

The International Focus Project Brussels, Belgium

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International System of Reference for the Accreditation of training and Certification of Security and Health Coordinators on Temporary or Mobile Building Sites

The FOCUS project

(European training and qualification in construction safety)



This is a project jointly financed by the European Commission within the framework of the Leonardo da Vinci 97 programme, the co-ordination of which is ensured by CAATB (the Association of draughtsmen and architects of Barcelona). Belgium, Denmark, Finland, Ireland, Italy, Luxembourg, Portugal, Sweden and the United Kingdom took part in the project through the European Council of Building Professionals (ECBP).

The FOCUS project has given itself the following objectives:

- To define a referential and training programs on the subject of security in the construction sector that are adapted to the participants that are concerned.
- To define a system of accreditation for this training.
- To define a system of certification of professional prevention capacities of the participants in the sector and in particular of the coordinators on the subject of security and health.
- To create a European network in order to manage this system.
- To create a European glossary concerning security and health in the construction sector.

Introduction



The International and European framework of the project and the system of reference of the competencies of the security and health coordinators in the construction sector.

The system of reference of the competencies of the "security and health" coordinators defined by the International FOCUS Network has its origins starting from the recommendations of the BIT and the seminars organised by the European social partners FIEC and FETBB of the construction industry with the support of the European Commission and the studies of the International Committees of the AISS of the Construction industry and for prevention Education and Training

Since 1989, a series of European Directives, together with a Convention 167 and Recommendation 175 of the International Labour Office in Geneva (ILO), have changed the outlook for working conditions in all SMEs in all industrial sectors, introducing: increased responsibility for employers, new obligations for workers, more involvement by all in the management of risks to health and safety at work.

The Directive on temporary or mobile¹ construction sites transposes the general provisions of the framework Directive for the construction sector. It makes the client and designers responsible for assessing the risks to safety and health and ensuring that the prevention of risks during the execution of the works or subsequent use of the structure are integrated into the architectural and organisational aspects of the project.

To this end, the role of coordinator has been created. The coordinators prepare for the execution of the works and future maintenance of the structure by means of a Safety and health plan and File appropriate to the characteristics of the project.

Overall, the Directive on temporary and mobile construction sites formulates a framework which assigns a specific and active role to all those involved in a construction project, although it is still necessary for them to apply the directive appropriately in practice within the framework laid down by this body of legislation.

The safety and health on a construction site concerns all actors in the construction sector from the planning stage until the execution of a project as well as during its renovation, maintenance and upkeep.

The purpose of this first part is as follows:

- to give a brief review of international and European laws and regulations relevant to health and safety activities;
- to give a rundown of the outcome of activities under the social dialogue so far in order to provide suggestions and tips for incorporating the prevention measures catalogued in this paper within a broader strategy on preventing accidents and organising health and safety protection in small and medium-sized firms;
- by describing the European network FOCUS, highlighting the key role of the Health and Safety Coordinators and the crucial importance of the work of architects.

The International and European regulations in the field of safety and health.

1. Recommendation 175, Convention 167 and the Code of Practice of the ILO (Geneva).

Extracts from the ILO Code of Practice :

General duties of designers, engineers, architects

Those concerned with the design and planning of a construction project should receive training in safety and health and should integrate the safety and health of the construction workers into the design and planning process in accordance with national laws regulations and practices.

Care should be exercised by engineers, architects and other professional persons not to include anything in the design which would necessitate the use of dangerous structural or other procedures or materials hazardous to health or safety which could be avoided by design modifications or by substitute materials.

Those designing buildings, structures or other construction projects should take into account the safety problems associated with subsequent

The Reason Why



maintenance and upkeep where maintenance and upkeep would involve special hazards.

Facilities should be included in the design for such work to be performed with the minimum risk.

General duties of clients

Clients should:

- a) co-ordinate or nominate a competent person to co-ordinate all activities relating to safety and health on their construction projects;
- b) inform all contractors on the project of special risks to health and safety of which the clients are or should be aware;
- c) require those submitting tenders to make provision for the cost of safety and health measures during the construction process.

In estimating the periods for completion of work stages and overall completion of the project, clients should take account of safety and health requirements during the construction process.

