# Coordination of Safety and Health at temporary or mobile construction sites : current status

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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 collaborators of the CNAC and the CRAMIF, without whom this document would have never existed.

ISSA AISS

#### 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 certain 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 21<sup>st</sup> century.

Wishing to develop an overall, multi-discipline 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.c. clients/contracting authorities 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.

THE PRESIDENT of the ISSA International Section for the Construction Industry

Munin

Marc SCHNEIDER

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In view of the international Symposium on "Safety and Health in the Construction Industry in the 21st century "organized by the ISSA International Section for Prevention of occupational risks in the Construction Industry and by the Austrian Accident Insurance Association (AUVA), an international working group has been established.

The objective of this group is to promote an exchange on the application of safety and health coordination in the various countries represented.

The working group met for the first time at the CNAC on February 18 and 19, 1999 under the Chairmanship of Carl HEYRMAN, Vice-President of the International Section for the Construction Industry. The participants came from 15 different countries on three continents.

To prepare the meeting under the best conditions, a questionnaire was drafted and handed over to the participants; it dealt with the application of coordination in the construction industry in the design stage, the construction stage and during subsequent maintenance works.

This brochure is the result of the exchange of information and the comparison of situations in the countries represented.

As the brochure shows, coordination of safety and health matters is relatively recent in most of the countries represented so that it is impossible at this time to compare its results.

As all participants agreed that a further exchange of results and experiences on safety and health coordination is essential, it was decided to regularly gather the members of the working group in the future.

With this brochure, we hope having taken the first step in the international exchange of information on safety and health matters on temporary or mobile construction sites.



### **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 prevention 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 undertakene 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 risks created by the presence of various contractors working simultaneously or in succession at the same site, creating a " mixture " of working methods, processes, the skills and company attitudes remain to be examined.

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 coordination 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.C. which have developed other orientations as well.

In Europe, a lot of work has already been done to assess the scope of these official texts (by the European Commission, the European Agency for information and training in Bilbao, the European Foundation of working conditions in Dublin...).

This being the case, what we have in mind is not the continuation of studies or experiences that have already been assessed. 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 in succession at the same construction site ?

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

The working group has first of all reviewed the practices applied in the various countries with regard to this topic, even in those countries that are not subject to regulations as specific as those to be applied in the European Union.

#### Methods

In the first stage, a questionnaire was submitted to the participants dealing 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.

This document is the summary of the activities of this international working group.

The role of information and training has intentionally only been briefly examined, as this item is being examined both by the ISSA International Construction Section and the Education and Training Section.



For quite some time, the construction industry has been concerned with the consequences of the simultaneous exercise of various activities at a 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 persons involved in the process.

Nevertheless, it can be observed 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.

Finally, what appears in the answers is the concern – varying from one country to the other – to control the conditions of access to the function of coordinator.



- **3.1** Is there in your country a legal obligation to coordinate safety and health during the design stage, the construction stage and the maintenance stage of a construction project ?
- **3.2** Is this obligation based on the european directive 92/57/EEC relating to the coordination on temporary or mobile construction sites ? If yes, since when has the directive been transposed into national law ?
- **3.3** Since when has this obligation been applicable ?
- **3.4** Under which conditions is this legislation being applied ?
- 3.5 Which construction activities do not come under this legislation ?
- **3.6** Under which conditions are foreign coordinators admitted ?

# **3.1** Is there in your country a legal obligation to coordinate safety and health during the design stage, the construction stage and the maintenance stage of a construction project ?

Germany	Austria	Belgium	Spain	France
Yes, obligations in this matter have since long existed, originating from civil, penal and construction law.	Yes, the law on the coordination of construction work (BauKG) of January 15, 1999. As in Germany, obligations have since long existed in Austria, originating from civil, penal and construction law.	Yes.	Yes, since the publication of the royal decree 1627/97 of October 24, 1997 laying down the minimum safety and health requirements on construction and civil engineering sites (Official Government Bulletin of October 25, 1997).	Yes, coordination of safety and health matters is laid down in the " Code du Travail " (Labour Code) implemented by the law 391/1418 of December 12, 1993 and the decree 941/1159 of December 26, 1994.
Ireland	Italy	Luxemburg	Netherlands	Portugal
Yes, statutory duties are covered by S.I. No. 138 of 1995 – Safety, Health and Welfare at Work (Construction) regulations 1995.	Yes.	Yes.	Yes.	Yes.
United Kingdom	Switzerland	Japan	USA	Sweden
Yes, at each of these stages.	Yes.	There are general prescriptions (the Industrial Safety and Health Law - ISH Law) but there is no specific law in this matter.	There is a general requirement under OSHA to implement safety and health programs as necessary but there is no legal mandate that safety must be considered in the planning stage. In the construction process the employer is responsible for providing a safe workplace.	Yes.

# **3.2** Is this obligation based on the european directive 92/57/EEC relating to the coordination on temporary or mobile construction sites ? If yes, since when has the directive been transposed into national law ?

Germany	Austria	Belgium	Spain	France
Yes, since June 10, 1998.	Yes, since July 1, 1999.	Yes, since the royal decree of May 3, 1999 implementing chapter V of the law of August 4, 1996.	Yes, Since October 24, 1997 (royal decree 1627/97).	Yes.
Ireland	Italy	Luxemburg	Netherlands	Portugal
Yes (S.I. no. 138 of 1995).	Yes.	Yes, since November 4, 1994.	Yes.	Yes.
United Kingdom	Switzerland	Japan	USA	Sweden
Yes, by the Construction (Design and Management) Regulations (CDM) of 19th December 1994.	No.	No.	No.	Yes.

#### **3.3** Since when has this obligation been applicable ?

Germany	Austria	Belgium	Spain	France
Since January 1, 1994 for public clients and since July 1, 1998 for all clients.	Since July 1, 1999.	Since August 1, 1999.	Since December 25, 1998.	Coordination of safety and health has been applicable :
				<ul> <li>since March 1, 1995 for all construction projects amounting to more than 12 million FF in the design stage,</li> </ul>
				<ul> <li>since June 1, 1996 on all other projects in the design stage,</li> </ul>
				<ul> <li>since May 6, 1995 for common S&amp;H services to be set up.</li> </ul>
				The general obligations have to be applied :
				<ul> <li>since May 6,1995 for the common S&amp;H services (CISSCT),</li> </ul>
				<ul> <li>since January 1, 1997 for independent workers.</li> </ul>
Ireland	Italy	Luxemburg	Netherlands	Portugal
Since June 1, 1995.	Since April 1, 1997.	Since November 17, 1994.	Since August 1994.	Since July 1995.
United Kingdom	Switzerland	Japan	USA	Sweden
Since March 31, 1995.	Since 1977.	Since 1964.	Not applicable.	Since April 1, 1995.

#### **3.4** Under which conditions is this legislation being applied ?

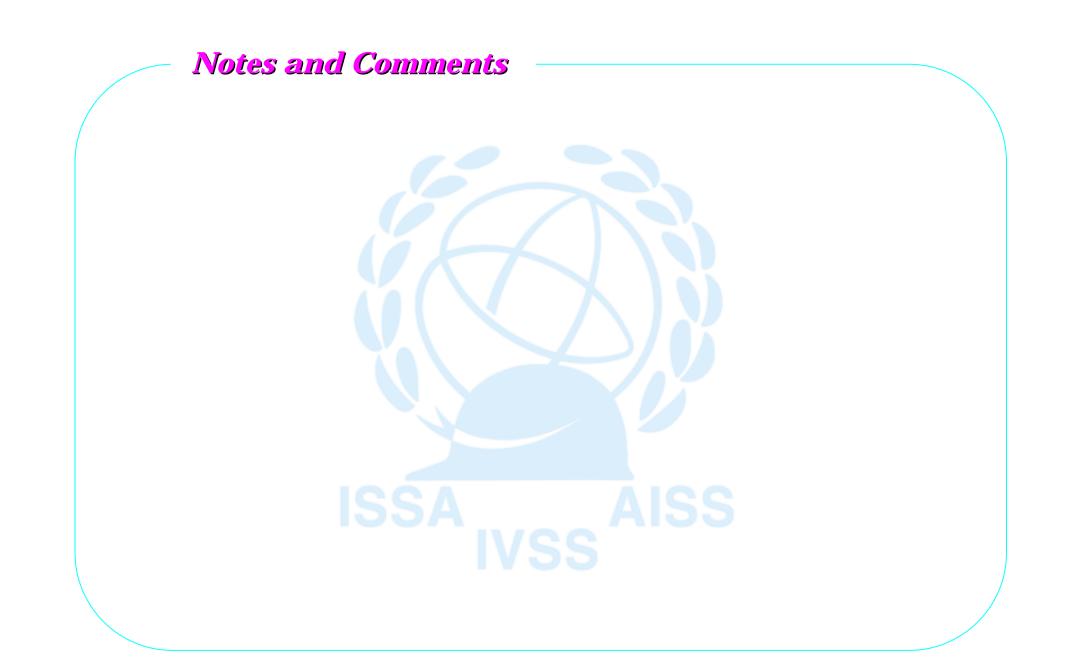
Germany	Austria	Belgium	Spain	France
Legislation is applied on all construction sites where construction, alterations or demolition is undertaken.	When workers of various employers are occupied simultaneously or in succession on the same site.	Applied on construction sites at which construction or civil engineering works are carried out according to a list.	Legislation is applied on all construction and civil engineering sites defined in the National Classification of Economic Activities (CNAE).	Legislation is applied on all works of construction and civil engineering on an enclosed and independent site and concerns clients, architects, contractors and coordinators.
Ireland	Italy	Luxemburg	Netherlands	Portugal
Legislation applies to all work as defined under Construction Work.	It depends on the nature of works, the duration (number of workers/days) and the number of parties involved.	Applied on construction sites at which construction and civil engineering works are carried out according to a list.	Legislation is always applicable but the way it is applied depends on the duration of the works, their nature and the number of parties involved.	On all construction projects.
United Kingdom	Switzerland	Japan	USA	Sweden
All demolition work and all construction work involving 5 or more persons at site.	When different employers are at work on the same construction site.	When different employers are employed on the same construction site.	European directive not applicable. OSHA requirements to be applied as necessary.	Depends on the nature of the works.

#### **3.5** Which construction activities do not come under this legislation ?

Germany	Austria	Belgium	Spain	France
Legislation does not apply to work of embellishment and ordinary maintenance work.	Drilling and extraction in the extractive industries as well as certain workers employed by the " Länder ", townships or the federal government in offices for which the law to protect federal employees is applicable.	Drilling and extraction in extracting industries as well as assembly of equipment.	Extracting industries in the open air, underground or by means of boring are excluded since they will be regulated by specific standards.	Legislation only applies to construction and civil engineering work on an enclosed and independent site.
Ireland	Italy	Luxemburg	Netherlands	Portugal
Work on domestic dwellings which are not part of a trade, business or untertaking.	Drilling and extraction in the extractive industries.	Drilling and extracting in extracting industries.	Dredging.	Drilling and extraction in the extractive industries.
United Kingdom	Switzerland	Japan	USA	Sweden
Work involving no more than 4 persons, except demolition.	Applied to all activities.	No activities are exempted from the application of the ISH aw.	Directive not applicable but a competent person must correct recognized existing and anticipated hazards of any activity.	All construction activities are covered.

#### **3.6** Under which conditions are foreign coordinators admitted ?

Germany	Austria	Belgium	Spain	France
There is no limitation. However, the task of coordinator is preferably entrusted to the client's own personnel.	There is no limitation.	As long as the foreign coordinator meets the profile requested in Belgium.	Foreign coordinators are normally not admitted, except when they are EU- members and possess the required knowledge.	They are admitted if they have had the same training as acknowledged in France.
Ireland	Italy	Luxemburg	Netherlands	Portugal
There are no limitations.	There is no legal reference for this question.	Not specified.	Since there are no regulations for the coordinator, not on his performance nor on his competence, foreign people can execute the job.	No restrictions are defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
Provided they are competent to discharge the duties ; the country or origin is not relevant.	There are no limitations.	Foreigners are not excluded under the ISH law.	Nil.	There is no limitation for foreign coordinators.



# 4

# Coordination of safety and health in the design stage

Safety and health coordination in the design stage has become vital to reduce overall occupational risks. The client/contracting authority has a fundamental role since he is required to appoint the project coordinator 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 set minimal operating rules for coordination and at the same time adjust these rules to the reality of construction operations ? How can the project coordinator act as an adviser and at the same time supervise the proper application of safety rules ?

The coordinator in the design stage has a new professional responsibility since the quality of integration of prevention also influcences the working conditions for the construction workers.

In this stage new responsibilities are imposed on certain " actors " : clients/contracting authorities, real estate developers, architects, engineering, design offices...

#### **Questions**

- 4.1 In which cases is safety and health coordination imposed in the design stage ?
- **4.2** Who is charged with safety and health coordination in this stage ? When exactly does this person have to be appointed ?
- **4.3** Who appoints this person ?
- **4.4** What are this person's missions ? What documents does he have to make up, keep and update ?
- 4.5 What are this person's responsibilities ?
- **4.6** Are his minimum performances legally laid down ?
- **4.7** Are his assignments, responsibilities, time schedule and means put to his disposal laid down in a contract ? If so, does the contract have to meet certain legal requirements ?
- **4.8** What is the relationship between client designer coordinator ?
- **4.9** What means does the safety and health coordinator in the design stage dispose of ? Can he impose measures or has he a mere advisory function ?
- **4.10** Is payment of his performances legally arranged ?
- 4.11 When does the assignment of the coordinator for the design stage end?
- **4.12** Are any specific safety and health trainings imposed for the designers of a construction project ? If so, what matters are treated during this training ?

#### **4.1** In which cases is safety and health coordination imposed in the design stage ?

Germany	Austria	Belgium	Spain	France
When workers of different employers are employed on the same site at the same time or in succession.	When workers of different companies or self-employed are employed simultaneously or in succession on the same site.	When workers of different employers are employed simultaneously or in succession on the same construction site.	When different designers are involved in preparing the construction project.	For all construction and civil engineering works occupying two contractors or two independent workers simultaneously.
Ireland	Italy	Luxemburg	Netherlands	Portugal
In all cases other than in the construction of certain domestic dwellings.	In each case when the safety and coordination plan is applied.	In each case when a safety and health plan has to be established.	When it is expected that two or more companies or one company and one or more self-employed will be involved.	Whenever the design is committed to more than one person.
United Kingdom	Switzerland	Japan	USA	Sweden
For every project where the Construction Design and Management (CDM) Regulations of December 19, 1994 apply.	At the client's request.	Although there are no legal requirements, due consideration should be taken of the ISH law and related regulations and expenses for taking safety and health measures should be calculated in the design stage.	This question does not apply since there is no legal mandate that safety must be considered in the planning stage.	Safety and health during the design stage must be coordinated for all construction projects.

