseases.

In the mean time, legislation in some countries has been or is being updated in order to improve the applicability.

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Questions

- 1.1** Is there in your country a legal obligation to co-ordinate safety and health during the design stage, the construction stage and the maintenance stage of a construction project ?
- 1.2** Is this obligation based on the European directive 92/57/EEC on co-ordination at temporary or mobile construction sites ? If yes, identify the law number, date of publication and date it came into force (if different from the date of publication).
- 1.3** Which construction works come under this legislation and which ones don't ?
- 1.4** Is your national legislation to be updated in the next couple of years ? If so, could you list the most important changes already known at this moment ?

1.1 Is there in your country a legal obligation to co-ordinate safety and health during the design stage, the construction stage and the maintenance stage of a construction project ?

EUROPEAN UNION

<i>Austria</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>Belgium</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>Denmark</i> Yes, during construction stage	<i>Finland</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>France</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.
<i>Germany</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>Greece</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>Ireland</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>Italy</i> Yes, there is a legal obligation to co-ordinate during all of these stages.	<i>Luxembourg</i> Yes, there is a legal obligation to co-ordinate during all of these stages.
<i>Portugal</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>Spain</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>Sweden</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>The Netherlands</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.	<i>United Kingdom</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.

EUROPE OUTSIDE EU

<i>Switzerland</i> Yes, there is a legal obligation to co-ordinate safety and health during all of these stages.				
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AMERICA

<i>Argentina</i> No.	<i>USA</i> No (at present, it is purely voluntary).			
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ASIA

<i>China - (Hong Kong)</i> There is no such requirement during the design stage. As for the construction stage and maintenance stage, the principal contractor is held responsible for the overall co-ordination of safety and health on site under the specific regulations – the Construction Sites (Safety) Regulations (to be named as CSSR here-after). The Factories and Industrial Undertakings (Safety Management) Regulation (to be named as SM Reg here-after) (which was enacted on 24 November 1999 and expected to be enforced at the end of 2001) has implicitly imposed such requirements to the employer/principal contractor on its element about selection, evaluation and control of subcontractors.	<i>India</i> No, there is a federal legislation but the constituent States are yet to adopt the same (except for one state).	<i>Japan</i> During the construction stage, there is a legal obligation for co-ordination of safety and health in construction works, but not during the design stage, nor during the maintenance stage.	<i>Taiwan</i> Only in the construction stage.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> As far as a construction project is concerned, there is a legal obligation only during the execution stage. The Occupational Health and Safety Act (OHS) 1983 places obligations on designers, manufacturers and suppliers of plant and substances, but not on construction works.				
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1.2 Is this obligation based on the European directive 92/57/EEC on co-ordination at temporary or mobile construction sites ? If yes, identify the law number, date of publication and date it came into force (if different from the date of publication)

EUROPEAN UNION

<i>Austria</i> Yes, this obligation is based on the European Directive 92/57/EEC. It has been transposed in the law number 37 from 1999 that was published on January 15, 1999, and that came into force on July 1, 1999.	<i>Belgium</i> Yes, this obligation is based on the European Directive 92/57/EEC. The framework is laid down in chapter V of the law of August 4, 1996 . Details are written down in the Royal Decree of January 25, 2001 that was published on February 7, 2001. It came into force on the 1st of May, 2001.	<i>Denmark</i> Yes Arbejdsministeriets bekendtgørelse nr. 576 af 21. juni 2001 (Statutory Order) Bekendtgørelse om bygherrens pligter¹⁾ Bekendtgørelsen indeholder bestemmelser, der gennemfører Rådets direktiv 92/57/EØF af 24. juni 1992 om minimumsforskrifter for sikkerhed og sundhed på midlertidige eller mobile byggepladser, EF-tidende 1992, L 245/6	<i>Finland</i> Yes, these are based on the European Directive 57/92/EEC and have been transposed into Finnish legislation as follows: Council of State Decision on safety of construction work (629/1994), entered into force the 1st of October, 1994. Ministry of Social Affairs and Health Decision on the use of scaffolds and protective structures to prevent falling in construction work, entered into force on the 1st of April, 1998. Ministry of Labour Decision on staff facilities on construction sites (977/1994), entered into force on the 1st of January, 1995.	<i>France</i> Yes, it is based on the European Directive 57/92/EEC. It has been transposed into French law by the Decree 94-1159 of December 26, 1994. It came into force on the 1st of March 1995.
<i>Germany</i> The European Directive 92/57/EEC was converted in Germany on June 10, 1998 and is called Construction Sites Order («Baustellenverordnung»). It was published on June 18, 1998 in the Federal Law Gazette Part I («Bundesgesetzblatt Teil I») on page 1283. The Construction Sites Order came into force on the 1st of July 1998. As early as 1995, public clients had been obliged to obey the regulations of the directive 92/57/EEC immediately.	<i>Greece</i> Yes, this obligation is based on the European Directive 92/57/EEC. The law number is Presidential Decree 305/1996 and it came into force on August 29, 1996.	<i>Ireland</i> Yes, it is based on the European Directive 92/57/EEC. The reference of the Irish interpretation is S.I. no. 138 of 1995 – Safety, Health and Welfare at work (construction). Revised Regulations will take effect on 1st January 2002.	<i>Italy</i> Yes, it is the Italian interpretation of the EU Directive 92/57/EEC. It is called Legislative Decree («Decreto Legislativo» in Italian) No. 494/96. It has been was issued on August 14, 1996 and came into force on the March 23, 1997. Recently there was a revision of this decree, called Legislative Decree No. 528/99. It was issued on November 9, 1999 and came into force on April 18, 2000.	<i>Luxembourg</i> Yes, this obligation is based on the European directive 92/57CEE. and came into force on November 4, 1994. Date of publication : September 17, 1994 Law n° A-94/1104 h/ RGD Grand-Ducal Regulation of November 4, 1994 concerning the minimal Safety and Health requirements that should be observed on temporary or mobile construction sites.

<i>Portugal</i> Yes, it is based on the European Directive 57/92/EEC and has been transposed into Portuguese law by the Decree-Law nº 155/95 of the 1st of July, 1995, the same day the law came into force.	<i>Spain</i> Yes, it is based on the European Directive 92/57/EEC and has been transposed into Spanish law by the Royal Decree 1627/1997, that was published on October 24, 1997. BOE 256 25/10/1997. Enacting the minimal provisions for health and safety on building sites.	<i>Sweden</i> Yes, it is based on the European Directive 57/92/EEC. It has been transposed into Swedish law by AFS 1999:3, that was published on August 26, 1999. The obligations came into force on the 1st of January 2000. Remarks: This obligation is an amendment of AFS 1994:52, date of publication February 20, 1995, into force the 1st of April 1995. AFS 1994:52 was also based on the European Directive 92/57/EEC.	<i>The Netherlands</i> Yes, it is based on the European Directive 92/57/EEC. The date of publication of the Dutch interpretation, which is also the date it came into force, is August 12, 1994. On May 22, 1997 the interpretation has been embodied in the 'Arbeidsomstandigheden-besluit'.	<i>United Kingdom</i> Yes, by SI 1994/3140, the Construction (Design and Management) Regulations, 1994 that came into force on March 31, 1995.
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EUROPE OUTSIDE EU

<i>Switzerland</i> No, the main laws that should be observed are the Swiss Law on Accident Insurance and certain articles in the Penal Code.				
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AMERICA

<i>Argentina</i> No.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> No.	<i>India</i> Not applicable.	<i>Japan</i> No, it is based on the Japanese Industrial Safety and Health Law, and not on the European directive. Law No. 57 of June 8, 1972.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> No, it isn't.				
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1.3 Which construction works come under this legislation and which ones don't ?

EUROPEAN UNION

<i>Austria</i> The law has to be applied to all construction works There are exceptions similar to those in the EU directive.	<i>Belgium</i> All construction works are covered, except for drilling and extraction works of extracting industries and for the construction of production installations, where no intervention will be done at the construction envelope. Works that are done by one contractor by order of an employer are also excluded.	<i>Denmark</i> • Building and changing of buildings and constructions • Roads, tunnels, bridges, harbors etc. • Digging and soiling connected to these activities • Pipes and cables • Refurbishment and maintenance of the above mentioned • Break- down and demolition Duties come into force with construction sites with at least two contractors with 10 or more employees.	<i>Finland</i> All kinds of construction works come under this legislation.	<i>France</i> All construction works are covered.
<i>Germany</i> This legal provision applies to any construction site where construction works, maintenance or repair works are carried out.	<i>Greece</i> Legislation excludes National Defense personnel, domestic services staff and drilling and extraction works of extracting industries.	<i>Ireland</i> All works on domestic dwellings which are not part of a trade, business or undertaking are covered. All construction work except domestic dwellings, which are not used for trade, business or undertakings, is covered.	<i>Italy</i> Works that come under this legislation are new construction works, maintenance and refurbishment works, demolitions, conservation works, renovation or dismantling of permanent or temporary structures made of bricks, reinforced concrete, steel, wood or other materials, electrical power lines and the structural parts of electrical plants, road works, railroad works, hydraulic works, drainage, excavations, forestall works (only for what concerns building or civil engineering works), excavations, assembly or disassembly of prefab elements used for building or civil engineering works. Works that don't come under this legislation are: works in mines and in caves; works on petrochemical plants or that are performed on petrochemical platforms; works performed into the sea; works performed in theatres, cinema studios, TV studios. The Decree applies when these works require the preparation of a temporary or mobile site.	<i>Luxembourg</i> Applied on construction sites at which construction and civil engineering works are carried out according to a list.

<i>Portugal</i> All construction projects, except drilling and extraction in the extracting industries, as defined in Art. 1, number 2 of the Directive 92/57/CEE, come under this legislation.	<i>Spain</i> Civil engineering and building: detailed list in the first annex of the 1627/1997 RD.	<i>Sweden</i> All kinds of construction works come under this legislation.	<i>The Netherlands</i> All construction works come under this legislation. Extraction in open cast mining is excluded.	<i>United Kingdom</i> It covers all demolition work and all construction involving 5 or more persons at the site. It does not cover work involving less than 5 persons, except demolition works.
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EUROPE OUTSIDE EU

<i>Switzerland</i> All activities come under this legislation.				
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AMERICA

<i>Argentina</i> All construction works are covered.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Building and other Construction Works.	<i>Japan</i> The law applies to construction works larger than a certain scale. The size of the scale differs according to the types and the number of workers engaged in the construction. However, the guidelines require a similar management for construction works smaller than those scales.	<i>Taiwan</i> All construction work.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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1.4 Is your national legislation to be updated in the next couple of years? If so, could you list the most important changes already known at this moment ?

EUROPEAN UNION

<i>Austria</i> Yes. The adapted legislation will define the qualification of co-ordinators; it will also define that the client can take over the tasks of co-ordinators and that several people can assume the function of co-ordinator, in a parallel way or one after the other. Other contents: definitions of catastrophes, urgent works or works to be accomplished in a short period of time; definition of the co-ordinator's duty to point out faults at the construction site; definition of the content of the safety and health protection plan; exemption of the obligation to design a special safety and health protection plan for smaller construction sites upon specific preconditions; elimination of privileges of foreign undertakers when it comes to legal punishment.	<i>Belgium</i> Some complementary specifications will be prepared in order to avoid too many interpretations (example: definition of a prefab element as a particular risk).	<i>Denmark</i> Has just been updated June 2001. Most important change is that duties of the client are now regulated by a specific statutory order. The client can buy services, but will remain the responsible legal person.	<i>Finland</i> Not available yet.	<i>France</i> It cannot be predicted today.
<i>Germany</i> It cannot be predicted today whether an amendment of the present legal regulation is intended within the foreseeable future. Various annotations and additions have been compiled in subordinate legislation with the intention of improving the application of the legal regulations in reality.	<i>Greece</i> It cannot be predicted today.	<i>Ireland</i> It cannot be predicted today. The 1995 Regulations will be replaced by the Safety Health & Welfare at Work (Construction) Regulations 2002 to take effect on 1st January 2002. Main changes : - a - New duties on Project Supervisor Construction Stage. - b - New duties on Contractors - c - Mandatory Site Safety Representatives on sites with more than 20 workers - d - Mandatory Safe Pass Training - e - Mandatory Skills Training & Certification for Scaffolders, Plant Operators, Roofers etc. The duties of Clients, Designers and Project Supervisor Design Stage are under review	<i>Italy</i> No, the new legislation was only published in 1999.	<i>Luxembourg</i> Since the publication of the Grand-ducal Regulation of November 4, 1994, the co-ordinators await alterations and specifications : - creation of 3 types of building sites and adequate training depending on the type of site - revision of the definition of 'client', which now includes the enterprises - appointment of the safety co-ordinator, only by the client - revision of the access control that is imposed upon the safety co-ordinator The very powerful business lobby is delaying the legislative progress and tries to distort the Directive 92/57/CEE.

<i>Portugal</i> Some changes are indeed foreseen in a short term, but right now, nothing is clearly defined yet.	<i>Spain</i> No, no changes are foreseen in relation to the publication of the Royal Decree 1627/1997.	<i>Sweden</i> No.	<i>The Netherlands</i> No, this is not foreseen.	<i>United Kingdom</i> Yes, preliminary consultation is already taking place. It is likely that the co-ordination legislation will be combined with the requirements of Annexe IV of the Directive into one composite law.
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EUROPE OUTSIDE EU

<i>Switzerland</i> No, not that we know of. However, at a lower level, ordinances are revised all the time.				
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AMERICA

<i>Argentina</i> It cannot be predicted today.	<i>USA</i> It cannot be predicted today.			
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ASIA

<i>China - (Hong Kong)</i> It cannot be predicted today.	<i>India</i> It cannot be predicted today.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Yes: labour safety in situ.	
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AFRICA

<i>Algeria</i> It cannot be predicted today.				
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OCEANIA

<i>Australia</i> Yes. In New South Wales there is an update of the OHS legislation for all industry including the construction sector. In 2000 the OHS Act 2000 was issued and the OHS Regulation in 2001. Both are scheduled to become enforceable from the 1st of September 2001. The OHS Regulation will replace 36 regulations currently made under the OHS Act 1983, the Factories, Shops and Industries Act 1962 and the Construction Safety Act 1912.				
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Notes and Comments



Notes and Comments



2 *Co-ordination of safety and health at the design stage*

Safety and health co-ordination in the design stage has become vital to reduce overall occupational risks. The client has a fundamental role since he is required to appoint the project co-ordinator as soon as possible and to define his assignments and the extent of his powers in a contract. His field of activity includes the application of the general principles of prevention and the programming of preventive measures adapted to the progress of the construction project.

Still, there is ambiguity between the legal requirements and the contractual regulations of the market which can result in a conflict between the different needs. For instance: how to set minimal operating rules for co-ordination and at the same time adjust these rules to the reality of construction operations? How can the project co-ordinator act as an adviser and at the same time supervise the proper application of safety rules?

The co-ordinator in the design stage has a new professional responsibility since the quality of integration of prevention also influences the working conditions for the construction workers.

In this stage new responsibilities are imposed on certain "acting parties" : clients, real estate developers, architects, engineers, design offices...

Up until now, co-ordination of safety and health is a legal obligation only in EU countries. In other countries, co-ordination is only introduced at the client's request.

Questions

- 2.1** In which cases is safety and health co-ordination imposed at the design stage ?
- 2.2** Who is charged with safety and health co-ordination at this stage, who appoints this person and when exactly does this person have to be appointed ?
- 2.3** What are this person's missions ? What are this person's responsibilities ?
- 2.4** Is there a legal obligation to lay down in a contract the assignment of the co-ordinator ? If so, does the contract have to meet certain legal requirements ?
- 2.5** Who supervises the accomplishment of the co-ordinator's missions ?
- 2.6** What legal means does the safety and health co-ordinator at the design stage have at his disposal ? Can he impose measures or has he got a more advisory function ?
- 2.7** Is payment of the co-ordinator's performances legally arranged ?
- 2.8** When does the mission of the co-ordinator for the design stage end ?
- 2.9** According to the legislation, what is the role of the designer in the co-ordination process ?
- 2.10** Can a co-ordinator oblige the designer to integrate preventive measures into the project ? If not, how to react as a co-ordinator ?
- 2.11** Have specific topics on prevention and co-ordination been integrated in the basic training programs for designers (architects, engineers...) ?
- 2.12** Have specific post-training programs on co-ordination been set up for designers already in duty ? If so, what are the content, the duration and the assessment criteria ?
- 2.13** Do the designers' federations/associations play an active role in the promotion of co-ordination during the design stage ? If so, how do they do that ?
- 2.14** Is there a legal obligation to specify the cost of preventive measures in the offers made by the contractors ?

2.1 In which cases is safety and health co-ordination imposed at the design stage ?

EUROPEAN UNION

Austria There is always a call for safety and health co-ordination in the design stage when employees of presumably several employers will be engaged in the subsequent construction works.	Belgium When more than one contractor will be involved in the construction stage.	Denmark There is no co-ordination during the design stage.	Finland Safety and health during the design stage must be co-ordinated for all construction projects.	France All construction works are covered.
Germany There is always a call for safety and health co-ordination at the design stage when employees of presumably several employers will be engaged in the subsequent construction works.	Greece In all construction projects and especially in those who present potential hazards for the safety and health of workers.	Ireland Legislation applies to all work as defined under Construction Work.	Italy Design stage co-ordination is imposed in the following cases: - when more than one contractor is expected on the same site and; - when the size of the site is equal to or larger than 200 man-days; - when particular risks are identified (the list of these risks is in the Annex II).	Luxembourg Every time a safety and health plan has to be established.
Portugal Whenever the design is committed to more than one person.	Spain <i>Whenever a set of designers participate in the elaboration of the project.</i>	Sweden Safety and health during the design stage must be co-ordinated for all construction projects.	The Netherlands When it is expected that: - Two or more employers or - One employer and one or more self-employed or - Two or more self-employed will be involved.	United Kingdom On every construction project to which the Construction (Design and Management) Regulations (CDM) apply. CDM does not apply to construction work carried out on private homes, or for work involving less than 5 people. Hence, such design work does not have to be co-ordinated.

EUROPE OUTSIDE EU

Switzerland At the client's request.				
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AMERICA

Argentina There are no legal requirements at this stage	USA On every construction project to which the Construction (Design and Management) Regulations (CDM) apply.			
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ASIA

China - (Hong Kong) There is no such requirement and so no such case exists. Please also see question 1.1.	India Not applicable	Japan The law does not specify the cases where safety and health co-ordination is imposed at the design stage. Usually the client (or the designer) provides important information related to the construction plans (important information about geology, climate, environment or structure), but as a general rule, co-ordination of safety and health during construction is the responsibility of the contractor.	Taiwan Co-ordination is not really imposed, but a budget for SHE is added for all public works in construction.	
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AFRICA

Algeria There is no legislation concerning this stage.				
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OCEANIA

Australia Only in respect of the finished project and end user outlined under the National Building Code of Australia and associated Australian Standards, but these do not include construction of a project.				
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2.2 Who is charged with safety and health co-ordination at this stage, who appoints this person (client/owner, project supervisor, other : specify) and when exactly does this person have to be appointed ?

EUROPEAN UNION

<i>Austria</i> The client appoints the co-ordinator. It is possible for the client to instruct a natural or a legal person (e.g. architect, designer or architects' office) to appoint a co-ordinator. The co-ordinator is in charge for safety and health co-ordination during the design stage. There is no definition of an exactly fixed point of time when a co-ordinator must be appointed. The client, however, does well in appointing a co-ordinator as early as possible. The co-ordinator has to be appointed at the latest before the planning of the construction.	<i>Belgium</i> The client has to appoint a co-ordinator. However, if the client is a private person, the architect has to appoint the co-ordinator. If there is no architect, the contractor has to appoint the co-ordinator. This has to be done at the beginning of the study phase of the design.	<i>Denmark</i> Not legally imposed.	<i>Finland</i> The client or a person who is appointed by the client to deal with matters of co-ordination. The appointment shall be made during the design stage, and possibly at the beginning of the planning of the project.	<i>France</i> The client appoints the co-ordinator.
<i>Germany</i> The client appoints the co-ordinator. It is possible for the client to instruct a natural or a legal person (e.g. architect, designer or architects' office) to appoint a co-ordinator. The co-ordinator is in charge for safety and health co-ordination during the design stage. There is no definition of an exactly fixed point of time when a co-ordinator must be appointed. The client, however, does well in appointing a co-ordinator as early as possible. The co-ordinator has to be appointed at the latest before the planning of the construction.	<i>Greece</i> The project manager or supervisor or the client/owner appoints the co-ordinator in the beginning of design stage.	<i>Ireland</i> The client is obliged to appoint a project supervisor design stage who is charged with the co-ordination of safety and health measures at the design stage. The project supervisor design stage should be appointed at the appropriate time and shall be terminated, changed or renewed as necessary. No precise appointment stage is referred to, other than that it is obviously at a time to allow for the safety issues to be considered and dealt with in and during the design of the project.	<i>Italy</i> The Design Stage Co-ordinator is charged of Health and Safety Co-ordination in this phase. He is appointed by the Client or by the Project Supervisor when the design stage is meant to start.	<i>Luxembourg</i> The client or the contractor appoints one or more co-ordinators who are in charge of S&H co-ordination at the design stage. The time of this appointment has not been well specified.

<i>Portugal</i> The co-ordinator during the design phase, appointed by the owner. The law does not specify when he should be appointed and so, in most cases, he is appointed when the owner has to fulfil the Prior Notice to send to the Authority (IDICT - Institute for the Development and Inspection of Work Conditions, through IGT - General Work Inspection).	<i>Spain</i> The promoter. As soon as he knows about the participation of various designers.	<i>Sweden</i> The client or a person who is appointed by the client to deal with matters of co-ordination. The appointment shall be made during the design stage but no exact time is given.	<i>The Netherlands</i> - He has to be appointed by the client, except in case of a 'client-consumer'. In that case he has to be appointed by the architect. - It is not regulated when he has to be appointed. Considering his task, he should be appointed as early as possible.	<i>United Kingdom</i> The co-ordinator of health and safety at the design stage is termed the Planning Supervisor (PS). The client makes the appointment, as soon as it is practicable after the project is initiated.
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EUROPE OUTSIDE EU

<i>Switzerland</i> The client or his representative. However, there is no obligation to appoint this person.				
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AMERICA

<i>Argentina</i> Usually the architect, who is appointed by the client/owner when the project starts, but there is no legal mandate.	<i>USA</i> Owners who insist on safety and health co-ordination will impose this obligation on the contractor or construction manager.			
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ASIA

<i>China - (Hong Kong)</i> There is no such requirement under the laws and the general contract requirement from clients. So, no one is in charge. Please see also question 1.1.	<i>India</i> Not applicable	<i>Japan</i> The design is done by somebody in the client's organization, or by designers contracted by the client, and the duty of those designers is to supervise the work from the point of view of the design (to see that the works are carried out exactly as designed), and management of the construction work (including co-ordination of safety and health) is the obligation of the contractor.	<i>Taiwan</i> Nobody is especially charged with SHE during the design stage. The project manager has to take care of it.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.3 What are this person's missions ? What are this person's responsibilities ?

EUROPEAN UNION

<i>Austria</i> The co-ordinator is the person in charge of safety and health co-ordination and therefore he - Co-ordinates the general principles according to directive 89/391/EEC, - Draws up the safety and health plan or has to commission the drawing up, - Compiles a record with any information on safety and health to be taken into consideration during possible later works on the construction. - He is responsible for the correct realization like any other expert in his field.	<i>Belgium</i> The co-ordinator has got a mission. He acts on behalf of the person who was in charge of his appointment. The co-ordinator has to set up the co-ordination instruments: Safety and health plan, Safety and health logbook and the Maintenance safety and health file. He also has to compare the offers made by the contractors with regard to the concordance with the safety and health plan.	<i>Denmark</i> Not applicable.	<i>Finland</i> The missions and the obligations are as follows: firstly, ensuring designers to co-operate with each other; secondly, preparing the safety and health plan; thirdly, compiling the safety rules records when preparing the construction project as separate contracts.	<i>France</i> The co-ordination is a functional mission. The Client is the only person responsible in case of an accident. He is a natural person (no delegation is possible) in charge of integrating prevention at the project preparation stage.
<i>Germany</i> The co-ordinator is the person in charge of safety and health co-ordination and therefore he - Co-ordinates the general principles according to the directive 89/391/EEC, - Draws up the safety and health plan or has to commission the drawing-up, - Compiles a record with any information on safety and health to be taken into consideration during possible later works on the construction.	<i>Greece</i> The co-ordinator acts on behalf of the supervisor or the client/owner on a private agreement basis, without any other legal responsibilities. His missions are to apply the general prevention principles and measures of S&H at the design stage of the project.	<i>Ireland</i> The project supervisor design stage duties are : - to take account of the general principles of prevention, - to co-ordinate the activities of other persons engaged in work related to the design of the project, - to prepare on a preliminary basis a safety and health plan, - to provide the PSCS with necessary information for the safety file, - option for the PSDS to appoint a health & safety co-ordinator for the design stage.	<i>Italy</i> The Design Stage Co-ordinator acts on behalf of the Client but he has his own clarified responsibilities. The Design Stage Co-ordinator during the design phase has to develop a Safety and Co-ordination Plan and a Maintenance Safety File.	<i>Luxembourg</i> The co-ordinators' missions are: - To co-ordinate the application of general prevention principles (prevention of risks for workers during the construction- and maintenance-stage). - To draw up a health and safety plan. - To prepare a health and safety file intended to be used during subsequent work The Directive 92/57/EEC and its transposition into Luxembourg legislation only imposes missions upon the co-ordinators, it does not define yet legal responsibilities.

<i>Portugal</i> He acts on behalf of the owner, so he has a mission. The obligations (missions) are : 1) To assure the accomplishment of the duties of the designer. 2) To draw up, or to cause to be drawn up, a safety and health plan. 3) To prepare a file containing all safety and health information to be taken into account during any subsequent works.	<i>Spain</i> He is responsible for the co-ordination of the application of the general safety principles during the project elaboration; he/she is also responsible for writing or having someone to write a report on safety.	<i>Sweden</i> Missions : Draw up and adapt the safety and health plan. Co-ordinate the different parts of the design in such a way that the persons taking part in the design take into account each other's plans and solutions. Responsibilities : The execution of the different parts of the project during the construction stage may not coincide in space or time in such a way that a risk of ill health or accident arises.	<i>The Netherlands</i> - The client is responsible for creating the right circumstances so that the co-ordinator can do his job in a proper way. In that case, the co-ordinator is responsible for a good co-ordination job. His missions are : - to co-ordinate the application of general prevention principles (prevention of risks for workers during the construction and maintenance stage), - to draw up a health and safety plan, - to prepare a health and safety file intended to be used during subsequent work.	<i>United Kingdom</i> The Planning Supervisor is responsible for : - Notifying the enforcement authority of the project. - Ensuring designers comply with their duties under CDM. - Ensuring designers co-operate with each other. - Preparing the initial health and safety plan. - Preparing, updating and keeping the health and safety file. - Handing the completed health and safety file to the client at the end of the project. - Giving advice to the client, when requested to do so.
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EUROPE OUTSIDE EU

<i>Switzerland</i> His missions and responsibilities are to preserve safety and health (no further specifications).				
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AMERICA

<i>Argentina</i> This person has no missions or responsibilities.	<i>USA</i> Not applicable (assuming related to legislation).			
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ASIA

<i>China - (Hong Kong)</i> Not applicable. Please see question 1.1 and question 2.2.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> The project manager will prepare the SHE budget according to the their own institutional regulation. It is a percentage of the direct project costs.	
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AFRICA

<i>Algeria</i> Not specified.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.4 Is there a legal obligation to lay down in a contract the assignment of the co-ordinator? If so, does the contract have to meet certain legal requirements ?