2. The European Directives

2.1. Public works contracts in Europe²

It is interesting to note that Article 22a of the Council Directive of 18 July 1989 amending Directive 71/305/EEC concerning coordination of procedures for the award of public works contracts provides that:

- The contracting authority may state in the contract documents, or be obliged by a Member State so to do, the authority or authorities from which the tenderer may obtain the appropriate information on the obligations relating to the employment protection provisions and the working conditions which are in force in the Member State, region or locality in which the works are to be executed and which shall be applicable to the works carried out on site during the performance of the contract.
- The contracting authority which supplies the information referred to in paragraph 1 shall request the tenderers or those participating in the contract procedure to indicate that they have taken account, when drawing up their tender, of the obligations relating to employment protection provisions and the working conditions which are in force in the place where the work is to be carried out. This shall be without prejudice to the application of the provisions of Article 29(5) concerning the examination of abnormally low tenders."

2.2. The framework Directive³ and the individual Directives on safety and health at work

The objective of Community policy is to establish a solid core of essential minimum requirements for the protection of safety and health at work through the adoption of Directives covering a maximum number of workers exposed to risks.

The general principles of the framework Directive

- a) "The employer is responsible for the health and safety of his employees"

The employer must therefore take all practical measures necessary for the safety and health protection of workers.

- b) Every worker must receive adequate safety and health training, appropriate to the nature of his workstation or job.

Training of this type will take place:

- On recruitment
- In the event of a transfer or a change of job
- In the event of a change in work equipment
- In the event of the introduction of any new technology.

- c) Such training must also be provided for workers from outside undertakings engaged in work in the undertaking.

- d) The rights and obligations of workers⁴

Every worker is required to comply with the employer's instructions, in accordance with the information and training provided, and to take care of his own safety and health and that of colleagues.

Workers are entitled to appeal to the competent authority, if they consider that the measures taken and means employed by the employer are inadequate for the purposes of ensuring safety and health at work. presents a serious and immediate danger to safety and health and of any shortcomings in the protection arrangements;

2.3.The construction site directive: Application of the General Prevention and Protection Principles in the European Construction Sector

At the Planning Stage of the Work

When architectural, technical and/or organisational choices are being made, and when deadlines are being estimated, the coordinator must ensure that the project supervisor or, where appropriate, the client adopts the following general principles of prevention :

- 1) Avoiding risks.
- 2) Assessing risks which cannot be avoided.
- 3) Combating risks at source.
- 4) Adapting the work to the man (ergonomics), by improving design, organisation and working and production methods.
- 5) Achieving these objectives while adapting to technological progress.
- 6) In general, replacing the dangerous by the non-dangerous or less-dangerous.
- 7) Developing a coherent overall prevention policy, which covers production, organisation, working conditions and social dialogue.
- 8) Giving collective protective measures priority over individual protective measures and using individual protective measures only where no other solution is possible.
- 9) Ensuring that all contractors and self-employed persons are fully informed and receive the necessary instructions to protect the safety and health of all those who will be involved in the execution of the works.

At the Execution Stage of the Work

On the site the co-ordinator coordinates implementation by the contractors and self-employed persons of the general principles of occupational risk prevention concerning:

- 1) Deadlines and organisation.
- 2) Good site housekeeping, circulation and storage on site.
- 3) The conditions for handling materials on site.
- 4) The site environment.
- 5) The safety and health plans.
- 6) File appropriate to the characteristics of the project (FAP).

Attention !

The Directive makes individual contractors and self-employed persons subject to the same obligations as employers and workers, where they refer to the professional activity itself: they must respect the safety rules, use appropriate equipment, give priority to collective protection, etc.

The Ways and Means

The Social Dialogue between EFBWW and FIEC

In 1992, when Directive 92/57/EEC on temporary or mobile construction sites had just appeared, the European Commission, FIEC, FETTB and the social partners in the construction industry, together with prevention experts in various industrial environments, agreed to coordinate their activities at European level. The working group thus established organised three seminars, the first on vocational training safety and on health, the second on the choice and application of the tools provided by the Directive on safety and health on temporary or mobile construction sites, and the third on risk assessment and the evaluation of pilot training and site schemes.

1. The lines of force of Pont Royal

1st European Seminar on Temporary and Mobile Construction Sites in Pont Royal in France (22-23 November 1993)

Study on the needs for training on risk prevention and the making of a joint European Training programme



The first seminar was held at Pont Royal on 22 and 23 November 1993. It identified "five Pont Royal Guidelines" on basic education and training principles for clients, project supervisors, project and site coordinators, employers, the self-employed, employees and experts in on-site safety and health.