#### 4.2 Who is charged with safety and health coordination in this stage ? When exactly does he have to be appointed ?

Germany	Austria	Belgium	Spain	France
The client carries out this function himself or he can appoint a coordinator. It is not specified when exactly the coordinator has to be appointed but it is recommended that he be appointed as early as possible.	The coordinator for the design stage must be appointed at the start of design by the client or the project manager.	The coordinator for the design stage has to be appointed at the start of the design when the works are undertaken by different contractors.	The health and safety coordinator has to coordinate these matters during the design stage. He has to be appointed as soon as the author of the project starts the design of the project.	The S&H coordinator in the design and in the construction stage (in villages of less than 5,000 inhabitants, the architect acting on behalf of the client, can assume this function). He has to be appointed in the design stage.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The client is obliged to appoint a project supervisor construction stage who is charged with the coordination of safety and health measures in 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.	The coordinator in design phase at the beginning of the design stage.	The coordinator(s) in matters of safety and health at the moment of design of the project. The moment of appointment is not specified.	No one special is charged by legalisation. The coordinator has to be named (appointed) by the principal. The choice is free but the client is responsible for the acts of the coordinator. It is not regulated when he has to be appointed. Considering his task, he should be appointed as early as possible.	The coordinator during the design phase. It is not defined by law when exactly but usually during the design phase.
United Kingdom	Switzerland	Japan	USA	Sweden
The duty holder is termed " Planning Supervisor " (PS). The appointment has to be made as soon as practicable after the project is initiated.	The client or his representative. However, there is no obligation to appoint this person.	Although there are no legal requirements in terms of coordination in the design stage, special cases include public work projects. Order-placers in public works are usually responsible for supervising such projects.	There is no legal mandate that safety must be considered in the planning stage but each employer must designate a " competent person ".	The client or a person who is appointed by the client to deal with matters of coordination. The time : at the design stage.

#### **4.3** Who appoints this person ?

Germany	Austria	Belgium	Spain	France
The client appoints the coordinator or he asks a third person (the designers, engineers or contractors charged with the design and construction stages) to appoint the coordinator.	The client or the project manager.	The client or, if the project is not meant for professional or commercial use, the designer charged with the design stage.	The client.	The client.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The client. It should be noted that the appointment is not usually a person. It is normally an undertaking, business, design office or a consultancy organization.	The client.	The client or the architect.	The " principal " (in the Netherlands, the principal is the architect).	The client.
United Kingdom	Switzerland	Japan	USA	Sweden
The client.	The designer or the client.	The contractor.	There is no legal mandate that safety must be considered in the planning stage but it is the duty of the employer.	The client or whom the client appoints.

Germany	Austria	Belgium	Spain	France
<ul> <li>Organize work so as to prevent safety and health risks as much as possible,</li> <li>plan prevention methods and have them applied,</li> <li>give prior notice to the competent authorities,</li> <li>elaborate S&amp;H plan,</li> <li>elaborate safety file,</li> <li>instruct workers.</li> </ul>	<ul> <li>Coordinate the general prevention principles at the design stage,</li> <li>establish the safety and health plan (SIGE Plan) and the safety file,</li> <li>plan prevention methods and have them applied,</li> <li>give prior notice,</li> <li>all the documents established by the coordinator for the design stage are handed over to the coordinator for the construction stage and updated by the latter.</li> </ul>	<ul> <li>Organize work so as to prevent safety and health risks for the workers,</li> <li>plan prevention measures and have them applied,</li> <li>work out the safety and health plan and the safety file,</li> <li>elaborate the coordination journal.</li> </ul>	<ul> <li>Work out a safety study or have it worked out,</li> <li>make a risk assessment,</li> <li>propose measures to reduce and manage the risks,</li> <li>organize training and information activities,</li> <li>organize prevention activities and check their application.</li> </ul>	<ul> <li>Have the general prevention principles applied,</li> <li>organize site coordination,</li> <li>specify the use of common prevention means among contractors,</li> <li>analyse the project (as to planning, construction, materials),</li> <li>draw up, update and keep the coordination journal, the general coordination plan and the safety file,</li> <li>plan the common S&amp;H committee (CISSCT).</li> </ul>
Ireland	Italy	Luxemburg	Netherlands	Portugal
<ul> <li>The project supervisor design stage duties are :</li> <li>to take account of the general principles of prevention,</li> <li>to coordinate the activities of other persons engaged in work related to design of the project,</li> <li>to prepare on a preliminary basis a safety and health plan,</li> <li>to provide the PSCS with necessary information for the safety file,</li> <li>option for the PSDS to appoint a health &amp; safety coordinator for the design stage.</li> </ul>	He carries out the safety and coordination plan and the safety file. If the construction site involves more that 30.000 workers-days, he has to carry out a general safety plan.	<ul> <li>Work out and adapt the safety and health plan,</li> <li>prepare the safety file for subsequent work,</li> <li>define the restrictions relative to the protective equipment, lifting equipment, access roads, site equipment, industrial activities carried out on the site premises or in the neighbourhood of the site.</li> </ul>	<ul> <li>Coordinate the application of general prevention principles,</li> <li>draw up a health and safety plan,</li> <li>make up a safety file intended to be used during subsequent work.</li> </ul>	<ul> <li>Make sure that the project manager observes his duties,</li> <li>draw up a safety and health plan, or have it drawn up,</li> <li>prepare a safety file.</li> </ul>
United Kingdom	Switzerland	Japan	USA	Sweden
<ul> <li>Make sure that the project is notified to the enforcing authority,</li> <li>ensure cooperation between designers,</li> <li>make sure designers comply with their duties,</li> <li>prepare, update and keep the H&amp;S plan and the safety file,</li> <li>give advice to the client when requested to do so.</li> </ul>	He has to consider the accident prevention principles and mention them in the plans, specifications and contracts.	<ul> <li>The overall coordinator :</li> <li>supervises and directs prime employer's S&amp;H supervisor and the rescue techniques supervisor,</li> <li>establishes and manages coordination,</li> <li>provides guidance and assistance in worker safety and health education programs carried out by subconstractors,</li> <li>helps to prepare the contractors' work plans.</li> </ul>	This question does not apply since there is no legal mandate that safety must be considered in the planning stage.	<ul> <li>Draw up and adapt the safety and health plan,</li> <li>coordinate 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.</li> </ul>

#### **4.4** What are the coordinator's missions ? Which documents does he have to make up, keep and update ?

#### **4.5** What are this coordinator's responsabilities ?

Germany	Austria	Belgium	Spain	France
The coordinator's responsibilities are those mentioned in his employment contract or in other contracts concluded by the client with third persons.	See point 4.4. In case of neglect of duty, the same sanctions that apply for the client or the project manager will be taken.	The person who appoints the coordinator has to ensure that the coordinator carries out his functions. All other construction partners maintain their S&H responibilities.	Professionnal incompetence may cause the safety and health coordinator to assume certain responsibilities such as laid down in the civil or penal codes, wich will be enacted according to the judge's criteria.	The coordinator, mandated by the client, has to organize prevention measures for contractors working at the same site. All other construction parties maintain their S&H responsibilities.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The requirements are to coordinate activities during the design stage, to comply with the general principles of prevention and to prepare a preliminary safety and health plan for the project. Where there are particular risks relating to the project, these must be identified at the design stage.	<ul> <li>Check the project and the application of the safety regulations,</li> <li>carry out the safety and coordination plan following the safety regulations in force.</li> </ul>	The Luxemburg regulations (of November 4, 1994) only define his tasks, not his responsibilities.	<ul> <li>Coordinate the application of general prevention principles,</li> <li>coordinate a health and safety file,</li> <li>make up the safety file intended to be used during subsequent maintenance work.</li> </ul>	<ul> <li>Assure the accomplishment of the designer's duties,</li> <li>draw up, or cause to be drawn up, a safety and health plan,</li> <li>prepare a safety file to be taken into account during any subsequent works.</li> </ul>
United Kingdom	Switzerland	Japan	USA	Sweden
To coordinate health and safety issues throughout the design and pre- construction planning phase.	His responsabilities are laid down in his contract of appointment. However, he has to assume the responsibilities laid down in the civil and penal codes.	<ul> <li>The general coordinator :</li> <li>supervises and directs prime employer's S&amp;H supervisor and the rescue techniques supervisor,</li> <li>establishes and manages coordination,</li> <li>provides guidance and assistance in worker safety and health education programs carried out by subconstractors,</li> </ul>	This question does not apply since there is no legal mandate that safety must be considered in the planning stage. However, the " competent person " must conduct regular inspections and correct recognized existing and anticipated hazards.	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.
		<ul> <li>helps to prepare the contractors' work plans.</li> </ul>		

#### **4.6** Are his minimum performances legally laid down ?

Germany	Austria	Belgium	Spain	France
Yes, they are.	Yes, they are.	Yes, they are.	Yes, they are.	His duties are defined by regulation.
	See description under question 4.4.			
Ireland	Italy	Luxemburg	Netherlands	Portugal
The requirements are to comply with the minimum statutory requirements in the statutory duties.	No, there is no such arrangement.	No, they are not.	No, there is no demand on his performance.	No, not defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
The project supervisor must be competent to discharge the duties imposed.	No, they are not.	Yes, minimum requirements are regulated under the ISH law.	This question does not apply since there is no legal mandate that safety must be considered in the planning stage.	Not today.

# **4.7** Are his assignments, responsibilities, time schedule and means put to his disposal laid down in a contract ? If so, does the contract have to meet certain legal requirements ?

Germany	Austria	Belgium	Spain	France
There is no legislation stipulating that these items should be laid down. The parties involved can decide for themselves whether written or oral agreements should be made. Generally, however, these items are laid down in a written agreement.	These items have to be agreed upon between the parties concerned.	Yes, when an external coordinator is involved, his relationship with the client must be laid down by contract. A written document is required between the client and the coordinator/worker.	Professional associations lay down their requirements for work to be carried out by professional services in a formular specifying their assignments, responsibilities and other items.	Yes, as is the case for the authority conferred to him.
Ireland	Italy	Luxemburg	Netherlands	Portugal
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.	Only the responsabilities are legally laid down.	No. However, the Luxemburg Association of SH Coordinators have established a standard contract to be used by its members defining the rights and duties of the parties involved.	This is not regulated.	Yes, for the obligations, not for the exact time schedule and for the means.
United Kingdom	Switzerland	Japan	USA	Sweden
The CDM regulations require the project supervisor to have " adequate resources ", i.e. sufficient finances, time and materials to carry out his duties. In the UK, statutory law takes precedence over contract law, because it is in the CDM Regulations. It does not have to be repeated in the contract.	Yes, but the contract does not have to meet certain requirements	The assignments and responsibilities are specified by law. Under the Construction Business law, the general contractor is required to keep among others an implementation management log indicating organization for safety and health management.	This question does not apply since there is no legal mandate that safety must be considered in the planning stage although there is often a job description of the " competent person " employed	The contract does not have to meet certain legal requirements.

#### **4.8** What is the relationship between client - designer - coordinator ?

Germany	Austria	Belgium	Spain	France
The project manager can assume the function of coordinator. If not, the coordinator is the project manager's advisor.	The client/project manager charges the coordinator with the mission of coordination.	The client/designer charged with the project design appoints the coordinator. The client/designer is responsible for the accomplishment of the coordinator's missions.	Generally, the coordinator is a member of the designer's personnel. There is no contractual relationship between these persons.	The client has a contract with the S&H coordinator and the designer, respectively. These two last persons do not have any contractual relationship.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The legal relationship can vary as also the contractual relationships. The client appoints the project supervisor design stage and all of those involved in the design stage including designers or coordinators have a duty to cooperate.	The client appoints the designer and the coordinator.	The relationship between client - designer and coordinator is not legally defined. On the site, however, collaboration between these parties is generally good.	The client is responsible for the result of the coordinator's and the designer's acts.	There is a contractual relationship between client and designer. The relationship between client and coordinator is not defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
The client appoints both and designers must cooperate with the coordinator and each other.	The relationship between these parties is laid down as the case may be.	As the overall SH controller is usually the site manager, he works with the order- placer's supervisor, architect, etc., in coordinating the overall work, taking into account the ISH law.	This question does not apply since there is no legal mandate that safety must be considered in the planning stage. A relationship nevertheless exists.	The client has the responsibility for the coordination during the design stage. This stage is executed by the designers.

# 4.9 What means does the safety and health coordinator in the design stage dispose of ? Can he impose measures or has he a mere advisory function ?

Germany The SH coordinator has no competence	Austria His means have to be agreed upon	<b>Belgium</b> His means have to be laid down in a	Spain The safety study constitutes the general	France The resources and authority conferred to
to give orders. If the coordinator is at the same time project manager, his competences are those related to his function of project manager. In terms of	according to the case. Contractors have to observe the coordinators' orders and recommendations relating to the prevention of occupational hazards.	contract of document defining his missions and the way they have to be accomplished.	framework for the contractors' safety plans. The contractors' activities are coordinated by the coordinator. The latter may impose measures.	the S&H coordinator by the client are laid down in the contract signed by both parties (as is imposed by the Labour Code).
the law, the coordinator is merely an advisor.				He may have to take measures according to the authority and resources conferred to him by the client by contract as provided for by law.
Ireland	Italy	Luxemburg	Netherlands	Portugal
His means are not defined in the regulations. His role is essentially that of coordinators 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.	He can impose measures. In particular, he has to fix the safety costs.	Generally speaking, the coordinator's role is to advise the client and the designer. For certain matters, however, the client may entrust him with " site police powers " if in relationship to his job.	The client has the responsibility to support the coordinator and to make it possible for him to do his job. There is no further regulation. Being an advisor he can make proposals for measures to be taken.	The coordinator disposes of no specific means. It is not clearly defined by law whether he can impose measures.
United Kingdom	Switzerland	Japan	USA	Sweden
He can require cooperation from designers and information for the H&S file from both designers and contractors.	His means are not defined by law. He can impose measures to be taken.	The general contractor is required to issue the necessary instructions concerning corrections when subcontractors or their workers are considered to be in violation of the ISH law and related regulations concerning said work.	This question does not apply since there is no legal mandate that safety must be considered in the planning stage. The " competent person " can impose measures.	He disposes of no specific means other than his professional skills. The client is the coordinator and has good prospect for steering the project.

#### **4.10** Is payment of his performances legally arranged ?

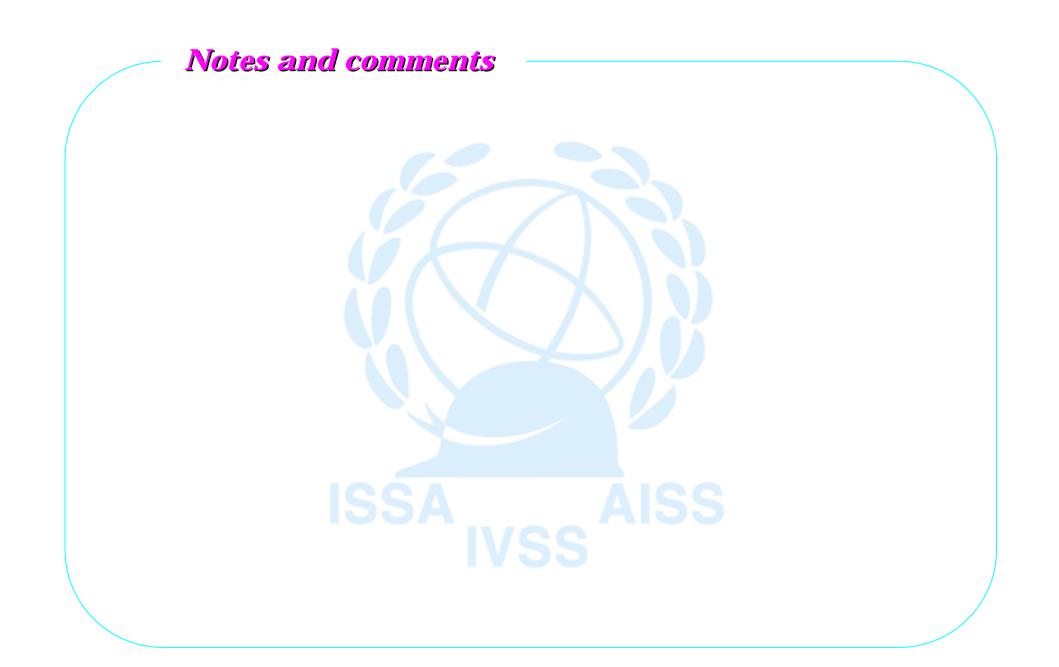
Germany	Austria	Belgium	Spain	France
No, payment of his performances has to be agreed upon between the parties concerned.	No, this has to be agreed upon between the client and himself.	The client and the coordinator agree upon the coordinator's salary.	Each professional association (of industrial tecnical engineers, architects, industrial engineers, public works engineers) applies a specific salary scale for the coordinator's performances, based upon a free market of demand and supply.	The public works branch try to influence the market, through the Ministry of Equipment and public clients.
Ireland	Italy	Luxemburg	Netherlands	Portugal
This is not covered in the statutory regulations but may be covered under certain contractual arrangements.	His payment is established on the basis of the rates fixed in the professional register and partially related to the total cost of the works.	No, the parties concerned agree upon the coordinator's salary.	It is not arranged.	No.
United Kingdom	Switzerland	Japan	USA	Sweden
No, not by Construction Design and Management Regulations.	Yes, payment is based upon the salary rates of the Swiss Society of Engineers and Architects (SIA).	Any payment is not subject to the ISH law and/or related regulations.	This question does not apply since there is no legal mandate that safety must be considered in the planning stage. Employment is spelled out in contractual language.	No.