EUROPEAN UNION

<i>Austria</i> The co-ordinator has to be "entrusted" by the building owner, a contract assignment is not mentioned in the law.	<i>Belgium</i> Yes, there is a legal obligation to do so. However, the contract may not transfer responsibilities from the client to the co-ordinator.	<i>Denmark</i> Not applicable.	<i>Finland</i> These items are not specified by the law.	<i>France</i> Yes, there is an obligation to draw up a contract freely agreed between the parties.
<i>Germany</i> The Construction Sites Order includes no legal obligation regarding the contract to be signed with the co-ordinator.	<i>Greece</i> These items are not specified by the law.	<i>Ireland</i> The minimum legal requirements are laid down with regard to the duties of the project supervisor design stage. Other aspects of the appointment may be covered in contractual arrangements.	<i>Italy</i> No, there is no legal obligation. The Client appoints the Design Stage Co-ordinator at his own responsibility.	<i>Luxembourg</i> These items have not been specified by the law.
<i>Portugal</i> These items are not specified by the law.	<i>Spain</i> Someone must be designated, though there is no legal contract available.	<i>Sweden</i> These items are not specified by the law.	<i>The Netherlands</i> There is no such legal obligation.	<i>United Kingdom</i> The CDM Regulations require the Planning Supervisor to have adequate resources, i.e. sufficient finances, time and materials to carry out the responsibilities set out above. As this is a statutory requirement it is not necessary to cover it in a contract.

EUROPE OUTSIDE EU

<i>Switzerland</i> These items are not specified by the law.				
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AMERICA

<i>Argentina</i> There isn't a legal obligation.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable. Please see question 1.1 and question 2.2.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.5 Who supervises the accomplishment of the co-ordinator's missions ?

EUROPEAN UNION

<i>Austria</i> The owner supervises the contract accomplishment, the labour inspectorate carries out spot checks as for legal compliance.	<i>Belgium</i> The person that appoints the co-ordinator is charged with the supervision of the co-ordinator's mission.	<i>Denmark</i> Not applicable.	<i>Finland</i> The client.	<i>France</i> The client.
<i>Germany</i> The client or third parties authorised by him.	<i>Greece</i> The person who has appointed him.	<i>Ireland</i> There is no specified Supervision of the PSDS in the Regulations. The client can change, terminate or renew the appointment.	<i>Italy</i> The Project Supervisor has to supervise the Design Stage Co-ordinator mission (as well as the Execution Phase Co-ordinator's activity).	<i>Luxembourg</i> There is no supervision at all.
<i>Portugal</i> The law does not state anything about this, so it must be the person who appoints him: the owner.	<i>Spain</i> There is no such supervision.	<i>Sweden</i> The client is responsible; the Work Environment Inspectorate can also check the situation on site.	<i>The Netherlands</i> The client and the Labour Inspectorate.	<i>United Kingdom</i> There is no direct supervisor of the Planning Supervisor. However the Planning Supervisor will have to satisfy the client that the above responsibilities have been discharged.

EUROPE OUTSIDE EU

<i>Switzerland</i> Suva (Swiss Accident Insurance Company).				
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AMERICA

<i>Argentina</i> Since there is no legal mandate, the question does not apply.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable. Please see question 1.1 and question 2.2.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.6 What legal means does the safety and health co-ordinator at the design stage have at his disposal? Can he impose measures or has he got a more advisory function ?

EUROPEAN UNION

<i>Austria</i> As the building owner assigns the co-ordinator he has all rights the building owner transfers to him. Normally a contract will be made.	<i>Belgium</i> He plays a mainly advisory role .	<i>Denmark</i> Not applicable.	<i>Finland</i> In the design stage the co-ordinator regularly has an advisory function. He gives his advices to the designer or respectively to the client. The client instructs the designer to take the advice into account.	<i>France</i> He can impose prevention measures according to the instructions of the client.
<i>Germany</i> In the design stage the co-ordinator regularly only has an advisory function. He gives his advice to the designer or respectively to the client. The client instructs the designer to take the advice into account. But the client can also authorize the co-ordinator to issue directives.	<i>Greece</i> He plays a mainly advisory role, although usually he imposes specific measures according to the existing legislation.	<i>Ireland</i> His means are not defined in the regulations. His role is essentially that of co-ordinators but that there is a duty on other involved in the preparations of projects to take into account any directions from the project supervisor appointed for the design stage. The project supervisor being appointed by the client has significant intervention role.	<i>Italy</i> The Design stage Co-ordinator works at the Designer's side integrating Safety in the design choices. This happens when the Co-ordinator is not already the Designer himself (or herself).	<i>Luxembourg</i> The legislation does not mention the means the co-ordinator has at his disposal. Generally speaking, the co-ordinator's role is to advise the client and the designer.
<i>Portugal</i> The law is not clear about this, but as he is appointed and acts on behalf of the owner, it depends on the power the owner gives to him. As most owners are not familiar with this legislation and in most cases there is no written contract, no clear power is given to this co-ordinator to impose measures. In practice, this co-ordinator can only inform the owner about any problem so that the owner can decide what to do.	<i>Spain</i> He has an advisory function.	<i>Sweden</i> He has no specific means at his disposal, other than his professional skills. The client is the co-ordinator and has good prospect for steering the project.	<i>The Netherlands</i> He has an advisory function towards the client. The client has to make it possible to do his job.	<i>United Kingdom</i> The Planning Supervisor can require co-operation from designers and information for the health and safety file from both designers and contractors.

EUROPE OUTSIDE EU

<i>Switzerland</i> His function is advisory.				
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AMERICA

<i>Argentina</i> The question does not apply.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable. Please see question 1.1 and question 2.2.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> The project manager takes charge of the design of SHE, but mostly, the project manager prepares this budget alone.	
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AFRICA

<i>Algeria</i> Not specified.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.7 Is payment of the co-ordinator's performances legally arranged ?

EUROPEAN UNION

<i>Austria</i> No.	<i>Belgium</i> No, payment is agreed on a private basis.	<i>Denmark</i> Not applicable.	<i>Finland</i> No, this is not legally arranged.	<i>France</i> No.
<i>Germany</i> No.	<i>Greece</i> Payment is agreed on a private basis.	<i>Ireland</i> This is not covered in the statutory regulations but may be covered under certain contractual arrangements.	<i>Italy</i> There is not a national regulation about this. The payment of Design Stage Co-ordinator's performances is not always legally arranged. Regional Professional Orders have provided some guidelines to calculate the amount of the performances' payment. The amount is usually based on the site's size, the amount of work etc...	<i>Luxembourg</i> No, the parties concerned agree upon the co-ordinator's salary.
<i>Portugal</i> No.	<i>Spain</i> No, it isn't.	<i>Sweden</i> No.	<i>The Netherlands</i> This is not legally arranged.	<i>United Kingdom</i> No, not in CDM. It could be included in the contract with the client however.

EUROPE OUTSIDE EU

<i>Switzerland</i> Yes, payment is based upon the salary rates of the Swiss Society of Engineers and Architects (SIA).				
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AMERICA

<i>Argentina</i> The question does not apply.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable. Please see question 1.1 and question 2.2.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.8 When does the mission of the co-ordinator for the design stage end ?

EUROPEAN UNION

<i>Austria</i> The task and responsibility of the co-ordinator ends with the design stage. His legal liability continues from the Civil Laws point of view in case he has made a faulty decision, which subsequently leads to material damage, personal injury or property loss.	<i>Belgium</i> The mission of the co-ordinator ends with the transmission of the co-ordination instruments and the comparison of the offers of the contractors to the person that was in charge with his appointment.	<i>Denmark</i> Not applicable.	<i>Finland</i> Not stated in the ordinance, but normally when the design stage comes to an end.	<i>France</i> At the termination of the contract and handing-out of the execution documents. When both functions are combined, the contract ends after transmission of the File for Subsequent Works
<i>Germany</i> The task and responsibility of the co-ordinator ends with the design stage. His legal liability continues following the Civil Lawin case he has made a faulty decision, which subsequently leads to material damage, personal injury or property loss.	<i>Greece</i> If he does not continue as a project co-ordinator for the construction stage, his assignment ends just after the approval of the design by the Authorities having the jurisdiction.	<i>Ireland</i> This depends on the type and nature of the project.	<i>Italy</i> The mission of the Design Stage Co-ordinator ends when the design stage is completed. Nevertheless the responsibilities are linked to the contents of the Safety and Co-ordination Plan so they last until the end of the construction work.	<i>Luxembourg</i> It ends with the transmission of all documents that were drawn up during the design stage, namely the General Safety and Health Plan and the adapted Work File.
<i>Portugal</i> The law is not clear about this, but in practice, it ends at the termination of the design.	<i>Spain</i> At the end of the project, when the report on safety is written.	<i>Sweden</i> Not stated in the ordinance but normally when the design stage comes to an end.	<i>The Netherlands</i> When the design process is completed and is handed over for execution.	<i>United Kingdom</i> At the end of the project, when the Planning Supervisor hands the completed health and safety file to the client.

EUROPE OUTSIDE EU

<i>Switzerland</i> At the end of the construction work.				
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AMERICA

<i>Argentina</i> The question does not apply.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable. Please see question 1.1 and question 2.2.	<i>India</i> When all the documents written during the design stage (the General Safety and Health Plan and the Safety File) are handed over.	<i>Japan</i> Not applicable.	<i>Taiwan</i> When he closes the file and prepares the execution stage during the Construction.	
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AFRICA

<i>Algeria</i> Not specified.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.9 According to the legislation, what is the role of the designer in the co-ordination process ?

EUROPEAN UNION

<i>Austria</i> At the moment, in the Austrian Safety legislation, nothing is said about the mission or responsibilities of the designer.	<i>Belgium</i> He has to work in co-operation with the co-ordinator at the design stage and has to appoint the co-ordinator if the client is a private person, constructing for his proper use.	<i>Denmark</i> An obligation to co-operate with the client and the contractors.	<i>Finland</i> They shall within the scope of their obligations ensure that work safety relating to the project execution stage is taken into consideration.	<i>France</i> He can assist the co-ordinator.
<i>Germany</i> The designer co-operates with the co-ordinator in the process of co-ordination.	<i>Greece</i>	<i>Ireland</i> Designers must take account of the general principals of prevention, co-operate with the PSDS and PSCS and provide information on particular risks.	<i>Italy</i> At the moment, in the Italian Safety legislation, nothing is said about mission or responsibilities of the designer.	<i>Luxembourg</i> The client or the contractor appoints the safety co-ordinator and gives prior notice before starting the works. The client should take into account the general principles of prevention in safety and health and any S&H plan drawn up by the co-ordinator.
<i>Portugal</i> To pay attention to the general principles of prevention. The problem is that most designers don't know what the general principles of prevention during the design phase are and how to apply them.	<i>Spain</i> He/she has got certain responsibilities.	<i>Sweden</i> They shall within the scope of their duties ensure that work environment considerations relating to the project execution stage are taken into consideration in the positioning and design of the building or construction.	<i>The Netherlands</i> Beside the obligation to apply the general prevention principles (prevention of risks for workers during the construction and maintenance stage) into the design, there is no role for the designer in the co-ordination process. However, mostly the designer (architect) will be appointed as the co-ordinator during the design stage.	<i>United Kingdom</i> The designer only has co-ordination responsibilities when he has been appointed by the client as the planning supervisor.

EUROPE OUTSIDE EU

<i>Switzerland</i> The designer is not involved in the co-ordination process.				
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AMERICA

<i>Argentina</i> There is no legal rule about this item.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> The legislation does not charge the Designer to play a role in the co-ordination process.	
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AFRICA

<i>Algeria</i> There is no legislation concerning this item.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.10 Can a co-ordinator oblige the designer to integrate preventive measures into the project ? If not, how to react as a co-ordinator ?

EUROPEAN UNION

<i>Austria</i> No, only the client can oblige. The co-ordinator can advise the client to do so.	<i>Belgium</i> No, only the client can oblige him to do this. The co-ordinator can advise the client to do so.	<i>Denmark</i> Not applicable.	<i>Finland</i> Only the client can oblige him to do so. This would normally be done by drawing a non-compliance to the client's attention.	<i>France</i> No. Only the client can take measures.
<i>Germany</i> No, only the client is entitled to make the designer integrate preventive measures in the construction project. However, the client is entitled to authorise the co-ordinator to make any person involved in the construction process integrate preventive measures in his place.	<i>Greece</i>	<i>Ireland</i> Designers must take into account any directions from the PSDS or PSCS.	<i>Italy</i> A co-ordinator cannot oblige the designer to integrate safety measures into the project. His role is to guide the designer in a safety-orientated project development. This would lead to develop risk assessment which may result in changes to project choice or to integrate them with safety measures.	<i>Luxembourg</i> The co-ordinator can only suggest measures and draw the attention of the contractor to the risks connected to the realisation or the maintenance of the work. The final decision always comes to the client.
<i>Portugal</i> The legislation is not clear about this. It just says that the co-ordinator has the obligation to assure that the designer accomplishes his duties with regard to safety and health .	<i>Spain</i> If he is able to. Paragraph 1, 2, 3 of the article 8 of the Royal Decree 1627/1997.	<i>Sweden</i> Yes.	<i>The Netherlands</i> It is (by legislation) the duty of the co-ordinator to do this.	<i>United Kingdom</i> Yes.

EUROPE OUTSIDE EU

<i>Switzerland</i> No. He can adjust the design.				
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AMERICA

<i>Argentina</i> Not applicable.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> For the design stage, the designer takes charge of all aspects on SHE in the construction. The role of co-ordinator will be played by the designer. If it is necessary the designer will integrate preventive measures into the project.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.11 Have specific topics on prevention and co-ordination been integrated in the basic training programs for designers (architects, engineers...) ?

EUROPEAN UNION

<i>Austria</i> Yes, at some schools and universities, e.g. the higher technical schools.	<i>Belgium</i> This depends on the school. Actions are now being undertaken by the CNAC/NAVb to implement such topics in all basic training programs.	<i>Denmark</i> For engineers <20 hours during entire 4-year study.	<i>Finland</i> Unfortunately, this is not yet mandatory in the training programs.	<i>France</i> No. Architecture and engineering schools do not integrate the training.
<i>Germany</i> Preventive measures are already part of the education of architects and civil engineers at numerous universities and advanced technical colleges. At some universities, specific issues of co-ordination have already become part of the architects' and engineers' education.	<i>Greece</i>	<i>Ireland</i> There are no specific safety and health training requirements specified, other than that the appointed persons or entity are competent to carry out the duties. Some CPD courses are provided by professional bodies, safety institutes and private training organisations.	<i>Italy</i> We are experiencing at the moment the first introductions of Safety topics in Academic programmes.	<i>Luxembourg</i> There is no training for architects in Luxembourg. So, Luxembourg architects have to turn to trainings offered by foreign countries like Belgium, France, Germany, Switzerland, Austria,...
<i>Portugal</i> In some (few) cases, yes.	<i>Spain</i> They are starting to be so. Through such optional courses like organization of works and organization of constructive processes in the formative program of the Schools Superior Technique of Architecture.	<i>Sweden</i> Yes.	<i>The Netherlands</i> Not really.	<i>United Kingdom</i> Only at some universities. It is not yet mandatory for this to happen.

EUROPE OUTSIDE EU

<i>Switzerland</i> Yes.				
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AMERICA

<i>Argentina</i> Only a few topics. Architects and engineers have safety and health upgrade courses with specific studies on prevention.	<i>USA</i> Only to a limited degree. This is an emerging issue.			
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ASIA

<i>China - (Hong Kong)</i> No.	<i>India</i> No.	<i>Japan</i> When a designer applies for a designer's license, he is expected to have knowledge and experience on safety and health management, so the company provides necessary training. They are also included in training programs to get a designer's license.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> No, Architecture and Engineering schools don't integrate notions of Safety and Health.				
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OCEANIA

<i>Australia</i> No, not in respect of the construction of a project.				
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2.12 Have specific post-training programs on co-ordination been set up for designers already in duty? If so, what are the content, the duration and the assessment criteria ?

EUROPEAN UNION

<i>Austria</i> Only on an ad hoc basis. These are usually run by specialist training organisations and are often carried out for employers "in house".	<i>Belgium</i> Yes, in collaboration with the architects' federation.	<i>Denmark</i> Not applicable.	<i>Finland</i> Unfortunately, there are no specific post-training programs at this moment.	<i>France</i> No. Architecture and engineering schools do not integrate the training.
<i>Germany</i> Post-training-programmes take place in co-operation with architects' and engineers' associations. Some private organisations also offer post-training programmes for architects and engineers.	<i>Greece</i>	<i>Ireland</i>	<i>Italy</i> No specific post-training has been set up yet, apart from the 120 hours Safety Co-ordinators' training.	<i>Luxembourg</i> The Labour and Mine Inspectorate, in co-operation with other organisations, has been organizing a training for safety co-ordinators for several years now. This training can be attended by architects and engineers. Unfortunately, since texts of the law are lacking, this training has no legal value at all and anyone can be a safety co-ordinator.
<i>Portugal</i> Yes, the courses referred to in 1.1.5 are also for designers and in all courses already organised there are always designers.	<i>Spain</i> There are post-graduate courses of 200 hours that are not obligatory for the designer. Their content is : - Basic concepts on safety and health at work. 25 hours - Administration and organization of prevention. 15 hours - Planning and organization of the prevention in construction works. 30 hours - General techniques of analysis, evaluation and control of risks. 90 hours - Promotion of the prevention. 10 hours - Final and practical work of the course. 30 hours.	<i>Sweden</i> Not particularly as a post-training.	<i>The Netherlands</i> At this moment there are no specific post-training programs.	<i>United Kingdom</i> Only on an ad hoc basis. These are usually run by specialist training organisations and are often carried out for employers "in house".

EUROPE OUTSIDE EU

<i>Switzerland</i> Post-training is existing (by Suva): one day prevention of accidents, no assessment criterias.				
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AMERICA

<i>Argentina</i> No.	<i>USA</i> Only to a limited degree. This is an emerging issue.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.13 Do the designers' federations/associations play an active role in the promotion of co-ordination during the design stage? If so, how do they do that ?

EUROPEAN UNION

<i>Austria</i> This is a very slow process. The professional institutions, particularly the Architects have been reluctant to accept that they have a role to play in this. Their argument has been that this is the responsibility of the employer. This has allowed the APS to fill the void. This is slowly changing.	<i>Belgium</i> Yes they do, by setting up information evenings or weekends and by publishing information brochures.	<i>Denmark</i> By joint cooperation with the Construction Sector's Working Environment Council.	<i>Finland</i> Unfortunately, they don't play an active role.	<i>France</i> No.
<i>Germany</i> Yes, architects' associations offer training programmes for co-ordinators.	<i>Greece</i>	<i>Ireland</i> This has been slow to happen. The current review of the preparation/design stage will hopefully impact on this.	<i>Italy</i> They are currently promoting consultancies and providing help for Safety Co-ordinators. They are also one of the major bodies for the organisation of Safety Co-ordinators courses.	<i>Luxembourg</i> The S&H co-ordinators' Association plans to organise soon information sessions for clients of a building project.
<i>Portugal</i> Unfortunately not, no.	<i>Spain</i> No such performance was recorded.	<i>Sweden</i> No, they are not.	<i>The Netherlands</i> The BNA (architects) and ONRI (engineers) have together developed an auxiliary tool for a Health and Safety Plan in the design stage.	<i>United Kingdom</i> This is a very slow process. The professional institutions, particularly the Architects have been reluctant to accept that they have a role to play in this. Their argument has been that this is the responsibility of the employer. This has allowed the APS to fill the void. This is slowly changing.

EUROPE OUTSIDE EU

<i>Switzerland</i>				
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AMERICA

<i>Argentina</i> No, they don't.	<i>USA</i> No.			
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ASIA

<i>China - (Hong Kong)</i> No.	<i>India</i> No.	<i>Japan</i> There are no special measures to play an active role in the promotion of co-ordination.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> No, they don't.				
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OCEANIA

<i>Australia</i> Not applicable.				
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2.14 Is there a legal obligation to specify the cost of preventive measures in the offers made by the contractors ?

EUROPEAN UNION

<i>Austria</i> Yes, if there is more than one contractor on the site.	<i>Belgium</i> Yes, there is.	<i>Denmark</i> No.	<i>Finland</i> No.	<i>France</i> No.
<i>Germany</i> No.	<i>Greece</i> No.	<i>Ireland</i> No.	<i>Italy</i> Yes, since 1999.	<i>Luxembourg</i> No.
<i>Portugal</i> No.	<i>Spain</i> Yes, the report on heakth and safety must comprehend the budget quantifying the sum of the expected expense for the application and execution of the safety and health survey.	<i>Sweden</i> No, there is no such obligation.	<i>The Netherlands</i> No, there is no such obligation.	<i>United Kingdom</i> No.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> No.	<i>USA</i> No.			
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ASIA

<i>China - (Hong Kong)</i> No.	<i>India</i> No.	<i>Japan</i> No.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> No.				
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Notes and Comments



Notes and Comments



3 *Co-ordination of safety and health at the construction stage*

In order to co-ordinate safety and health on construction sites, roles and assignments have to be defined precisely. Assignments include the application of a safety and health plan, the timetable and supervision of preventive measures imposed by the project co-ordinator, and concertation with the companies on the site. On the other hand, the contractual relationship between the client and the site co-ordinator is not always precisely defined – at times his role is that of an adviser, and at others he supervises and is entitled to impose particular preventive measures. In any case, he cannot take the place of the official inspection and control bodies.

He is only professionally liable, except in the case of personal penal liability. Nevertheless, he remains totally subject to the responsibility of the client.

Whereas the procedures for the exercise of the site co-ordinator's assignments are defined by contract, a certain number of documents which he has to keep and update, serve as proof that the co-ordinator has actually carried out his missions (site meetings, concertation with workers' representatives, particular remarks to a company). In some countries, a safety log book has to be introduced. It gives a good view of the way co-ordination takes place on the construction site.

It is still too early today to assess the cost of co-ordination services because this is agreed upon in private negotiations and only partial information is available. In more and more cases, however, the co-ordinator's fee is contractually arranged.

The end of the co-ordinator's assignment depends on national legislation: either it ends when there is no longer a physical coactivity of the companies on the site, or it ends at the transmission of the safety file for subsequent maintenance work to the owner.

Questions

- 3.1** In which cases is safety and health co-ordination imposed at the construction stage ?
- 3.2** Who is charged with safety and health co-ordination in this stage, who appoints this person and when exactly does this person have to be appointed ?
- 3.3** What are this person's missions? What are this person's responsibilities ?
- 3.4** Is there a legal obligation to lay down in a contract the assignment of the co-ordinator? If so, does the contract have to meet certain legal requirements ?
- 3.5** Who supervises the accomplishment of the co-ordinator's missions ?
- 3.6** Which legal means does the safety and health co-ordinator at the construction stage have at his disposal? Can he impose certain measures or has he got a more advisory function ?
- 3.7** Is payment of the co-ordinator's performances arranged ?
- 3.8** When does the mission/responsibility of the co-ordinator for the construction stage end ?
- 3.9** Is a minimum frequency for the organisation of co-ordination meetings imposed ?
- 3.10** Who attends these meetings ?
- 3.11** Who chairs these meetings ?
- 3.12** According to the legislation, when are workers' representatives to be involved in co-ordination issues ?
- 3.13** What is the role of the contractors' prevention experts ?
- 3.14** What happens with the co-ordination tools (health and safety plan, safety file for subsequent maintenance works...) once the work has been completed? Who receives these tools and when exactly (works completed/after a guarantee period - which) ?
- 3.15** Is a prior notice of the start of a construction project to be sent to the authorities? If so, by whom and when exactly ?

3.1 In which cases is safety and health co-ordination imposed at the construction stage ?

EUROPEAN UNION

<i>Austria</i> Safety and health co-ordination in the construction stage is always imposed when employees of several employers will be engaged on the construction site.	<i>Belgium</i> Whenever a construction work will be carried out by more than one contractor. A less formal form of co-ordination is imposed when one contractor carries out works on the account of an employer.	<i>Denmark</i> 1. When 2 or more employers are having 10 or more employees at the construction site. 2. When listed dangerous work is being performed.	<i>Finland</i> When it is expected that : - Workers of two or more employers or - Worker (s) of one employer and one or more self-employed or - Two or more self-employed will be involved.	<i>France</i> All projects involving at least two construction companies.
<i>Germany</i> Safety and health co-ordination at the construction stage is always imposed when employees of several employers will be engaged on the construction site.	<i>Greece</i> In all construction projects and especially in those who present potential hazards for the safety and health of workers.	<i>Ireland</i> In all cases other than in certain domestic dwellings which are not part of a business or undertaking.	<i>Italy</i> Safety Co-ordination at the execution phase is required in the same cases as at the design stage, so : when on the same site more than one contractor is expected and : 1.when the size of the site is equal to or larger than 200 man-days ; 2.when particular risks are identified (the list of these risks is in the Annex II).	<i>Luxembourg</i> Whenever a safety and health plan has to be established, that is when two or more companies are working simultaneously or consecutively.
<i>Portugal</i> When more than one company is involved in the construction site, or one or more companies and one or more self-employed workers.	<i>Spain</i> Whenever more than one company or autonomous workers are involved.	<i>Sweden</i> In case of a common workplace.	<i>The Netherlands</i> When it is expected that : - Two or more employers or - One employer and one or more self-employed or - Two or more self-employed will be involved.	<i>United Kingdom</i> On all projects to which CDM applies.

EUROPE OUTSIDE EU

<i>Switzerland</i> In all cases.				
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AMERICA

<i>Argentina</i> In all construction or demolition works.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Once the construction work commences. The principal contractor is held liable by CSSR and SM Reg to be responsible for the safety and health on the site.	<i>India</i> At construction sites where more than 500 workers are employed.	<i>Japan</i> Co-ordination of S&H is imposed. In the mixed construction site where multiple contractors work on the same site, in order to prevent industrial accidents caused by such a mixed work site, the contractor must select a person charged with responsibility for total S&H co-ordination (called overall S&H controller), apart from S&H management within the company (such management system is called "integrated management").	<i>Taiwan</i> In all cases, large or small projects & public or private, the regulation of the Council of Labour Affairs of Executive Yuan (CLA) needs the contractor to designate an officer for SHE in situ.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Always during the construction stage, the principal contractor is responsible for the work and he has responsibilities for OHS management as well.				
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3.2 Who is charged with safety and health co-ordination in this stage, who appoints this person and when exactly does this person have to be appointed ?

EUROPEAN UNION

<i>Austria</i> Principally the building owner is charged with all co-ordination tasks, but in most of the cases he will appoint a responsible person (the so called Baustellenkoordinator). This has to be done when the work on the construction site begins.	<i>Belgium</i> When works are carried out by more than one contractor, the client has to appoint a co-ordinator. However, if the client is a private person, the architect has to appoint the co-ordinator. If there is no architect, the contractor has to appoint the co-ordinator.	<i>Denmark</i> The client should assure that the co-ordinator is appointed from beginning of the construction period. No exact time is given.	<i>Finland</i> The client has to appoint the principal executive contractor (PEC) for the construction stage who is charged with the co-ordination duties. The appointment must take place prior to the commencement of works.	<i>France</i> The client is charged with the appointment of the co-ordinator.
<i>Germany</i> The co-ordinator is in charge of safety and health co-ordination on the construction site at the design stage. It is the client's task to appoint a co-ordinator, i.e. he is responsible for the appointment of a co-ordinator by another natural person or by a legal person. The co-ordinator at the construction stage must be appointed before this stage begins.	<i>Greece</i> The owner/client or the project supervisor charges the site co-ordinator before the commencement of any works.	<i>Ireland</i> The client has to appoint a project supervisor for the construction stage who is charged with the co-ordination duties. The appointment must take place prior to the commencement of works.	<i>Italy</i> The Execution Phase Co-ordinator is charged of Health and Safety Co-ordination in this phase. He is appointed by the Client or by the Project Supervisor before construction work is meant to start.	<i>Luxembourg</i> The co-ordinator(s) for safety and health during the construction stage. The client and/or the contractor appoints the safety co-ordinator before the design stage of the work starts.
<i>Portugal</i> The law does not say who can be charged, but it is clear that the owner must appoint him. The law is not clear about when he must be appointed but, in practice, he is appointed in most cases when the owner has to fulfil the Prior Notice to send to the Authority.	<i>Spain</i> The promoter must name a co-ordinator before the work starts.	<i>Sweden</i> The client is charged, but he can appoint a legal person to deal with matters of co-ordination. Appointment is made as soon as the construction site is set up.	<i>The Netherlands</i> He has to be appointed by the client, except in case of a 'client-consumer'. In that case he has to be appointed by the architect. It is not regulated when he has to be appointed. Considering his task, he should be appointed as early as possible.	<i>United Kingdom</i> The construction stage safety and health co-ordinator is termed the Principal Contractor (PC). The PC is appointed by the client as soon as is practicable after the client has sufficient information about the construction work for the appointment to be made.