These "Five Guidelines" served as the basis for establishing a coordinator training policy among a number of Member States. Teaching objectives were jointly defined and European pilot training courses for "project and execution" coordinators were organised on a partnership basis (with exchange of trainers, courses and teaching methods) between the universities of Barcelona, Liege, Lisbon, Milan and France

Equivalence of diplomas and skills

Since October 1994, courses for health and safety coordinators of between 80 and 150 hours at temporary or mobile construction sites have been organised by a European partnership. The training and content of the courses are identical in Spain, Italy, the Grand Duchy of Luxembourg and Portugal and aim to achieve equivalence of diplomas and skills.

European certification in this area is being put in place. Coordinated by the Professional Association of Technical Architects in Barcelona, the European network FOCUS (see point 4), a European body for the accreditation of training and certification of professional aptitude in health and safety matters brings together the European bodies which, for a number of years, have formed a partnership of coordinators in the sector "temporary and mobile projects and construction sites".

2. The priorities of Bolzano

2nd European Seminar on Temporary and Mobile Construction Sites in Bolzano, Italy (17-18 November 1994)

Choice and use of joint prevention tools

On 17 and 18 November 1994, a second European safety and health seminar was held in Bolzano. The European social partners in construction together with several training experts and training institutes established the "Bolzano priorities": a draft methodology for evaluating and preventing occupational hazards, based on "Safety and health plans" and "Files appropriate to the characteristics of the project".





3. Implementation of Lisbon

3rd European Seminar on Temporary and Mobile Construction Sites in Estoril, Portugal (10-11 October 1996)

European strategy on training and methodology for the assessment of "site" and "use of project" risks.

On 10 and 11 October 1996 in Lisbon, there was a follow-up to the Pont Royal and Bolzano seminars focusing on the appraisal of various pilot schemes that were run in Belgium, Spain, Italy, Luxemburg and, more particularly, the pilot site at the Universal Exhibition in Lisbon. It came up with the "Lisboa applications", the strategies for safety and health training and risk assessment methodologies in the light of the requirements of Directive 92/57/EEC on health and safety on temporary or mobile sites.

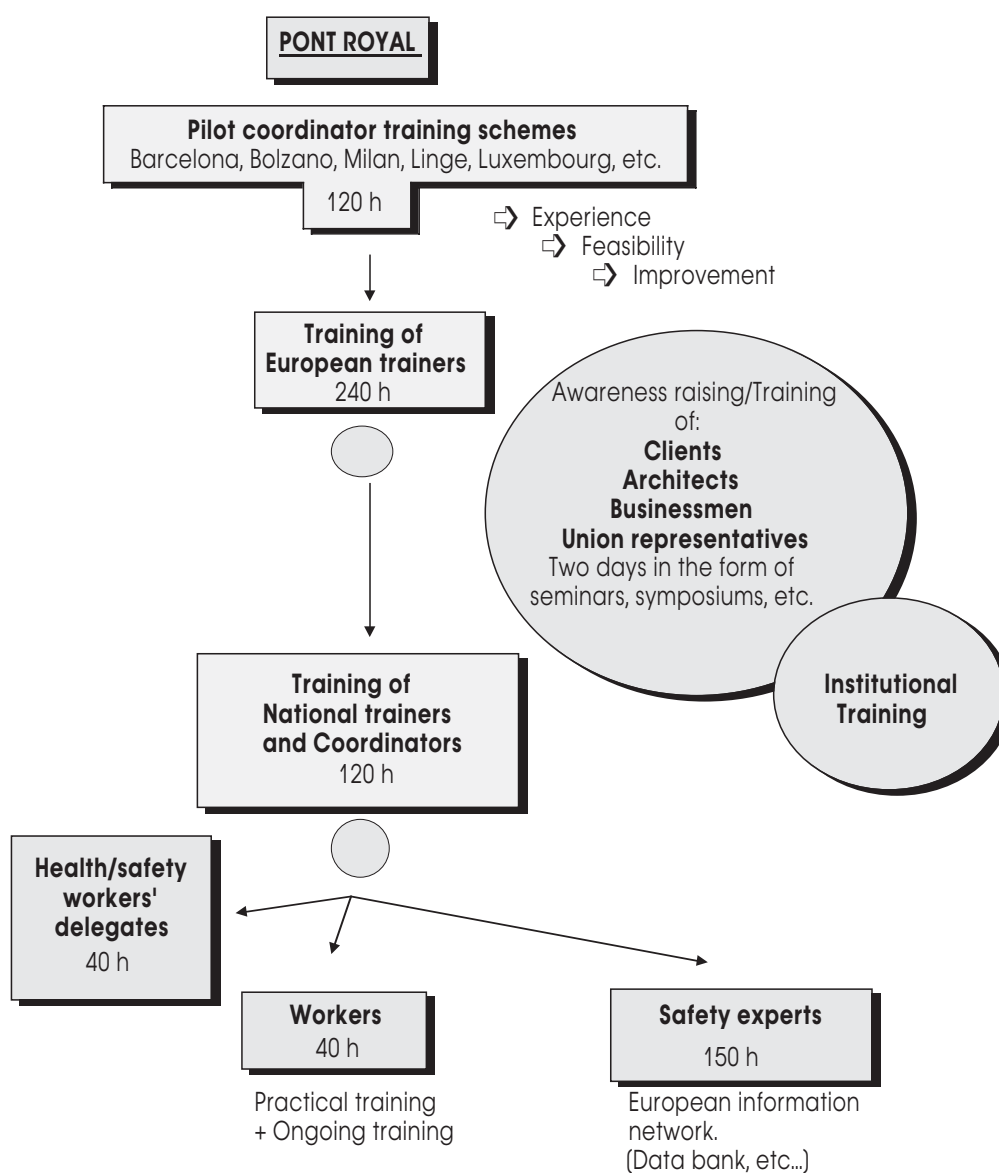
Strategic Observations and Training Methods in Building Sector