#### **4.11** When does the assignment of the coordinator for the design stage end ?

Germany	Austria	Belgium	Spain	France
His assignment ends at the end of the design stage. The client may however entrust the coordinator with further missions and prolong his contract.	When the construction project is entrusted to the client.	When the safety and health plan, the coordination journal and the safety file are handed over to the person by whom he was designated. Transmission of these documents is laid down in a document.	As soon as he hands over his project to the competent professional association (architects' or engineering office) to have it assessed.	If the coordinator for the design stage is not the coordinator for the construction stage, then the documents are handed over before the beginning of the construction stage.
Ireland	Italy	Luxemburg	Netherlands	Portugal
This depends on the type and nature of the project.	When the construction company is entrusted with the works.	When all the documents written during the design stage (the General Safety and Health Plan and the Safety File) are handed over.	When the design process is completed and the design is handed over for execution.	This is not clearly defined by law, but usually on completion of the design.
United Kingdom	Switzerland	Japan	USA	Sweden
At the end of the project, when he hands over the completed safety file to the client.	At the end of the construction work.	At the completion of the work.	This question does not apply since there is no legal mandate that safety must be considered in the planning stage.	Not given in the ordinance but normally when the design stage comes to an end.

# **4.12** Are any specific safety and health trainings imposed for the designers of a construction project ? If so, what matters are treated during this training ?

Germany	Austria	Belgium	Spain	France
Yes. The number of hours of training depends on the type of college or school and varies from 20 to 80 hours.	Yes, according to the profession. Prevention of occupational hazards is part of the training.	Notions of safety and health are though in certain basic training programs designers. Taking into account the new legislation, these notions prove to be insufficient. However, various specific safety and health trainings of 210 to 800 hours are organized in Belgium.	Training is based on the Prevention Regulation of 97, Appendix IV and consist of a common part (dealing a.o. with techniques of work conditions improvement, techniques of occupational risk prevention) and a further optional specialisation training (relating to occupational safety and health, ergonomics and applied psychology).	For each of the three coordination levels a specific training is organized at the end of which a certificate is granted.
Ireland	Italy	Luxemburg	Netherlands	Portugal
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.	There are no specific safety and health trainings imposed.	There are no specific requirements.	There are no specific trainings imposed.	No.
United Kingdom	Switzerland	Japan	USA	Sweden
No, but once again they must be competent - i.e. have training and experience.	Yes, EKAS and SUVA (Swiss Accident Prevention Association) have specific training programs (Integrated Safety Plan of SUVA).	Overall safety and health controllers have to undergo certain training organized by the Japan Construction Safety and Health Association.	This question does not apply since there is no legal mandate that safety must be considered in the planning stage.	No.



# Coordination of safety and health during the construction stage

In order to coordinate safety and health on construction sites, roles and assignments have to be precisely defined. Assignments include the application of a general safety plan, the timetable and supervision of prevention measures imposed by the project coordinator, and concertation with the companies on the site. On the other hand, the contractual relationship between the client/contracting authority and the site coordinator 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 pace 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/contracting authority.

Whereas the procedures for the exercise of the site coordinator's assignments are defined by contract, a certain number of documents which he has to keep and update, serve as proof that the coordinator has actually carried out his missions (site meetings, concertation with workers' representatives, particular remarks to a company). Besides, it can be noted that, generally speaking, the greater the client's/contracting authority's role, the smaller the role assigned to bodies representing the workers.

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

The end of the coordinator's assignment depends on national law : either it ends when there is no longer any physical coactivity of the companies on the site, or it ends at the remittal of the safety file for subsequent maintenance work to the owner.

#### **Questions**

- 5.1 In which cases is safety and health coordination imposed in the construction stage ?
- **5.2** Who is charged with safety and health coordination in this stage ? When exactly does this person have to be appointed ?
- **5.3** Who appoints this person ?
- **5.4** What are the coordinator's missions ?
- 5.5 What are his responsabilities ?
- 5.6 Is there any arrangement for the coordinator's minimum performances ?
- **5.7** Are his assignments, responsibilities, time schedule and means put to his disposal laid down in a contract ? If so, does the contract have to meet certain formal requirements ?
- 5.8 What is the relationship between the client contractors coordinator architects consulting engineering office ?
- **5.9** What means does the safety and health coordinator in the construction stage dispose of ? Can he impose measures or has he a mere advisory function ?
- **5.10** Is payment of the coordinator's performances arranged ?
- 5.11 When does the assignment of the coordinator for the construction stage end?
- 5.12 When and on which construction sites does a coordination structure have to be set up?
- 5.13 Is a minimum frequency for the organization of coordination meetings imposed?
- **5.14** Who attends these meetings ?
- **5.15** Wo presides over these meetings ?
- 5.16 What is the role of the workers' representatives in coordination issues?
- 5.17 What is the role of the contractors' prevention consultants?
- **5.18** What happens with the coordination tools (health and safety plan, safety file for subsequent maintenance works...) once the work has been completed ?

#### **5.1** In which cases is safety and health coordination imposed in the construction stage ?

Germany	Austria	Belgium	Spain	France
Whenever different employers are at work at the same construction site.	When workers of different employers are at work simultaneously or in succession at the same work site.	Whenever different contractors are at work simultaneously or in succession at the same work site.	Whenever a work starts.	When there are more than two contractors or two independent workers working simultaneously on the same construction site.
Ireland	Italy	Luxemburg	Netherlands	Portugal
In all cases other than in certain domestic dwellings which are not part of a business or undertaking.	Each case the general coordination and safety plan is applied to.	Whenever a safety and health plan has to be established.	When it is expected that two or more companies, or one company and one or more self-employed are involved in the construction stage.	When there is more than one company involved in the construction site, or one or more companies and one or more self- employed workers.
United Kingdom	Switzerland	Japan	USA	Sweden
On all projects to which the Construction Design and Management Regulations apply, i.e. all demolition work and all construction work involving 5 or more persons at site.	On large construction sites with specific dangers.	The major duties are to take action to improve and/or correct any violations of safety and health measures including facilities at the work site, and to correct any improper behavior of the workers. On sites occupying workers of different employers, the principal contractor has to coordinate their activities.	During the construction process, the employer is responsible for providing a safe work place. There are limited provisions for mandated interaction between contractors, subcontractors and crafts, mainly in the area of chemical hazard communication. OSHA has the ability to issue citations not only to the employer of the employees exposed to the hazard, but also to an employer who created the hazard or an employer who should have corrected the hazard.	In cases of common workplace.

# **5.2** Who is charged with safety and health coordination in this stage ? When exactly does this person have to be appointed ?

Germany	Austria	Belgium	Spain	France
The responsibility of safety and health coordination during the construction stage lies with the client. The coordinator has to be appointed at the latest when the work is entrusted to the contractor.	The site coordinator commissioned by the client/project manager. He has to be appointed at the latest when the contractor is entrusted with the work.	The coordinator for the construction stage, appointed by the client or, if the construction project is not meant for professional or commercial use, by the designer charged with the construction or supervision. He has to be appointed before the work starts.	A competent technician, appointed at the beginning of the work.	The client chooses a S&H coordinator whose competences have been proven. He has to be appointed before the beginning of the design stage (at least one month before the first contractor starts working).
Ireland	Italy	Luxemburg	Netherlands	Portugal
The client has to appoint a project supervisor for the construction stage who is charged with the coordination duties. The appointment must take place prior to commencement of works.	The coordinator in construction phase, to be appointed before the construction company is entrusted with the works.	The coordinator(s) for safety and health during the construction stage. It is not legally specified when exactly he has to be appointed.	Legally, no one is charged or appointed. The client must point out the party that must carry out coordination.	The coordinator during the construction phase, to be appointed before the construction site starts.
United Kingdom	Switzerland	Japan	USA	Sweden
The duty holder for coordinating H&S in the construction phase is termed the principal contractor (P.C.). The appointment must be made as early as is practicable in the project.	The contract manager representing the client. He has a full-time job.	Prime employers are responsible for ensuring the execution of S&H measures, and site managers are required to execute such measures. On sites occupying 50 or more workers of different employers, the relevant prime employer is required to designate an overall S&H controller and a prime S&H supervisor. Subcontractors are also required to designate a S&H supervisor/controller. These persons are appointed immediately after the establishment of a construction site.	Each employer must designate a " competent person " to conduct regular inspections of the workplace and the employer must also give this person authority to correct recognized existing and anticipated hazards.	The client, but he can appoint a legal person to deal with matters of coordination. Appointment is made as soon as the construction site has been set up.

#### **5.3** Who appoints this person ?

Germany	Austria	Belgium	Spain	France
The client himself but he can commission a person, for instance a designers' office, an engineering office or the contractor charged with the design and the construction.	The client/project manager.	The client appoints a coordinator or, if the construction project is meant for professional or commercial use, a project supervisor for the design stage.	The real estate developer.	The client.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The client.	The client.	The client or the project supervisor.	The " principal " (= project supervisor).	The client.
United Kingdom	Switzerland	Japan	USA	Sweden
The client.	The client.	The construction contractor.	The employer.	The client or whom the client appoints.

#### **5.4** What are the coordinator's missions ?

Germany	Austria	Belgium	Spain	France
Verify that the employers and the self- employed observe the site rules and the S&H plan. Organize the collaboration between employers. Verify whether commonly used safety equipment is in order. Verify whether the S&H plan worked out at the design stage is updated.	The site coordinator coordinates the measures to protect the safety of the workers in the construction stage. He ensures information, collaboration and coordination between the different employers and independent employed at the site, adapts the S&H plan and the safety file as necessary. He immediately informs the client/project manager of any detected hazards. If violations of safety rules are not eliminated, he has the right to contact the supervising authorities. He sees to it that only competent persons are admitted to the site.	He coordinates safety and health measures, adapts the S&H plan, the coordination journal and the safety file for subsequent works. He gathers and presides over the coordination structure as necessary.	His assignments are laid down in the royal decree L 627/97.	Make sure that the missions of the coordinator for the design stage are furthermore being accomplished. To that end, he makes sure that the general prevention principles are being applied, organizes coordination of activities on site and the common use of equipment by the contractors, he draws up the safety file, updates and keeps the journal, the S&H plan and the safety file. He presides over the meetings of the common S&H committees and harmonises the contractors' own H&S plans.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The project supervisor construction stage has to develop a safety & health plan. If more than one contractor is on the project, prepare a safety file, coordinate activities on the project and keep records of accidents and other safety issues, and as an option may appoint a health & safety coordinator for the construction stage.	He has to check the application of the safety regulations as outlined in the safety and coordination plan.	He organizes the safety coordination between contractors, adapts the S&H plan, verifies whether the measures decided of have been taken, completes the safety file, takes into account any interaction with external activities that may influence life on the work site.	Coordinate measures to manage risks. Provide cooperation between employers working at the same time on the same spot.Check measures and cooperation. Coordinate work instructions and information. See to it that only competent people are admitted on the site. Advise employers and self-employed people if they work in an unsafe or unhealthy manner.	The coordinator has the obligations mentioned in art. 6 (a) of the directive 92/57/EEC.
United Kingdom	Switzerland	Japan	USA	Sweden
To coordinate H&S during the construction phase.	Preserve safety and health.	<ul> <li>Supervise and direct prime employer's safety and health supervisor as well as the rescue techniques supervisor,</li> <li>establish and manage the consultative organization at which SH measures are discussed,</li> <li>carry out liaison and coordination between different works through SH controller,</li> <li>conduct inspection tours of work sites,</li> <li>provide guidance and assistance in worker safety and health education programs carried out by subconstractors.</li> </ul>	Inspection of the workplace and correction of hazards. For certain risks, specific information is required (for instance for mines and quarries).	Ensure that a S&H 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.

#### **5.5** What are his responsibilities ?

Germany	Austria	Belgium	Spain	France
His coordinator's responsibilities are those mentioned in his work contract or in other contracts which the client has concluded with third persons.	Assume his tasks as mentioned under pt. 5.4. In case of neglect of duty, the same sanctions that apply for the client or the project manager will be applied.	The person who appoints the coordinator has to ensure that the latter carries out his functions.	Professionnal incompetence may cause the safety and health coordinator to assume certain responsibilities such as laid down in the civil or penal codes, and enact them according to the judge's criteria.	Make sure the general prevention principles are being applied and program, organize and adapt safety coordination.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The project supervisor construction stage appointed by the client has to coordinate safety activities on the site and others are obliged under the regularions to cooperate with him. Contractors must take account of the direction of the project supervisor construction stage on safety matters.	He has to check the application of the safety regulations as outlined in the safety and coordination plan, he coordinates the different companies involved in the works.	The Luxemburg regulations only define his tasks not his responsibilities.	Do a good coordination job. He has no responsibility as to the result of this coordination.	The obligation referred to in pt. 5.4. above.
United Kingdom	Switzerland	Japan	USA	Sweden
<ul> <li>To ensure all contractors are competent and have adequate resources,</li> <li>to coordinate the activities of all contractors on the project,</li> <li>to ensure H&amp;S training is provided,</li> <li>to consult with the work force,</li> <li>to monitor performance,</li> <li>to restrict entry to the site to authorised persons,</li> <li>to display the notification of the project,</li> <li>to develop the construction phase</li> </ul>	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.	<ul> <li>The general coordinator :</li> <li>supervises and directs prime employer's S&amp;H supervisor and the rescue techniques supervisor,</li> <li>establishes and manages coordination,</li> <li>provides guidance and assistance in worker safety and health education programs carried out by subconstractors,</li> <li>helps to prepare the contractors' work plans.</li> </ul>	This question does not apply since there is no legal mandate that safety must be considered in the planning stage. However, the " competent person " must conduct regular inspections and correct recognized existing and anticipated hazards.	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.

#### **5.6** Is there any arrangement for the coordinator's minimum performances ?

Germany	Austria	Belgium	Spain	France
Yes, they are.	They are legally laid down (see answer to question 5.4).	Yes, his minimum performances are legally laid down.	No, there is no legal arrangement.	This is laid down in the contract signed between the coordinator and the client (Art. R. 236-16 of the Labour Code). The coordinator is paid separately.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The regulations set down the minimum statutory duties.	No, not specified.	No, there is no arrangement for his minimum performances.	No, there are no regulations.	It is not yet defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
The appointee must be competent, if not he can be prosecuted for failing to discharge the duties.	No, they are not.	Minimum requirements are regulated under the ISH law.	These are part of the contractual arrangements.	Not specified.