EUROPE OUTSIDE EU

<i>Switzerland</i> The contract manager representing the client is charged with the appointment or the client/owner when the contractor is entrusted with the work.				
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AMERICA

<i>Argentina</i> Before the construction site starts, a competent technician is charged with safety and health co-ordination. The construction contractor appoints him.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Once the construction work commences. The principal contractor is held liable by CSSR and SM Reg to be responsible for the safety and health on the site. The regulations do not ask for a particular person to be appointed. It is up to the contractor to decide who will be responsible for such duties under her safety organisation.	<i>India</i> Not defined.	<i>Japan</i> The project site manager of the first contractor, i.e. prime contractor, who is responsible for the construction work, is usually appointed as "overall safety and health controller". The "overall safety and health controller" is appointed by the prime contractor at the time of opening the project site, and it is notified to the supervising authority.	<i>Taiwan</i> As soon as the contract is ready, the contractor has to appoint an officer in charge of SHE affairs in situ. This SHE officer must follow the training program of the Council of Labour Affairs (CLA), passing the examination with a certificated award. The designated SHE officer must also be approved by the supervisor of the owner / client.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The Principal Contractor appoints an employee representative to manage and co-ordinate OHS from project commencement.				
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3.3 What are this person's missions? What are this person's responsibilities ?

EUROPEAN UNION

Austria The mission and responsibilities of the co-ordinator in the construction stage are laid down in § 5 (2) of the law. One of his principal duties is to supervise adherence to the Safety and Health Protection Plan.	Belgium The co-ordinator has a mission. The person that appoints the co-ordinator is charged with the supervision of the co-ordinator's mission and has responsibilities. The co-ordinator has to co-ordinate the application of the safety and health plan, to update the safety and health logbook as well as the safety and health maintenance file.	Denmark The co-ordinator should coordinate the measurements of each contractor concerning health and safety in the common areas of the construction site, by personal contacts and by safety meetings.	Finland Missions: Ensure that a Safety and Health plan is available. Prepare a safety file. Make, or cause to be made, any adjustments required to the S&H plan and safety file. Ensure that a copy of the prior notice is clearly displayed at the construction site and, if necessary, periodically updated. Organize common S&H activities together with the persons carrying on activities at the common workplace. Responsibilities : The execution of the different parts of the project during the construction stage may not coincide in space or time in such a way that a risk of ill-health or accident arises.	France The co-ordination is a functional mission. The Client is the only person responsible in case of an accident. He is a natural person (no delegation is possible) in charge of integrating prevention at the project preparation stage.
Germany The co-ordinator at the construction stage has to: - co-ordinate the general principles of § 4 Work Protection Act (Arbeitsschutzgesetz), - pay attention employers as well as entrepreneurs without employees obey this Act, - adopt or have adopted the safety and health plan in case of major alterations in the execution of the construction project, - organise the co-operation of the employers and co-ordinate the proper application of working techniques by the employers.	Greece The site co-ordinator acts on behalf of the owner or the supervisor not having specific legal responsibilities. However, there are cases where the owner transfers part of his own legal responsibilities to the site supervisor. His missions are : - to co-ordinate the application of the safety and health plan in the construction phase - to update -if necessary- the S&H plan and file - to organize the works with the collaboration of different subcontractors, the safety engineer and the workplace doctor - to conduct regular inspections of the construction site, verifying whether the S&H plan has been applied and to avoid the entrance of unauthorized people in the work site.	Ireland - Develop the Safety & Health Plan. - Prepare Safety File and on completion of project deliver Safety File to Client. - Co-ordinate the general principles of prevention. - Co-ordinate implementation of relevant requirements of the Regulations. - Organise co-operation between contractors. - Keep certain records. - Co-ordinate measure to permit authorised persons only on to the site. - Notify the Statutory Authority before work commences on the site. - Display copy of notice on the site. - The PSCS may appoint a competent person as health and safety co-ordinator to undertake, on behalf of the PSCS, the duties specified.	Italy The Execution Phase Co-ordinator acts on behalf of the Client but he has his own clarified responsibilities. He has to verify through a Co-ordination and control activity that the Contractor applies the procedures of the Safety and Co-ordination Plan. He has to verify the contents of the Safety Operating Plan, which is developed by Contractors and Subcontractors and it details the Safety and Co-ordination Plan. He has to update the Safety and Co-ordination Plan and the Maintenance Safety File according to how works are performed on site and he has to control that the Safety Operating Plan is updated as well. He has to co-ordinate the activity and the information exchange between Contractors and self-employed workers on site. He has to notify to the Client all the Safety violations and irregularities on site. He can also propose the construction work stoppage as well as the cancellation of the contract. Whether or not the Client or the Project Supervisor takes actions after these notifications, the Execution Phase Co-ordinator can notify this non-fulfilment to the local Health Agency or the adequate institutional Body.	Luxembourg He organises the safety co-ordination between contractors, adapts the S&H plan, verifies whether the measures decided of have been taken, completes the safety file and takes into account any interaction with external activities that may influence life on the work site. The client is always responsible for the actions of the safety co-ordinator.

<i>Portugal</i> He acts on behalf of the owner and has obligations. So he has both a mission and responsibilities. This co-ordinator has to follow the obligations stated in article 6 (a) of the Directive 92/57/CEE.	<i>Spain</i> Responsibilities are related to the 9th article in the 1627 RD. - "Article 9. Co-ordinator's obligations in matters of health and safety during the working processes."	<i>Sweden</i> Missions : Ensure that a S&H plan is available. Prepare a safety file. Make, or cause to be made, any required adjustments to the S&H plan and safety file. Ensure that a copy of the prior notice is clearly displayed at the construction site and, if necessary, periodically updated. Organise common S&H activities together with the persons carrying on activities at the common workplace. Responsibilities : The execution of the different parts of the project during the construction stage may not coincide in space or time in such a way that a risk of ill-health or accident arises.	<i>The Netherlands</i> It is his responsibility to : - Co-ordinate measures to manage common risks or risks for other workers than the workers from an employer. - Provide co-operation between employers working at the same spot - Check measures and co-operation - Co-ordinate work instruction and information - See to it that only competent people are admitted on the site - Actualize the health and safety plan - Complete the health and safety file.	<i>United Kingdom</i> The Principal Contractor has the following responsibilities : - To develop the construction stage safety and health plan - To display the notification of the project sent to the enforcing authority - To restrict entry to the site to authorized persons - To ensure that all contractors on the project have adequate resources and are competent to carry out the work - To co-ordinate the work of all contractors on the project - To ensure that health and safety training is provided - To consult with the workforce - To monitor compliance with the safety and health plan.
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EUROPE OUTSIDE EU

<i>Switzerland</i> Preserve safety and health. In the first instance preserve the safety and health. He must take account of the risks created by the interference of the various contractors' activities.				
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AMERICA

<i>Argentina</i> His mission is to check the application of the safety and co-ordination plan. He has professional responsibilities and civil and penal legal responsibilities with his employer.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable as the regulations mentioned in question 3.2 do not ask for a particular person to be appointed.	<i>India</i> Not applicable.	<i>Japan</i> The overall safety and health controller has obligations as Prime Contractor (the first contractor and top order placer), as Specified Master employer (contractor who contracts part of the work to other contractors), and as an Order Placer (one party of the contract and who place orders).	<i>Taiwan</i> The SHE officer designated by the contractor takes charge of all affairs of SHE in situ and reports to the supervisor regularly.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The Principal Contractor, through the safety manager or safety supervisor, must ensure that : - a site-specific health and safety management plan is prepared for each place of work before the construction work commences, - the plan is maintained and kept up to date during the course of the construction work. Regards the plan the principal contractor is also responsible: - for the plan contents, - for the plan availability for inspections, - that the plan is provided to all sub-contractors, - that the plan, if changed, is provided to the sub-contractors.				
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3.4 Is there a legal obligation to lay down in a contract the assignment of the co-ordinator? If so, does the contract have to meet certain legal requirements ?

EUROPEAN UNION

<i>Austria</i> No. The co-ordinator has to be "entrusted" by the building owner, a contract assignment is not mentioned in the law.	<i>Belgium</i> Yes, there is. No transfer of responsibilities may be done by the person who was in charge of the appointment of this co-ordinator.	<i>Denmark</i> No.	<i>Finland</i> No, these items are not specified by the law.	<i>France</i> Yes, but there is no precise regulation.
<i>Germany</i> No, according to the Construction Sites Order there is no legal obligation to lay down the tasks of a co-ordinator in a written contract. Practically, this happens quite often, however, for reasons of specification and of evidence.	<i>Greece</i> No, there is no legal requirement.	<i>Ireland</i> No, there is no legal requirement.	<i>Italy</i> No, there is not any legal obligation. The Client appoints the Execution Phase Co-ordinator at his own responsibility.	<i>Luxembourg</i> No, there is no legal requirement.
<i>Portugal</i> No, there is no legal requirement.	<i>Spain</i> Somebody must be named, though there is no legal contract available.	<i>Sweden</i> No, these items are not specified by the law.	<i>The Netherlands</i> Yes, there is a legal obligation to lay down the assignment of the co-ordinator in a contract. There is no legislation about any requirements.	<i>United Kingdom</i> There is no requirement for a contract in CDM. However, there will normally be a contract between a client and a P.C.

EUROPE OUTSIDE EU

<i>Switzerland</i>				
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AMERICA

<i>Argentina</i> Yes, it is a legal obligation and the contract requires some legal regulations.	<i>USA</i> No, this is no legal requirement.			
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ASIA

<i>China - (Hong Kong)</i> No. The regulations mentioned in question 3.2 do not specify such requirements.	<i>India</i> Not applicable.	<i>Japan</i> There is a legal obligation to appoint an overall safety and health controller, but there is no obligation to lay down his assignment in a contract .	<i>Taiwan</i> No necessity to lay down the assignment of a co-ordinator. On the contrary, an officer in charge of SHE affairs has to be assignedby the contractor.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Under the requirements of the OHS legislation, the Principal Contractor as the person in control of the workplace must appoint a person/s to manage and co-ordinate OHS on a project, to satisfy their Duty of Care, to provide a safe system of work and safe workplace for all employees, subcontractors or other visitors to a site.				
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3.5 Who supervises the accomplishment of the co-ordinator's missions ?

EUROPEAN UNION

<i>Austria</i> The Client and the Labour Inspectorate.	<i>Belgium</i> The person that was in charge of the appointment of the co-ordinator.	<i>Denmark</i> The client.	<i>Finland</i> There is no direct supervisor of the principal executive contractor (PEC). However, if there is not the PEC, then the client has the duties and responsibilities.	<i>France</i> The client.
<i>Germany</i> The client or the third party authorised by him observes whether the co-ordinator meets his tasks and duties.	<i>Greece</i> The person who has appointed him.	<i>Ireland</i> There is no specified supervision of the PSCS role/missions. The Client who makes the appointment may terminate, change or review the appointment as necessary.	<i>Italy</i> The Project Supervisor has to supervise the Execution Phase Co-ordinator mission.	<i>Luxembourg</i> The client.
<i>Portugal</i> The law does not state anything about this, so it must be the person who appoints him - the owner.	<i>Spain</i> There is no such supervision, but in practice, it may be comprehended within a general supervision of the working inspection.	<i>Sweden</i> The Labour Inspectorate makes general inspections regarding health and safety matters.	<i>The Netherlands</i> The Labour Inspectorate, as a part of the Ministry of Labour and Social Affairs.	<i>United Kingdom</i> There is no direct supervisor of the Principal Contractor. However the client for discharging the above responsibilities will hold the Principal Contractor accountable.

EUROPE OUTSIDE EU

<i>Switzerland</i> Suva.				
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AMERICA

<i>Argentina</i> A national or local government office.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable as the regulations mentioned in question 3.2 do not specify the assignment of such a person.	<i>India</i> Not applicable.	<i>Japan</i> The contractor who designated the overall safety and health controller will supervise his accomplishment, but in reality, the person in charge of safety and health management in the contractor will supervise.	<i>Taiwan</i> The supervisor sent by the owner / client inspects the work of the SHE officer. The inspector from the Council of Labour Affairs will sometimes go in situ to do the inspection.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The safety manager's mission is controlled by the Principal Contractor.				
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3.6 Which legal means does the safety and health co-ordinator at the construction stage have at his disposal? Can he impose certain measures or has he got a more advisory function ?

EUROPEAN UNION

<i>Austria</i> The co-ordinator in the construction stage – as well as the co-ordinator in the design stage – has a basically advisory function. The client, however, may authorise him to issue directives. The co-ordinator may – in cases of dangers looming – issue directives even if he has not been explicitly authorised by the client.	<i>Belgium</i> He has an advisory function. Only the person that was in charge of his appointment can impose things.	<i>Denmark</i> Being responsible for calling and leading safety meetings at least every 2 weeks. The written plan for health and safety and the project-material can clarify certain sanctions for not fulfilling health and safety levels.	<i>Finland</i> To the co-ordinator shall be given the powers and resources which are required in the tasks .	<i>France</i> The co-ordinator in the execution stage designs, organises and monitors the enforcement of the General Co-ordination Plan. He keeps a record in which he lays down all his observations to the companies involved and the client. His powers are given to him by the latter.
<i>Germany</i> The co-ordinator at the construction stage – as well as the co-ordinator in the design stage – has a basically advisory function. The client, however, may authorise him to issue directives. The co-ordinator may – in cases of dangers looming – issue directives even if he has not been explicitly authorised by the client.	<i>Greece</i> The site co-ordinator has an advisory function, although he has the right and the duty to contact the controlling Authorities, if violation of safety rules are taking place in the construction site.	<i>Ireland</i> This is not specified in the regulations. There is a duty on others involved in the construction stage to take account of the directions of the project supervisor.	<i>Italy</i> The Execution Phase Co-ordinator can impose measures and he can propose work stoppage or the dissolution of the contract when these measures are not undertaken.	<i>Luxembourg</i> Generally speaking, the co-ordinator's role is to advise the client and the designer. For certain matters, however, the client may entrust him with "site police powers" if these relate to his job.
<i>Portugal</i> The law is not clear about this, but as he is appointed and acts on behalf of the owner, it depends on the power the owner gives to him. As most owners are not familiar with this legislation and in most cases there is no written contract, no clear power is given to this co-ordinator to impose measures. In practice, this co-ordinator can only inform the owner about an emerging problem so that the owner can decide what to do.	<i>Spain</i> He is an advisor, but during the execution stage he must inform the work inspection of safety non-fulfilment.	<i>Sweden</i> He shall be given the powers and resources which the task requires. The client is responsible for the co-ordinator (himself or someone he has appointed) and has good prospect for steering the project.	<i>The Netherlands</i> His means have to be laid down in a working agreement. If the client has not entrusted him with any authority, the co-ordinator can only act as an advisor.	<i>United Kingdom</i> The Principal Contractor has the statutory right to enforce rules put in the construction health and safety plan.

EUROPE OUTSIDE EU

<i>Switzerland</i> He has an advisory function.				
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AMERICA

<i>Argentina</i> He has enough authority to impose security measures in order to keep occupational safety and health at the construction site low.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable as the regulations mentioned in question 3.2 do not specify the assignment of such a person.	<i>India</i> Not applicable.	<i>Japan</i> He can give out necessary instructions to subcontractors to carry out the mission mentioned in 3.4..	<i>Taiwan</i> According to the regulation the SHE officer will impose measures on all SHE affairs in situ including co-ordination.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The Principal Contractor cannot transfer his OHS responsibility to another party, e.g. the subcontractor.				
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3.7 Is payment of the co-ordinator's performances arranged ?

EUROPEAN UNION

<i>Austria</i> No, the co-ordinator has to agree the payment with his client.	<i>Belgium</i> The co-ordinator's payment is arranged on a private basis, with a contract.	<i>Denmark</i> Not legally, but it is the clients' obligation to ensure that a co-ordinator is appointed.	<i>Finland</i> This is often dealt with in the contractual arrangements or with a collateral agreement to the contract.	<i>France</i> No, that is a contractual arrangement.
<i>Germany</i> No, the co-ordinator has to agree about the payment with his client.	<i>Greece</i> The co-ordinator's payment is arranged on a private basis.	<i>Ireland</i> This is often dealt with in the contractual arrangements or with a collateral agreement to the contract. Where the PSCS is not the principal/main contractor the Client agrees payment separately with the PSCS.	<i>Italy</i> As for the Design Stage Co-ordinator, there is not a national regulation about this. The payment of the Execution Phase Co-ordinator's performances are not always legally arranged. Regional Professional Orders have provided some guidelines to calculate the amount of the performances' payment. The amount is usually based on the site's size, the amount of works etc...	<i>Luxembourg</i> This is a matter of contractual arrangements between the parties.
<i>Portugal</i> No, the co-ordinator has to agree about the payment with his client.	<i>Spain</i> No, it isn't.	<i>Sweden</i> No, the co-ordinator has to agree about the payment with his client.	<i>The Netherlands</i> No, this has not been arranged.	<i>United Kingdom</i> Not under CDM. However the Principal Contractor will allow for the cost of discharging the above responsibilities in the contract price.

EUROPE OUTSIDE EU

<i>Switzerland</i> No, this has not been arranged.				
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AMERICA

<i>Argentina</i> No, the co-ordinator has to agree about the payment with his client.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable as the regulations mentioned in question 3.2 do not specify the assignment of such a person.	<i>India</i> Not applicable.	<i>Japan</i> It is not arranged by the legislation. It is included in the project cost.	<i>Taiwan</i> Payment of the SHE officer is automatically included in the contract without any performance arrangement.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The Principal Contractor provides payment based upon an employer/employee relationship (i.e. fixed wage). OHS performance on site is one aspect of many contained in a performance review for the employee.				
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3.8 When does the mission/responsibility of the co-ordinator for the construction stage end ?

EUROPEAN UNION

<i>Austria</i> The task and responsibility of the co-ordinator ends with the construction works including corrections of faults. His legal responsibility can reach beyond this in cases he had made a faulty decision in the construction stage which has lead to personal injury or property loss. The responsibility of the co-ordinator towards the client ends with the expiry of the contract he has signed with the client.	<i>Belgium</i> When the construction is handed over to the client as well as the File for Subsequent Works.	<i>Denmark</i> Not specified.	<i>Finland</i> Not stated in the ordinance. It is normally concluded when the project is handed over to the client.	<i>France</i> When the co-ordination documents are handed to the client and the File for Subsequent Works is passed.
<i>Germany</i> The task and responsibility of the co-ordinator ends with the construction works including corrections of faults. His legal responsibility can reach beyond this in case he had made a faulty decision in the construction stage which has lead to personal injury or property loss. The responsibility of the co-ordinator towards the client ends with the expiry date of the contract he has signed with the client.	<i>Greece</i> After the completion of the construction stage.	<i>Ireland</i> It depends on the type and nature of the project and this should be indicated in the letter of appointment. It is normally concluded when the project is handed over to the client.	<i>Italy</i> The mission and the responsibility of the Execution Phase Co-ordinator end when the construction work is completed.	<i>Luxembourg</i> When all the documents that were established during the construction stage, i.e. the safety and health plan and the safety file for subsequent maintenance work are handed over.
<i>Portugal</i> The law is not clear about this but, in practice, on the completion of the construction works.	<i>Spain</i> When the work is over.	<i>Sweden</i> Not stated in the ordinance but normally when the construction stage comes to an end.	<i>The Netherlands</i> When the construction is finished and handed over to the client.	<i>United Kingdom</i> At the end of the construction stage, which can include a specified post construction maintenance period in which defects must be remedied.

EUROPE OUTSIDE EU

<i>Switzerland</i> When the construction project is handed over.				
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AMERICA

<i>Argentina</i> When the construction is finished and handed over to the owner.	<i>USA</i> Not applicable			
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ASIA

<i>China - (Hong Kong)</i> Not applicable as the regulations mentioned in question 3.2 do not specify the assignment of such a person.	<i>India</i> Not applicable.	<i>Japan</i> It ends when the construction work is completed and handed over to the client.	<i>Taiwan</i> The responsibility of the SHE officer will end with when the construction stage ends.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The responsibility of the Principal Contractor ends at the completion of the project and handover to the client. However co-ordination of trades during the Defects Liability Period which is typically 3 months after handover is also the Principal Contractor's responsibility.				
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3.9 Is a minimum frequency for the organisation of co-ordination meetings imposed ?

EUROPEAN UNION

<i>Austria</i> No, there are no legal provisions for this; it depends on the type and the specific conditions of a construction site.	<i>Belgium</i> There are no specific requirements about the frequency of the meetings except for works where more than 3 contractors are involved simultaneously and when the work exceeds a volume of 5000 man-days or costs more than 2.500.000€.	<i>Denmark</i> At least every 2 weeks and when severe accidents extra-ordinary meetings should be made.	<i>Finland</i> This is not specified. There is no minimum frequency imposed for co-ordination meetings.	<i>France</i> When the co-ordination documents are handed to the client and the File for Subsequent Works is passed.
<i>Germany</i> No, there are no legal provisions for this; it depends on the type and the specific conditions of a construction site.	<i>Greece</i> There are no specific requirements about the frequency of the meetings.	<i>Ireland</i> The Regulations do not cover co-ordination meetings.	<i>Italy</i> In the Decree there is no reference to the frequency of Co-ordination meetings. This frequency can be determined and reported in the Safety and Co-ordination Plan.	<i>Luxembourg</i> No, following the needs.
<i>Portugal</i> There is no frequency imposed for co-ordination meetings.	<i>Spain</i> No, it isn't.	<i>Sweden</i> There is no frequency imposed for co-ordination meetings.	<i>The Netherlands</i> There is no such minimum.	<i>United Kingdom</i> This is not specified.

EUROPE OUTSIDE EU

<i>Switzerland</i> There is no frequency imposed for co-ordination meetings.				
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AMERICA

<i>Argentina</i> There is no legal imposition, it depends on the necessity.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable as the regulations mentioned in question 3.2 do not specify the requirement of such meetings. However, SM Reg does ask for a safety committee with representatives from management and worker sides and regular meetings to be held to discuss occupational safety and health (OSH) issues on site.	<i>India</i> Not applicable.	<i>Japan</i> The legislation only says that meetings should be held regularly, but it does not specify the frequency. However, Ministry of Labour guidelines recommend to hold meetings once a month.	<i>Taiwan</i> No regular organization of co-ordination meetings is established.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> An OHS Committee is required by legislation to meet at least every 3 months. On larger projects the committee would typically meet weekly and inspect the site.				
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3.10 Who attends these meetings ?

EUROPEAN UNION

<i>Austria</i> Designer, construction firms in charge, employees' representatives, safety specialists and the co-ordinator attend these meetings.	<i>Belgium</i> For works of an importance superior to 5000 man days (or 2.500.000 Euro) and 3 or more contractors that are involved simultaneously, a formal composition is foreseen. In other cases, the co-ordinator and the client decide on who will be invited.	<i>Denmark</i> Beside the co-coordinator attendants are safety groups from all contractors with 5 or more employees, representatives from other (smaller) contractors, possible rep's from Occupational Health Services, local rep's from labour market organizations.	<i>Finland</i> This varies according to the scale and size of the projects. Normally the meetings involve all the principal contractors in the project, including also their safety representatives.	<i>France</i> All companies are involved.
<i>Germany</i> Designer, construction firms in charge, employees' representatives, safety specialists and the co-ordinator attend these meetings.	<i>Greece</i> The co-ordinator, the safety engineer, the workplace doctor, the contractors and subcontractors, the Safety and Health Committee and/or the workers' representatives.	<i>Ireland</i> Not specified in the Regulations.	<i>Italy</i> The Execution Phase Co-ordinator decides who has to attend the Co-ordination meetings. They must be attended at least by the Execution Phase Co-ordinator, the Work manager and the Site manager on behalf of the Contractor.	<i>Luxembourg</i> Not defined in the legislation. These meetings are nevertheless usually attended by representatives of the different companies, the client, the architect and the different consultancies, depending on the nature of the subjects that are discussed.
<i>Portugal</i> Not applicable.	<i>Spain</i> People who are responsible towards the companies involved.	<i>Sweden</i> Those who are involved in the construction stage (mainly the contractors and the workers' representatives).	<i>The Netherlands</i> Not defined in the legislation.	<i>United Kingdom</i> This is not specified.

EUROPE OUTSIDE EU

<i>Switzerland</i> The site manager, the co-ordinator, the contractors.				
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AMERICA

<i>Argentina</i> It is not fixed. Usually the owner's co-ordinator with the other contractor's technician.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable as the regulations mentioned in question 3.10 do not specify the requirement of such meetings.	<i>India</i> Not applicable.	<i>Japan</i> Attendance to the meeting is not set by legislation but according to the Ministry of Labour guidelines, following members are asked to attend the meetings : overall S&H controller of prime contractor, master S&H supervisor or equivalent person, project site staffs of the prime contractor, S&H staff of business office, S&H staffs of subcontractors and safety staff of business office of subcontractors.	<i>Taiwan</i> When it takes place, the contractor, designer, supervisor, owner and inspector from the Council of Labour Affairs will attend the meeting. If there is an accident, the legal person will be included in the meetings too.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Representatives of the Principal Contractor and of sub-contractors.				
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3.11 Who chairs these meetings ?

EUROPEAN UNION

<i>Austria</i> This is not specified.	<i>Belgium</i> The co-ordinator.	<i>Denmark</i> The co-ordinator	<i>Finland</i> This is not specified, however in practice, the main contractor normally chairs the meetings.	<i>France</i> The co-ordinator.
<i>Germany</i> As a rule the co-ordinator chairs these meetings.	<i>Greece</i> The co-ordinator chairs these meetings.	<i>Ireland</i> Not specified in the Regulations.	<i>Italy</i> These meetings should be chaired by the Execution Phase Co-ordinator.	<i>Luxembourg</i> Not specified. Mostly, the co-ordinator fulfils this task.
<i>Portugal</i> Not applicable.	<i>Spain</i> The safety co-ordinator.	<i>Sweden</i> Normally the main contractor.	<i>The Netherlands</i> Not defined in legislation.	<i>United Kingdom</i> This is not specified.

EUROPE OUTSIDE EU

<i>Switzerland</i> The site manager.				
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AMERICA

<i>Argentina</i> Not specified, usually the co-ordinator.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable as the regulations mentioned in question 3.10 do not specify the requirement of such meetings.	<i>India</i> Not applicable.	<i>Japan</i> It is not set by legislation, but generally, the overall safety and health controller will take the chairman's seat.	<i>Taiwan</i> Depends on the nature of the meeting. For a regular meeting, the chief supervisor will chair the meetings. When there was an accident, the legal person will be in charge.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The OHS Committee Chairperson who is elected by workers on the site.				
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3.12 According to the legislation, when are workers' representatives to be involved in co-ordination issues ?