That information on health, hygiene and safety differs among the countries represented at the seminar:

- That different training systems lead to different educational approaches and training content.
- As regards integrating the prevention of occupational hazards into base-level training systems, its inclusion in education and training systems is non-existent in many EU countries.
- These principles must be accompanied by a concerted monitoring programme. Thus, current workers, project managers, designers and others involved in the building process show gaps in their skills, which have repercussions on the behaviour and decisions of the various people and bodies involved, as already noted at Pont Royal:
 1. Coordinators' training experience (France, Spain, Belgium, Italy, Luxembourg and Portugal), which has its strengths and weaknesses, forms a reference point for creating training structures both at Community and domestic level. The results of such projects should be assessed in greater depth.
 2. It would also be worthwhile evaluating the pilot schemes submitted to the seminar, with a view to expanding the range of training in the various EU countries.
 3. Similarly, different countries have regulations specifying the roles, skills and the status of coordinators, and a hierarchy should be considered. It may prove necessary for training to deal with the joint responsibility or joint liability of those involved, with the coordinator playing a decisive role in developing the ongoing dialogue between those involved in the sector.
 4. Concerted training of coordinators and trainers is deemed to be a priority.
 5. The establishment of a transnational working group is proposed, in cooperation with the International Social Security Association (both the Education and Training Committee and the Building Sector Committee), with the following aims:
 - To design joint training modules for the various players identified at Pont Royal, the aim being to develop a skill certification

- process to enable the free circulation of workers and services
- To boost the role of training organizations, especially universities and university/business associations, without prejudicing Member-States' domestic practices.
 - The establishment of "competence cards" in occupational health and safety in the building industry.

Proposal to standardize training based on experience gained through social dialogue



- N.B:
- Standardization should not only encompass the duration but also the level of content.
 - Countries should be free to set various levels of competence. The important point is to standardize basic training.

4. Standard profile of co-ordinators defined by a transnational working group in cooperation with the International Social Security Association (both the Education and Training Committee and the Building Sector Committee).

The competence of a project preparation or project execution co-ordinator is determined by theoretical knowledge of and adequate experience in carrying out the tasks entrusted.

The pedagogical objectives of the training of "temporary or mobile construction sites" health and safety co-ordinators encompass three domains:

a) Knowledge

On completion of training, the trainee must have a knowledge of :

- The safety and health regulations.
- The safety and health aspects of the regulations governing public contracts.
- Planning methods used on site.
- The risks connected with the construction methods, site organisation, maintenance of the structure and other activities in progress on the construction site.

b) Know-how

On completion of training, the trainee must be capable of :

- Reading a plan.
- Understanding contract specifications and assessing the risks they entail.
- Understanding a tender and assessing the risks it entails.
- Assessing the risks connected with planning (simultaneous performance of activities, deadlines, etc...).
- Assessing the risks involved in the use and maintenance of the structure (wear, future works, etc...).
- Assessing the risks involved in the methods used and interaction with other activities within or in the vicinity of the construction site.
- Formulating proposals for avoiding, reducing or combating risks at source and adapting the work to the man.
- Establishing, on the basis of these evaluations and proposals, a "Safety and Health Plan" and a "File appropriate to the characteristics of the project" which are clear and comprehensible for all those involved (including workers).
- Organising the layout of a site (access to the site, access to workstations, storage areas, materials handling equipment, plant, etc...).
- Coordinating (and ensuring) implementation by contractors and self-employed persons of the prevention measures concerning:
 - coordination, simultaneous performance of activities, organisation, deadlines, development and monitoring of the works;