## **5.7** Are his assignments, responsibilities, time schedule and means put to his disposal laid down in a contract ? If so, does the contract have to meet certain formal requirements ?

Germany	Austria	Belgium	Spain	France
The client and the coordinator agree between themselves on these items. This agreement does not have to be laid down in a written document. In most cases, however, it will be in writing. The coordinator's contract does not have to meet specific formal requirements.	These items have to be freely agreed upon. There are no specific formal requirements for the contract but there are certain standards (cf. Ônorm B 18O4- 4) to be taken into account when establishing a contract.	A contract is required when an external coordinator is appointed. A written document is required between the client and the coordinator/worker.	The contract is certified by the client and the coordinator. The latter knows his basis responsibilities and missions which are legally laid down.	Yes, they are laid down in the contract, without further formal requirements.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The contract has to accommodate the minimum statutory safety and health requirements. Some contractual arrangements exceed the minimum statutory requirements with regard to safety management and coordination.	Only the responsibilities are legally laid down.	No.	This is not regulated. His mission is legally laid down, as well as the results thereof. They have to be mentioned in the contract.	Yes for the obligations but not for the exact time schedule nor for his means.
United Kingdom	Switzerland	Japan	USA	Sweden
The assignments and responsibilities of the principal contractor are specified in CDM and he has to have sufficient resources, time, materials and personnel to carry out the work.	Yes, but the contract does not have to meet specific requirements.	The assignements and responsibilities are specified by law. Under the Construction Business Law, the general contractor is required to keep an implementation management log covering all work including subcontractor work. This implementation management log must indicate the implementation system and organization of safety and health management.	These are not normally documented (there is no requirement to do so).	These items are not legally specified.

#### **5.8** What is the relationship between the client - contractors - coordinator - architects - consulting engineering office ?

Germany	Austria	Belgium	Spain	France
The project manager can assume the function of coordinator. If not, the coordinator is the project manager's advisor.	The coordinator is charged by the client to consult the architect and the specialists and to supervise the contractors.	The client/designer charged with the project design appoints the coordinator. The client/designer is responsible for the accomplishment of the coordinator's mission.	Generally, they collaborate well.	All depends on the client's willingness to instaure adequate coordination conditions.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The relationships are defined in the regulations and again the contractual relationships are significant and are of importance.	The contractor is nominated by the client. The coordinator can be an architect or a consulting engineer but not a consulting engineering office.	These relationships are not legally defined but the parties generally cooperate well on the work site.	There is no direct relation, due to the way most projects are tendered in the Netherlands.	There is a contractual relationship between the client and the contractor, the client and the architects, and the client and the consultative engineering office. It is not defined by law that there should be a contractual relationship between the client and the coordinator.
United Kingdom	Switzerland	Japan	USA	Sweden
The client has to appoint designers, coordinators and contractors who are competent and have sufficient resources. Thereafter their relationships are determined by the contract. Once construction work starts the principal contractor has overall responsibility.	The coordinator assumes certain functions of the project director, yet he has to answer to the client.	As the overall S&H controller is usually the site manager, he works with the order-placer's supervisor, architect, etc., in coordinating the overall work. The general contractor has to establish a consultative organization. Under ISH law, moreover, the order-placer in any construction has to consider all contractual conditions.	The relationship between parties is spelled out in contractual language, and to date, safety and health regulations do not dictate or necessarily enter into these relationships.	Not given in the legislation.

## **5.9** What means does the safety and health coordinator in the construction stage dispose of ? Can he impose measures or has he a mere advisory function ?

Germany	Austria	Belgium	Spain	France
The only means the coordinator disposes of are those given by the client. If the client has not entrusted him with any authorities (f.i. the authority to give orders), then the coordinator can only act as an adviser. In terms of the law, the coordinator is merely an adviser. The client can, however, entrust him with competences allowing him to take measures which have to be observed by the contractors or other designers.	His means have to be agreed upon according to the case. Contractors have to observe the coordinator's orders and recommendations related to the principles of occupational hazards prevention.	His means have to be laid down in an working agreement or document.	His means are the accident and incident log. He is empowered to take decisions.	His means are discussed with the client and laid down in the contract signed by both parties. The coordinator is the client's adviser but his competence is such that he may be required to take measures. His authority and means are laid down in a contract.
Ireland	Italy	Luxemburg	Netherlands	Portugal
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.	He can work on the basis of the safety and coordination plan and using further documentation related to previous works and the documentation needed for the companies working inside the construction site. He can impose means.	Generally speaking, the coordinator'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.	The principal (= project director) has the responsibility to support the coordinator and to make it possible for him to do is job. The coordination job and the agreements have to be laid down in a written document between the client and the executing party. Everybody should follow his instructions on safety and health. The coordinator has an advisory function and being a coordinator, everybody should follow his instructions on S&H.	The coordinator disposes of no means. It is not clearly defined by law whether he can impose measures.
United Kingdom	Switzerland	Japan	USA	Sweden
The principal contractor has the statutory authority to enforce health and safety rules contained in the construction health and safety plan.	His means are agreed upon individually. He is empowered to impose measures.	His major duties are to take action to improve and/or correct any violations of safety and health measures including facilities at the work site, and to correct any improper behavior of the workers. The general contractor is required to issue the necessary instructions concerning corrections when subcontractors or their workers are considered to be in violation of the ISH law and related regulations concerning said work.	The competent person has authority to stop work and correct hazards to which employees are exposed. He does not have the authority to intervene in another employer's activities, only his own.	He shall be given the powers and resources which the task requires. The client is the coordinator and has good prospect for steering the project.

#### **5.10** Is payment of the coordinator's performances arranged ?

Germany	Austria	Belgium	Spain	France
Payment of the coordinator's performances has to be agreed upon between the client and himself. The amount of his fee has not yet been legally laid down.	This has to be agreed upon between the client and himself.	No, this has to be agreed upon in a contract between the parties concerned.	Each professional association (of architects, industrial engineers, industrial technical engineers, public works engineers) applies a specific salary scale for the coordinator's performances based upon the free market of demand and supply.	No.
Ireland	Italy	Luxemburg	Netherlands	Portugal
This is often dealt with in the contractual arrangements or with a collateral agreement to the contract.	His payment is established on the basis of the rates fixed in the professional register and partially related to the total cost of the works.	This is a matter of contractual arrangements between the parties.	There are no rules at all on this subject.	No.
United Kingdom	Switzerland	Japan	USA	Sweden
No, not under CDM.	Yes.	Any payment is not subject to the ISH law and/or related regulations.	The competent person is employed normally by the employer.	No.

#### **5.11** When does the assignment of the coordinator for the construction stage end ?

Germany	Austria	Belgium	Spain	France
His missions end when the construction stage is completed or when activities are stopped and the different contractors cease to endanger each other on the work site.	When construction work is completed.	When the S&H plan, the coordination journal and the safety file for subsequent maintenance work are handed over to the person by whom he has been appointed. This transmission is mentioned in a document.	When construction work has been completed and delivered.	When the safety file for subsequent maintenance work is transmitted to the client.
Ireand	Italy	Luxemburg	Netherlands	Portugal
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.	When the report establishing the end of the works is carried out.	When all the documents established during the construction stage, i.e. the safety and health plan and the safety file for subsequent maintenance work are handed over.	When the construction is finished and handed over to the client.	It is not clearly defined by law, but usually on completion of the construction phase.
United Kingdom	Switzerland	Japan	USA	Sweden
On completion of the construction phase, which can include a specified post construction period for the remediation of defects.	When the construction project is handed over.	At the completion of the work, such as the time when joint work at the same site by workers of different employers is brought to a conclusion, and/or at the time the employer releases the coordinator from the assigned duties.	At the end of the construction (when workers may no longer be exposed to a hazard).	Not given in the ordinance but normally when the construction stage comes to an end.

#### **5.12** When and on which construction sites does a coordination structure have to be set up ?

Germany	Austria	Belgium	Spain	France
On large projects (such as airports, exposition halls, industrial premises, power stations, road works) a coordination structure should be set up, i.e. the different parties concerned and the safety and health institutions should meet on a regular basis.	Construction activities have to be coordinated when workers of different employers are simultaneously or in succession at work at the same work site. The composition of the coordination structure has not been legally fixed.	On all construction sites on which the volume of work is scheduled to exceed 5 000 man-days or on which the total cost of the works is estimated by the project director for the design stage to exceed 100 million BEF, VAT not included, and where at least three contractors will work simultaneously or if proposed by the coordinator.	When more contractors are working simultaneaously or in succession at the same site.	On all sites of construction and civil engineering once the coordinator has assumed his function.
Ireland	Italy	Luxemburg	Netherlands	Portugal
On all projects other than domestic projects which do not relate to businesses or undertakings.	The coordination structure is represented by the coordinator in construction stage according to his own functions legally established.	Not specified in the regulations.	Principally on all construction sites where more than one party is working. The level and intensity of measures depends on the total hours spent on the project, the level of danger, as specified in the european directive. A structure for coordination is not mentioned in the regulations.	Not defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
On all sites to which the CDM regulations apply, i.e. on all demolition work and all construction work involving 5 or more persons at site.	On large construction projects with consortiums such as highway construction, large bridges, power stations, underground work.	The organization S&H management is stipulated under relevant laws and ordinances such as the industrial safety and health law in accordance with the site scale. As the relevant laws and ordinances such as the ISH law provide penalties for a contractor's failure to fulfill all of these requirements, there are no specific limitations concerning timing, circumstances, etc.	On all construction sites in the limited manner described above.	As soon as the construction site has been set up. In case of common workplaces.

#### **5.13** Is a minimum frequency for the organization of coordination meetings imposed ?

Germany	Austria	Belgium	Spain	France
It is not legally laid down how often the coordinator should take place in meetings or work discussions. This depends on the project as well as on the necessity to exchange information. Generally however, these meetings will take place once a week.	Not fixed. Frequency of meetings depends on necessity.	No, except when a coordination structure is imposed, the frequency of the meetings is not legally fixed.	No.	No.
Ireland	Italy	Luxemburg	Netherlands	Portugal
There is no frequency imposed for coordination meetings.	The coordination meetings are planned as presented in the safety and coordination plan and performed following the needs outlined in the plan itself.	No, following the needs.	No.	No.
United Kingdom	Switzerland	Japan	USA	Sweden
Not specified.	No.	Consultative organization is to be held at least once per month and is to be attended by the controllers designated by the general contractor and subcontractors. In addition, the Japan Construction S&H Association call for a daily meeting attented by the general contractor and the subcontractors to deal with issues concerning safety and health in work processes.	This issue is not mandated.	No.

#### **5.14** Who attends these meetings ?

Germany	Austria	Belgium	Spain	France
Not stipulated in the regulations. Normally it will be the client's representative, the contractors' representatives, the designer(s)' representatives, in some cases representatives of the competent authorities and the coordinator.	Not fixed.	Depends on the scale of the project and on the time table. Generally, the different construction parties attend the meetings. The coordination structure is attended by the client or his representative, the coordinator in the construction stage, the contractors, the project director for the construction or the supervision of the construction as well as the representatives of the committees for prevention and protection, if necessary prevention advisers and other persons invited by the client.	The client, the coordinator and the project supervisor.	All contractors' representatives.
Ireland	Italy	Luxemburg	Netherlands	Portugal
This varies on the scale and size of projects and where other meetings fit in with the overall timetable. Normally the meetings involve all the principal contractors involved in the project.	Self-employees, employers, coordinators, contractor's prevention consultants, workers' representatives, foremen.	Not defined in legislation.	On the site there are no workers' meetings ordered. Only instructions between the worker and his own employer are regulated.	When they exist, usually the coordinator, a representative of the supervisor, a representative of the contractor and one or more representatives of the workers.
United Kingdom	Switzerland	Japan	USA	Sweden
Not specified.	The site manager, the coordinator, the contractors.	The overall safety and health controller, prime employer's S&H controller, S&H staff members.	Not mandated but may involve site manager, sub-contractor(s), foreman and safety officer where available.	Those who are involved in the construction stage (mainly the contractors and the workers' representatives).

#### **5.15** Who presides over these meetings ?

Germany	Austria	Belgium	Spain	France
This is not specified. It will be either the client's representative, the project manager or the general contractor's representative.	Not specified, to be fixed according to necessity.	The coordinator for the construction stage.	The coordinator.	The coordinator.
Ireland	Italy	Luxemburg	Netherlands	Portugal
These meetings are organized and chaired by project supervisor construction stage.	The coordinator.	Not specified.	The coordinator.	The coordinator.
United Kingdom	Switzerland	Japan	USA	Sweden
Not specified.	The site manager.	No legal provision is made with respect to the person to preside at these meetings. However, the overall safety and health controller usually chairs the meetings.	This issue is not mandated. Usually " competent person " or safety officer.	Normally the main contractor.

#### **5.16** What is the role of the workers' representatives in coordination issues ?

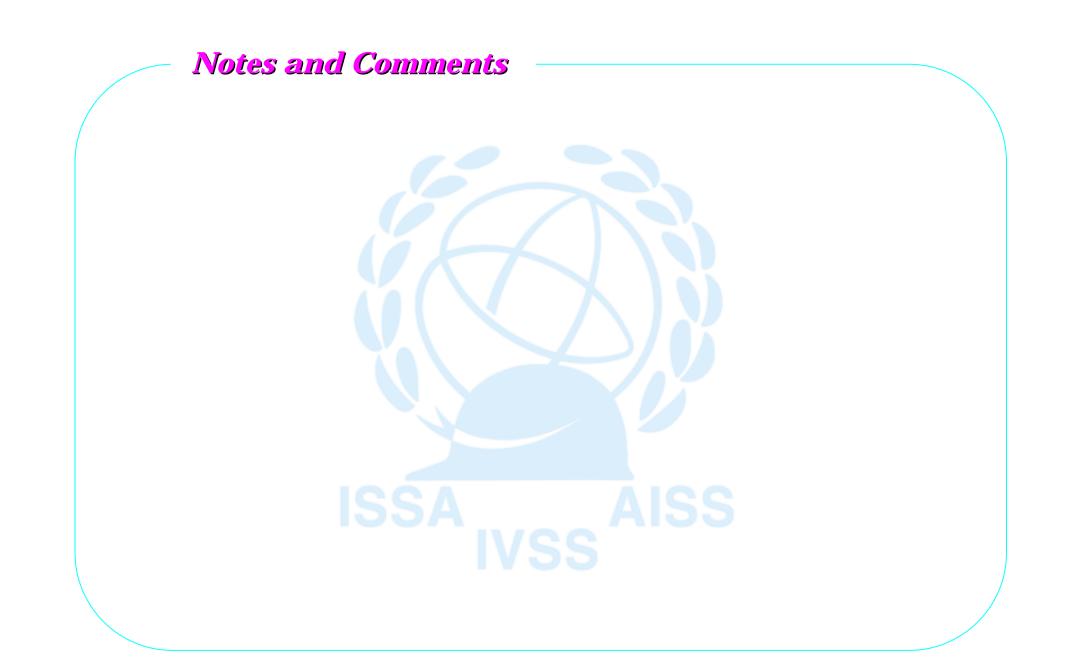
Germany	Austria	Belgium	Spain	France
On large projects, the workers' representatives normally attend the site meetings. Otherwise it is the contractors' task to inform their workers sufficiently of the safety measures to be taken.	The client must allow the self-employed, the employers, the prevention consultants and the workers to consult the S&H plan.	Participation at the coordination structure is provided for. On sites where activities are not coordinated employers have to tackle problems in the company committees.	They have the right to be informed.	They have the right to be informed and consulted.
Ireland	Italy	Luxemburg	Netherlands	Portugal
This is not specified in the construction OSH regulations. Separate regulations cover consultations of workers.	They have to be consulted and to receive all the clarifications about the contents of the plans. In addition they are consulted in advance for the modifications to the plans.	Not specified.	There is no primary role for the workers on site in coordination matters. Every company has to organize workers meetings or a workers council.	During the construction phase, whenever the safety and health plan is not adequate, workers (any worker) may inform the coordinator.
United Kingdom	Switzerland	Japan	USA	Sweden
Not specified.	They have no role to play.	Worker representatives do not play any specific role in coordination matters. However, ISH law stipulates that individual workers may petition for improvement in case such laws and ordinances are not being carried out at the work site and that no worker making such a request may be treated disadvantageously.	This issue is not mandated and generally not specified.	Cooperative law guarantees his position.