EUROPEAN UNION

<i>Austria</i> There are no legal provisions for this.	<i>Belgium</i> They have to be involved in works of an importance superior to 5.000 man-days (or 2.500.000 Euro) and when at the same time 3 or more contractors are involved simultaneously.	<i>Denmark</i> When 5 or more employees from each contractor at the site. When performance of dangerous work may give impact on other workers.	<i>Finland</i> During the whole process, especially when there are common risks with workers from other employers or risks for other workers than the workers from this employer.	<i>France</i> Within the Health, Safety and Working Condition Commissions of all companies employing more than 50 persons.
<i>Germany</i> There are no legal provisions for this.	<i>Greece</i> Each time the co-ordinator thinks that it is necessary according to the severity of hazards and/or the size of the construction site.	<i>Ireland</i> Not specified in the Construction Regulations – other safety Legislation provides for Consultation with Workers Representatives. – New Construction Regulations due in 2002 will cover this.	<i>Italy</i> They must be involved when the Safety and Co-ordination Plan is submitted to the Contractor to be examined.	<i>Luxembourg</i> The legislation does not prescribe a specific role in co-ordination for the workers' representatives.
<i>Portugal</i> Workers can at any time inform the co-ordinator about specifications of the safety and health plan that are not adequate to the real situation.	<i>Spain</i> They are informed of and asked about the safety plan in the building works, and they can inform of its non-fulfilment in the statement of affairs (for the Work Inspection).	<i>Sweden</i> During the whole process.	<i>The Netherlands</i> In case there are common risks with workers from other employers or risks for other workers than the workers from this employer.	<i>United Kingdom</i> This is not specified in CDM. However, the Principal Contractor has to ensure that arrangements exist for the views of the workforce to be co-ordinated and taken into account.

EUROPE OUTSIDE EU

<i>Switzerland</i> They have no role to play.				
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AMERICA

<i>Argentina</i> They may inform about inadequate safety and health conditions during the work.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Once the construction work commences. The principal contractor is held liable by CSSR and SM Reg to be responsible for the safety and health of the site. The regulations do not specify the involvement of the workers' representatives in co-ordination issues. However, SM Reg does ask for a safety committee to be set up with representatives from management and worker sides and regular meetings (quarterly) to be held to discuss occupational safety and health (OSH) issues on site. It is up to the contractor to decide when and how they are involved in co-ordination issues pertaining OSH on site under her safety organisation.	<i>India</i> Not applicable.	<i>Japan</i> The construction workers in Japan do not form Unions, and so there is no case when the representatives of the construction workers will be involved directly with the co-ordination of construction works.	<i>Taiwan</i> For construction industry, as the labourers are hired per project base, no workers' representatives will be involved.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> For New South Wales, an OHS Committee is established when : - the employer voluntarily establishes an OHS Committee, - the employer has 20 or more employees and the majority of them request the OHS Committee's establishment. In some cases it is possible to have one or more OHS Representatives. Usually an employee is representative for a designated group of workers to directly raise and discuss their OHS issues.				
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3.13 What is the role of the contractors' prevention experts ?

EUROPEAN UNION

<i>Austria</i> The safety experts established in Germany support their enterprises in application of work protection and accident prevention regulations in their firms.	<i>Belgium</i> They support their firms in the application of work protection and accident prevention.	<i>Denmark</i> Contractors are covered by the Mandatory System of Occupational Health Services.	<i>Finland</i> None is specified.	<i>France</i> This is not defined.
<i>Germany</i> The safety experts established in Germany support their enterprises in application of work protection and accident prevention regulations in their firms.	<i>Greece</i> To co-operate with the safety co-ordinator, the contractors and the workers in order to improve the safety conditions on the construction site.	<i>Ireland</i> The Role of 'prevention experts' is not specified in the Regulations. The contractors' role varies, in some cases the principal contractor is the project supervisor/co-ordinator and safety consultants can interface with projects depending on the nature, size and duration. Many site safety auditors, consultants and advisers are involved in the whole process. They can work with the project supervisor or they can work with the contractor or both.	<i>Italy</i> They should propose integrations or changes according to their experiences and in order to improve workers' safeguarding.	<i>Luxembourg</i> This is not defined. As each company has to see to the safety and health of its workers, the prevention counsellor gives advice to the employer on which safety measures to adopt for a certain task. The measures the employer selects are brought together into a document called "The Company's Specific Safety and Health Plan".
<i>Portugal</i> The law does not talk about this issue.	<i>Spain</i> To assist companies about prevention, safety and workers' instruction.	<i>Sweden</i> This is not defined.	<i>The Netherlands</i> They can act as advisors.	<i>United Kingdom</i> None is specified.

EUROPE OUTSIDE EU

<i>Switzerland</i> When the contracting company does not possess the required knowledge, specialists (safety engineers, occupational physicians, hygienists...) have to be consulted.				
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AMERICA

<i>Argentina</i> They only have advisory functions, not defined by law.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> The contractor is required to employ a Registered Safety Officer (RSO) when he employs 100 or more workers on one site (or at any one time has sites with a total of 100 or more workers working simultaneously) under the Factories & Industrial Undertakings (Safety Officer and Safety Supervisor) Regulations (here-after called SO Reg). The RSO duties are emphasized on the assistance to the contractor in all OSH related matters on site which include advice on safety control measures, accident investigation, supervision to the safety supervisor, monitoring of site performance, etc.	<i>India</i> Not applicable.	<i>Japan</i> In Japan, there are no such experts as contractors' prevention experts. However, project site managers are expected to take the role of overall safety and health controller, and one of the requirements of the project site manager is to have sufficient knowledge and experience in prevention of industrial accidents. So, he may be regarded as a prevention expert.	<i>Taiwan</i> Beside the contractor's SHE officer, there is no prevention expert in situ.	
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AFRICA

<i>Algeria</i> There is no legislation concerning this item.				
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OCEANIA

<i>Australia</i> The Principal Contractor, through the safety manager or safety supervisor, must guarantee the prevention of risks during the development and execution of the work activities: i.e provide and maintain safe systems of work and a safe workplace.				
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3.14 What happens with the co-ordination tools (health and safety plan, safety file for subsequent maintenance works...) once the work has been completed? Who receives these tools and when exactly (works completed/after a guarantee period - which) ?

EUROPEAN UNION

<i>Austria</i> Health and Safety Plan: not defined in legislation. Health and Safety File for subsequent maintenance work: when the construction is finished the file has to be handed over to the owner.	<i>Belgium</i> They have to be handed over to the person who was in charge of the appointment of the co-ordinator at the moment of the project's delivery.	<i>Denmark</i> No legal imposing. Experiences indicate that the plan will remain within the designer or with the main contractor.	<i>Finland</i> This is not defined in the regulations.	<i>France</i> The co-ordination documents must be kept for 5 years. The File for Subsequent Works is to be kept throughout the whole life of the building.
<i>Germany</i> There are no specific legal provisions for this. There is no doubt that the co-ordinator's records have to be handed over to the client/customer.	<i>Greece</i> Once the work has been completed, the client/owner is responsible to take and keep all the co-ordination documents, until another final and permanent owner or/and user of the work takes this responsibility.	<i>Ireland</i> The project supervisor construction stage must pass the safety file on to the client and the client has a statutory duty to make the file available to subsequent owners or subsequent use.	<i>Italy</i> Like all the other design documents, the Co-ordination tools remain a property of the Client.	<i>Luxembourg</i> The safety file is handed over to the client at the moment of the project's delivery. The safety register (a document used by many co-ordinators but which is not compulsory) is handed over to the client at the end of the work. The safety co-ordinator keeps a double of these documents for his own file.
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> There are no such provisions, though the report on safety must take into account possible works following the works completion. In Spain there is no legal regulation of the Adapted Report existence.	<i>Sweden</i> This is not defined in the regulations.	<i>The Netherlands</i> Health and Safety Plan: not defined in legislation. Health and Safety File for subsequent maintenance work: when the construction is finished, the file has to be handed over to the client. It is the client's responsibility to hand it over to the owner or manager of the building.	<i>United Kingdom</i> The health and safety plan does not have to be retained after the construction stage is completed. However the Principal Contractor may choose to do this voluntarily. The health and safety file has to be passed to the client on completion of the project. The client has to keep and update the file as long as he owns the structure. If the client sells the structure he has to hand the file to the new owner.

EUROPE OUTSIDE EU

<i>Switzerland</i> They are generally filed by the client as agreed upon, since they apply also to subsequent maintenance work.				
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AMERICA

<i>Argentina</i> These documents are given to the client at the end of the construction.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> There is no such specific requirement on co-ordination tools such as a safety plan, safety files, etc. under current CSSR. The SM Reg does ask for safety planning implicitly. However, SM Reg does not mention what happens with the safety plan except that the contractor needs to keep the safety audit reports not less than 5 years after each audit and it should be produced for inspection upon request of the Labour Department.	<i>India</i> Not applicable.	<i>Japan</i> The co-ordination tools prepared during the construction stage will be kept at the project site during the construction until the work is completed and handed over to the client, but after the completion, they will be kept according to the in-house regulations of the prime contractor. There is no legislation on that.	<i>Taiwan</i> All co-ordination tools have to be presented regularly to the site officer of the owner or the supervisor during the construction. All documents will be kept for 15 years according to the building code.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> All the OHS documents are archived by the Principal Contractor. But only some records are legally required to be kept, e.g. accident records.				
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3.15 Is a prior notice of the start of a construction project to be sent to the authorities ? If so, by whom and when exactly ?

EUROPEAN UNION

<i>Austria</i> Yes, the Labour Inspectorate has to be informed by the client two weeks before the start of the construction stage at the latest. An exception is made for matters of urgency, such as catastrophes.	<i>Belgium</i> Yes, 14 days before the start of the works.	<i>Denmark</i> The client should give a written notice to local authorities when : • The construction period exceeds 30 days and at least 20 people are engaged at the same time. • The expected amount of work exceeds 500 man-days.	<i>Finland</i> Yes, before starting the works.	<i>France</i> Yes. The constructor must send the prior notice as early as possible at the Health and Safety executive.
<i>Germany</i> A prior notice must be directed to competent authority at least two weeks before installation of the construction site.	<i>Greece</i>	<i>Ireland</i> Yes – A Commencement Notice must be sent to the Statutory Authority by the Project Supervisor Construction Stage.	<i>Italy</i> Yes, the co-ordinator has to send a prior notice to the ASL (Azienda Sanitaria Locale), ten days before the start of the construction stage at the latest.	<i>Luxembourg</i> Once the starting date of the works has been determined, the co-ordinator transmits a "prior notice" to the Labour Inspectorate. The minimal content has been specified by the legislation.
<i>Portugal</i> Yes; the client has to give prior notice of the works to IGT, the General Labour Inspectorate, before the construction works start.	<i>Spain</i> If, according to the articles 18 and 19 of the Royal Decree 1627/1997. Article 18. Previous announcement. In all of the works comprehended in application scope of the present Royal Decree, the promoter must necessarily announce it to the incumbent Working authority before beginning to work. This previous announcement will be written up accordingly to the provisions listed in the third annex of the present Royal Decree, and be exposed within sight in the building site and be renewed whenever necessary.	<i>Sweden</i> Yes, the client has to send a prior notice to the Labour Inspectorate before the start of the construction stage.	<i>The Netherlands</i> Yes, this is compulsory. The legislation does not state who has to fulfil this obligation, but the client is held responsible. A construction project has to be notified to the Labour Inspectorate before the start of the construction stage.	<i>United Kingdom</i> Yes, the planning supervisor has to notify the project to the authorities as soon as he is appointed.

EUROPE OUTSIDE EU

<i>Switzerland</i> It depends on the type of works and on the degree of danger. If it has to be notified (e.g. for subterranean works, works under air pressure, certain works with explosives), the construction firm in question has to give prior notice to SUVA before starting the works.				
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AMERICA

<i>Argentina</i> No.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i>	<i>India</i>	<i>Japan</i> Yes, large-scale work is notified 30 days before the start of the work and construction or other work is notified 14 days before the start of the work by the orderer who undertakes the work himself or, if not applicable, the prime contractor.	<i>Taiwan</i> Yes, the SHE plan and the designated officer have to be approved by the supervision officer and Labour Inspection Dept. of CLA before the construction work started.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> Local and state government approval is required: i.e. development and building application before work can commence. These approvals dictate the start date of a project and are usually lodged by the designer or other appointed representative of the client.				
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Notes and Comments



Notes and Comments



4 *Co-ordination of safety and health during subsequent maintenance work*

At present, it is yet too early to assess the role of co-ordination in preventing occupational risks during the subsequent use of the construction project since the various legal texts have only recently been applied.

By and large, preventive actions carried out previously by the safety and health co-ordinator will further be developed in order to guarantee the quality of the works.

Only the client remains responsible for assessing the work's proper completion.

It also appears that safer and even, more cost-effective subsequent maintenance works are possible when this subject is well considered in advance.

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Questions

- 4.1** What are the client's/owner's obligations on the subject of safety and health during subsequent maintenance work ?
- 4.2** To what extent are the co-ordination tools also being used in this stage ?
- 4.3** What happens with the co-ordination tools when the construction project is transferred to another owner/client ?

4.1 What are the client's/owner's obligations on the subject of safety and health during subsequent maintenance work ?

EUROPEAN UNION

<i>Austria</i> The client/owner is obliged to follow exactly the H&S plan and file during subsequent maintenance work. Any subsequent maintenance work not included in the initial plan must be regulated with additional measures.	<i>Belgium</i> Co-ordination has to start up again when construction works are carried out. The file for subsequent works has to be handed over to the co-ordinator if one has to be appointed, otherwise, it has to be given to the contractor by the client.	<i>Denmark</i> If the maintenance work is a project of its own the client has the same obligations as in new construction. In an expected Guideline for State Clients, building on a principle of the "pioneer client" it will be requested to make a building record taking all matters of h&s into account during maintenance, refurbishment and demolition of the construction.	<i>Finland</i> Maintenance construction is included in the definition of "construction work". The client therefore has the same obligations for maintenance as those he has for a new construction.	<i>France</i> The File for Subsequent Works is used as a reference for maintenance of the building.
<i>Germany</i> There is no specific regulation concerning the client's obligation with regard to subsequent maintenance works on the building. From a legal point of view the assumption may well be that the client must provide any information necessary for the execution of the works for the building contractors involved.	<i>Greece</i> The client/owner is obliged to follow exactly the S&H plan and file during subsequent maintenance work. Any subsequent maintenance work not included in the initial plan must be regulated with additional measures.	<i>Ireland</i> Most maintenance work is covered as construction work and the Clients and other duties as in the Regulations apply.	<i>Italy</i> The obligations in the matter of Safety and Health are the same the Client has during construction work. They have to provide to Safety Co-ordinators the Safety File that has been developed and updated during previous work.	<i>Luxembourg</i> The client requests the co-ordinator to establish the safety file for subsequent maintenance work which contains his propositions for protective measures (collective measures by preference).
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> There are no specific obligations. The Adapted Report is not comprehended in Spanish legislation.	<i>Sweden</i> Co-ordination has to start up again when construction works are carried out.	<i>The Netherlands</i> Formally he hands over the Health and Safety File. When it is expected that the subsequent maintenance work involves: -two or more employers or -one employer and one or more self-employed or -two or more self-employed, all the procedures related to the design and construction stages must be performed again.	<i>United Kingdom</i> Maintenance is included in the definition of "construction work" in the CDM Regulations. The client therefore has the same obligations for maintenance as he does for a new construction.

EUROPE OUTSIDE EU

<i>Switzerland</i> Take into account the safety and health during the design of the subsequent maintenance work (new construction directive).				
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AMERICA

<i>Argentina</i> He has the same obligations as he has for the construction projects.	<i>USA</i> Clients/owners, as employers, must provide their employees with a safe and healthy place to work in.			
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ASIA

<i>China - (Hong Kong)</i> There are definitions of construction work under the Factories & Industrial Undertakings Ordinance (here-after called FIUO) and CSSR and maintenance work of completed construction projects generally fall within the definition of construction work. Thus, the contractor responsible for the maintenance work will be held liable for its employees' OSH matters under CSSR, the SM Reg and FIUO. There is no specific provision on the co-ordination but rather a broad principle of providing safe system of work and a good safety management system. The client/owner of the property (completed project) will also be held liable for the OSH of any person on site where the maintenance work is carried out under the Occupational Safety & Health Ordinance (here-after called OSHO) should they be identified as occupier under the Ordinance. There is no specific provision for the occupier either as OSHO imposes general duties on duty holders.	<i>India</i> Not applicable.	<i>Japan</i> The obligation of contractors for safety and health terminates when the contractor hands over the project to the client together with manuals and documents on building, facilities, and equipment and gives necessary explanation. There is no obligation for co-ordination of safety and health after that.	<i>Taiwan</i> With each maintenance work goes a contract. The contract must include SHE tasks. The executor of the maintenance work is thus in charge.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> No specific requirement. Obligation usually falls on the contractor and their experience in carrying out the job safely.				
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4.2 To what extent are the co-ordination tools also being used in this stage ?

EUROPEAN UNION

<i>Austria</i> A separate document is drawn up for the maintenance stage (for the time the building exists). The S&H files of the construction stage are closed at the end of the construction stage.	<i>Belgium</i> Co-ordination has to start up again when construction works are carried out. The file for subsequent works has to be handed over to the co-ordinator if one has to be appointed, otherwise, it has to be given to the contractor.	<i>Denmark</i> If the maintenance work is a project of its own the client has the same obligations as in new construction. In an expected Guideline for State Clients, building on a principle of the "pioneer client" it will be requested to make a building record taking all matters of h&S into account during maintenance, refurbishment and demolition of the construction.	<i>Finland</i> Exactly as for a new construction project.	<i>France</i> The Client must use the file for Subsequent Works.
<i>Germany</i> The client may – although not intended by the Construction Sites Order – use the co-ordination tools for purposes of running and maintenance of the edifice.	<i>Greece</i> They are fully used.	<i>Ireland</i> Co-ordination is the same as for construction work. The Safety File has more significance at the maintenance stage.	<i>Italy</i> All the Safety tools must be developed. These tools will take into account the contents and procedures of the Safety File.	<i>Luxembourg</i> The safety file is the basis for all subsequent work. It contains all the construction plans as built, detailed plans, network plans, technical documents, names and addresses of suppliers, maintenance logs, etc. The safety co-ordinator does not have to check these documents, besides he does not have any means of pressure to obtain them. He merely has to list the documents which have to be transmitted to the client at the delivery of the construction project.
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> There is no Adapted Report in the Spanish legislation.	<i>Sweden</i> Exactly as for a new construction project.	<i>The Netherlands</i> According to the legislation, the Health and Safety File contains a description of all architectural and technical characteristics and the characteristics of the structure or equipment of the building.	<i>United Kingdom</i> Exactly as for a new construction project.

EUROPE OUTSIDE EU

<i>Switzerland</i> The safety plan is/should be handed over to the client to be used during subsequent maintenance work.				
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AMERICA

<i>Argentina</i> They are not used during this stage.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> There is no such specific requirement on co-ordination tools such as safety plan, safety files, etc. under current CSSR, FIUO and OSHO. The SM Reg does ask for safety planning implicitly. However, the safety plan referred by SM Reg is expected to be the safety plan developed purely for the maintenance work (maintenance stage).	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No such co-ordination tool in the maintenance stage.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The legislation that is to be released in 2001 requires the development of a site safety plan and supporting procedures for projects with a value of \$A 450,000 or more (200.000 EURO).				
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4.3 What happens with the co-ordination tools when the construction project is transferred to another owner/client ?

EUROPEAN UNION

<i>Austria</i> The new client has the same duties as the previous one. All the other dutyholders' responsibilities remain the same.	<i>Belgium</i> They are also transferred to the new owner/client. The File for Subsequent Works is appended to the notarial deed of cession.	<i>Denmark</i> Not legally imposed.	<i>Finland</i> The law does not regulate it, but the co-ordinator tools are expected to follow the duties of the project.	<i>France</i> The File for Subsequent Works is appended to the notarial deed of cession.
<i>Germany</i> There are no legal provisions for this question. It makes sense and is necessary to pass on the co-ordination tools to the purchaser.	<i>Greece</i> They are also transferred to the new owner/client.	<i>Ireland</i> Duties will apply to the new parties and the project file should move forward if the project is transferred.	<i>Italy</i> They are transferred as well, even if the only one which results to be useful is the Safety Maintenance File.	<i>Luxembourg</i> No information in the Luxembourg legislation as to the transfer of the safety file when the construction project is delivered.
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> There is no Adapted Report in the Spanish legislation.	<i>Sweden</i> The law does not regulate it but the co-ordinator tools are expected to follow the project.	<i>The Netherlands</i> The Health and Safety File has to be handed over to the new owner.	<i>United Kingdom</i> The new client has the same duties as the previous one. All the other dutyholders' responsibilities remain the same. The authorities have to be notified of the change of client by the planning supervisor.

EUROPE OUTSIDE EU

<i>Switzerland</i> The safety plan is handed over to the client (not compulsory).				
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AMERICA

<i>Argentina</i> The safety plan isn't transferred. The new owner has to approve a new plan.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> There is no such specific requirement on co-ordination tools such as safety plan, safety files, etc. under current CSSR. The SM Reg does ask for safety planning implicitly. However, SM Reg does not mention what happens with the safety plan except that the contractor needs to keep the safety audit reports not less than 5 years after each audit and it should be produced for inspection upon request of the Labour Department.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> The co-ordination tools will be transferred to the new owner / client.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not relevant to the Australian context. If the Principal Contractor changes, a new Site Safety Plan would be developed.				
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Notes and Comments



Notes and Comments



5 *Profile of the co-ordinator at the design stage*

In most countries, the health and safety co-ordinator must be a technician with experience in designing or project management and in keeping with the nature and size of the project. His professional diploma is therefore not a sufficient condition to be co-ordinator at the design stage.

Certain countries – though only a few – have introduced the obligation to take a special training approved by government. Some other countries opted for some kind of official examination.

Both legal and natural persons can assume the function of co-ordinator, provided they are professionally competent to fulfil their duties. This also applies to any assistant co-ordinator. In some countries, a distinction is made between different levels of co-ordinators, depending on the size of the works.

Cases of incompatibility of duties are rarely defined ; the function of co-ordinator is incompatible only with that of an official controller.

Co-ordination work abroad is possible, provided the co-ordinator meets the criteria imposed upon him or her in each country. These criteria can diverge quite a lot.

Questions

- 5.1** Are there different levels of co-ordinators ? If so, which ones ?
- 5.2** What are, for each level, the legally imposed minimum requirements for the diploma ?
- 5.3** What are, for each level, the legally imposed minimum requirements for professional experience ?
- 5.4** What are, for each level, the legally imposed minimum requirements for experience in co-ordination ?
- 5.5** Are specific training courses for co-ordinators at the design stage legally laid down ?
- 5.6** Which organisations are allowed to organise these training courses ?
- 5.7** Is there an official examination to be passed after the training course ? If so, is access to the examination possible without following a previous training course ?
- 5.8** Who is authorised to organise those official examinations ?
- 5.9** Does the examination meet the requirements of ISO 45013 on certification of persons ?
- 5.10** If there are no legal obligations as to training or examination, are alternative training courses offered in your country ? If so, what are the content and the duration and who organises them ?
- 5.11** Besides training and experience, are there other legally imposed requirements in order to have access to the execution of the mission of co-ordinator ? (E.g. a minimum number of missions each year, follow-up training...)
- 5.12** According to you, does the profile of the co-ordinator in your country allow him to carry out his mission in a correct way ? If not, what should the profile look like ?
- 5.13** Is he a natural person, a legal person, or can he be either natural or legal ?
- 5.14** Can he be a worker of the party charged with this appointment ?
- 5.15** Can assistants or third persons help him ? If so, what is the profile of these persons ?
- 5.16** Is this function in any way incompatible with other functions ?
- 5.17** On what conditions are foreign co-ordinators admitted ?

5.1 Are there different levels of co-ordinators ? If so, which ones ?

EUROPEAN UNION

<i>Austria</i> There aren't.	<i>Belgium</i> There are 3 different levels, related to the importance and the risks of the construction project: Level A, for construction works that last longer than 5000 man-days (or that cost more than 2.500.000 Euro) and where more than 3 contractors work simultaneously Level B, for construction sites that have a duration between 500 and 5000 man-days or where works exposing workers to high risks are executed Level C, for construction works with a duration inferior to 500 man-days and where no high-risk work is executed.	<i>Denmark</i> Legislation only imposes co-ordination in the construction phase.	<i>Finland</i> No, there are not.	<i>France</i> There are 3 levels.
<i>Germany</i> There are two different levels of co-ordinators. The levels differ according to the importance of the construction and the risks to safety and health protection involved in erecting, altering or demolishing this construction. Co-ordinators must have at least two years of specific experience in their jobs as engineer or architect in grade A or as technicians or master craftsmen in grade B.	<i>Greece</i>	<i>Ireland</i> No – not specified in the Regulations.	<i>Italy</i> The interpretation of the EU Directive does not introduce different levels of Design stage Co-ordinators.	<i>Luxembourg</i> The present legislation does not define necessary competences (diploma, additional training, ...) for the co-ordinators.
<i>Portugal</i> The legislation does not specify yet who can be a co-ordinator. The expectation is that in the near future a legislation will define the qualification of co-ordinators considering different levels.	<i>Spain</i> No, there are not.	<i>Sweden</i> No, there are not.	<i>The Netherlands</i> No.	<i>United Kingdom</i> No.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> No, there are not	<i>USA</i> There is no legislated requirement for a co-ordinator			
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ASIA

<i>China - (Hong Kong)</i> No.	<i>India</i> Not applicable.	<i>Japan</i> There is no legislation for a co-ordinator at the design stage, so in Japan, there is no person who co-ordinates safety and health at the design stage. However, when one applies to get a license to be a designer (such as 1st class architect), the applicants are expected to have basic knowledge of safety and health. Since there is no legislation in Japan for a co-ordinator at the design stage, the following questions cannot be answered.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.2 What are, for each level, the legally imposed minimum requirements for the diploma ?

EUROPEAN UNION

<i>Austria</i> There is no binding legal imposition concerning the task profile of a co-ordinator in the design stage. According to the principles of the Professional Associations of the Constructions Industries, which is presently substituted by other regulations, a co-ordinator for the design stage must have sufficient experience in planning and sufficient knowledge in the field of work protection.	<i>Belgium</i> The level of the diploma depends on the number of years of professional experience with regard to the design of construction projects. Architects and engineers need 2 years of professional experience to become a level A or B co-ordinator and 1 year to become a level C co-ordinator. Persons with a technical degree high school +3 (bachelor) need 5 years of experience to become a co-ordinator of level A or B and 1 year to become a co-ordinator of level C. Persons having a high school degree (18 years old) need to have 10 years of professional experience to become a co-ordinator of level A or B and 3 years to become a co-ordinator of level C. Persons with a diploma of a high school degree delivered at 16 years need a professional experience of 10 years. Exception is made for construction projects with a cost less than 25.000€, where the contractor who doesn't meet the mentioned criteria can still be appointed as co-ordinator.	<i>Denmark</i> Legislation only imposes co-ordination in the construction phase.	<i>Finland</i> There are no legally binding safety requirements for the diploma.	<i>France</i> No requirements.
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<i>Germany</i> There is no binding legal imposition concerning the task profile of a co-ordinator at the design stage. According to the principles of the Professional Associations of the Constructions Industries, which is presently substituted by other regulations, a co-ordinator at the design stage must have sufficient experience in planning and sufficient knowledge in the field of work protection. The minimum requirement for training of a co-ordinator is 32 hours; he must, however, have additional knowledge in the field of work protection depending on the type and size of the design.	<i>Greece</i> Required qualifications of the project designer are sufficient for the required profile of the co-ordinator at the design stage.	<i>Ireland</i> There are no specified legal requirements for the Diploma or qualifications. The PSDS must be competent which implies experience, knowledge/training.	<i>Italy</i> This answer will refer to the Italian Academic standards in which a « degree » is comparable to an English BSc plus a MSc. The design Stage co-ordinator, to perform his role, is required to have one of the following qualifications : - A degree in engineering, architecture, geology or forestal science and a certificate that states he has developed at least one year of experience in the construction field, - A BSc in engineering or architecture and a certificate that states he has developed at least two years of experience in the construction field, - A « diploma » (which is a sort of A-level) in building technique or land surveyor and a certificate that states he has developed at least three years of experience in the construction field.	<i>Luxembourg</i> The present legislation does not define necessary competences (diploma, additional training, ...) for the co-ordinators.
<i>Portugal</i> Not applicable.	<i>Spain</i> Legally, the only qualification required is a first degree or a degree in architecture, or a first degree or a degree in engineering.	<i>Sweden</i> There is no legal requirement for the diploma.	<i>The Netherlands</i> No requirements.	<i>United Kingdom</i> There are none, other than that the co-ordinator must be competent, which implies education and training.