#### **5.17** What is the role of the contractors' prevention consultants ?

Germany	Austria	Belgium	Spain	France
As the client has written the safety and health plan and appointed a coordinator, he is also responsible for safety and health management on the work site. Therefore, contractors are discharged as a matter of fact but not legally. Apart from the activities of the client or his coordinator, every contractor has to assess and detect possible risks for his workers, take adequate prevention measures and observe work protection and risk prevention regulations.	See answer to question 5.16. Prevention counsellors can request that the safety and health plan be adapted.	If required, the contractors' prevention counsellors can assist at the coordination structure. Apart from the client's activities, every contractor has to guarantee the safety and health of his workers and is thereby advised by his prevention counsellor.	Not provided for in the Spanish regulations.	They write the Particular S&H Plan for their company and make sure that it is observed.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The contractors' role varies, in some cases the principal contractor is the project supervisor/coordinator 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.	If the consultant is the coordinator too, he performs the safety and coordination plan.	Not specified.	Every company needs to be supported by an Occupational Safety and Health Service with qualified persons on these subjects. Every company has a SHE manager in the company and a coordinator construction phase on the site.	Contractors' prevention consultants are not defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
Not specified.	When the contracting company does not possess the required knowledge, specialists (safety engineers, occupational physicians, hygienists) have to be consulted.	Make proposals, offer advice and guidance concerning industrial accident prevention measures, the organization of safety management systems and activities. In some cases regular employees of the contracting firms are qualified as industrial safety or industrial health consultants; in many other cases independent consultants enter into consulting contracts without becoming the actual employees of contractors.	This issue is not mandated.	Not defined.

### **5.18** What happens with the coordination tools (health and safety plan, safety file for subsequent maintenance work, etc.) once the work has been completed ?

Germany	Austria	Belgium	Spain	France
Except for the document which has to be handed over to the client, it is not specified what should be done with the other documents, especially the safety and health plans which had to be established during the design and construction stages. Generally, however, these documents are handed over to the client.	These documents must be kept by the client and handed over as necessary.	The coordinator hands over the safety and health plan, the coordination journal and the safety file for subsequent maintenance work to the person by whom he has been appointed. The safety file for subsequent work is joined to the notarial deeds.	They will be filed together with the other documents concerning the work. The occupational incidents resister has to be handed over to the Labour Inspectorate.	They are filed and kept for 5 years.
Ireland	Italy	Luxemburg	Netherlands	Portugal
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.	The safety file is updated and given to the contractor.	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 coordinators but which is not compulsory) is handed over to the client at the end of the work. The safety coordinator keeps a double of these documents for his own file.	Mostly nothing, although they can used for evaluation.	Not defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
Not specified.	Are generally filed by the client as agreed upon since they apply also to subsequent maintenance work.	Not specified.	This issue is not mandated and generally not specified.	Not defined in the regulations.



# Coordination of safety and health during subsequent maintenance work

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At this time, it is too soon to assess the role of coordination 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 coordinator will further be developed in order to guarantee the quality of the works.

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

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#### **Questions**

**6.1** What are the client's obligations in matters of safety and health during subsequent maintenance work ?

**6.2** To which extent are the coordination tools also being used in this stage ?

**6.3** What happens with the construction tools when the construction project is transferred ?

#### **6.1** What are the client's obligations in matters of safety and health during subsequent maintenance work ?

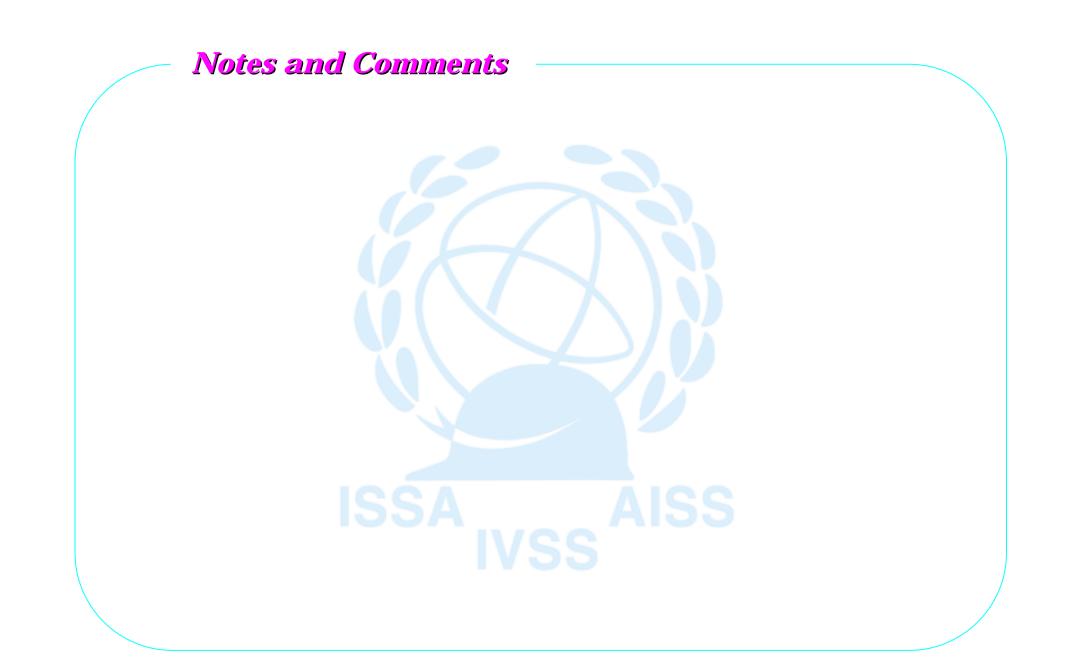
Germany	Austria	Belgium	Spain	France
During subsequent maintenance work, the client has to use and apply the document established by the coordinator in order to guarantee the safety and health of the workers.	Since the directive also applies for " setting up, fitting out, conversion, alterations, renovations, repair, upkeep, maintenance, dismantling, demolition ", etc., the same rules as for the construction of the project apply.	The client hands over the safety file to the coordinator or, if no coordinator has been appointed, to another person. The obligations are those of the construction stage.	The client has to take into account the texts of the safety study relating to maintenance work.	He has to apply all texts which relate to coordination.
Ireland	Italy	Luxemburg	Netherlands	Portugal
There are significant regulations covering all construction work including maintenance work.	If the construction site involves less than 30.000 workers-days all the procedures will be performed according to the safety file. If the construction site involves more than 30.000 workers-days all the procedures related to design stage and the construction stage must be performed again.	The client requests the coordinator to establish the safety file for subsequent maintenance work which contains his propositions for protective measures (collective measures by preference).	His obligations are not different from those in the construction stage.	Not specified.
United Kingdom	Switzerland	Japan	USA	Sweden
Maintenance is included in the definition of " construction work " contained in the CDM regulations. The client, therefore, has the same obligations with regard to maintenance as he does for a construction project.	Take into account the safety and health during the design of the subsequent maintenance work (new construction directive).	In Japan, any maintenance work is considered to be separate and distinct construction work, for which a separate contract is concluded.	Not applicable.	See answers to questions under point 5.

#### **6.2** To which extent are the coordination tools also being used in this stage ?

Germany	Austria	Belgium	Spain	France
See answer to question 6.1.	The safety file for subsequent maintenance work is a manual and at the same time the basis for further construction activities. (see question 6.1.) to which the following safety and health plan is applicable.	The safety file for subsequent maintenance work is the basis for the extablishment of a new safety and health plan.	This depends on the texts of the safety study relating to maintenance work.	They stop to be used once they are handed over to the future user.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The safety file is used at this stage but if the subsequent works is of significant nature the whole process of coordination would come into place again.	Yes, they are also used in this stage.	The safety file is the basis for all subsequent work. It contains all the construction plans as built, detail plans, network plans, technical documents, names and addresses of suppliers, maintenance logs, etc. The safety coordinator 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.	Yes, they should be used as if it is a normal construction phase.	Yes, they are also used in this stage.
United Kingdom	Switzerland	Japan	USA	Sweden
Exactly the same as for a construction project.	The safety plan is/should be handed over to the client to be used during subsequent maintenance work.	Not specified.	Not applicable.	See the answers given to point 5.

#### **6.3** What happens with the coordination tools when the construction project is transferred ?

Germany	Austria	Belgium	Spain	France
The document established by the coordinator is handed over to the client when the construction project is delivered.	The coordination tools are handed over to the owner and the latter has to observe all obligations.	The safety plan is also transferred.	The coordinator goes on with his work.	The coordinator goes on with his work.
Ireland	Italy	Luxemburg	Netherlands	Portugal
Duties will apply to the new parties and the project file should move forward if the project is transferred.	Insufficient knowledge. Not defined by law.	No information in the Luxemburg legislation as to the transfer of the safety file when the construction project is delivered.	There should also be a file to be handed over to the client.	This is not defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
The new partners to the contract, whether they be clients, coordinators or contractors take on the CDM duties applicable to their role.	The safety plan is handed over to the client (not compulsory).	Nil.	Not applicable.	See answers to point 5.



# **Profile of the coordinator for the design stage**

In most countries, the health and safety coordinator must be a technician with experience (of at least 3 years on the average) in keeping with the nature and size of the project. His professional diploma is therefore not a sufficient condition to be coordinator in the design phase.

Certain countries – but only a few – have introduced the obligation to take a special training course approved by government.

Coordination can be provided by a legal or a natural person, provided he is professionally competent to fulfil his duties. This also applies to any assistant coordinator.

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

#### **Questions**

- 7.1 What is the profile of the coordinator for the design stage ? Is a specific training legally imposed ?
- **7.2** Is he a natural or a legal person ?
- 7.3 Can he be a worker of the party charged with his appointment ?
- 7.4 Can he be helped by assistants or third persons ? If so, what is the profile of these assistants or third persons ?
- **7.5** Is this function in any way incompatible with other functions ?

#### **7.1** What is the profile of the coordinator for the design stage ? Is specific training imposed ?

Germany	Austria	Belgium	Spain	France
Coordinators should have professional knowledge, sufficient experience on construction sites as well as knowledge of safety and health protection. According to the nature and size of the construction project, the coordinator can be an architect, an engineer, a foreman or a technician. Special training is not requested. The client has to check the coordinators' competences.	There is no arrangement as to his knowledges. His profile has to be fixed according to the missions he has to fulfil.	Professional experience related to his diploma and specific training of safety consultant, level II of I. He must give proof of his knowledge of the regulations and safety and health techniques applicable on temporary or mobile work sites. A transitory period of 3 years is provided for.	University diploma, construction knowledges, and a minimum of training so as to be able to assume a safety function at an intermediate level.	Training at a training centre acknowledged by government and professional experience in construction project management.
Ireland	Italy	Luxemburg	Netherlands	Portugal
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.	He is a technician with specific skills and training (architect, engineer, construction technician). The specific training is imposed legally and lasts 120 h or 60 h (for people already working in this industry).	The coordinator's competence is based on an experience either as a project director, a construction manager or as a safety consultant of at least 3 years, as well as on a specific and personalised training by an agreed institution.	His profile and qualifications have not been fixed.	Not yet defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
There is no specific legally imposed training, but the appointee must be " competent ", which implies both training and experience.	No requirements.	The prime employer of a construction project where workers of various employers are working together has to ensure that overall S&H management is properly carried out. In addition, at work sites where a certain number of workers (usually 50 or more) including those of subcontractors are normally employed, the sited manager is designated as the overall S&H controller. He has to undergo certain training.	Not applicable.	No specific training is legally imposed today but revised ordinance is prepared with requirements regarding the competence of the coordinator.

#### **7.2** Is he a natural or a legal person ?

Germany	Austria	Belgium	Spain	France
He is a natural person.	He may be a natural or a legal person. If he is a legal person, then a natural person assuming the tasks of coordination has to be appointed.	Both are possible but the coordinator's missions have to be executed by a natural person.	The coordinator is a natural person.	Both are possible but the coordinator's missions have to be executed by a natural person.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The project supervisor design stage dealing with coordination can be a natural person, a legal person but is in most cases an undertaking or a business consultancy.	A natural person.	Any natural or legal person.	There is no restriction, it can be both.	He can be a single (natural) or a legal person.
United Kingdom	Switzerland	Japan	USA	Sweden
Legal.	A natural person.	He is a natural person.	Not specified.	A legal person.

#### 7.3 Can this person be a worker of the party charged with his appointment ?

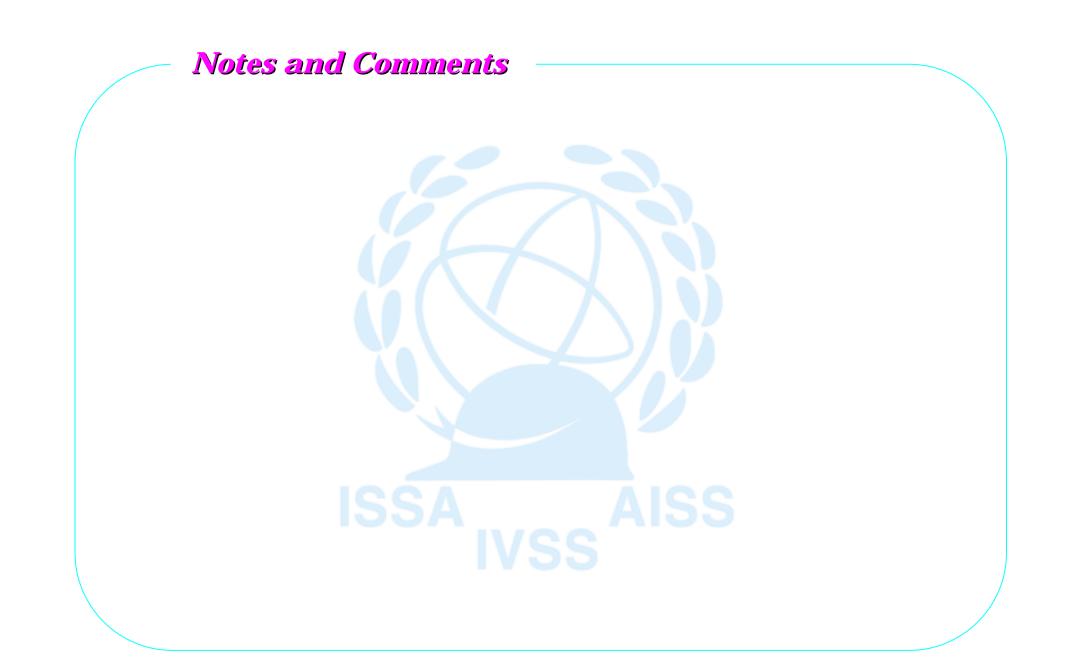
Germany	Austria	Belgium	Spain	France
The coordinator can be a worker of the client, the designers' or engineering office or the contractors charged with design and construction stage.	Yes, but the client/project manager then remains responsible for coordinating the design stage.	Yes, but if he is a worker of a contracting party, then an agreement has to be made between the employer and the coordinator.	As for the real estate developer, the coordinator can be appointed by a technician of the designer team or the future project supervisor. In any case, he should be technically competent.	Not specified.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The regulations allow this to be the case.	Yes, if he has got the specific requirements.	According to the Luxemburg regulations, the principal contractor can assume the functions of coordinator.	Yes.	Yes.
United Kingdom	Switzerland	Japan	USA	Sweden
Yes, self appointment can occur, provided the appointing party (the client) is competent to discharge the duties.	Yes.	See answer to question 7.1.	Not specified. He could be where consideration is given to such an appointment at this stage.	Yes.