EUROPE OUTSIDE EU

<i>Switzerland</i> No minimum requirements.				
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AMERICA

<i>Argentina</i> There aren't any.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> There is no such requirement during the design stage. As for the construction stage and maintenance stage, the principal contractor is held responsible for the overall co-ordination of safety and health on site under the specific regulations – the CSSR. The SM Reg (which was enacted on 24 November 1999 and expected to be enforced at the end of 2001) has implicitly imposed such requirements to the employer/principal contractor on its element about selection, evaluation and control of subcontractors.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> A certificate of a SHE training program awarded by CLA is a minimum requirement.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.3 What are, for each level, the legally imposed minimum requirements for professional experience ?

EUROPEAN UNION

<i>Austria</i> There aren't.	<i>Belgium</i> The level of the diploma depends on the number of years of professional experience with regard to the design of construction projects. Architects and engineers need 2 years of professional experience to become a level A or B co-ordinator and 1 year to become a level C co-ordinator. Persons with a technical degree high school +3 (bachelor) need 5 years of experience to become a co-ordinator of level A or B and 1 year to become a co-ordinator of level C. Persons having a high school degree (18 years old) need to have 10 years of professional experience to become a co-ordinator of level A or B and 3 years to become a co-ordinator of level C. Persons with a diploma of a high school degree delivered at 16 years need a professional experience of 10 years. Exception is made for construction projects with a cost less than 25.000€, where the contractor who doesn't meet the mentioned criteria can still be appointed as co-ordinator.	<i>Denmark</i> Not applicable.	<i>Finland</i> Professional requirements in education are executed through the educational qualifications programs set by the Education Ministry and its institutes. In the safety questions, a person appointed to deal with matters of co-ordination during the design stage shall have good knowledge of building and civil engineering work and good competence of Safety and Health questions.	<i>France</i> Level 1 : 5 years of professional experience Level 2 : 3 years of professional experience Level 3 : 2 years of professional experience Plus a mandatory training by a certified organisation.
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<i>Germany</i> No binding legal imposition.	<i>Greece</i>	<i>Ireland</i> Not specified in the Regulations.	<i>Italy</i> This answer will refer to the Italian Academic standards in which a « degree » is comparable to an English BSc plus a MSc. The design Stage co-ordinator, to perform his role, is required to have one of the following qualifications : - A degree in engineering, architecture, geology or forestal science and a certificate that states he has developed at least one year of experience in the construction field, - A BSc in engineering or architecture and a certificate that states he has developed at least two years of experience in the construction field, - A « diploma » (which is a sort of A-level) in building technique or land surveyor and a certificate that states he has developed at least three years of experience in the construction field.	<i>Luxembourg</i> The present legislation does not define necessary competences (diploma, additional training, experience, ...) for the co-ordinators.
<i>Portugal</i> Not applicable.	<i>Spain</i> There are no such requirements.	<i>Sweden</i> A person appointed to deal with matters of co-ordination during the design stage shall have good knowledge of building and civil engineering work and good competence of Safety and Health questions.	<i>The Netherlands</i> No requirements.	<i>United Kingdom</i> There are none, other than that the co-ordinator must be competent, which implies relevant experience.

EUROPE OUTSIDE EU

<i>Switzerland</i> Not applicable.				
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AMERICA

<i>Argentina</i> There aren't any.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> There is no such requirement during the design stage. As for the construction stage and maintenance stage, the principal contractor is held responsible for the overall co-ordination of safety and health on site under the specific regulations – the CSSR. The SM Reg (which was enacted on 24 November 1999 and is expected to be enforced at the end of 2001) has implicitly imposed such requirements to the employer/principal contractor on its element about selection, evaluation and control of subcontractors.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No such requirements.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.4 What are, for each level, the legally imposed minimum requirements for experience in co-ordination ?

EUROPEAN UNION

<i>Austria</i> There are none, other than that the co-ordinator must have sufficient resources and be competent.	<i>Belgium</i> No requirements.	<i>Denmark</i> Not applicable.	<i>Finland</i> Not stated in the binding legislation.	<i>France</i> No requirements.
<i>Germany</i> There are no legal provisions for a co-ordinator's minimum job experience.	<i>Greece</i>	<i>Ireland</i> Not specified in the Regulations.	<i>Italy</i> In any case, a course of 120 hours has to be followed. - When you have a degree, 1 year of experience is required, - When you have a BSc, 2 years of experience are required, - When you have a « diploma », 3 years of experience are required.	<i>Luxembourg</i> The present legislation does not define necessary competences (diploma, additional training, experience, ...) for the co-ordinators.
<i>Portugal</i> Not applicable.	<i>Spain</i> There are no such requirements.	<i>Sweden</i> Not stated in the legislation.	<i>The Netherlands</i> No requirements.	<i>United Kingdom</i> There are none, other than that the co-ordinator must have sufficient resources and be competent.

EUROPE OUTSIDE EU

<i>Switzerland</i> Not applicable.				
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AMERICA

<i>Argentina</i> There aren't any.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No such requirements.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.5 Are specific training courses for co-ordinators at the design stage legally laid down ? If so, what are the content, the duration and the assessment criteria of each eventual level of co-ordinator ?

EUROPEAN UNION

<i>Austria</i> No, but a lot of courses that are organised on a voluntary basis and that meet with great interest.	<i>Belgium</i> Yes. The profile of the co-ordinator is composed of 3 parts: a basic degree, experience in function of the degree and a specific safety co-ordination training or examination. Three different levels are distinguished for co-ordinators within the Belgian legislation. The duration of the specific training program for co-ordinators varies between 80 hours for the co-ordinator of level B and 150 hours for the co-ordinator of level A and deals with health and safety topics, as well as with co-ordination topics. The training can also be replaced by a specific exam. No specific training program or exam for the co-ordinator of level C has been included in the Belgian legislation. The specific training programs for co-ordinators of level A or B can also be replaced by a training program for safety experts extended with a specific module for co-ordinators with a duration of 30 hours.	<i>Denmark</i> Not applicable.	<i>Finland</i> There is no specific legally imposed training.	<i>France</i> Yes. A training referential was created by the CRAM, the OPPBTP and the Ministry of Labour. Level 1 : 15 days Level 2 : 10 days Level 3 : 3 days + 2 days No examination of initial requirements. Criteria of professional experience are sufficient.
<i>Germany</i> There is no binding legal regulation, but the minimum requirement for training of a co-ordinator is 32 hours. He must, however, have additional knowledge in the field of work protection depending on the type and size of the design.	<i>Greece</i> Required qualifications of the project designer are sufficient for the required profile of the co-ordinator at the design stage.	<i>Ireland</i> Training courses for PSDS/Co-ordinators are not specified.	<i>Italy</i> The training courses are legally required to Safety Co-ordinators, either Design Stage or Execution Phase, to perform their roles. At the moment there is no specific training course for Design Phase Co-ordinators.	<i>Luxembourg</i> The present legislation does not define necessary competences (diploma, additional training, experience, ...) for the co-ordinators.

<i>Portugal</i> No.	<i>Spain</i> Since 1996, co-ordination courses for first-degree architects and other qualified technicians are given in Barcelona in both stages: design and execution, without any distinction. There is no legal regulation on these courses, though the schedule is the same as in other European countries.	<i>Sweden</i> No.	<i>The Netherlands</i> They are not.	<i>United Kingdom</i> There is no specific legally imposed training, but the co-ordinator (the PS) has to be competent. This means the Planning Supervisor has to have relevant training and experience.
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EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> No.	<i>USA</i> No.			
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ASIA

<i>China - (Hong Kong)</i> No.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No training courses for co-ordinators.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.6 Which organisations are allowed to organise these training courses ?

EUROPEAN UNION

<i>Austria</i> No regulations – free market principles apply.	<i>Belgium</i> Organizations that are recognized by the Ministry of Labour.	<i>Denmark</i> Not restricted.	<i>Finland</i> Not applicable.	<i>France</i> Those approved by the Ministry of Labour.
<i>Germany</i> No specific legal permission is necessary for the organisation and realisation of training courses for co-ordinators.	<i>Greece</i>	<i>Ireland</i> Not applicable.	<i>Italy</i> Not applicable.	<i>Luxembourg</i> Not applicable.
<i>Portugal</i> Not applicable.	<i>Spain</i> This is not regulated.	<i>Sweden</i> Not applicable.	<i>The Netherlands</i> Not applicable.	<i>United Kingdom</i> Not applicable.

EUROPE OUTSIDE EU

<i>Switzerland</i> No allowances necessary.				
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AMERICA

<i>Argentina</i> Not applicable.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Labour Safety and Health Department and Labour Inspection Dept. of CLA.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.7 Is there an official examination to be passed after the training course ? If so, is access to the examination possible without following a previous training course ?

EUROPEAN UNION

<i>Austria</i> No.	<i>Belgium</i> Yes, an exam has to be passed. Access to the exam is also possible without having followed a training course.	<i>Denmark</i> Not applicable.	<i>Finland</i> Not applicable.	<i>France</i> This is up to the approved training organisation.
<i>Germany</i> Not applicable.	<i>Greece</i>	<i>Ireland</i> Not applicable.	<i>Italy</i> Not applicable.	<i>Luxembourg</i> Not applicable.
<i>Portugal</i> Not applicable.	<i>Spain</i> There is none.	<i>Sweden</i> Not applicable.	<i>The Netherlands</i> There is no such official examination.	<i>United Kingdom</i> No.

EUROPE OUTSIDE EU

<i>Switzerland</i> Not applicable.				
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AMERICA

<i>Argentina</i> No.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Yes, an official examination has to be passed. Without previous training course, one can not attend the examination.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.8 Who is authorised to organise those official examinations ?

EUROPEAN UNION

<i>Austria</i> Not applicable.	<i>Belgium</i> Organizations that are recognized by the Ministry of Labour.	<i>Denmark</i> Not applicable.	<i>Finland</i> Not applicable.	<i>France</i> Organizations that are recognized by the Ministry of Labour.
<i>Germany</i> Not applicable.	<i>Greece</i>	<i>Ireland</i> Not applicable.	<i>Italy</i> Not applicable.	<i>Luxembourg</i> Not applicable.
<i>Portugal</i> Not applicable.	<i>Spain</i> Not applicable.	<i>Sweden</i> Not applicable.	<i>The Netherlands</i> Not applicable.	<i>United Kingdom</i> Not applicable.

EUROPE OUTSIDE EU

<i>Switzerland</i> Not applicable.				
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AMERICA

<i>Argentina</i> Not applicable.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Labour Safety and Health Dept. and Labour Inspection Dept.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.9 Does the examination meet the requirements of ISO 45013 on certification of persons ?

EUROPEAN UNION

<i>Austria</i> Not applicable.	<i>Belgium</i> No, although each recognized organization can take this initiative.	<i>Denmark</i> Not applicable.	<i>Finland</i> Not applicable.	<i>France</i> Not applicable.
<i>Germany</i> Not applicable.	<i>Greece</i> Not applicable.	<i>Ireland</i> Not applicable.	<i>Italy</i> Not applicable.	<i>Luxembourg</i> Not applicable.
<i>Portugal</i> Not applicable.	<i>Spain</i> Not applicable.	<i>Sweden</i> Not applicable.	<i>The Netherlands</i> Not applicable.	<i>United Kingdom</i> Not applicable.

EUROPE OUTSIDE EU

<i>Switzerland</i> Not applicable.				
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AMERICA

<i>Argentina</i> Not applicable.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No official linkage yet with the ISO 45013.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.10 If there are no legal obligations as to training or examination, are alternative training courses offered in your country ? If so, what are the content and the duration and who organises them ?

EUROPEAN UNION

<i>Austria</i> Yes, a lot of voluntarily offered courses are organised, e.g. by AUVA that last 3 days.	<i>Belgium</i> Not applicable.	<i>Denmark</i> H&S in construction The "Paragon Construction Site" Risk assessments Plans for H&S 2 days up to 37 hours Organised by engineering companies and within large contractors.	<i>Finland</i> Not particularly, but it exists as a part of training courses within the area of safety and health in working life.	<i>France</i> Not applicable.
<i>Germany</i> There are many well-organised training courses on offer. The courses are carried out by various institutions, e.g. universities, architects` and engineers` associations, and by other private organisations.	<i>Greece</i>	<i>Ireland</i> Safety Institutes, Professional Bodies and Private Trainers offer courses. Content and duration varies.	<i>Italy</i> Co-ordinators have to follow a training of 120 hours.	<i>Luxembourg</i> The Labour and Mining Inspectorate, together with the Chamber of Commerce, gives a training for co-ordinators for the design and the construction stage. This training takes 120 hours and it deals with all aspects of the occupation.
<i>Portugal</i> Yes. At the moment, as far as I know, only by my university	<i>Spain</i> Yes. Since 1996 some courses have taken place in the Colegio de Arquitectos in Barcelona, together with the Universidad Politècnica de Barcelona, as well as, more recently, some other courses.	<i>Sweden</i> Not particularly, but it exists as a part of training courses within the area of safety and health in work life.	<i>The Netherlands</i> There are. For example a course organised by Arbouw. Duration: 1 day.	<i>United Kingdom</i> The Association of Planning Supervisors (APS) has established entry criteria that applicants have to attain before being granted membership. Applicants have to attain the required standard, how they do so is not specified.

EUROPE OUTSIDE EU

<i>Switzerland</i> Suva offers an optional training and a final examination: prevention of accidents, safety and health promotion. Duration: 5 weeks.				
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AMERICA

<i>Argentina</i> There aren't any.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Some academic institutions offer training courses too. These courses deal more with solving problems, depending on the frequent situation in situ. The duration is 24 hours.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.11 Besides training and experience, are there other legally imposed requirements in order to have access to the execution of the mission of co-ordinator ? (E.g. a minimum number of missions each year, follow-up training...)

EUROPEAN UNION

<i>Austria</i> No, on voluntarily basis.	<i>Belgium</i> No.	<i>Denmark</i> Not specified.	<i>Finland</i> There are not.	<i>France</i> No, but the client must verify the actual competences of the co-ordinator.
<i>Germany</i> No.	<i>Greece</i>	<i>Ireland</i> No.	<i>Italy</i> At the moment, for the Italian Safety legislation, training and experience are the only requirements that must be fulfilled.	<i>Luxembourg</i> This has not been defined in the present legislation.
<i>Portugal</i> No.	<i>Spain</i> No.	<i>Sweden</i> There are not.	<i>The Netherlands</i> No.	<i>United Kingdom</i> No.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> There aren't.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> Not applicable.	<i>Japan</i> Since there is no legislation in Japan for a co-ordinator at the design stage, there is no special training for co-ordinators, and the following questions cannot be answered.	<i>Taiwan</i> No specified regulation.	
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AFRICA

<i>Algeria</i> No, there aren't any.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.12 According to you, does the profile of the co-ordinator in your country allow him to carry out his mission in a correct way ? If not, what should the profile look like ?

EUROPEAN UNION

<i>Austria</i> Yes.	<i>Belgium</i> The profile is already rather severe in Belgium. We will have to make an evaluation in a couple of years. Only the training of the co-ordinator of level C should be specified.	<i>Denmark</i> Not specified.	<i>Finland</i> Designers and management should receive additional education and training in health and safety matters.	<i>France</i> Training on general principles of prevention must be intensified (DG 89/391). Level 3 training must be revised. Training sessions must be assessed, along with the effects of training already performed or in progress.
<i>Germany</i> Yes, but the co-ordinators generally ought to improve their knowledge of safety and health protection matters.	<i>Greece</i>	<i>Ireland</i> This is under review at the moment and needs to be clarified. Planning, prices and co-ordination of safety in the design stage is not statutory in my opinion.	<i>Italy</i> At this moment, the legally defined profile of the Co-ordinator may be sufficient to carry out his mission in a correct way. Nevertheless, more attention should be paid to training and education in order to be prepared to manage Safety on site. What should be improved is the role of Safety Co-ordinators within the building process. His role should be more integrated with all the other professional figures, either client's or contractor's party, that work on the site	<i>Luxembourg</i> As the training that is currently organised by the Labour Inspectorate is not compulsory, and as no prior experience is required, there are large differences between safety co-ordinators and abuse is easy, at the expense of the credibility of the profession.

<i>Portugal</i> The legislation does not refer yet to the profile of the co-ordinators. In my opinion, the profiles should be defined depending on whether the co-ordinator is a natural or a legal person. If the co-ordinator is a legal person (a company), it should have one or more persons qualified as follows, like for the co-ordinators who are single/natural persons: I - Basic education and practical experience: education in construction, min. 3 years of experience on site, min. 2 years of experience in design (for co-ordinators at the design stage), qualification in buildings in general, road works and infrastructures, hydraulic works and special installations. II - Specific training should include Construction and S&H Legislation in general; S & H Co-ordination during the design and construction phases, Construction and Protection Equipments, Hazard Prevention, Environment, Quality and S&H Management in Construction. Duration of the training: min. 150 hours of lectures, plus a Final Work on S&H co-ordination of a real construction project during both stages (estimation: 100 hours). This course has been organized for three years now (4 successful courses, according to the participants). The courses were supported by the participants (25%) and by IDICT (the Portuguese Authority - 75%).	<i>Spain</i> It has to be complemented by a 150/200-hour specific training for his task.	<i>Sweden</i> We need much more participation of the designers.	<i>The Netherlands</i> No. To make it possible to operate as a co-ordinator, it is necessary to have management experience and knowledge of safety items as well as designing and building.	<i>United Kingdom</i> No. Designers should receive additional education and training in health and safety. University courses for engineers and architects should have the assessment and quantification of risk in the syllabi for first degrees. This should be followed by minimum "on the job" training, specified by the professional institutions, before corporate membership is granted.
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EUROPE OUTSIDE EU

Switzerland

The profile is sufficient.

AMERICA

Argentina

See some former questions.

USA

ASIA

China - (Hong Kong)

Not applicable.

India

Not applicable.

Japan

Not applicable.

Taiwan

Yes.

AFRICA

Algeria

Not applicable.

OCEANIA

Australia

Not applicable.

5.13 Is he a natural person, a legal person, or can he be either natural or legal ?

EUROPEAN UNION

<i>Austria</i> The co-ordinator can either be a natural or a legal person.	<i>Belgium</i> He or she can either be a natural or a legal person.	<i>Denmark</i> Not specified.	<i>Finland</i> A legal person.	<i>France</i> A natural person.
<i>Germany</i> The person actually carrying out the co-ordination must be a natural person. From a legal point of view the co-ordinator at the design stage could be a natural person or a legal person.	<i>Greece</i> He is both a natural and a legal person.	<i>Ireland</i> The PSDS can be a person or a Corporate Body. The Client can also act as the PSDS.	<i>Italy</i> The Design Phase Co-ordinator is a natural person.	<i>Luxembourg</i> Any natural or legal person.
<i>Portugal</i> He can be either a natural or a legal person.	<i>Spain</i> He is a natural person.	<i>Sweden</i> A legal person.	<i>The Netherlands</i> Any natural or legal person.	<i>United Kingdom</i> The Planning Supervisor is a legal person and on all but the smallest projects will be a corporate body. On a small project the role can be discharged by a natural person, but he/she will still be a legal person.

EUROPE OUTSIDE EU

<i>Switzerland</i> A natural person.				
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AMERICA

<i>Argentina</i> He is a natural person.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as there is no such provision for the design stage. Please see question 5.1.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Either a natural or a legal person. However, a diploma or certificate is necessary.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.14 Can he be a worker of the party charged with this appointment ?

EUROPEAN UNION

<i>Austria</i> Yes, he may be an employee of the firm in charge of the design.	<i>Belgium</i> Yes, no exclusion is made, as long as the co-ordinator meets the experience and training requirements.	<i>Denmark</i> Not specified.	<i>Finland</i> Yes, but the employer retains the legal duties.	<i>France</i> Yes, but this is not very common.
<i>Germany</i> Yes, he may be an employee of the firm in charge of the design.	<i>Greece</i> No, a worker of the party cannot be charged with this appointment.	<i>Ireland</i> The regulations allow this. - But it is not normal practice.	<i>Italy</i> It is possible, but he shouldn't be working for the contractor who is involved.	<i>Luxembourg</i> According to the Luxembourg regulations, the principal contractor can assume the functions of co-ordinator.
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> No, he can't .	<i>Sweden</i> Yes.	<i>The Netherlands</i> Yes.	<i>United Kingdom</i> Yes, but the employer retains the legal duties.

EUROPE OUTSIDE EU

<i>Switzerland</i> Yes.				
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AMERICA

<i>Argentina</i> Not specified.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as there is no such provision for the design stage. Please see question 5.1.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> A worker of the party may do it, but this is not a necessary condition.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.15 Can assistants or third persons help him ? If so, what is the profile of these persons ?

EUROPEAN UNION

<i>Austria</i> The co-ordinator in the design stage may have support from other persons. There is no legal provision for the task profile of such persons. The conclusion from a general, legal point of view is, however, that these persons must have sufficient expertise depending on the details they are in charge of.	<i>Belgium</i> Yes, they can. They also need to meet the experience and training requirements as defined for the co-ordinator.	<i>Denmark</i> Not specified.	<i>Finland</i> Yes, but the profile is not specified.	<i>France</i> Yes, but he cannot delegate his functions.
<i>Germany</i> The co-ordinator at the design stage may have support from other persons. There is no legal provision for the task profile of such persons. The conclusion from a general, legal point of view is, however, that these persons must have sufficient expertise depending on the details they are in charge of.	<i>Greece</i> This is not clearly defined in the Greek legislation.	<i>Ireland</i> - Yes, but no profile details are specified. No profile detail is specified but that the people involved must be competent.	<i>Italy</i> It is possible, but nothing about this case is reported in the Legislative Decree No. 528/99.	<i>Luxembourg</i> Nothing is provided for in the Luxembourg regulations.
<i>Portugal</i> There is nothing in the law that obstructs this, so the profile of the assistants is not defined by law.	<i>Spain</i> Nothing is provided.	<i>Sweden</i> Yes, but the profile is not specified.	<i>The Netherlands</i> Yes, there is nothing in the law that obstructs this. The profile of the assistant persons is not defined by the legislation.	<i>United Kingdom</i> Yes, with the exception of very small projects, the role of the Planning Supervisor should be discharged by a team, all of whom have to be competent.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> Anyone can help him.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as there is no such provision for the design stage. Please see question 5.1.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Yes. But they can not give orders nor draw conclusions.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.16 Is this function in any way incompatible with other functions ?

EUROPEAN UNION

<i>Austria</i> No.	<i>Belgium</i> No, there is no incompatibility written down in our legislation.	<i>Denmark</i> Not specified.	<i>Finland</i> No, there is no incompatibility written down in our legislation.	<i>France</i> Incompatible with the function of Technical Controller.
<i>Germany</i> No person must be charged with the task of co-ordination at the design stage who is also in charge of another task that may be in conflict with the task of co-ordination. This will be especially the case when the task does not leave sufficient time for the task of co-ordination or when he is responsible for costs or deadlines colliding with the task of co-ordination.	<i>Greece</i> Law does not define this.	<i>Ireland</i> No evidence of functions being incompatible. Improved definitions of competence, responsibilities and authority would be helpful.	<i>Italy</i> This function is obviously incompatible with any role performed by the contractor's party.	<i>Luxembourg</i> The only incompatible aspect is that the functions of safety and health co-ordinator and that of the safety controller (agreed organization) are assumed by the same natural persons. Although this is not legally prescribed, the co-ordinator should be independent both towards the client and especially towards the contractors.
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> No, it isn't .	<i>Sweden</i> No.	<i>The Netherlands</i> No.	<i>United Kingdom</i> No, only if the Planning Supervisor tries to get involved in the construction stage, as this is the responsibility of the Principal Contractor.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> It is not specified.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as there is no such provision for the design stage. Please see question 5.1.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Not at all. The function of designer is quite compatible with the co-ordination of SHE in the project.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> Not applicable.				
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5.17 On what conditions are foreign co-ordinators admitted ?

EUROPEAN UNION

<i>Austria</i> No restrictions whatsoever for foreign owners.	<i>Belgium</i> They have to meet the same requirements as the Belgian co-ordinators as to experience, basic degree and specific training or examinations.	<i>Denmark</i> Not specified.	<i>Finland</i> No special conditions are required for foreign co-ordinators. There are no limitations.	<i>France</i> They have to meet the same requirements as the French co-ordinators.
<i>Germany</i> There are no restrictions for co-ordinators from abroad as far as they have sufficient job experience, knowledge of work protection and co-ordination and sufficient command of the language enabling them to actually carry out the co-ordination.	<i>Greece</i> It has not yet been decided. The professional Bodies have some objections.	<i>Ireland</i> There are no restrictions in the Safety Regulations provided they are competent. There are no limitations.	<i>Italy</i> Nothing in our legislation is reported about this. It should be in conformity with the legislation about the exchange of professionals within the European Union.	<i>Luxembourg</i> This has not been specified in the legislation.
<i>Portugal</i> The law does not state anything about this issue, but according to the general legislation within the EU, any worker may work in another country.	<i>Spain</i> After the validation of first degree in architecture, architecture degree, first-degree engineer or engineer (Building Arrangement Law, 4th additional provision.	<i>Sweden</i> No special conditions are required for foreign co-ordinators.	<i>The Netherlands</i> They have to follow the Dutch legislation.	<i>United Kingdom</i> The test is competence, not country of origin.

EUROPE OUTSIDE EU

<i>Switzerland</i> No existing conditions .				
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AMERICA

<i>Argentina</i> This is not specified.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as there is no such provision for the design stage. Please see question 5.1.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Foreign co-ordinators are not admitted.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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Notes and Comments

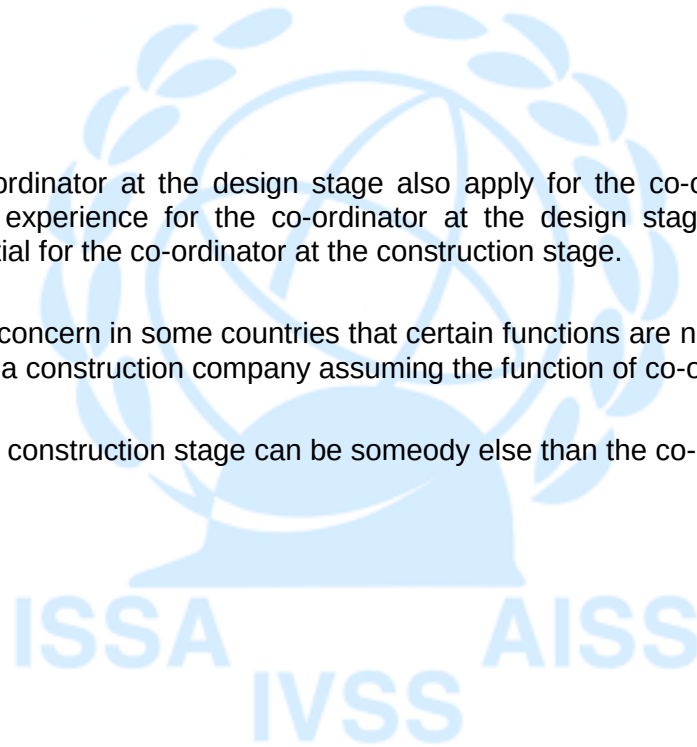


6 *Profile of the co-ordinator at the construction stage*

The principles that go for the co-ordinator at the design stage also apply for the co-ordinator at the construction stage. Whereas designing is the relevant field of experience for the co-ordinator at the design stage, experience in actual construction and in construction management is essential for the co-ordinator at the construction stage.

Nevertheless, there seems to be a concern in some countries that certain functions are not really compatible on the site (for example a works superintendent employed by a construction company assuming the function of co-ordinator for the site as a whole).

The fact that the co-ordinator at the construction stage can be somebody else than the co-ordinator at the design stage is not mentioned as a handicap.