#### 7.4 Can he be helped by assistants or third persons ? If so, what is the profile of these assistants or third persons ?

Germany	Austria	Belgium	Spain	France
The coordinator can have a representative, provided this person has exactly the same qualifications as the coordinator himself and is duly informed by the latter. Both the coordinator and his representative can be helped by assistants.	Yes, but their profile depend on the missions wich they have to fulfil.	Yes, but his assistant has to have the same profile as the coordinator himself.	Outsourcing is possible if the assistant or third person is technically fully competent and has been accredited by the Professional Authority.	Yes, but under the coordinator's responsability.
Ireland	Italy	Luxemburg	Netherlands	Portugal
No profile detail is specified but that the people involved must be competent.	Yes, he can be helped but the assistants should have specific skills related to the industry.	Nothing is provided for in the Luxemburg regulations. As long as the new regulations are not applicable, the only requirement concerns his professional experience.	Yes, he can be helped by anybody. This is not regulated.	Yes, there is nothing in the law that obstructs. The profile of the assistants or third persons is not defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
Yes, with the exception of very small projects, he should be. The appointee must be competent, which implies that everyone contributing to the role must also be competent.	No.	Not specified.	Yes, he could receive assistance if requested.	Yes, but the profile is not specified.

#### **7.5** Is this function in any way incompatible with other functions ?

Germany	Austria	Belgium	Spain	France
There is no general rule specifying which function is incompatible with that of coordinator. In cases of conflict of interests, however, there could be incompatibility (f.i. as a construction manager having responsibilities toward his own employer and as coordinator having responsibilities towards the client/project manager).	No.	There are no formal incompatibilities but in practice some functions may be incompatible.	The function of coordinator is not incompatible with a function of any other construction partner (designer, project manager).	The function of coordinator is incompatible with that of an official supervisor.
Ireland	Italy	Luxemburg	Netherlands	Portugal
It is too early yet to comment on this.	His function is incompatible with that of the coordinator in the construction stage.	The only incompatible aspect is that the functions of safety and health coordinator and that of the safety controller (agreed organization) are assumed by the same natural persons. Although this is not legally prescribed, the coordinator should be independent both towards the client and especially towards the contractors.	No regulations are made.	No.
United Kingdom	Switzerland	Japan	USA	Sweden
Only if the planning supervisor attempts to get involved in the construction phase, which is the responsibility of the principal contractor.	No.	There are many cases in which a person may be assigned multiple functions in implementing the work.	Not applicable but it could be included in the contractual agreement.	No.



# **Profile of the coordinator for the construction stage**

The same principles as for the coordinator in the design stage apply for the coordinator in the construction stage.

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

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#### **Questions**

- 8.1 What is this person's profile ? Is a specific training legally imposed ?
- 8.2 Is he a natural or a legal person?
- 8.3 Can he be a worker of the party charged with his appointment ?
- 8.4 Can he be the same person as the coordinator for the design stage ? If so, under which circumstances ?
- 8.5 Can he be helped by assistants or third persons ? If so, what is the profile of these persons ?
- **8.6** Is this function in any way incompatible with other functions ?

#### **8.1** What is this person's profile ? Is a specific training legally imposed ?

Germany	Austria	Belgium	Spain	France
See question 7.1. Coordinators should have professional knowledge, sufficient experience on construction sites as well as knowledges of safety and health protection. According to the nature and size of the construction project, the coordinator can be an architect, an engineer, a foreman or a technician. Special training is not requested. The client has to check the coordinators' competences.	Appropriate professional training in matters of construction and civil engineering as well as appropriate professional experience (of at least 3 years of actual professional activity).	Professional experience related to his diploma and specific training of safety consultant level II of I. He must give proof of his knowledge of the regulations and safety and health techniques applicable on temporary or mobile work sites. A transitory period of 3 years is provided for.	University diploma, construction knowledges, and a minimum of training so as to be able to assume a safety function at an intermediate level.	The same as for the coordinator in the design stage.
Ireland	Italy	Luxemburg	Netherlands	Portugal
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.	He is a technician with specific skills and training (architect, engineer, construction technician). The specific training is imposed legally and lasts 120 h or 60 h (for people already working in this industry).	The coordinator's competence is based on an experience either as a project director, a construction manager or as a safety consultant of at least 3 years, as well as on a specific and personalised training by an agreed institution.	There are no regulations for his profile, his competence, his quality nor his training.	The profile is not yet defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
The appointee must be a competent contractor with adequate resources to do the work.	A specific training is not always required. In some cases a EKAS-course and certificate.	The prime employer of a construction project where workers of various employers are working together has to ensure that overall S&H management is properly carried out. In addition, at work sites where a certain number of workers (usually 50 or more) including those of subcontractors are normally employed, the sited manager is designated as the overall S&H controller. He has to undergo certain training.	The competent person must have training to recognize and correct hazards, but the standards do not specify additional requirements for training or knowledge (except in some specific areas llike scaffolding, excavations and lead).	No specific training is legally imposed.

#### 8.2 Is he a natural or a legal person ?

Germany	Austria	Belgium	Spain	France
He is a natural person.	He may be a natural or a legal person. If he is a legal person, then a natural person assuming the tasks of coordination has to be appointed.	Both are possible but the coordinator's missions have to be executed by a natural person.	He is a natural person.	Both are possible but the coordinator's missions have to be executed by a natural person.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The project supervisor design stage and construction stage dealing with coordination can be a natural person, a legal person but is in most cases an undertaking or a business consultancy	He is a natural person.	Any natural or legal person.	No regulations on this point, both are possible.	He can be a single or a legal person.
United Kingdom	Switzerland	Japan	USA	Sweden
The appointee must be a contractor - i.e. a legal entity.	A natural person.	A natural person designed by the construction contractor.	Not specified.	A legal person.

#### 8.3 Can he be a worker of the party charged with his appointment ?

Germany	Austria	Belgium	Spain	France
The coordinator can be a worker of the client, the designers' or engineering office or the contractors charged with design and construction stage.	Yes, but in that case the client/project manager remains principally responsible for the coordination at the work site.	Yes, but if he is a worker of a contracting party, then an agreement has to be made between the employer and the coordinator.	Only when the client is the principal contractor.	Yes, since he should have experience on sites of similar nature (scale, technicality).
Ireland	Italy	Luxemburg	Netherlands	Portugal
The client can appoint himself as the project supervisor construction stage or indeed one of his employees. This is not normally done.	Yes, if he has the specific requirements.	According to the Luxemburg regulations, the principal contractor can assume the functions of coordinator.	Yes, but he is mostly a worker of the appointed contractor.	Yes.
United Kingdom	Switzerland	Japan	USA	Sweden
Yes, if the appointing party (the client) is also a competent contractor.	Yes.	Yes, he can.	Yes.	Not against legislation but how should it work in practice ?

#### 8.4 Can he be the same person as the coordinator for the design stage ? If so, under which conditions ?

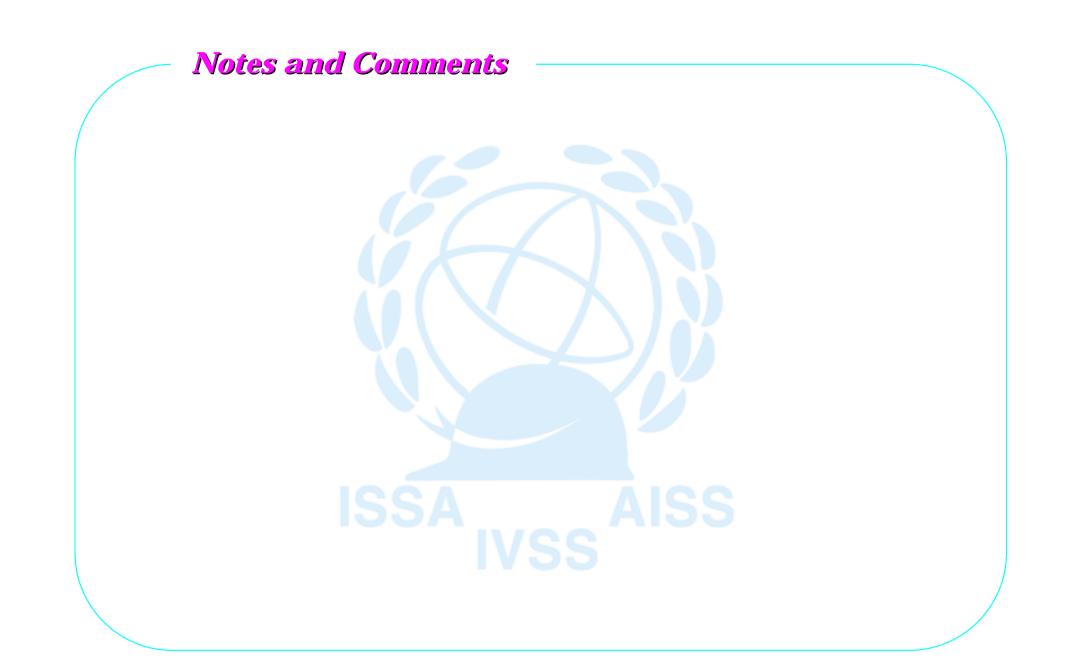
Germany	Austria	Belgium	Spain	France
If the coordinator has sufficient qualifications for both activities, a single person can assume the functions of coordinator in the design and construction stage. On small and medium-sized construction sites, this will generally be the case	Yes, but no conditions are specified.	Yes, if he has sufficient professional experience of the design and construction stage.	Yes, under the same conditions.	Yes, but he has to have both types of certificates proving his competences.
Ireland	Italy	Luxemburg	Netherlands	Portugal
Yes.	Yes, under no specific circumstances.	Not specified.	Yes, but it is unlikely since the employer of the coordinator is mostly not involved in the construction stage.	Yes, there are no defined circumstances.
United Kingdom	Switzerland	Japan	USA	Sweden
Yes, provided the appointee is competent to discharge BOTH roles.	Yes, this is generally the case for smaller construction projects.	Not specified.	Not applicable.	He is the same person from the beginning because the person is the client.

#### 8.5 Can he be helped by assistants or third persons ? If so, what is the profile of these persons ?

Germany	Austria	Belgium	Spain	France
The coordinator can have a representative provided this person has exactly the same qualifications as the coordinator himself and is duly informed by the latter. Both the coordinator and his representative can be helped by assistants.	Yes, but their profile depends on the missions which they have to fulfil.	Yes, but his assistant has to have the same profile as the coordinator himself.	Yes, under the responsibility of a coordinator. The assistant has to be a technician with adequate safety and health knowledge.	Yes, under the coordinator's responsability.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The regulations allow for project supervisor construction stage to appoint safety coordinators to assist. Very often a number of people operate the total service provided.	No, he cannot.	Nothing is provided for in the Luxemburg regulations. As long as the new regulations are not applicable, the only requirement concerns his professional experience.	Yes, but since there is no profile for him, there is no profile for his assistant.	There is nothing in the law that obstructs. Their profile is not defined by law.
United Kingdom	Switzerland	Japan	USA	Sweden
No, there can only be one appointed principal contractor on a project at any one time, but P.C.'s can be replaced as necessary.	No.	The ISH law neither excludes nor requires that help be provided by assistants or third persons. However, such assistants where applicable are usually persons who are qualified as industrial safety or industrial health consultants and who can provide assistance upon request concerning measures related to safety and health.	Yes, but their qualifications are not specified.	Yes. Their profile is not defined. This is a question for the client since he is responsible for coordination matters both in the project design and in the construction stage.

#### **8.6** Is this function in any way incompatible with other functions ?

Germany	Austria	Belgium	Spain	France
There is no general rule specifying which function is incompatible with that of coordinator. In cases of conflict of interests, however, there could be incompatibility (f.i. as construction manager (Bauleitung) having responsibilities towards his own employer and as coordinator having responsibilities towards the client/project manager).	No.	There are no formal incompatibilities but in practice some functions may be incompatible.	No.	Same as for the coordinator in the design stage.
Ireland	Italy	Luxemburg	Netherlands	Portugal
It is too early yet to see if there are incompatible factors but generally the system has worked well.	Yes, it is incompatible at the same construction site but is with the functions of coordinator in design phase and the responsible person for the works.	The only incompatible aspect is when the functions of safety and health coordinator and that of safety controller (agreed organization) are assumed by the same natural person. Although this is not legally prescribed, the coordinator should be independent both towards the client and especially towards the contractors.	In the Netherlands this function is always combined. The person who is responsible for quality and quantity should be responsible for coordination. SHE advisors can assist him.	Yes, with some of those defined by another law regulating the activity of supervisors.
United Kingdom	Switzerland	Japan	USA	Sweden
No.	No.	There are many cases in which a person may be assigned multiple functions in implementing the work.	It could be, since undoubtedly the competent person has other duties on the jobsite (it may be a foreman, manager, or a worker).	No.





All of the countries surveyed indicated that the creation or the reinforcement of the function of a safety and health coordinator can not substitute governmental bodies supervising the regulations in force.

The Ministry of Labour of each country is responsible for applying sanctions in the form of fines to be paid by the client/contracting authority, the companies or the coordinators, according to their respective obligations.

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## **Questions**

**9.1** Who supervises whether legislation is being observed ?

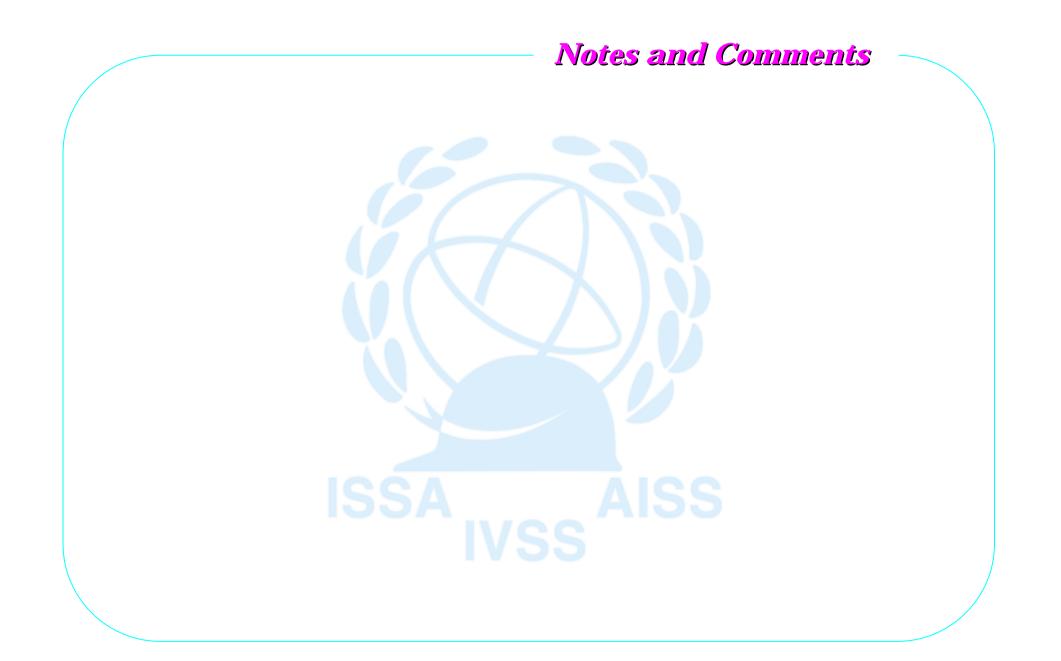
**9.2** Which penalty is imposed when legislation is not observed ?

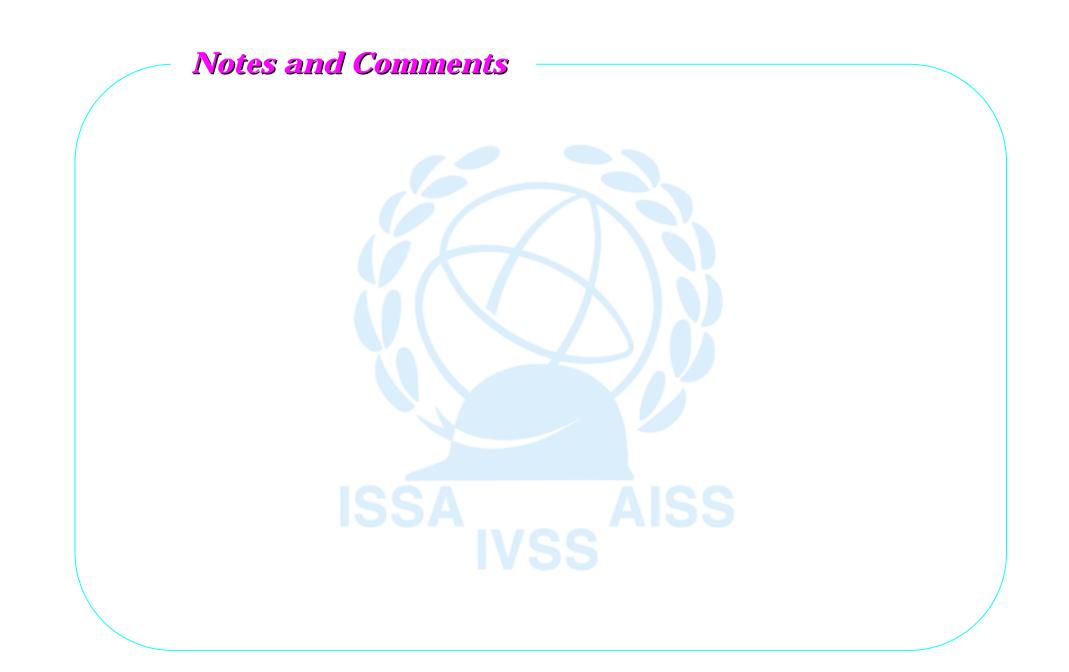
### **9.1** Who supervises whether legislation is being observed ?

Germany	Austria	Belgium	Spain	France
The client.	The Ministry for Labour, Health and Social Affairs (the Labour Inspectorate and the Labour Inspectorate for the Transport Industry).	The Technical Inspectorate of the Administration for Safety at Work and the Medical Inspectorate of the Administration for Health and Medicine at Work and the client.	The Ministry of Labour and Social Affairs.	The client.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The Health and Safety Authority.	The coordinator in the contruction phase.	The Ministry of Labour and the Ministry of Health are charged with the implementation of the Luxembourg regulations, each for its own area of activities.	The Dutch Health and Safety Executive, as a part of the Ministry.	IDICT (Institute for the Development and Inspection of Work Conditions) through IGT (General Work Inspection).
United Kingdom	Switzerland	Japan	USA	Sweden
The Health and Safety Executive, the UK Government Enforcement Authority.	<ul> <li>Swiss Accident Fund (SUVA),</li> <li>the police (if someone's safety or life has been endangered – penal code).</li> </ul>	The Labour Standards Bureau of the Ministry of Labour. However, the ISH Law requires the prime employer to designate an overall S&H controller responsible for coordination. Usually, the site manager is assigned to the position.	Not applicable but generally the " competent person ".	The Labour Inspectorate.

### **9.2** Which penalty is imposed when legislation is not observed ?

Germany	Austria	Belgium	Spain	France
Any person who has voluntarily or out of negligence omitted to give prior notice, or given incomplete or late notice or who has not established a safety and health plan, may be sentenced to pay a fine but op 10,000DM. Any person who has voluntarily omitted to give prior notice or establish a S&H plan, as a result of which the life or health of a worker has been endangered, may be sentenced to a year of imprisonment or a fine.	A fine of 2,000 to 100,000ATS. In case of repeated breaches : a fine of 4,000 up to 200,000ATS.	According to article 87 of the Law on the Welfare of Workers at work, any person responsible for the construction of a construction project is liable to imprisonment of 8 days up to one year and/or a fine of 50 to 2,000 BEF (to be multiplied by 200).	Various penalties depending on the severity of the offence : - not serious offences : 50,000 – 250,000 Pts - serious offences : 250,000 – 5,000,000 Pts - very serious offences : 5,000,000 – 10,000,000 Pts	Fines for not observing the regulations.
Ireland	Italy	Luxemburg	Netherlands	Portugal
There are a range of penalties and interventions available depending on the breach of duty.	Different penalties are imposed according to the violations and involve the client, the coordinator and the employers.	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.	A fine has to be paid.	Different penalties depending on which article of the law is violated and the number of workers. The penalties can range from 500 to 20,000 EURO.
United Kingdom	Switzerland	Japan	USA	Sweden
Depending on the severity of the offence, the penalty can vary from a maximum of $\pounds$ 20,000 per offence if heard before a Magistrates Court or unlimited fines and up to 2 years imprisonment if heard before a Crown Court.	Imprisonment and/or a fine.	A fine or imprisonment. Workers are seldom subject to penalties because the law is aimed at protecting them.	Not applicable. There are penalties associated with citations. These are based on the severity of the violation of OSHA regulations.	Generally no penalties if any injuries have occurred. Offences against submitting prior notice, drawing up safety and health plans are punishable by fines. The same is valid if the coordinator for the construction stage is not following the duties regarding the S&H plan.







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

Moreover, the texts of the regulations seem too imprecise to enable any accurate analytical accounting of coordination services.

In order to ensure the success of this new approach many information and motivation campaigns have targeted all parties concerned. Their impact, however, has not yet been assessed.

### **Questions**

**10.1** Is coordination on temporary or mobile construction sites already integrated in your country ? If not, what are the problems ?

**10.2** Has coordination led to a significant decrease of the number of occupational accidents and professional diseases in the construction industry ? If so, does this decrease have an effect on the occupational accident insurance premiums ?

10.3 To which extent has coordination caused an increase of construction costs ?

**10.4** Which aspects of legislation could still be improved and why?

# **10.1** Is coordination on temporary or mobile construction sites already integrated in your country ? If not, what are the problems ?

Germany	Austria	Belgium	Spain	France
In Germany, it has taken a long time for the european directive on S&H requirements on temporary or mobile construction sites' to be transposed in national law. Before, only the employers' and workers' duties were legally fixed.	The law has been applicable since July 1, 1999. Therefore, it is to early to say anything more about it.	Coordination is not yet integrated.	Yes.	Yes. The coordinators are appointed in an early stage. However, clients are not yet sufficiently motivated.
Irelande	Italy	Luxemburg	Netherlands	Portugal
It is too early yet to consider how well coordination has worked but on medium to large projects there is a significant impact and not quantified and there is possibly a slower change process with small projects.	Yes, it is.	One of the biggest problems is that the coordinator is appointed at a late moment. A possible solution would be to design the safety coordinator already at the preliminary stage when the permission to build is requested.	Although the law has been implemented since '94, one of the problems seems to be the assessment of risks.	Yes it is.
United Kingdom	Switzerland	Japan	USA	Sweden
Yes, it is fully implemented.	No, it is not since there is no legal obligation as yet.	A coordination system on sites is fully established in Japan due to the long-time application of relevant laws and ordinances such as the industrial safety and health law etc. and the thoroughgoing enforcement of such requirements.	Not applicable.	Yes, it is.

# **10.2** Has coordination led to a significant decrease of the number of occupational accidents and professional diseases in the construction branch ? If so, does this decrease have an effect on the occupational accident insurance premiums ?

Germany	Austria	Belgium	Spain	France
As the directive has only been applicable since July 1998, such figures are not yet available.	The law has been applied since July 1, 1999. Therefore, no data are available yet.	The law has been applied since too short a period yet.	No, it has not and there have not been any effects as yet.	Too early to answer this question.
Ireland	Italy	Luxemburg	Netherlands	Portugal
There are some negative signals with regard to the level of impact of coordination. On the other hand there are significant examples of projects where the new regulations and coordination has been extremely successful.	The data are not available yet.	Statistics are not available yet to measure the impact of coordination over these last few years. However, attitudes haves changed in a positive way and safety problems are better tackled at all levels, from worker up to management and client.	It is impossible to answer the question.	There is not yet enough time and experience for any conclusion.
United Kingdom	Switzerland	Japan	USA	Sweden
It is too soon to identify any statistically verifiable trend in accident and ill-health incidences since the introduction of CDM. However, CDM has certainly raised the profile of construction health and safety performance particularly among the new duty holders - clients and designers.	There is a constant decrease of costs and insurance premiums.	Under the relevant laws and ordinances associated with the ISH law, the number of fatal occupational accidents has declined considerably. The decrease in occupational accidents has had a substantial effect on occupational accident insurance premiums.	Not applicable but the duties of the " competent person " has shown a decrease of certain injuries and illness at construction sites.	There are no statistical figures available.

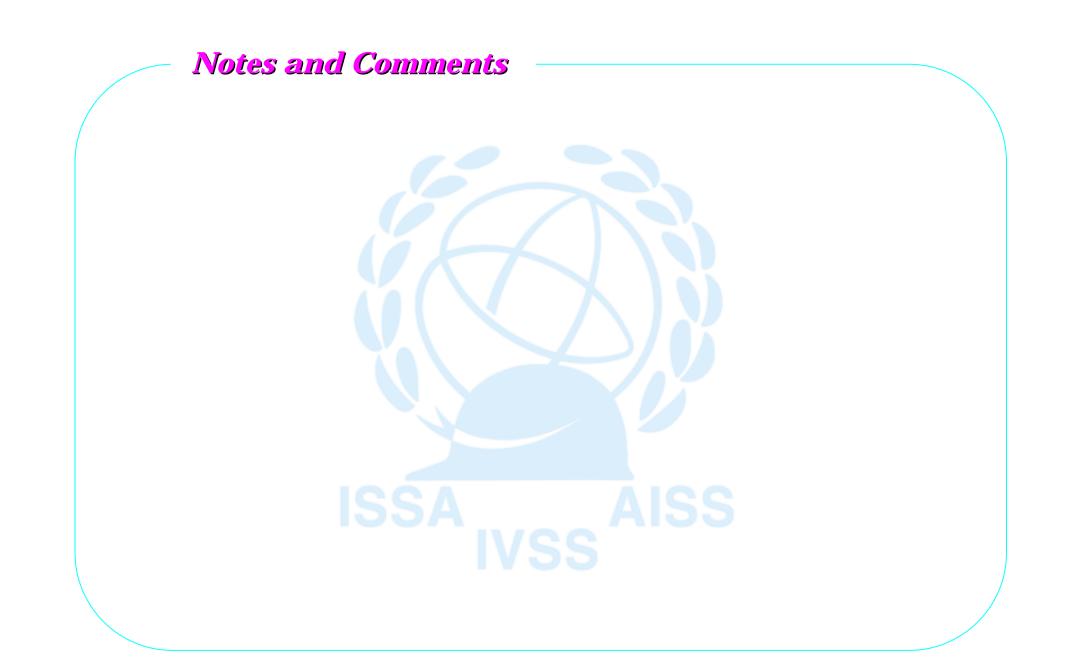
#### **10.3** To which extent has coordination caused an increase of construction costs ?

Germany	Austria	Belgium	Spain	France
It is as yet not possible to evaluate whether coordination has led to an increase of construction costs. Such increases are not expected. The first experiences show an increase of such costs between 0,01 % and 1 % of the total cost, depending on size, duration and difficulties met.	The law has been applied since July 1, 1999. Therefore, no data are available yet.	The law has been applied since too short a period yet.	Costs and benefits have not been calculated.	The costs and benefits have not yet been calculated.
Ireland	Italy	Luxemburg	Netherlands	Portugal
There are significant costs if the project supervisor roles and coordination are implemented fully. Contractors are concerned about these costs and also would like to see the project supervisor/coordinator costs being separate to the competitive tender items.	It ranges from 2,5 to 4 % of the total cost of construction.	The only immediate cost is the safety coordinator's fee. According to the type of construction project, these costs vary from 0,2 % to 1,5 % of the total construction costs.	Is it possible to calculate costs when coordination is embedded in the project design and construction stages ?	It is difficult to make a percentual relation between the costs of implementation of the coordination tools and the cost of the project (it depends also to a great extent on the complexity of the project).
United Kingdom	Switzerland	Japan	USA	Sweden
Many architectural and design practices now charge clients for performing the planning supervisor role.	The total costs for conducting a construction site have increased.	Not specified.	Not applicable.	Not specified.

### **10.4** Which aspects of legislation could still be improved and why ?

Germany	Austria	Belgium	Spain	France
The coordinator's qualification requirements, training, performances and the time spent on the site have not yet been sufficiently laid down in German legislation.	The law has been applied since July 1, 1999. Therefore, no data are available yet.	The law has been applied since too short a period yet.	Define the person appointed to be a competent, qualified and trained technician.	The coordinators' training has to be improved and the requirements of the job have to be laid down more precisely.
Ireland	Italy	Luxemburg	Netherlands	Portugal
The big issues are the registration and qualifications of contractors and the registration and qualification of workers.	It is important to set up the minimum contents of the safety and coordination plans and the safety files.	<ul> <li>Define the conditions of access to the profession of coordinator in order to maintain training at the same high level,</li> <li>take stringent measures to impose the appointment of the coordinator at an early stage,</li> <li>set of a quality control of the safety coordinators' work,</li> <li>lay down the coordinator's precise minimum performances,</li> <li>fix a standard fee.</li> </ul>	Better explanation of the regulations. Development of adequate, easy and practical tools that can be transferred from the design stage to the construction stage.	<ul> <li>Clarification of many aspects of the law,</li> <li>definition of the coordinator's profile and role (duties, missions, assignments, obligations/responsibilities),</li> <li>definition of minimum (but general) requirements for the coordination tools.</li> </ul>
United Kingdom	Switzerland	Japan	USA	Sweden
<ul> <li>Clients' duties cannot be sub- contracted. Some still try to do this,</li> <li>planning supervisor is NOT a new profession. It must be discharged by the existing professions. This should be clarified in the regulations,</li> </ul>	Switzerland has not yet transposed the european directive. We think it is not right to entrust an external specialist with coordination. This function has to be assumed by the designer and the client.	Not specified.	Not applicable.	Sweden does not as yet have sufficient experience to answer this question.
<ul> <li>it is unclear whether feasibility studies are covered by the CDM regulations,</li> </ul>				
<ul> <li>maintenance of fixed plant is exempt from the regulations at present, and should not be. This should be aligned with maintenance of all other types of structures.</li> </ul>				







Major informational actions, motivation campaigns and conferences have been organized for the parties involved in prevention activities. Some of them began well before the adoption of the texts transposing the european directives.