Questions

- 6.1** What is the profile of the co-ordinator at the construction stage ? Is a specific training legally imposed ? If so, for how many hours and what kind of main subjects ?
- 6.2** Is he a natural person, a legal person, or can he be either natural or legal ?
- 6.3** Can he be a worker of the party charged with this appointment ?
- 6.4** Can he be the same person as the co-ordinator at the design stage ? If so, under which circumstances ?
- 6.5** Can assistants or third persons help him? If so, what is the profile of these persons ?
- 6.6** According to the legislation, is this function in any way incompatible with other functions ?
- 6.7** On what conditions are foreign co-ordinators admitted ?

6.1 What is the profile of the co-ordinator at the construction stage ? Is a specific training legally imposed ? If so, for how many hours and what kind of main subjects ?

EUROPEAN UNION

<i>Austria</i> He has to be an experienced person with an adequate education. There is no specific training legally imposed.	<i>Belgium</i> The profile of the co-ordinator is composed of 3 parts: a basic degree, experience in function of the degree and a specific safety co-ordination training or examination. Three different levels are distinguished for co-ordinators within the Belgian legislation. The duration of the specific training program for co-ordinators varies between 80 and 150 hours and deals with health and safety topics, as well as with co-ordination topics. The training can also be replaced by a specific exam.	<i>Denmark</i> • Sound expertise in construction and with good knowledge of the different actors. • Practical experience in managing construction sites. • Knowledge of H&S matters within construction. • Legally basic training as for safety rep's in general, a 37- hour training course with theoretical and practical lessons (parts of the Working Environmental Act, cooperation in H&S matters, risk assessments). • Additional training courses targeted to co-ordinators have recently been developed at the "Contractor's School".	<i>Finland</i> The co-ordinator shall have a good knowledge of conditions at the common workplace. No specific training is legally imposed. The co-ordinator must be a competent person with adequate resources to do the work.	<i>France</i> Same conditions as for the co-ordinator at the preparation stage.
<i>Germany</i> There is no binding legal imposition concerning the task profile of a co-ordinator at the construction stage. According to the principles of the Professional Associations of the Constructions Industries, which is presently substituted by other regulations, a co-ordinator at the design stage must have sufficient experience in planning and sufficient knowledge in the field of work protection. The minimum requirement for training of a co-ordinator is 32 hours; he must, however, have additional knowledge in the field of work protection depending on the type and size of the design.	<i>Greece</i> Qualifications of the co-ordinator for the construction stage are those required for the supervising engineer and the safety engineer.	<i>Ireland</i> No specific safety and health training requirements are specified, other than that the appointed persons or entities are competent to carry out the duties.	<i>Italy</i> The requirements of the profile of the Execution Phase Co-ordinator is the same as those of the Design Stage Co-ordinator.	<i>Luxembourg</i> The legislation does not define any necessary foreknowledge (diploma, additional training, experience, ...).
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> Legally, the only required qualification is a first degree in architecture, architecture degree, first-degree engineer, or engineer (Building Arrangement Law, 4th additional provision).	<i>Sweden</i> The co-ordinator shall have a good knowledge of conditions at the common workplace. No specific training is legally imposed.	<i>The Netherlands</i> No specific training is legally imposed.	<i>United Kingdom</i> The co-ordinator (the Principal Contractor) must be a competent contractor with adequate resources to do the work.

EUROPE OUTSIDE EU

<i>Switzerland</i> A specific training is not always required. In some cases an EKAS-course and certificate.				
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AMERICA

<i>Argentina</i> The job requires university technical studies with a specific training of about 500 hours.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> The principal contractor is held responsible for the overall co-ordination of safety and health on site under the specific regulations, the CSSR. The SM Reg (which was enacted on 24 November 1999 and expected to be enforced at the end of 2001) has implicitly imposed such requirements to the employer/principal contractor on its element about selection, evaluation and control of subcontractors. The FIUO and OSHO have also implicitly imposed such requirements on its General Duties provisions pertaining safe system of work, etc. The regulations do not ask for a particular person to be appointed. It is up to the contractor to decide who will be responsible for such duties under her safety organisation.	<i>India</i> Not applicable.	<i>Japan</i> There are no official qualifications to be an overall safety and health controller, but the Ministry of Labour gives guidance with notification that the overall safety and health controller should be appointed amongst those who have gone through a necessary training. The necessary training is as follows : 1. industrial accidents in construction industry and the issues to be considered. 2. construction works and safety : how they should be looked at. 3. construction industry and industrial health. 4. how to practice integrated safety and health management.	<i>Taiwan</i> The SHE officer in charge of all affairs during the construction stage. He must have a certificate awarded by CLA. Usually a 24 hours training course with all topics on general SHE for labour including legal aspects and organization of labour affairs etc. are offered.	
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AFRICA

<i>Algeria</i> There is no legislation concerning this item.				
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OCEANIA

<i>Australia</i> During the construction stage the Principal Contractor is responsible for ensuring that construction personnel have undertaken specific training. There are different levels of training : - General health and safety Construction Industry induction training, (4 hrs), certificate (employer responsibility) ; - Site Specific induction training (20 mins-1 hr), record (principal contractor) ; - Work Activity induction training (employer responsibility specific for sub-contractors), usually sign off that they have been trained in their safe work procedure. The safety manager or supervisor has a specific training made by an accredited trainer.				
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6.2 Is he a natural person, a legal person, or can he be either natural or legal ?

EUROPEAN UNION

<i>Austria</i> The person actually carrying out the co-ordination must be a natural person. From a legal point of view the co-ordinator in the design stage could be a natural person or a legal person.	<i>Belgium</i> He or she can be either a natural or a legal person.	<i>Denmark</i> Most a legal person, appointed by the client.	<i>Finland</i> He is a legal person, a representative of the contractor, i.e. a legal entity.	<i>France</i> He is a natural person.
<i>Germany</i> The person actually carrying out the co-ordination must be a natural person. From a legal point of view, the co-ordinator at the design stage could be a natural person or a legal person.	<i>Greece</i> He is both a natural and a legal person.	<i>Ireland</i> The project supervisor design stage and construction stage dealing with co-ordination can be a natural person or a legal person but is in most cases an undertaking or a business consultancy.	<i>Italy</i> The Execution Phase Co-ordinator is a natural person.	<i>Luxembourg</i> Any natural or legal person.
<i>Portugal</i> He can be either a natural or a legal person.	<i>Spain</i> He is a natural person.	<i>Sweden</i> He is a legal person.	<i>The Netherlands</i> Any natural or legal person.	<i>United Kingdom</i> The Principal Contractor must be a contractor, i.e. a legal entity.

EUROPE OUTSIDE EU

<i>Switzerland</i> He is a natural person.				
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AMERICA

<i>Argentina</i> He is a natural person.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as such a person has not been foreseen under the current legislation. Please see question 6.1.	<i>India</i> Not applicable.	<i>Japan</i> The project site manager who has been selected by the contractor takes the duty of overall safety and health controller, so it is a natural person.	<i>Taiwan</i> Either a natural or a legal person. However, a diploma or certificate is necessary.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> He is only a natural person: an employee representative of the principal contractor.				
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6.3 Can he be a worker of the party charged with this appointment ?

EUROPEAN UNION

<i>Austria</i> Yes, it may be an employee of the firm in charge of the construction.	<i>Belgium</i> Yes, he can.	<i>Denmark</i> Yes.	<i>Finland</i> Yes, he can.	<i>France</i> Yes, he can.
<i>Germany</i> Yes, it may be an employee of the firm in charge of the construction.	<i>Greece</i> No, a worker of the party cannot be charged with this appointment.	<i>Ireland</i> The client can appoint himself as the project supervisor construction stage or indeed one of his employees. This is not normally done.	<i>Italy</i> It is possible, but he shouldn't be working for the contractor who is involved.	<i>Luxembourg</i> According to the Luxembourg regulations, the principal contractor can assume the functions of co-ordinator.
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> No he can't.	<i>Sweden</i> Yes, he can.	<i>The Netherlands</i> Yes.	<i>United Kingdom</i> A client can self appoint as the Principal Contractor, provided he is a contractor and is competent to discharge the duties.

EUROPE OUTSIDE EU

<i>Switzerland</i> Yes, he can.				
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AMERICA

<i>Argentina</i> Yes, he can.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as such a person has not been foreseen under the current legislation. Please see question 6.1.	<i>India</i> Not applicable.	<i>Japan</i> Yes, he can. An overall safety and health controller is the worker of the contractor, who stays at the project site office and practices integrated management.	<i>Taiwan</i> A worker of the party may do it, but this is not a necessary condition.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Yes.				
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6.4 Can he be the same person as the co-ordinator at the design stage ? If so, under which circumstances ?

EUROPEAN UNION

<i>Austria</i> If a person commands sufficient knowledge and experience in both fields he can co-ordinate both in the design stage and in the construction stage.	<i>Belgium</i> Yes he can, if he meets the experience requirements for the co-ordinator design stage as well as for the co-ordinator execution stage.	<i>Denmark</i> No co-ordination in design stage.	<i>Finland</i> Yes, he can. There are no specific conditions.	<i>France</i> Yes, if he meets the experience requirements for Co-ordinators at the preparation stage and execution stage (5 years).
<i>Germany</i> If a person commands sufficient knowledge and experience in both fields, he can co-ordinate both in the design stage and in the construction stage.	<i>Greece</i> It could be the same person. No special conditions are defined.	<i>Ireland</i> Yes he can. There are no specific conditions.	<i>Italy</i> It is possible but nothing is reported about the conditions in the Legislative Decree No. 528/99.	<i>Luxembourg</i> Not specified, so this is possible.
<i>Portugal</i> The law does not state anything about this issue, so it is possible.	<i>Spain</i> Yes, it can always be the same person.	<i>Sweden</i> It is the same person from the beginning, because the person is the client.	<i>The Netherlands</i> Yes he can. There are no specific conditions.	<i>United Kingdom</i> Yes, provided the appointee is a contractor and is competent to discharge the duties of both the Planning Supervisor and the Principal Contractor.

EUROPE OUTSIDE EU

<i>Switzerland</i> Yes he can. There are no specific conditions.				
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AMERICA

<i>Argentina</i> Yes he can, but it is not specified.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as such a person has not been foreseen under the current legislation. Please see question 6.1.	<i>India</i> Not applicable.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Not applicable.				
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6.5 Can assistants or third persons help him ? If so, what is the profile of these persons ?

EUROPEAN UNION

<i>Austria</i> The co-ordinator in the construction stage may have support from other persons. There is no legal provision for the task profile of such persons. There are no legal obligations concerning a task profile for such persons. The conclusion from a general, legal point of view is, however, that these persons must have a sufficient expertise depending on the details they are in charge of.	<i>Belgium</i> Yes, they can, if they meet the profile requirements of a co-ordinator.	<i>Denmark</i> Yes. Some major construction projects has implemented very good match between the safety structure of the client, the co-ordinator and the safety structure of the contractors, even at management level. In addition construction sites are covered by the Mandatory System of Occupational Health Services.	<i>Finland</i> Yes, they can, if they meet the profile requirements of a co-ordinator.	<i>France</i> Yes, but he cannot delegate his functions.
<i>Germany</i> The co-ordinator at the construction stage may have support from other persons. There are no legal obligations concerning a task profile for such persons. The conclusion from a general, legal point of view is, however, that these persons must have a sufficient expertise depending on the details they are in charge of.	<i>Greece</i> There is no clarification about assistants and third persons.	<i>Ireland</i> The regulations allow for project supervisor construction stage to appoint safety co-ordinators to assist. Very often, a number of people operate the total service provided.	<i>Italy</i> It is possible but nothing about this case is reported in the Legislative Decree No. 528/99.	<i>Luxembourg</i> The Luxembourg regulations do not foresee anything in this matter. As long as the new regulations are not applicable, the only requirement concerns his professional experience.
<i>Portugal</i> There is nothing in the law that obstructs this, so the profile of the assistants is not defined by law.	<i>Spain</i> No, nothing is provided.	<i>Sweden</i> Yes. Their profile is not defined. This is a question for the client since he is responsible for co-ordination matters both in the project design and in the construction stage.	<i>The Netherlands</i> Yes, there is nothing in the law that obstructs this. The profile of the assistant persons is not defined by the legislation.	<i>United Kingdom</i> No, there can only be one PC on a project at one time, but the appointment can be changed during the term of a project.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> Yes. The profile is not regulated, but usually they have specific skills related to the construction stage.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as such a person has not been foreseen under the current legislation. Please see question 6.1.	<i>India</i> Not applicable.	<i>Japan</i> There is no legislation as to assistants or third persons, but as mentioned in 3.1., the overall safety and health controller must appoint a master safety and health supervisor to manage technical matters, and that person may be called an «assistant».	<i>Taiwan</i> Yes. But they are not the people who take the responsibility, so they cannot make decisions.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Yes. This third person could be the OHS Committee Chairman or another employee representative of the principal contractor, e.g. the site foreman.				
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6.6 According to the legislation, is this function in any way incompatible with other functions ?

EUROPEAN UNION

<i>Austria</i> No.	<i>Belgium</i> No, no incompatibility is defined in the Belgian legislation.	<i>Denmark</i> No specific demands.	<i>Finland</i> No.	<i>France</i> Incompatible with the function of Technical Controller.
<i>Germany</i> No person must be charged with the task of co-ordination at the construction stage who is also in charge of another task that may be in conflict with the task of co-ordination. This will especially be the case when the task does not leave sufficient time for the task of co-ordination or when he is responsible for costs or deadlines colliding with the task of co-ordination.	<i>Greece</i> It is not clearly defined.	<i>Ireland</i> There is no evidence of functions being incompatible. Improved definitions of competence, responsibilities and authority would be helpful.	<i>Italy</i> This function is obviously incompatible with any role performed by the contractor's party.	<i>Luxembourg</i> The only incompatible aspect is when the functions of safety and health co-ordinator and that of safety controller (agreed organization) are assumed by the same natural person. Although this is not legally prescribed, the co-ordinator should be independent both towards the client and especially towards the contractors.
<i>Portugal</i> The law does not state anything about this issue.	<i>Spain</i> No, it isn't.	<i>Sweden</i> No.	<i>The Netherlands</i> No.	<i>United Kingdom</i> No.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> Yes, but only with the official government control.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as such a person has not been foreseen under the current legislation. Please see question 6.1.	<i>India</i> Not applicable.	<i>Japan</i> The person who stays at the project site and who is the top officer on the site (usually the project site manager) takes the role on top of his other responsibilities.	<i>Taiwan</i> Not at all.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> No.				
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6.7 On what conditions are foreign co-co-ordinators admitted ?

EUROPEAN UNION

<i>Austria</i> There are no restrictions for co-ordinators from abroad as far as they have sufficient job experience, have knowledge of work protection and co-ordination and have a sufficient command of the language enabling them to actually carry out the co-ordination.	<i>Belgium</i> They have to meet the same requirements as their Belgian colleagues.	<i>Denmark</i> No specific conditions.	<i>Finland</i> Provided they are competent contractors, the country of origin is not relevant.	<i>France</i> They have to meet the same requirements as their French colleagues.
<i>Germany</i> There are no restrictions for co-ordinators from abroad as far as they have sufficient job experience, knowledge of work protection and co-ordination and a sufficient command of the language enabling them to actually carry out the co-ordination.	<i>Greece</i> It has not yet been decided.	<i>Ireland</i> There are no restrictions on foreign PSCS/Co-ordinators provided they are competent.	<i>Italy</i> Our legislation does not state anything about this. It should follow the legislation about the exchange of professionals within the European Union.	<i>Luxembourg</i> There are no restrictions for co-ordinators from abroad.
<i>Portugal</i> The law does not state anything about this issue, but according to the general legislation within the EU, any worker may work in another country.	<i>Spain</i> After the validation of the qualifications listed in 10.27 (first degree in architecture, architecture degree, first-degree engineer or engineer.	<i>Sweden</i> No special conditions are required for foreign co-ordinators.	<i>The Netherlands</i> They have to follow the Dutch legislation.	<i>United Kingdom</i> Provided they are competent contractors, the country of origin is not relevant.

EUROPE OUTSIDE EU

<i>Switzerland</i> Yes he can. There are no specific conditions.				
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AMERICA

<i>Argentina</i> They have to be members who are accredited by the professional authority.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable, as such a person has not been foreseen under the current legislation. Please see question 6.1.	<i>India</i> Not applicable.	<i>Japan</i> The legislation does not exclude foreigners.	<i>Taiwan</i> Foreign co-ordinators are not admitted.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> None. From time to time independent appraisal of site safety may be sought at the discretion of the principal contractor, e.g. auditor.				
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Notes and Comments

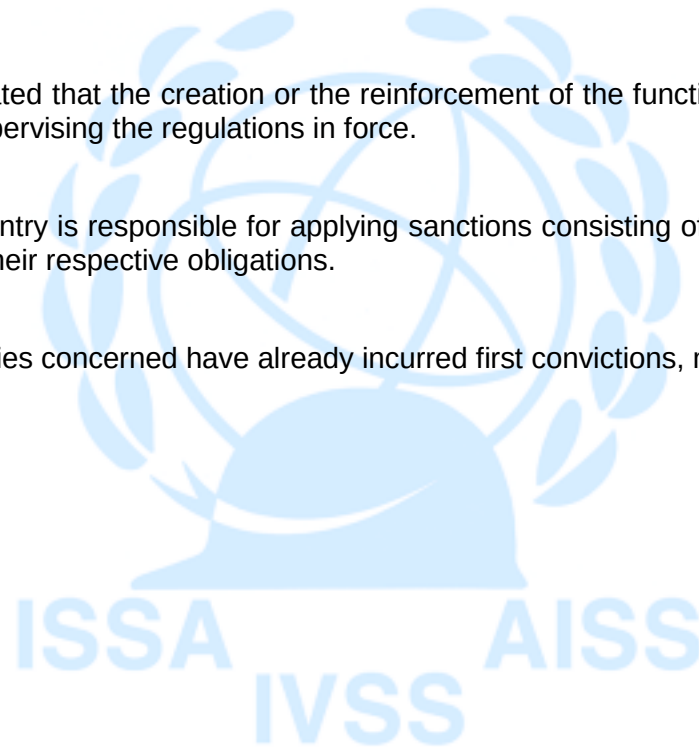


7 *Supervision and sanctions*

All of the countries surveyed indicated that the creation or the reinforcement of the function of a safety and health co-ordinator cannot substitute governmental bodies supervising the regulations in force.

The Ministry of Labour of each country is responsible for applying sanctions consisting of fines to be paid by the client, the companies or the co-ordinators, according to their respective obligations.

Meanwhile, in some countries, parties concerned have already incurred first convictions, mainly during the construction stage.



Questions

- 7.1** Who supervises to it that the legislation is being observed (official body in your country) ?
- 7.2** Which penalties are imposed when the legislation is not observed ? (amounts should be given in Euro)
- 7.3** Do you know a judicial case of co-ordination that can lead to jurisdiction (in the design and construction stage) ?
- 7.4** Do the authorities carry out control on the implementation of the co-ordination during the design stage ?
- 7.5** How are the authorities informed of the start of a new project in the design stage ?
- 7.6** Did penalties already occur ? If so, which ones ?

7.1 Who supervises to it that the legislation is being observed (official body in your country) ?

EUROPEAN UNION

<i>Austria</i> The Labour Inspectorate.	<i>Belgium</i> The Labour Inspectorate.	<i>Denmark</i> The state authority : Danish Working Environment Service.	<i>Finland</i> The Labour Inspectorate, as a part of the Ministry of Social Affairs and Health.	<i>France</i> The Labour Inspectorate.
<i>Germany</i> The observation of the application of the Construction Sites Order – the German conversion of Directive 92/57/EEC – lies in the hands of work protection authorities.	<i>Greece</i> It is an official Body called S.E.P.E. (Works Supervisors Body)	<i>Ireland</i> The Health and Safety Authority.	<i>Italy</i> The local Health and Safety agencies supervise the application of the Safety legislation on Construction sites. The Police is called only in extreme cases or when an accident occurs.	<i>Luxembourg</i> The Ministries of Labour, Health and Environment are charged with the implementation of the Luxembourg regulations, each for its own area of activities.
<i>Portugal</i> IDICT (Institute for the Development and Inspection of Work Conditions) through IGT (General Work Inspection).	<i>Spain</i> The Labour Inspectorate and the Departments and Councils in every region.	<i>Sweden</i> The Labour Inspectorate.	<i>The Netherlands</i> The Labour Inspectorate, as a part of the Ministry of Labour and Social Affairs.	<i>United Kingdom</i> The Health and Safety Executive, the United Kingdom Government's Enforcement Authority.

EUROPE OUTSIDE EU

<i>Switzerland</i> The Swiss Accident Fund (Suva), - the police (if someone's safety or life has been endangered – penal code).				
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AMERICA

<i>Argentina</i> A national agency named S.R.T: "SUPERINTENDENCIA DE RIESGOS DEL TRABAJO" (Labour risks controller) and local labour secretaries in each federal state. Also each one of the A.R.T.: "ASEGURADORAS DE RIESGOS DEL TRABAJO" (Labour risks insurance companies) supervises that the legislation is being observed by their own clients.	<i>USA</i> The Occupational Safety and Health Administration enforces the requirements that employers provide their employees with a safe and healthy work environment.			
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ASIA

<i>China - (Hong Kong)</i> The Occupational Safety & Health Branch of the Labour Department of the Government of the Hong Kong Special Administration Region (HKSAR). Please note that the legislation does not cover the design stage. It emphasises only on the construction stage. In respect of the maintenance stage, maintenance work is generally regarded as construction work by definition under the CSSR and FIUO and it is treated as work under construction stage and is thus covered by the relevant legislation.	<i>India</i> Not applicable.	<i>Japan</i> Supervision and instruction whether the Industrial Safety and Health Law is observed or not is done by the Labour Bureau, a part of the government's administration.	<i>Taiwan</i> Dept. of Labour Inspection, CLA.	
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AFRICA

<i>Algeria</i> The Labour Inspectorate.				
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OCEANIA

<i>Australia</i> The official body is the Work Cover Authority in each State or Territory.				
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7.2 Which penalties are imposed when the legislation is not observed ? (amounts should be given in Euro)

EUROPEAN UNION

<i>Austria</i> Between approximately 145 and 7.150 €, in case of repetition between 290 and 14.285 €.	<i>Belgium</i> From 250 € up to 500.000 € and/or imprisonment from 8 days up to 1 year.	<i>Denmark</i> In the past years a minimum penalty of 2900 Euro has been established. The penalty is raised when involving young people, earlier penalties or specific dangerous work processes.	<i>Finland</i> There is a range of penalties and interventions available, depending on the breach of duty. Offences against submitting prior notice, drawing up safety and health plans are punishable by fines. The same is valid if the co-ordinator at the construction stage is not following the duties regarding the S&H plan.	<i>FRANCE</i> The client is fined : - lack of preliminary notice : 4.500 € to 9.000 € - lack of appointment of the co-ordinator : 10.000 € to 60.000 € - lack of General Co-ordination Plan : 10.000 € to 60.000 € - lack of File for Subsequent Works : 10.000 € to 60.000 €. For companies that do not transmit the Specific Plan for Safety and Health Protection : 10.000 €.
<i>Germany</i> Anyone who does not announce construction works to the authority in charge, who announces improperly, incompletely or not in time, can be fined with up to 2.500,- € in cases of negligent defiance and up to 5.000,- € in cases of deliberate defiance. The same applies if no safety and health plan is drawn up before the construction site installation. Anyone who deliberately does not announce, announces improperly, incompletely or not in time or who does not draw up a safety and health plan before the construction site installation and thus endangers the life or health of an employee, can be fined with up to one year imprisonment or with a pecuniary penalty.	<i>Greece</i> Penal penalties can be imposed (imprisonment and fine of at least 300 Euros), fine penalties for each violation from 150 € to 9.000 € and works interruption according to the severity of the violation.	<i>Ireland</i> Depending on the specific breach of Duty. Revised Regulations and levels of penalties including fines and imprisonment due in 2002. There is a range of penalties and interventions available depending on the breach of duty.	<i>Italy</i> The penalties depend on the severity of the irregularities. Clients, Co-ordinators, Contractors and workers can be either fined or imprisoned. For Clients or Project Supervisors: They can be imprisoned from three to six months and fined from 1500 € to 4000 € if they do not appoint Safety Co-ordinators when required. They can be imprisoned from two to four months and fined from 500 € to 2500 € if they do not verify the Contractor's technical qualifications. They can be fined from 500 € to 3000 € if they do not transmit the Preliminary Notice to the Local Health agencies or if they do not give to the Contractors a copy of the Safety and Co-ordination Plan. For Safety Co-ordinators: the Design Stage Co-ordinator can be imprisoned from three to six months or fined from 1500 € to 4000 € if he (she) doesn't develop the Safety and Co-ordination Plan or the Safety File. The Execution Phase Co-ordinator can be imprisoned from three to six months or fined from 1500 € to 4000 € if he (she) doesn't perform his role as requested by the Decree.	<i>Luxembourg</i> Employers can be sentenced to an imprisonment of 8 days up to 6 months and a fine of 2.501.- to 1.000.000.- LUF. Infringements by workers are fined with 2.501.- to 30.000.- LUF.

<i>Portugal</i> Different penalties are possible, depending on which article of the law is violated, and on the turnover of the companies (including owners) and the number of workers. The penalties can range from 100 € to 90 000 €.	<i>Spain</i> Up to 601012 €.	<i>Sweden</i> Generally no penalties if no injuries have occurred. Offences against submitting prior notice, drawing up safety and health plans are punishable by fines. The same is valid if the co-ordinator at the construction stage is not following the duties regarding the S&H plan.	<i>The Netherlands</i> There are different penalties for each of the regulations. For example: - for not making a Health and Safety Plan, the client penalty is 910 € - for not appointing a co-ordinator at the design stage, the client penalty is 270 € - for not appointing a co-ordinator at the construction stage, the client penalty is 45 € - for not following the general prevention principles (prevention of risks for workers during the construction and maintenance stage) the client penalty is 135 € - for insufficient accomplishment of the co-ordinator's missions, the co-ordinators penalty is 270 € More penalties for one temporary or mobile construction site are possible. If there is recidivism, the penalties will be higher.	<i>United Kingdom</i> Depending on the severity of the offence, the penalties can be either a fine up to 35,000 € per offence or unlimited fines and/or up to 2 years imprisonment.
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EUROPE OUTSIDE EU

<i>Switzerland</i> Penal code of the police: about 1000 €.				
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AMERICA

<i>Argentina</i> There are different possible penalties, depending on the severity of the offence. Fines can range from 100 to 30.000 €.	<i>USA</i> Amounts will vary depending on the seriousness of the offence. Under some conditions, the fines could exceed \$70,000 for a single offence.			
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ASIA

<i>China - (Hong Kong)</i> Since the relevant legislation does not specifically impose the requirements of the co-ordination work, it will depend a lot on individual cases. The maximum penalties for breaching the relevant legislation related to OSH for construction work is a fine of 62.500 € and/or 12 months of imprisonment (depending on certain conditions).	<i>India</i> Not applicable.	<i>Japan</i> When the legislation is not observed, penalties can either be imprisonment or fine. Penalties will be imposed based on the articles in Industrial Safety and Health Law to the company or to the person in charge of management, or to the workers, but since the purpose of the enactment of this law is to protect workers, workers are seldom punished for non-compliance with this law.	<i>Taiwan</i> A penalty of 1.000 up to 2.000 € (NT\$30.000 up to 60.000) is imposed.	
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AFRICA

<i>Algeria</i> ?				
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OCEANIA

<i>Australia</i> The maximum penalty is 425.000 EURO (\$A 750.000).				
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7.3 Do you know a judicial case of co-ordination that can lead to jurisdiction (in the design and construction stage) ?

EUROPEAN UNION

<i>Austria</i> Not yet, there are few cases pending which have not come to an end yet or the outcome of which has not got known; According to our Austrian legislation, the employer is responsible for the safety of the employees. Building owners and co-ordinators can thus hardly be prosecuted.	<i>Belgium</i> No.	<i>Denmark</i> Yes but only very few. Cases with no written plan for H&S, combined to bad conditions in joint areas of a construction site.	<i>Finland</i> Yes. In some cases during the construction stage, the client was forced to make changes in the organisation, e. g. change the co-ordinator.	<i>France</i> No.
<i>Germany</i> There are several cases pending which have not come to an end yet or the outcome of which has not gotten known. The case of a co-ordinator on a construction site where asbestos-containing materials have been disposed of is the most prominent.	<i>Greece</i> No.	<i>Ireland</i> There have been cases in recent years.	<i>Italy</i> Not that we know of, though a few cases may be running.	<i>Luxembourg</i> At present, there is no jurisprudence yet.
<i>Portugal</i> Yes; penalties have already been imposed upon co-ordinators and some cases are still running.	<i>Spain</i> No.	<i>Sweden</i> Yes. There have been some cases in which, during the construction stage, the client was forced to make changes in the co-ordination, e.g. change the co-ordinator (after a complaint of the Labour Inspectorate).	<i>The Netherlands</i> In the construction stage: yes In the design stage: no.	<i>United Kingdom</i> Yes, there are numerous examples of clients, designers, planning supervisors and principal contractors being successfully prosecuted under the CDM Regulations.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> No.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Yes. There was one accident, a case in which a worker engaged in clearing up the accumulated building debris at the refuse trough was struck by falling objects dumped through the refuse chute connecting to the trough. The circumstantial evidence showed that someone at the upper floor was dumping building debris down the chute while the worker was carrying out the clearing work. The exact type of work or the person who was involved in the accident could not be ascertained as the investigation could not identify the witness and no substantial evidence was collected. The accident was possibly due to the lack of co-ordination between the cleaning subcontractor and other subcontractors working on the upper floor.	<i>India</i> Not applicable.	<i>Japan</i> It is widely understood that as a general rule, unless there is a negligence in the order or by the orderer, the contractor who contracted the project bears all responsibilities, so there have not been big disputes in court.	<i>Taiwan</i> No experience.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> No.				
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7.4 Do the authorities carry out control on the implementation of the co-ordination during the design stage ?

EUROPEAN UNION

<i>Austria</i> Yes, spot checks.	<i>Belgium</i> I don't know any situation.	<i>Denmark</i> Yes, more campaigns have been carried out the recent years, also including some projects in the design phase to be looked through critically by the authorities.	<i>Finland</i> Yes.	<i>France</i> Yes.
<i>Germany</i> Control in the planning phase is hardly possible as the legal obligation to inform the authorities starts but two weeks before the installation of the construction site.	<i>Greece</i>	<i>Ireland</i> Yes – but increased emphasis is needed.	<i>Italy</i> No, the control could only be made when the Safety Plan is developed and the Site has already started. But this usually happens only when an accident has occurred.	<i>Luxembourg</i> No, control is only possible when the Safety Plan is developed and the Site has already started.
<i>Portugal</i> I don't know any situation.	<i>Spain</i> Not at all. Only in professional academies it is required to check the safety reports during the project, and so on.	<i>Sweden</i> Yes.	<i>The Netherlands</i> They (have to) do. Last year, they focussed especially on six points of attention. The inspectors were trained on this points.	<i>United Kingdom</i> Yes, vigorously.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> The question doesn't apply.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> No.	<i>India</i> Not applicable.	<i>Japan</i> It is not an obligation of administrative agencies to control the co-ordination at the design stage.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

<i>Australia</i> No.				
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7.5 How are the authorities informed of the start of a new project in the design stage ?

EUROPEAN UNION

<i>Austria</i> By the announcement two weeks before the work starts.	<i>Belgium</i> Authorities just know that a project will start when they receive the Prior Notice, two weeks before the work starts.	<i>Denmark</i> See 3.15	<i>Finland</i> By receiving an announcement that is sent to them.	<i>France</i> When filing for a planning permission.
<i>Germany</i> The information of the authorities takes place under a legally prescribed form, at least two weeks before the installation of the construction site.	<i>Greece</i>	<i>Ireland</i> The Statutory Authority is not informed at the Design Stage.	<i>Italy</i> Unfortunately, they are not informed at all.	<i>Luxembourg</i> It is required to notify the work to the authority at the time of commencement of the construction work, but there is no legislation requiring the notification in the design stage.
<i>Portugal</i> There is no legal requirement for that purpose. Authorities just know that a project starts when they receive the Prior Notice.	<i>Spain</i> There are no information facilities.	<i>Sweden</i> Through subscription on lists contenting new projects.	<i>The Netherlands</i> The client has to inform the Labour Inspectorate.	<i>United Kingdom</i> By receiving an official notification sent to them by the Planning Supervisor.

EUROPE OUTSIDE EU

<i>Switzerland</i> No information.				
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AMERICA

<i>Argentina</i> They are not.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> They are not.	<i>India</i> Not applicable.	<i>Japan</i> It is required to notify the authority at the time of commencement of the construction work, but there is no legislation requiring the notification at the design stage.	<i>Taiwan</i> The authority assigns to start the design work of a new project, so they can follow up the process during the design stage.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> By building and development application approvals.				
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7.6 Did penalties already occur ? If so, which ones ?

EUROPEAN UNION

<i>Austria</i> No, presently only observation, planned in case of negation on purpose.	<i>Belgium</i> Not yet.	<i>Denmark</i> No penalties in the design phase, others see 7.2 and 7.3.	<i>Finland</i> No.	<i>France</i> No information available.
<i>Germany</i> No.	<i>Greece</i>	<i>Ireland</i> Yes – Fines for breach of Statutory Duties but little evidence of this in the Design Stage.	<i>Italy</i> Not yet according to the collected data, even if the application of the Decree is too recent to have data that can be analysed.	<i>Luxembourg</i> No.
<i>Portugal</i> Yes, many, but during the execution phase, in case the owner did not present the Prior Notice or in case of a construction site with no safety and health plan. In some cases, penalties have also been applied due to poor safety measures (for example a missing guardrail etc.).	<i>Spain</i> None is known.	<i>Sweden</i> No.	<i>The Netherlands</i> No.	<i>United Kingdom</i> Yes, by fines and/or imprisonment.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> No they didn't.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i>	<i>India</i> Not known.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Not at the design stage.	
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AFRICA

<i>Algeria</i> No, they didn't.				
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OCEANIA

<i>Australia</i> No, they didn't.				
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Notes and Comments



Notes and Comments



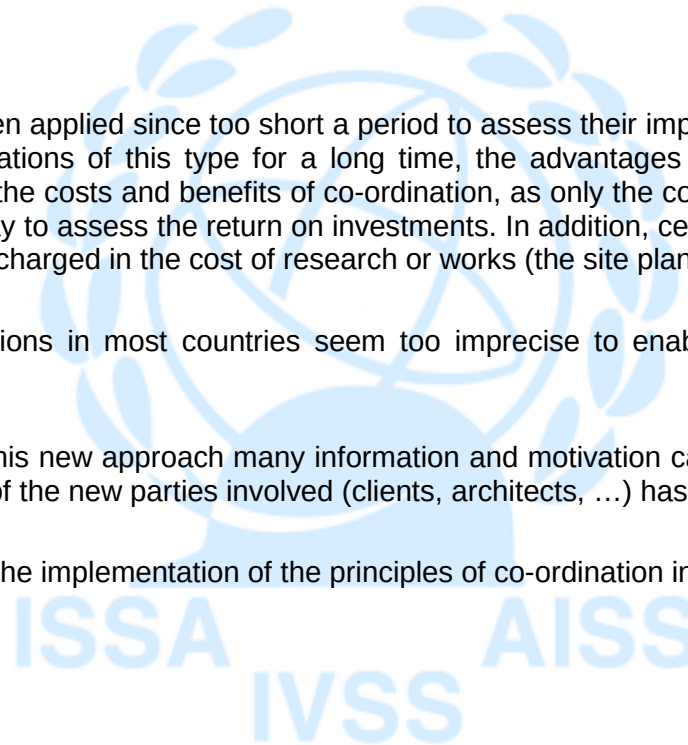
8 *Results*

The laws on co-ordination have been applied since too short a period to assess their impact on the reduction of safety and health risks. For countries that have had regulations of this type for a long time, the advantages are considered undeniable. But the answers indicate that it is difficult to assess the costs and benefits of co-ordination, as only the costs of the additional co-ordination services are accounted and since there is no way to assess the return on investments. In addition, certain co-ordination assignments are an integral part of functions which are already charged in the cost of research or works (the site planning, construction stages programming...).

Moreover, the texts of the regulations in most countries seem too imprecise to enable any accurate analytical accounting of co-ordination services.

In order to ensure the success of this new approach many information and motivation campaigns have targeted all parties concerned. In some countries, the awareness of the new parties involved (clients, architects, ...) has increased considerably.

Generally, the weak point remains the implementation of the principles of co-ordination in the design stage.



Questions

- 8.1** In your opinion, which impact has had the co-ordination since it has been applied in your country ? Please, specify positive and/or negative impacts ?
- 8.2** To what extent has co-ordination caused an increase or a decrease of construction costs ?
- 8.3** In your opinion and compared with the Directive, which aspects of the legislation in your country are positive, which are negative and which can still be improved and why ?

8.1 In your opinion, which impact has had the co-ordination since it has been applied in your country? Please, specify positive and/or negative impacts ?

EUROPEAN UNION

<i>Austria</i> The law has already come into force, but the quality is quite different. Some building owner don't even know the law, others don't do anything at all in order to fulfil it.	<i>Belgium</i> The legislation is too new to make an evaluation. Since 1992, informal contractual co-ordination has been set up for some important construction works. The impact of that co-ordination on the accident figures has been important and gives us an idea on what could be reached on each construction site by implementing the legislation on co-ordination.	<i>Denmark</i> The new regulation on co-coordinators and the changed obligations of the client have only been administered since 1. July 2001.	<i>Finland</i> Positive:- - It has made clients aware of the key role they have in setting health and safety standards on the projects they commission; - It has made the construction design professions (designers) aware of their responsibilities for the health and safety of the people at work on the projects they design; - It has made all parties in the procurement chain (clients, designers and contractors) aware of the need to co-operate with one another; It has improved the management culture of projects in general. No negative impacts.	<i>France</i> Negative points : No influence as yet on the rates of frequency and seriousness of accidents for the following reasons : - application difficulties, - clients' awareness, - insufficient training of the co-ordinators, - reluctance of the construction companies. Positive points : - integration of prevention at the client level, - better organisation of the building sites, - integration of prevention in the design of working sites, - clarification of the roles and responsibilities in terms of health and safety.
<i>Germany</i> Namely the co-ordination at the design stage has led to a very early analysis of work processes and the execution of future works on the building. The effects, however, must be made more extensive use of than it is common up until now. Although regulations in the Civil, Construction, and the Penal Law comprising a client's responsibility towards the co-operation of the various building contractors on the construction site have existed for quite a long time, an institution has been created in the person of the co-ordinator who is especially in charge of these issues.	<i>Greece</i> Although it is not possible at the moment to make a clear estimation of the impact the co-ordination has had in our country, it is generally concluded that the adoption of the new legislation has improved the safety level mainly in large construction projects. However, some problems appeared in small projects, where there is a lack of the required perception resulting in an inadequate application in practice.	<i>Ireland</i> It is too early yet to consider how well co-ordination has worked but on medium or large projects, there is a significant impact and not quantified and there is possibly a slower change process with small projects.	<i>Italy</i> Safety Co-ordination has had, of course, a positive impact on construction sites. Especially when small contractors are involved, as far as they are increasing their Safety culture. A negative impact is that now there are too many professionals on the site. This can lead to confusion and to difficulties in managing Safety on site.	<i>Luxembourg</i> Although the legislation involved is still recent, a clear improvement in applying the general principles in safety and health on site can already be observed (companies' initiatives in matter of safety, quality of the collective protections that are put at disposal, follow-up of the remarks of the co-ordinator, transmission of documents).

<i>Portugal</i> Although the Directive was transposed 5 years ago, no visible impact on the accident indices can be reported. A significant decrease on accidents was expected but the reality does not clearly show this. One of the possible explanations can be the slow way owners are appointing safety and health co-ordinators. Another possible explanation can be the way the Directive was transposed into the legislation. A lot of aspects are not clear. It should be clear and simple to implement it.	<i>Spain</i> Negative: Administration has not provided any information There is no Adapted Report, and it does not affect maintenance works It has not affected the project (in building there is hardly any project co-ordination) When it comes to the application and requirement of safety measures, the stream effect it may have has been wasted. Positive: The requirement of a safety co-ordinator has partly eased the application of safety legislation in building works.	<i>Sweden</i> The S&H plan has become a key function in the work. Co-ordination during the construction stage has been functioning for many years now (long before 92/57 was used!) and there were not many needs for improvement. Co-ordination during the design stage has difficulties to be accepted in practical use.	<i>The Netherlands</i> In the design stage it has had hardly any impact. Too often, the legislation does not imply any commitment for the client. In most cases the client only drops a booklet carrying the name Health and Safety Plan. When it comes to the construction stage, co-ordination has had a bit more impact, although most of the attention is paid to the means (Health and Safety Plan) and not to the goal (a proper co-ordination). It must be said that this situation slowly improves.	<i>United Kingdom</i> Positive: - It has made clients aware of the key role they have in setting health and safety standards on the projects they commission; - It has made the construction design professions (designers) aware of their responsibilities for the health and safety of the people at work on the projects that they design; - It has made all parties in the procurement chain (clients, designers and contractors) aware of the need to co-operate with one another; It has improved the management of projects in general. Negative: It has resulted in an unnecessary amount of bureaucracy due to in-experienced designers and planning supervisors putting unnecessary information in the pre-construction health and safety plans.
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EUROPE OUTSIDE EU

<i>Switzerland</i> It hasn't been applied by law.				
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AMERICA

<i>Argentina</i> It's difficult to know the impact, because we don't have real statistics until the new system has been applied. Now we have statistics of four years only with a little decrease with regard to occupational and professional diseases.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Having co-ordination on the construction site does not only help productivity but also in safety and health. It gives a positive impact to the construction industry as far as OSH is concerned. Co-ordination among the subcontractors/workers would enable the smooth operation as well as the reduction of risks arising from different trades/groups of workers carrying out work at the same time. In particular when the works carried out by different groups/trades are not compatible, such as the use of inflammable substances (e.g. paint spraying/lacquer painting) and hot work (e.g. gas welding, heating up asphalt). Co-ordination also provides communication between various working parties about their individual activities and the associated hazards arising from the use of chemical substances, machinery, plant, the working environment etc.	<i>India</i> Not applicable.	<i>Japan</i> Since the introduction of the Law stipulating the introduction of an overall safety and health controller in 1972, industrial accidents at mixed construction sites have decreased drastically.	<i>Taiwan</i> There was a tragedy in Pachang River on July 22, 2000. After the tragedy happened, the whole country was angry and awaited the reaction of the central government. An investigation committee was set up to do the research.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> The development of site specific OHS management systems by contractors has resulted in an overall significant improvement in construction safety within Australia since 1996.				
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8.2 To what extent has co-ordination caused an increase or a decrease of construction costs ?

EUROPEAN UNION

<i>Austria</i> Costs are seen immediately, possible savings are ignored.	<i>Belgium</i> The cost of specific safety matters is no longer a way to offer unfair competition to someone, since they are described in the safety and health plan and have to be specified in the offers of the contractors. A global change cannot be observed yet.	<i>Denmark</i> ?	<i>Finland</i> No data are available for an assessment. The results of the overall project costs can be decreased by good management, good quality of actions and wellbeing of the organizations. Efficient accident prevention decreases the costs significantly.	<i>France</i> No serious assessment with regard to this issue, due to the variety of practices.
<i>Germany</i> Various considerations have been made in this respect which all led to different results. It is highlighted in all these considerations that the costs of the co-ordination go along with a tightened progress of the construction works. Representative investigations actually showing an increase or decrease of costs are not available yet.	<i>Greece</i> At present, there are no reliable data about the costs	<i>Ireland</i> There are significant costs if the project supervisor's role and the co-ordination are fully implemented. Contractors are concerned about these costs and also would like to see the project supervisor/co-ordinator costs being separated from the competitive tender items.	<i>Italy</i> The first moment, co-ordination has determined an increase in the contractors' costs as Safety was not so often considered as an investment. For big jobs, it is now possible to notice a decrease in Contractors' costs because of the better management on site of Safety and Quality.	<i>Luxembourg</i> The legislation is too new to make an evaluation. A global change cannot be observed yet.
<i>Portugal</i> Unfortunately there are no statistics on this issue.	<i>Spain</i> In our opinion, it has had no material effect on costs.	<i>Sweden</i> Not specified.	<i>The Netherlands</i> It has hardly caused any increase or decrease.	<i>United Kingdom</i> Many architectural and design consultants now charge clients for undertaking the planning supervision role. This has led to a marginal increase in overall project costs.

EUROPE OUTSIDE EU

<i>Switzerland</i> The total costs for conducting a construction site have increased.				
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AMERICA

<i>Argentina</i> Co-ordination has caused a real decrease of construction costs, but we don't have the actual range.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> No such statistics were compiled in Hong Kong.	<i>India</i> Not applicable.	<i>Japan</i> What is important in an integrated management system is that it does function to co-ordinate construction work as well as safety matters. The safety and health level improves with this system, and at the same time, more efficient construction management becomes possible, as work efficiency improves, and when we see this from a broader point of view, the total cost decreases.	<i>Taiwan</i> Co-ordination costs will increase the direct cost of the construction. But it can prevent the accident and thus reduce or prevent the indirect cost.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> Safety usually comprises 5-10% of the contract sum on a large project.				
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8.3 In your opinion and compared with the Directive, which aspects of the legislation in your country are positive, which are negative and which can still be improved and why ?

EUROPEAN UNION

<i>Austria</i> Clear improvement of workers' Protection, the initial resistance of the owners dies away, so far no negative features.	<i>Belgium</i> There are some doubts about the applicability of the legislation on very small building sites. The Belgian conversion is very much detailed, with the risk to forget things such as a more detailed definition of dangerous works. On the other hand, a positive thing was to define the profile of the co-ordinator.	<i>Denmark</i> Negative/could be improved : • Co-ordination in design phase is not covered by Danish legislation. • The building record is not covered. Positive : • Specific demands for forms and content of written H&S plans. • The clients' new obligations, where the legal responsibility cannot be given over to the main contractor or others.	<i>Finland</i> The impact of the legislation has been positive. The applicability of the legislation and technical and organizational measures can still be improved. In addition, it is important to connect the whole construction process to the executions of quality standards of contractors and designers (as a part of improvement of construction products and also of management actions).	<i>France</i> The French legislation strongly organised the issue of the training of Health and Safety Co-ordinators but real life experience shows it must be reinforced (especially with regard to the general principles of prevention). Legally, the co-ordinators at the preparation stage are not enough involved in the process. The relationship between the Health and Safety Co-ordinators and the companies is not clear enough.
<i>Germany</i> Compared with the directive, the German conversion occasionally has chosen a more abstract legal language. Thus further points of doubt have arisen. A great deficiency of the German conversion is the lack of any legal provisions for the co-ordinator's profile and for his training.	<i>Greece</i> As mentioned above, the adoption of the new legislation has improved the safety level in construction sites, especially in large projects where the industry provides adequate management and proper staff to apply the requirements. Problems appear in minor construction projects where there is no adequate management, mainly because it needs a significant increase of the cost. Problems also arise due to the fact that the legislation has become more complicated, since many other laws, apart from the new Directive application, are still in force.	<i>Ireland</i> The Construction Stage Management and Co-ordination has improved and further changes will take place in 2002. The Competence of PSDS and PSCS has to be addressed. Registration and qualification of Contractors and Workers are areas for improvement.	<i>Italy</i> Unfortunately, in the Italian interpretation of the EU Directive, the integration with all other past Italian Safety regulations was almost lost. This is creating a lot of problems in the application of the legislation itself. It must be also mentioned that the new professional positions are not well integrated in the building process with problems of interface with all the other professional figures.	<i>Luxembourg</i> The absence of legal orders with regard to the competences of the safety co-ordinator is a major obstacle to his recognition as a full partner in a construction project.

<i>Portugal</i> The legislation in Portugal is of course based on the Directive, with some aspects that were adapted to the Portuguese reality. The problem is that some important concepts related to the stakeholders were transposed in a way that leads to different interpretations among those involved in the construction process. At the moment, it is announced that the legislation will be reviewed and it is expected that negative aspects will be corrected. Briefly, it can be said that those aspects of the legislation that did not change the concepts of the Directive are positive. Others, like the one referred to above, are examples of negative aspects.	<i>Spain</i> Negative: In practice, there is no project co-ordinator, thus it is hard to improve prevention out of solution searching, within the project, which involves less danger. In Spanish legislation, there is no Management Adapted Report. There has been no supporting campaign by the Administration (though in some professional colleges the fulfilment of the 1627/1997 RD is required). Positive: It has been related to some safety documents previous to this provision (Safety Report, Safety design, etc.).	<i>Sweden</i> Positive: The layout. (We have the annexes in the main text.) Negative: The S&H plan is always drawn up regardless of the volume of the project. The requirements do not give guidelines regarding the difference for the S&H plan for different projects.	<i>The Netherlands</i> Aspects which can be improved: - Make the necessity for following up the general prevention principles (prevention of risks for workers during the construction and maintenance stage) much more compulsory, - An obligation to justify the design decisions during the design stage in the H&S-plan, - Appoint only one co-co-ordinator during the design and the construction stage (instead of two different co-ordinators) - Fixing qualifications of the co-ordinator.	<i>United Kingdom</i> Unlike the Directive, the CDM Regulations place a direct duty on designers. This has had a very beneficial effect. ANNEX IV has resulted in some welcome and necessary additional duties for contractors, for example in the area of traffic management on sites.
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EUROPE OUTSIDE EU

<i>Switzerland</i> Switzerland has not yet transposed the European Directive. We think it is not right to entrust an external specialist with co-ordination. This function has to be assumed by the designer and the client.				
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AMERICA

<i>Argentina</i> It's almost impossible to compare our system with the European Directive, because the differences are big.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Our present legislation is only focused on the construction stage. It cannot cater for the poor design of the project, which creates hazards that cannot be eliminated or controlled during the construction stage and the maintenance stage. This has occasioned great difficulties in risk control in respect of OSH at work and rendered the implementation of the safety control measures (willingness of the management in adoption of the safety measures due to practicability and high costs and the willingness of workers to use/follow up the safety measures because they're not quite practicable and rather comfortless). Thus, it attributes much of the serious accidents. These deficiencies of the legislation were observed by the Construction Review Committee set up by Hong Kong SAR Government in 2000. Early this year, the Committee finally recommended the Works Bureau and the Housing Authority to start introducing the concept of UK's Construction (Design) Management Regulations (which originated from the European Directive 92/57/EEC) on some of their contracts. The Committee also advised to review the local situation to see whether the concepts should be legalised within 5 years.	<i>India</i> Not applicable.	<i>Japan</i> The construction industry in Japan has developed in a different way compared with European countries, and the integrated management system is the most suitable management system to the Japanese construction industry.	<i>Taiwan</i> We have not specified the Directive for construction. It is a way for us to go further.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> There is no comparison with the Directive as designers of a construction project have no legal obligation in respect of the construction process itself.				
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Notes and Comments



Notes and Comments

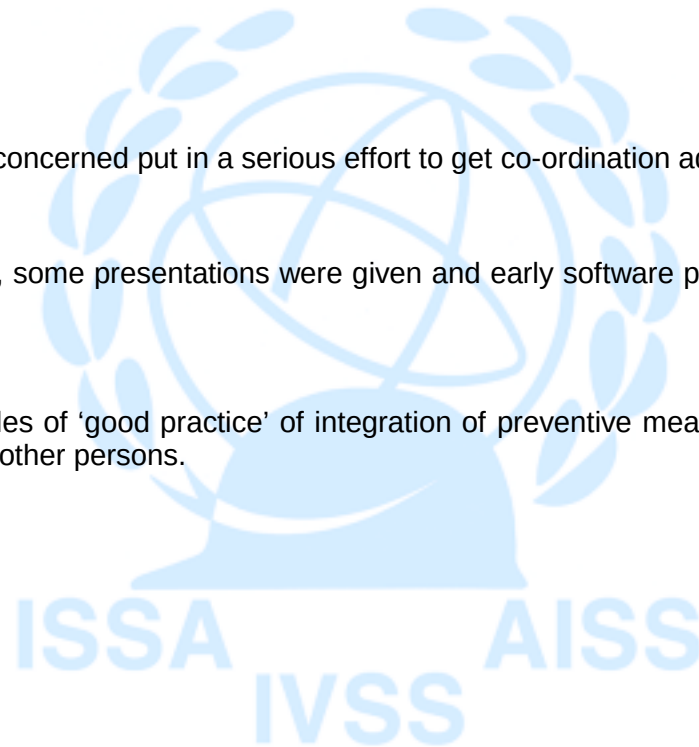


9 *other topics*

In most countries, different parties concerned put in a serious effort to get co-ordination adopted in the construction process.

A lot of information was distributed, some presentations were given and early software packages to work out co-ordination in a proper way were developed.

There is still a big need for examples of 'good practice' of integration of preventive measures in the design stage, examples that can serve as a source of inspiration for other persons.



Questions

- 9.1** What actions are being undertaken and by who to motivate the parties concerned (clients/owners, architects, contractors, workers...) to implement the legislation related to temporary or mobile construction sites ?
- 9.2** Does your country have a co-ordinators' lobby (organised group or association) ?
- 9.3** Have auxiliary tools been developed to help co-ordinating safety and health measures on temporary or mobile construction sites ? If so, what kind of tools ? Who has developed them ? How are they used and what have they resulted in ?
- 9.4** How and by who are clients/owners informed of their legal obligations about safety co-ordination in your country ?
- 9.5** According to you, are they informed in a correct way ? If not, what should be done ?
- 9.6** Has some kind of standardisation of the documents that have to be drawn up taken place ?
- 9.7** Have examples of the integration of preventive measures in the design of a construction project been published in your country ? If so, could you list the references of those publications ?

9.1 What actions are being undertaken and by whom to motivate the parties concerned (clients/owners, architects, contractors, workers...) to implement the legislation related to temporary or mobile construction sites ?

EUROPEAN UNION

<i>Austria</i> Information days and seminars are being held; press and media are still interested; a wide array (about 14) of computer programs of different quality.	<i>Belgium</i> A lot of seminars have been organized by CNAC, the Ministry of labour, employers' federations, architects federations,... Also detailed guides and information brochures have been set up, mainly by CNAC. CNAC will also set up an overall campaign for (and with) all parties involved in the construction process from 2002 on.3.	<i>Denmark</i> • Different campaigns with guidance and control from the Working Environment Service. • The set up of a joint working group within the Construction Working Environment Council, with all parties actively involved: Labor market organizations, Engineer's and Architects' Associations and the Association for big Clients. • A joint framework for the promotion of "the pioneer client" partly for state clients and partly as an offer to larger private clients. • An ongoing discussion about further training courses in modules for all parties.	<i>Finland</i> There has been a very positive dialogue between the private, public, industry clients, architects, contractors and workers. New measures are necessary to further improve the planning and management culture of construction projects. Social partners have played a positive role in motivating.	<i>France</i> Many conferences and training sessions were organised by the Ministry of Labour and the Prevention Departments of the CRAM, practical brochures were published and widely distributed, prevention specialists offered on-site help, but it is difficult to reach the clients who are of vastly differing origins and status (stakeholders, banks, construction professionals...) and have diverging interests.
<i>Germany</i> Architects' and engineers' associations have taken action in this respect. They inform and motivate their members to realise this task.	<i>Greece</i> On the other hand, The Technical Ministry of Labour with its own services has engaged itself to motivate the parties concerned to implement the new legislation. Several new services and Committees have been established by the Ministry to implement the new legislation. The Chamber of Greece, which is the official Association of all Greek graduated engineers, is actively involved in the field organizing meetings, seminars, Conferences etc. The Chamber (TEE) has established a special new Committee on safety and health at construction sites.	<i>Ireland</i> A unique Construction Safety Partnership was established to achieve progress. A National Construction Safety Plan (2000-2002) was agreed by the Government and the Social Partners. The Construction Industry Federation (Employers), has taken a leading role in monitoring the PSCS and Contractors.	<i>Italy</i> The first and most important action that was undertaken is that education and training on Safety Co-ordination is now compulsory. This is the first step to make all the parties that are involved in the building process more aware of Safety implications.	<i>Luxembourg</i> The Luxembourg Association of Safety and Health Co-ordinators (ACSSL), having more than five years of experience, is collaborating with the Labour and Mining Inspectorate in order to write new Grand-Ducal Regulations that can complete the present legislation which is no more than the transcription of the European Directives. The ACSSL has planned to inform the clients and the contractors as soon as the new legislation will be published. On October 19, 1998, the ACSSL had already organised a European Congress on The Safety Co-ordinator in Europe as part of the SAFE project of the European Commission.