At this time it is not yet possible to assess the results of these information campaigns on changes in attitudes and behaviour of the parties involved.

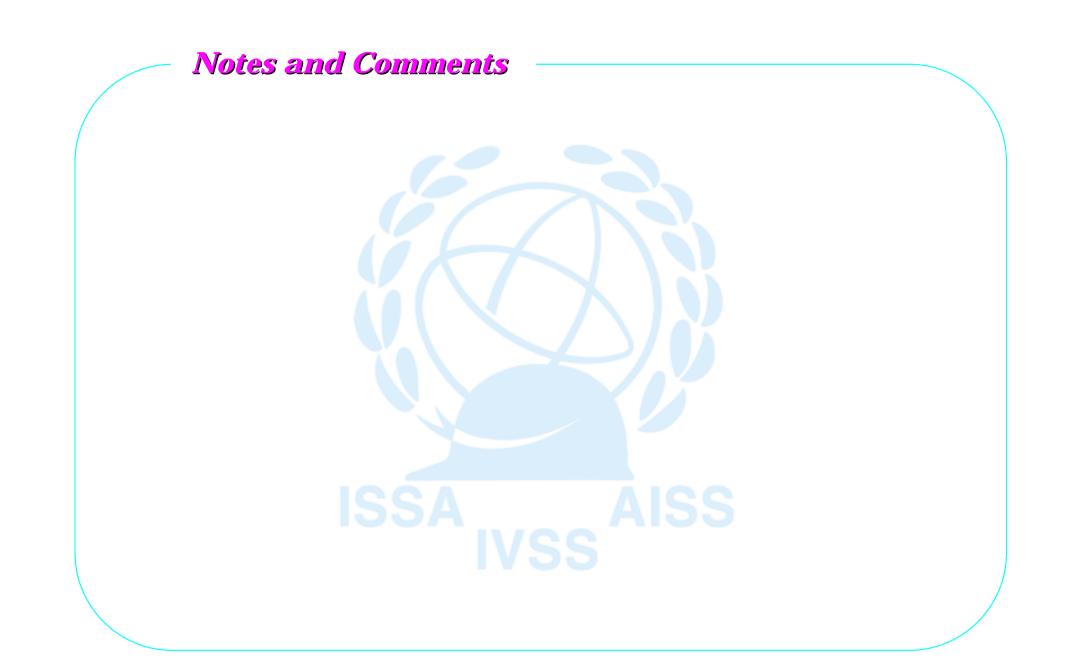
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## **Question**

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

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

Germany	Austria	Belgium	Spain	France
A common action program based on experiences on pilot sites and developed by the various parties concerned includes the establishment of standard contracts, information sessions, press releases, publications, working parties	The above-mentioned persons are motivated during information sessions, conferences, through publications, etc. The idea that " it is better to organize than to improvise " has been promoted since many years by a small group of people (accident prevention service, construction labour inspectorates, safety specialists and workers' representatives) at information sessions, speeches, conferences and inquiries.	A program to inform and motivate the parties concerned will shortly be worked out by CNAC (which plays a key role in construction issues) and other specialised organizations. Specific brochures will be published.	Training and information.	Training and information, brochures explaining legislation.
Ireland	Italy	Luxemburg	Netherlands	Portugal
There has been very positive dialogue across the private/public industry clients, architects, contractors and workers. New recommendations have been published to further improve the planning and management of construction projects. The statutory body, the Health and Safety Authority, the Department of Environment and the Social Partners have played a positive role in motivating the parties.	Education and information actions as well as reduction of the insurance premium on the basis of the amount of accidents and occupational diseases.	<ul> <li>Information sessions,</li> <li>training for the coordinators,</li> <li>establishment of standard documents by a safety coordinators association,</li> <li>organization of a european congress.</li> </ul>	Organizations of architects, contractors, advisors on S&H matters and Arbouw have been and still are taking action to implement legislation.	Seminars, conferences and courses on construction safety are being organized by public institutions, association of contractors, universities, etc.
United Kingdom	Switzerland	Japan	USA	Sweden
<ul> <li>Guidance and information is provided by :</li> <li>the Health and Safety Executive,</li> <li>the Construction Industry Advisory Committee (CONIAC),</li> <li>the Construction Industry Research and Information Association (CIRIA),</li> <li>professional institutions,</li> <li>employers' organizations,</li> <li>construction trade unions,</li> <li>the Construction Industry Training Board.</li> </ul>	Integrated safety plans explained at conferences, courses, esp. for clients and architects.	Technical and financial assistance to contractors and others in the construction business by the national government. Various S&H education programs, publication of S&H related materials, activities to promote S&H awareness.	Not specified	Motivation, information et inspection by the Labour Inspectorate are important for successful implementation.





Associations of safety and health coordinators have until now been set up only in France and Luxemburg. However, many projects are being worked out.

In addition, prevention organizations have provided the construction industry with numerous educational documents on the interpretation of the new regulations, the use of coordination instruments and the information of the public.

Finally, it can be noted that it is not possible to generalize on the coordinator's role and responsibilities on the basis of the rare examples of jurisprudence, notably in France.

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## **Questions**

**12.1** Does your country have a coordinators' lobby (organized pressure group) ?

**12.2** Have auxiliary tools been developed to help coordinating safety and health measures on temporary or mobile construction sites ? If so, If so, what kind of tools ? By whom have they been developed, how are they being used and what have they resulted in ?

12.3 Do you know a judicial case of coordination that can lead to jurisdiction (in the design or construction stage)?

### **12.1** Does your country have a coordinators' lobby (organized pressure group) ?

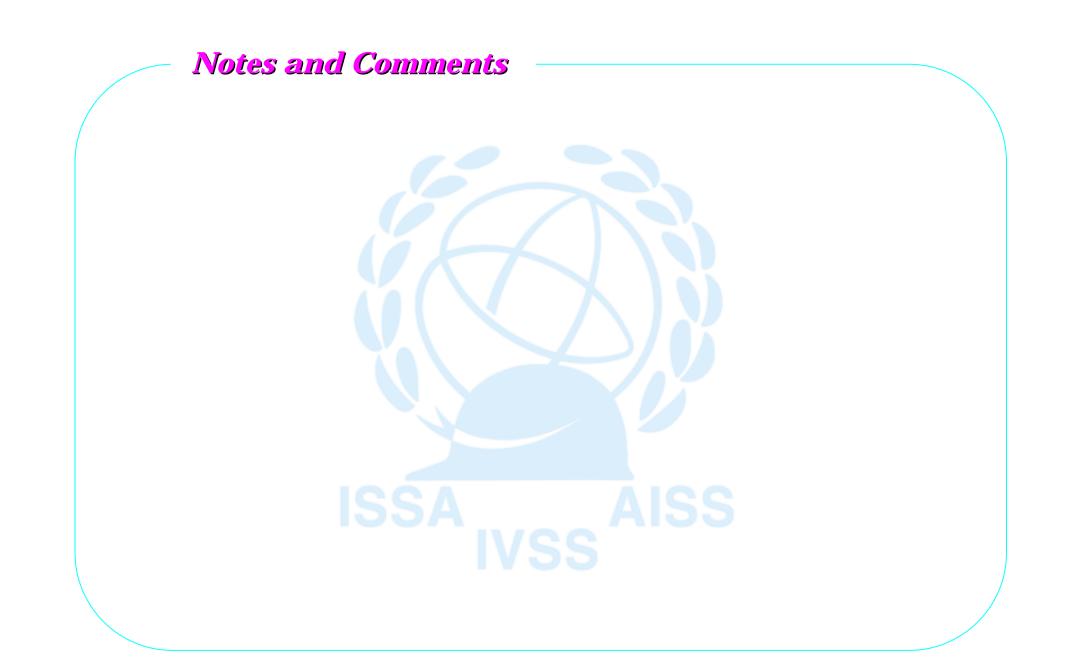
Germany	Austria	Belgium	Spain	France
No, but since coordinators often belong to the professional group of engineers or architects, preliminary actions have been undertaken by their representatives to safeguard quality.	No.	No, not yet.	No, it has not.	There are two associations which are more or less competitive.
Ireland	Italy	Luxemburg	Netherlands	Portugal
No.	Not yet.	It was established in 1996 by the first group of S&H coordinators trained by the Labour and Mines Inspectorate and the University of Liège (Belgium).	No, it has not.	No.
United Kingdom	Switzerland	Japan	USA	Sweden
The Association of Planning Supervisors has taken on the role, but the existing professional institutions have far more influence with the H&S Commission and the H&S Executive.	No.	No.	Not specified.	No.

# **12.2** Have auxiliary tools been developed to help coordinating safety and health measures on temporary or mobile work sites ? If so, what kind of tools, by whom have they been developped and what have they resulted in ?

Germany	Austria	Belgium	Spain	France
A lot of documents have been prepared by the "Berufsgenossenschaften " (professional committees) of the construction industry to help the parties concerned implement the directive such as a model work site contract, a manual for the establishment of the S&H plan, as well as texts relative to safety provisions to be included in the tender documents for the various construction professions.	Yes, they will be used in the design stage. They include training courses and standard safety and health plans for smaller construction projects. A special computer programme for the establishment of the safety plans and the safety file for subsequent maintenance work is also being prepared. Furthermore, a manual explaining the law on coordination of construction activities has recently been published	The CNAC has developed a manual for the various parties at work on temporary or mobile construction sites, organizes information sessions and helps at instauring a coordination system on work sites. Further perfection courses are organized for coordinators.	Brochures have been published as well as a CD-Rom, explaining how to study the matters of safety and establish the safety plans to be used as a coordinator tool.	Follow-up of insurance technicians and labour inspectors. Creation of S&H management software.
Ireland	Italy	Luxemburg	Netherlands	Portugal
Special program for construction management and coordination, guidelines on safety management systems and particular approach to the certification of construction safety management systems by CIF (Employers Federation).	Peer Committees are promoted by the social partners, carrying out consultancy/advisory actions.	Not specified.	Every organization has its own fill-in S&H plan. Arbouw is making a list of risks for most common work processes which can be specified according to the project or the company and is developing a specific software.	Some books have been published on this subject.
United Kingdom	Switzerland	Japan	USA	Sweden
Yes, proforma H&S plans have been developed by organizations such as the National House-Construction Council (NHBC), which have been widely used in the house-construction industry. They have resulted in greater awareness.	Integrated safety plans by ETH and SUVA. (Swiss Accident Insurance Company).	<ul> <li>Various educational materials,</li> <li>publications on S&amp;H awareness and technical guidelines for coordinators,</li> <li>throroughgoing training in S&amp;H education,</li> <li>establishment of S&amp;H management systems.</li> </ul>	Health and Safety packages " SMART- MARK " specially for the construction industry workers.	Tools have been developed for the construction stage.

### **12.3** Do you know a judicial case of coordination that can lead to jurisdiction (in the design or construction stage) ?

Germany	Austria	Belgium	Spain	France
There have been no judicial cases as yet in Germany related to the coordinators' civil and penal responsibility.	No. In the past, however, complaints have been filed against designers as a result of some serious or fatal accidents, but they have rarely been sentenced.	No.	No.	No, except for one single case where the coordinator was prosecuted for personal failure.
Ireland	Italy	Luxemburg	Netherlands	Portugal
We are not aware of any case.	No data are available.	No.	No, we dont not.	Yes.
United Kingdom	Switzerland	Japan	USA	Sweden
There have been numerous successful prosecutions by the H&S executive of both planning supervisors and principal contractors for failure to properly coordinate health and safety during the project designn and construction stages respectively. Clients have also been prosecuted for failure to appoint a planning supervisor and/or a principal contractor and for allowing construction work to start before a construction H&S plan has been prepared.	No.	There has been no major case of litigation in this area.	Not specified.	In the construction phase we had quite many, in the design stage only a few cases.





#### Results of the survey

Overall, most european countries have created their own safety and health regulations on measures for construction sites. However, the latest national transpositions of the law on coordination are too recent to observe any tangible impact. Besides, drilling and extraction activities have been excluded from legislation.

The predominant role of the safety and health coordinator at the design stage of construction is clearly evident. The role and responsibilities of the client or contracting authority is essential to a safe and healthy construction environment

Coordination of activities in the construction stage directed by the client/contracting authority is another matter and is essential when several construction companies are working at the same time at the same site.

The coordinator must be basically a construction technician . There are major differences concerning the coordinator's training requirements.

Minimum services to be provided by the coordinator are often defined. The rules on how the assignments are to be carried out are defined by contract with the client/contracting authority, and therefore very precise.

In most cases, it is not stipulated that the coordination function includes supervision and the power to apply sanctions. Coordination 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.

Participation of workers or their representatives is often provided for.

#### General conclusions

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

Coordination, which must be integrated in the production process of the works, 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 to reduce the number of occupational accidents and diseases.

There are two main approaches to reach this objective :

- an approach based on european directives **legally** creating the safety and health coordination function,
- the free market approach (particularly in the USA and Japan) establishing **by contract** a coordination assignment between the various parties involved.

For the european approach, transposition of the directives into national law generally leads to circumstantial texts, as in France or in Spain, or to very general texts such as in Germany or Luxemburg, depending on the predominant role of government.

Countries outside of Europe generally prefer to use systems such as based on ISO 9000 for their more advanced construction operation. That explains why questions of legal nature are often not replied to by the representatives of these countries.

Many questions cannot be answered as the importance of this new prevention tool has still to be assessed. Besides, the Symposium organized by the ISSA International Construction Section in Vienna in October 1999 should provide a certain number of answers to questions such as :

- what is the cost/benefit impact of health and safety coordination ?
- what should the coordination function include (safety and health plan, relations with construction operators, responsibilities of each party...) ?
- how can those involved in the construction industry be made more aware of this new approach ?
- how can international instruments to compare the effectiveness of different types of coordination tools be set up ?

The working group agrees that further exchange of information between countries is essential and that collaboration between the various international organizations and associations of the construction industry should help to provide for adequate methods and tools.

C. HEYRMAN

E. CATTARUZZA



COMITE INTERNATIONAL POUR LA PREVENTION DES RISQUES PROFESSIONNELS DU BATIMENT ET DES TRAVAUX PUBLICS COMITE INTERNACIONAL PARA LA PREVENCIÓN DE LOS RIESGOS PROFESIONALES EN LA CONSTRUCCIÓN INTERNATIONALE SEKTION FÜR DIE VERHÜTUNG VON ARBEITSUNFÄLLEN UND BERUFSKRANKHEITEN IM HOCH-UND TIEFBAU INTERNATIONAL SECTION FOR THE PREVENTION OF OCCUPATIONAL RISKS IN THE CONSTRUCTION INDUSTRY

### **INFORMATION**

You have just read the brochure concerning the current status on safety & health coordination in the construction industry. Perhaps would you have some remarks or comments to make about the information presented in this document or its translation into English and German. Do not hesitate to let us know, using the following questionnaire so that we can update this contribution. We will consider every suggestion.

Thank you for your collaboration.

(name and address)	SURNAME :	TéL. : Fax : E_Mail :
Your comments aim at : (tick the appropriate box)	<ul><li>rectifying</li><li>correcting the translation</li></ul>	adding information other
Your remarks and comments (your comments in	English would be appreciated) :	