<i>Portugal</i> Unfortunately, it can be said that in many cases those involved in the construction process are only "encouraged" to implement safety measures according to the legislation, after penalties. But there are also some good examples of stakeholders who take the initiative to implement good safety measures (owners, contractors).	<i>Spain</i> Some discussion has been carried out in professional associations: the Colegio de Arquitectos Técnicos in Barcelona, together with all of the agents and also in contact with other European co-ordinators.	<i>Sweden</i> Motivation, information and inspection by the Labour Inspectorate are important for a successful implementation.	<i>The Netherlands</i> Information sessions, training for the co-ordinators, development of expedients by different organisations of architects (like ONRI and BNA), contractors (like VGBouw) and advisors on safety and health matters (like Arbouw and Aboma+Keboma).	<i>United Kingdom</i> Guidance and information is provided by:- The Health and Safety Executive The Construction Industry Advisory Committee (CONIAC) The Construction Industry Research and Information Association (CIRIA) The professional institutions Employers' organisations Construction trades unions Many health and safety consultancies. Training is provided by the Construction Industry Training Board, the Engineering Construction Industry Training Board, Employers and Trades Unions and numerous health and safety consultancies
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EUROPE OUTSIDE EU

<i>Switzerland</i> Integrated safety plans explained at conferences, courses, especially for clients and architects.				
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AMERICA

<i>Argentina</i> Training programs, seminars, conferences, safety and prevention meetings, information brochures, provided by the professional institutes, the construction trade union (UOCRA), the employer's chamber (CAC) and the foundation of instruction and training for the construction workers.	<i>USA</i> Little is being done at this time.			
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ASIA

<i>China - (Hong Kong)</i> The legislation covers only the construction stage, not the design stage. The Labour Dept. of the Hong Kong SAR enforced the relevant legislation to make sure that the parties concerned implement the legislation. They also give advice to the contractors. The Hong Kong Occupational Safety and Health Council (OSHC) does the promotion, training and consultancy of these aspects. Workshops were organized and papers were published to introduce the concept of CDM and the UK experience. OSHC also introduced the safety management tool Safe Working Cycle (SWC) into Hong Kong to help the construction industry to implement SMS. Two study missions were held in Japan, origin of the SWC. SWC was promoted in co-operation with Government departments, Unions and Trade Associations. There is also a competition for the best SWC site. This year, SWC is one of the safety initiatives acknowledged by The Works Bureau (Government dept.).	<i>India</i> Not applicable.	<i>Japan</i> Our association is undertaking the dissemination of legislation and guidelines concerning safety and health activities in the Japanese construction industry.	<i>Taiwan</i> No actions are undertaken by any of the parties concerned to implement the legislation.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> NOHSC, the National Occupational Health & Safety Commission and WorkCover New South Wales have promoted research projects in the field of Safe Design Project, with reference to the construction sector as well.				
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9.2 Does your country have a co-ordinators' lobby (organised group or association) ?

EUROPEAN UNION

<i>Austria</i> No, but the chamber of civil engineers and the chamber of architects have platforms; teaching organisations are involved and exchange their experience, internet-platforms are built.	<i>Belgium</i> Two co-ordinators' associations have been founded. They are trying to define the co-ordinators' price as well as to set up some quality requirements for co-ordinators and are thinking about certification.	<i>Denmark</i> No.	<i>Finland</i> No.	<i>France</i> There are two co-ordinators' associations but without any serious influence. Older associations are more on the defensive.
<i>Germany</i> Meanwhile several co-ordinators' associations have been set up in Germany. Their work is partly restricted to certain regions of the country, partly they work throughout the Federal Republic.	<i>Greece</i> No.	<i>Ireland</i> No – this role is covered by the Professional Bodies, by IOSH and the Construction Industry Federation.	<i>Italy</i> No, in Italy no Safety Co-ordinators' group or association has been founded yet.	<i>Luxembourg</i> In 1996, a Luxembourg Association of Safety and Health Co-ordinators (ACSSL) was created. Its primary goal is to make the profession more widely known and to defend its interests.
<i>Portugal</i> No.	<i>Spain</i> There is an association, but it has no concrete strength. Since 1996, this role has been promoted by the Colegio de Aparejadores and the Arquitectos Técnicos de Barcelona (CAATB).	<i>Sweden</i> No.	<i>The Netherlands</i> No.	<i>United Kingdom</i> Design and planning stage co-ordination requirements have resulted in the formation of the Association of Planning supervisors (APS). This acts as a lobby for planning supervisors. However the professional institutions (Architects and Civil Engineers) have seats on the Construction Industry Advisory Committee (Coniac), whereas the APS does not. Coniac is the national committee established to advise the Health and Safety Executive on construction health and safety issues.

EUROPE OUTSIDE EU

<i>Switzerland</i> No.				
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AMERICA

<i>Argentina</i> No, there isn't a co-ordinator's lobby in Argentina.	<i>USA</i> No.			
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ASIA

<i>China - (Hong Kong)</i> There was no such organisation in Hong Kong.	<i>India</i> Not applicable.	<i>Japan</i> No.	<i>Taiwan</i> Not at the moment.	
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AFRICA

<i>Algeria</i> There is no such organisation.				
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OCEANIA

<i>Australia</i> Various stakeholders in the construction process all belong to professional bodies.				
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9.3 Have auxiliary tools been developed to help co-ordinating safety and health measures on temporary or mobile construction sites ? If so, what kind of tools? Who has developed them ? How are they used and what have they resulted in ?

EUROPEAN UNION

<i>Austria</i> Yes, standardized criteria of the Health and Safety Plan are worked out and distributed by Ing. Baresch in the paper "Maßnahmenauswahlplan Hochbau/Leitungsbau/ Brückenbau" ("Measures to be adopted for building construction/ line construction/bridge construction").	<i>Belgium</i> A guide for co-ordination has been developed by CNAC, as well as so-called prevention tabs, that can be used by those that have to set up an safety and health plan. Other organizations have set up pre-elaborated safety and health plans. Such plans risk to be copied without doing any reflection about the safety and health risks for a specific construction project. Although the pressure on our organization is high to create prefabricated safety and health plans for the construction industry, we have refused until now to do so and instead of that, we have created a specific method for risk assessment for the construction industry and prevention tabs that can be assembled.	<i>Denmark</i> • "The paragon Construction Site", a simple but effective tool to visualize certain measuring points in a construction, made as a joint project between General Workers Union and Contractors Association. • "Approval of the Client", a locally based system in which contractors who want to be performing work for certain chemical plants are obliged to give positive answers about the treatment of H&S matters within the company. • "You are your own safety rep", a simple scheme to be used in safety rounds and as catalogue of solutions to be handled at the safety-meetings.	<i>Finland</i> Several Finnish guides deal with : - a better understanding of the regulations, - practical applications. Some large companies have created their own products. Tools have been developed for the different construction phases. Websites for the safety of the construction industry can create new positive possibilities for information and training.	<i>France</i> Several guides deal with : - a better understanding of the regulations, - practical applications Therefore, the French stance is to refuse all kinds of standardisation or referentials of co-ordination practices. Some large companies have created their own products.
<i>Germany</i> In Germany various authorities offer working aids (tools) for the conception of safety and health plans and the records for future works. The most widespread tools are those developed by the Professional Associations of the Construction Industries. These are guidelines – named representatively in the place of others - for the conception of the safety and health plan and the conception of the record. Apart from this, the Professional Associations of the Construction Industries offer further useful information like, for example, a model Ordination on Construction Sites, or bidding documents for services in safety technique. Beyond this, extensive information material and the Professional Association of the Constructions Industries` safety code is at the co-ordinators` hands.	<i>Greece</i> Meetings, seminars, conferences have been organized by the above-mentioned Organizations as well by some Universities, which introduced special courses in their curricula. All these activities have resulted in a significant improvement in the co-ordination safety and health measures on construction sites	<i>Ireland</i> The Statutory Authority, the Architects Body (RIAI) and the Employers Body, CIF have produced guidelines. These are also covered on websites.	<i>Italy</i> No auxiliary tools have been developed yet as an aid for Safety Co-ordination. The tools introduced by the Legislative Decree No. 494/96, if well developed and applied, are themselves very good instruments for Safety Co-ordination on site.	<i>Luxembourg</i> The Luxembourg Association of Safety and Health Co-ordinators puts at the disposal of its members: • Specifications of the mission • A standard contract of the mission that has been approved by the council of the Order of Architects and Council Engineers and supported by the Labour and Mining Inspectorate. • The wage scale per hour for the performances of the co-ordinators, approved by the Labour and Mining Inspectorate.

<i>Portugal</i> Yes, some books have been published on this subject. An example is the "Safety and Health Plan" written by Luis Alves Dias and Manuel Fonseca at IST (university) and published by the Authority (IDICT). There are of course others, but most stakeholders use this one as a reference.	<i>Spain</i> The CAARB has released a guide to co-ordination. There is some computer software to assist the elaboration of safety reports which has achieved a wide diffusion among a range of professional associations: first degree architects and architects.	<i>Sweden</i> Tools have been developed for the construction stage. A website for the construction industry contenting a pattern., developed by the construction industry.	<i>The Netherlands</i> Most recently two auxiliary tools have been developed: - 'Leidraad veilig en gezond ontwerpen' ('Guideline for a safe and healthy design') - 'V&G-plan uitvoeringsfase' (Health and Safety Plan during the construction stage') Both are developed by Aboma+Keboma by order of VGBouw.	<i>United Kingdom</i> The CDM Regulations have an Approved Code of Practice (ACoP) and guidance attached to them. These explain to the various duty-holders how they should discharge their duties under CDM. The ACoP is being revised and updated. The new version will be available before the end of this year and will have numerous "best practice" examples. Organisations such as the National House-Building Council (NHBC) have developed proforma health and safety plans and files, that house-builders can use to develop project specific plans and files.
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EUROPE OUTSIDE EU

<i>Switzerland</i> Integrated safety plans by ETH and Suva. (Swiss Accident Insurance Company).				
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AMERICA

<i>Argentina</i> We have a complete program about occupational safety at construction sites. The foundation has developed this program. It's been used with positive impacts.	<i>USA</i> No.			
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ASIA

<i>China - (Hong Kong)</i> OSHC has published a guidance to help smaller contractors (SMEs) establish their own SMS, where co-ordination on safety and health issues is treated. There is also a Do-It-Yourself kit for this purpose. OSHC has also promoted SWC in Hong Kong, with a SWC Manual for Hong Kong, Hazard Identification Activities Manual, a promotion video on SWC and various posters. There are Daily SWC, Weekly SWC and Monthly SWC, each form representing structured steps of activities related to safety. They are to be done in a certain period of time on each day, week and month. For example, the 8 steps of the daily SWC include a meeting, hazard identification, supervision, discussion... All levels of staff on site need to participate. The process normally takes 15 to 20 minutes. After implementation during one year, SWC was found to be more acceptable. It got some encouraging feedback: co-ordination, OSH aspects and productivity had improved. Preliminary results showed better safety awareness among workers and accident figures that had dropped quite significantly. Yet, it is still too early to quantify these results.	<i>India</i> Not applicable.	<i>Japan</i> Our association develops technical guidelines, educational tools, video tapes and booklets useful for the safety and health education of the people who are involved with construction sites, and also we run a number of training courses. We also formulated guidelines (by industry) especially for construction industry, to familiarize the Occupational Health and Safety Management System Guidelines to the contractors in Japan, and we are now disseminating them.	<i>Taiwan</i> No. But all construction authorities have their own regulation to prepare budget and site specification for SHE. The Water Conservation Dept. has a set of inspection forms to use in the stage of design, construction and after construction. They are mostly according to the inspection forms in Great Britain, Belgium and the Netherlands. This is probably primary in Taiwan.	
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AFRICA

<i>Algeria</i> No.				
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OCEANIA

Australia

Yes, they have been developed. The most important are:

- CHAIR, an acronym for Construction Hazard Assessment and Implication Review, developed by New South Wales WorkCover Authority to enable OHS to be integrated into the design of a project;
- OHS&R Management Systems, Guidelines, issued by New South Wales Government Construction Policy Steering Committee;
- Codes of Practice relating to specific trades or areas of work e.g. safe work on roofs;
- SUBBY PACK, Subcontractors Safety Management Assistance Pack, developed and promoted by the NSW Principal Contractors Safety Alliance in conjunction with the Memorandum of Understanding Signatory Construction Contractors.
- Site Safety Meter – OHS positive performance measurement tool.

9.4 How and by who are clients/owners informed of their legal obligations on safety co-ordination in your country ?

EUROPEAN UNION

<i>Austria</i> There aren't legal obligations about this matter in our country.	<i>Belgium</i> A round table will be set up by CNAC with some important public clients. We hope that they will act as an example towards the other clients. Also, information will be given to each new client when a construction permit is asked. Finally, contractors and architects have the duty to inform their clients.	<i>Denmark</i> • By the Working Environment Service. • By the Construction Working Environment Council. • By local three-partite committees. • By contacts to The Clients Association.	<i>Finland</i> Symposia on this theme, symposia on safety in design, articles in professional magazines, articles in health and safety magazines, training, etc.	<i>France</i> Numerous conferences were organised for their attention but contacts are difficult to establish.
<i>Germany</i> Clients are handed out an information leaflet in the process of granting the planning permission and are thus informed of their obligations according respectively to the directive 92/57 EEC and the German legal regulations. Generally, clients are informed in professional journals, symposiums, etc.	<i>Greece</i>	<i>Ireland</i> Clients are normally advised by their Designers, Insurance Advisers and Safety Consultants. The Statutory Authority produced a specific short guideline for Clients. A new initiative to include 'Safety Regulations' for Clients will be issued with planning permission/approval.	<i>Italy</i> In Italy, clients/owners are not properly informed about their legal obligations regarding Safety.	<i>Luxembourg</i> As he is the first person the client consults, the architect is usually the one who informs the client. The Luxembourg Association of Safety and Health Co-ordinators organises information sessions for clients on the mission and its content.
<i>Portugal</i> In some cases, by some engineers who have heard about this "new" legislation ("new", after 5 years) and in other cases, after a penalty imposed by the authority.	<i>Spain</i> In practice, by the technicians of the project management.	<i>Sweden</i> Information is given in professional building papers, breakfast meeting etc. By the National Board of Occupational Health and Safety and by the Labour Inspectorate.	<i>The Netherlands</i> Symposia on this theme, articles in magazines, etc.	<i>United Kingdom</i> By the designer they appoint to carry out the design of the project.

EUROPE OUTSIDE EU

<i>Switzerland</i> There are no legal obligations for owners about co-ordination.				
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AMERICA

<i>Argentina</i> There aren't any legal obligations about this matter in our country.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> When there is an accident, they may be caught .	<i>Japan</i> Not applicable.	<i>Taiwan</i> No specified procedure to inform the clients /owners. It is all written in the routine contract.	
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AFRICA

<i>Algeria</i> There is no legal obligation.				
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OCEANIA

<i>Australia</i> They are informed through the legislation and the Codes of Practice. But the client has no specific legal obligations for a construction project unless they undertake a specific project management role which sometimes occurs on government projects.				
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9.5 According to you, are they informed in a correct way ? If not, what should be done ?

EUROPEAN UNION

<i>Austria</i> They are informed in the correct way, but information could be more efficient.	<i>Belgium</i> We will see in a couple of years.	<i>Denmark</i>	<i>Finland</i> Yes, but more advice and guideline brochures should be offered in reality.	<i>France</i> Yes, but more advice and guideline brochures should be offered.
<i>Germany</i> Yes, though this information may still be insufficient. However, further measures are not necessary.	<i>Greece</i>	<i>Ireland</i> The notice with each planning approval will improve the situation, particularly, for single project clients.	<i>Italy</i> When applying for building authorisations, they should be given all the instructions about appointing Safety Co-ordinators and everything else that is required by the Safety legislation.	<i>Luxembourg</i> The information with regard to the compulsory appointment of a co-ordinator at the construction stage is followed, but the same is not true of the design stage, where many clients do without the services of a co-ordinator, despite the legal obligation. Therefore, an efficient solution would be to stipulate in the law that the safety co-ordinator has to be appointed before a building permit can be obtained.
<i>Portugal</i> This is a real problem, as the legislation does not help very much due to the way the Directive was transposed. One can say that in many cases, they just know that they need a safety and health plan, and for most of those involved in the construction process, that's the legislation, as in many cases they don't know what is S&H co-ordination during the design phase and during the execution phase.	<i>Spain</i> Any informative attempt on the part of the Administration is interesting.	<i>Sweden</i> Yes, they are.	<i>The Netherlands</i> Yes, they are informed in a correct way. The main problem is that it is not necessary enough to do anything with the information.	<i>United Kingdom</i> Yes, this works quite effectively.

EUROPE OUTSIDE EU

<i>Switzerland</i> There are no problems.				
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AMERICA

<i>Argentina</i> See some former answers.	<i>USA</i> Legislation is required.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> No.	<i>Japan</i> Not applicable.	<i>Taiwan</i> No. They should be clearly informed to know their duty and the penalties.	
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AFRICA

<i>Algeria</i>				
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OCEANIA

<i>Australia</i> No legal obligations.				
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9.6 Has some kind of standardisation of the documents that have to be drawn up taken place ?

EUROPEAN UNION

<i>Austria</i> No, but we have a wide range of examples and software solutions at our disposal.	<i>Belgium</i> Not yet.	<i>Denmark</i> Yes, Risk Assessment according to the EU regulation and the inspection method "adapted inspection" where enterprises are categorized according to their working environment level and ability to work with health and safety at work.	<i>Finland</i> A number of "model" plans have been developed, but these have to be made more specific for different sites and design phases, including small companies.	<i>France</i> No.
<i>Germany</i> Various codes of practice have been established on the level of subordinate legislation. They have not yet found their way to standardisation.	<i>Greece</i>	<i>Ireland</i> No – some useful guidelines are available and model safety plans and Safety Files are emerging. As projects are uniquely different there is only limited value in having standard models.	<i>Italy</i> The Italian Standardisation Body (UNI) has started to develop a standard to draw up the Safety Plan. At the same time document examples (which MUST be customized for each construction work) are provided during Safety Co-ordinators courses.	<i>Luxembourg</i> Not yet.
<i>Portugal</i> No.	<i>Spain</i> Contents have been proposed in some sections.	<i>Sweden</i> Yes, see 4.1.	<i>The Netherlands</i> Today there is still little standardisation of the documents.	<i>United Kingdom</i> A number of generic or "model" plans have been developed, but these have to be made project-specific by the duty-holder.

EUROPE OUTSIDE EU

<i>Switzerland</i> SIA-Standard nr. 465: "safety and security of buildings and constructions".				
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AMERICA

<i>Argentina</i> Not developed at this stage.	<i>USA</i> Not applicable.			
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ASIA

<i>China - (Hong Kong)</i> Not applicable.	<i>India</i> The Bureau of Indian Standards has published many Standards on Safety and Health.	<i>Japan</i> Not applicable.	<i>Taiwan</i> Every construction authority has his own standard regulation for SHE on Budget and specification. But no standardized documents are set up for general use. CLA has general regulations on SHE for all Labours but not specifically for construction workers.	
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AFRICA

<i>Algeria</i> Not applicable.				
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OCEANIA

<i>Australia</i> At this stage no, it isn't. The problem is that in Australia there are specific legislations in each State and these documents are often different one from the other.				
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9.7 Have examples of the integration of preventive measures in the design of a construction project been published in your country ? If so, could you list the references of those publications ?

EUROPEAN UNION

<i>Austria</i> No.	<i>Belgium</i> Yes, some, mostly in case of counselling and teaching.	<i>Denmark</i> Only in Danish.	<i>Finland</i> Yes. The list of references is as follows: Sillanpää J., Lappalainen J., Kaukiainen A., Viljanen M., Laippala P.: Decreasing the physical workload of construction work with the use of four auxiliary handling devices. International Journal of Industrial Ergonomics 24 (1999), 211-222. Laitinen H, Marjamäki M, Viitala J: Safety competition as a promotion tool in construction industry. People and work, Research reports 25, Helsinki 1998. pp. 118-121. Laitinen H, Marjamäki M, Päiväranta K: The validity of the TR safety observation method on building construction. Accident Analysis and Prevention 31 (1999) 463-472.	<i>France</i> A few examples were detailed in magazines such as "Travail et Sécurité" by the INRS and "Les cahiers de l'OPPBT".
<i>Germany</i> There is a great variety of publications on the integration of preventive measures in the planning phase. They are too numerous to name only one or some of them.	<i>Greece</i>	<i>Ireland</i> Not that we are aware of.	<i>Italy</i> No recent examples have been published, but there was a publication several years ago as part of a pilot project for the European Commission in Bolzano.	<i>Luxembourg</i> Not that we know of.
<i>Portugal</i> No.	<i>Spain</i> No.	<i>Sweden</i> No.	<i>The Netherlands</i> No, there have not.	<i>United Kingdom</i> Yes, CDM Regulations – Case Study Guidance for Designers Report, 145 CIRIA 1995 ISBN 0 86017 421 2 CDM Regulations – Work Sector Guidance for designers Report, 166 CIRIA 1997 ISBN 0 86017 464 6 Experiences of CDM, Report 171 CIRIA 1997 ISBN 0 86017 479 4 CDM Regulations–Practical Guidance for Planning Supervisors, Report 173 CIRIA 1998 ISBN 0 86017 487 5 The revised CDM Approved Code of Practice, Chapter 4, Designers.

EUROPE OUTSIDE EU

Switzerland No.				
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AMERICA

Argentina No, they haven't been published.	USA Many works have been published. A few examples: 1. Hinze, J.; Wiegand, Role of Designers in Construction Worker Safety, ASCE, Journal of Construction Engineering and Management (Dec. 1992), vol. 118, no. 4, p 677-684 2. Kagan, Harvey A.; Leary, Dennis J.; Pratter, Gene E. K., "Design Engineers' Responsibilities During Construction" ASCE, Journal of Construction Engineering and Management (Sept. 1986), vol. 112, no. 3, p 394-402 3. Allen, P. H., and Lovejoy, E. G., Designing for safety, Structural Engineer, Vol. 67, No. 5, March 7, 1989, pgs. 83-87. 4. Other works or articles were published by these and other authors such as Gambatese, J., Morpurgo, S., Raggs, R. E., Cunningham, J., Haas, C., Churcher, D.W., Alwani-Starr, G.M., Munro, W.D., Smallwood, J.J., Koehn, E., Surabhi, M.R., Campion, C., Coble, R.J., Elliott, B.R., MacKenzie, J., Gibb, A.G.F., Bouchlaghem, N.M., Preece, C.N., Moodley, K., Cavina, C., MacCollum, D. V., Godfrey, K.A Jr., Orr, S., Charvat, W. C., Ansley, M., Quinn, M.S.			
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ASIA

<i>China - (Hong Kong)</i> Not available.	<i>India</i> Not available.	<i>Japan</i> At the design stage, designers deliberate about many preventive measures for industrial accidents, but since we do not conduct any survey on this topic, we do not know all references.	<i>Taiwan</i> No.	
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AFRICA

<i>Algeria</i> They haven't been published.				
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OCEANIA

<i>Australia</i> Yes, there are. They are research reports: - Safe Design Project: Review of OH&S legal requirements for designers, manufacturers, suppliers, importers and other relevant obligation bearers. NOSHC, March 2000. - Safe Design Project: Review of literature and review of initiatives of OHS authorities and other key players. NOSHC, July 2000.				
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Notes and Comments



Notes and Comments



Conclusions

➡ Results of the survey

Overall, all EU countries have created their own safety and health regulations on measures for construction sites. However, the latest national transpositions of the law on co-ordination are too recent to observe any tangible impact. Also, drilling and extraction activities have been excluded from the legislation, as well as some specific construction activities in certain countries.

The predominant role of the safety and health co-ordinator at the design stage of a construction project is evident. The role and responsibilities of the client is essential to obtain a safe and healthy construction environment. At this time, co-ordination at the design stage outside the EU exists only on a voluntary basis. An important item in this matter remains the question of how the authorities will control the application of co-ordination in this phase of the works.

Co-ordination of activities at the construction stage directed by the client is another matter and is essential when several construction companies are working on the same site at the same time. Co-ordination at the construction stage does not only exist in the European Union, but also in other countries.

As for the requirements, basically, the co-ordinator must be a construction technician. There are major differences concerning the co-ordinator's training requirements.

Minimum services to be provided by the co-ordinator are often defined. The rules on how the assignments are to be carried out are defined by contract with the client. They are therefore very precise.

In most cases, it is not stipulated that the function of co-ordinator includes the power to apply sanctions. Co-ordination must focus on organizing the work to avoid danger for the workers, stipulating preventive measures and drafting safety plans, thus providing the necessary instructions to prepare a safety file for subsequent maintenance work to be used by the owner. On the other hand, the co-ordinator will advise the client to take action against constructors who do not respect the preventive measures.

Participation of workers or their representatives is often provided for.

➡ General conclusions

According to the collected information, the need to co-ordinate safety and health efforts in construction operations is considered vital in order to significantly reduce safety and health risks.

Co-ordination, which must be integrated in the complete process of a construction project (from the design until the maintenance stage), goes hand in hand with the concern for the quality of the construction project and the environment. The various systems to improve performances can thus help reducing the number of industrial accidents and occupational diseases.

There are two main approaches to reach this objective :

- an approach based on European directives legally creating the safety and health co-ordination function,
- the free market approach, establishing by contract a co-ordination assignment between the various parties involved.

For the EU approach, transposition of the directives into national law generally leads to circumstantial texts like in France or in Belgium, or to very general texts such as in the Netherlands, depending on the predominant role of the government.

The complete survey will be available for all participants in the Symposium in Paris in December 2001.

Countries outside the EU generally prefer to use systems based on standards such as ISO 9000 for their more advanced construction operations. That explains why the representatives of these countries often do not reply to questions of legal nature.

Gradually, the co-ordinator's impact on industrial accidents becomes more visible. Still, the results of the different countries remain difficult to compare. A lot of work is ahead of the working group, first of all in the elaboration of an instrument to measure the effectiveness of co-ordination at an international level.

On the other hand, there is a growing body of opinion in favour of integrating co-ordination of safety and health in the overall co-ordination of a construction project, including quality and environment aspects.

Moreover, the globalisation of economy receives attention as well, which is why some parties promote the harmonisation of the co-ordinator's profile in the different countries.

So, the international working group has a lot of work on hand and it is convinced that international exchange of information is necessary to further optimise the implementation of co-ordination in each country.

CARL HEYRMAN

Vice-President ISSA Construction Section



COMITÉ INTERNATIONAL
POUR LA PRÉVENTION
DES RISQUES
PROFESSIONNELS
DU BÂTIMENT ET DES
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PARA
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PROFESIONALES
EN LA CONSTRUCCIÓN

INTERNATIONALE
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VERHÜTUNG VON
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INTERNATIONAL
SECTION FOR THE
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INFORMATION

You have just read the brochure concerning the current status of safety & health co-ordination in the construction industry. You may have remarks or comments about the information presented in this document or its translation into English. Do not hesitate to inform us by means of the following questionnaire so that we can update this contribution. We will consider every suggestion.

Thank you for your co-operation.

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