- cooperation and information exchange between contractors, self-employed persons and workers;
 - the health protection and health surveillance of workers;
 - good site housekeeping, storage, traffic, workstations, dangerous products;
 - maintenance, checking, commissioning, use and handover of equipment and installations;
 - the site environment and simultaneous activities;
- Adapting the Safety and Health Plan, the Specific Measures and the File Appropriate to the Characteristics of the Project to take account of the progress of the works and any changes made.

c) Communication and social skills

On completion of training, the trainee must be able to :

- Conduct information exchange meetings and encourage participants to express their views.
- Present the measures required to achieve optimum safety and health conditions in a positive manner.
- Negotiate with and convince others that these measures are well-founded.
- Choose the relevant information, express it clearly and disseminate it to all concerned.
- Take account of existing structures for participation and incorporate them into the information dissemination network.
- Persuade the client to impose the necessary measures where there is no consensus.

d) His independence

In the same way as with the architects and consultants, independence and expert knowledge are a factor in the quality of the studies carried out and the services provided.

This implies that the "project" Co-ordinator and the "execution" Co-ordinator have complete technical and intellectual independence when carrying out their duties, even if they are recruited under a service or employment contract with the contractor and/or project manager.

5. The international FOCUS project concerning the accreditation of training and the certification of the security and health coordinators.

Focus Survey

In the light of points 1 to 5 of the "Strategic reflections and methodology concerning education and training in the construction sector" which took place in Lisbon, The "Focus" partnership carried out the first stage of this opinion poll in Belgium, Italy and Spain.

Aims of the inquiry :

- To find out the training needs of all those involved in the building trade.
- To obtain information on the different training systems and means used in the construction sector in Europe.

The full findings of the focus survey are available on the Internet:
www.apabcn.es/focus/

The experts meeting at the seminar of the AISS "Education and Training Committee" in Mainz (02/07/1999) proposed the following concerning the profile of coordinators :

- A minimum prerequisite : post-secondary training in building and public works plus occupational experience of at least two years.
- An assessment test concerning the motivation of applicants at the time of registration.
- Training lasting between 120 and 150 hours covering the 12 areas defined in the Focus survey.
- Verification of knowledge and execution of a coordination paper on completion of the studies.
- Periodic meetings to update knowledge, distinguishing between retraining and advanced training.

6. Guide of Best Practices on the Co-Ordination of Health and Safety in the Construction Sector (Directive 92/57/CEE)

A. The co-ordination of health and safety in the construction sector: an other manner to consider the man at work.

The project partners involved, the EFBWW⁵, FIEC⁶ and SEFMEP⁷ and FOCUS⁸ experts, have gladly availed themselves of the opportunity, in the context of the accident prevention programme in small and medium-sized enterprises, initiated by the Bilbao Agency, to compile and publish their experience regarding effective accident prevention, not least on account of the fact that work in the construction sector is still among the most dangerous.

The materials we have compiled focus attention in particular on the special conditions in small and medium-sized enterprises.

In drawing up accident prevention strategies and describing concrete prevention activities and examples of prevention, reference was repeatedly made to the legislation on occupational health and safety, and especially to the so-called Framework Directive⁹ and the Construction Site Directive.¹⁰

Repeated emphasis is also placed in these materials on the importance of good coordination of the occupational health and safety activities and in addition suitable consideration is given to the role of the construction site coordinator.

B. This brochure comprises three specific parts:

1. Legal bases of accident prevention and results of the European Social Dialogue

In the first part, the general conditions of the organisation of



occupational health and safety and protection against accidents are set out in condensed form and earlier results of the social dialogue in the European construction sector are presented, which still make an important and useful contribution today.

2. Guide of best practices on the co-ordination of health and safety in the construction sector

The second part presents an integrated concept of coordination of protection against accidents during a construction project. In addition to coordination of the safety activities during the construction phase, elements such as the planning of building projects or safety questions in connection with maintenance and repairs are also dealt with.

Concrete safety problems and attempted solutions are also theme of this part. Here great store was set on a simple, clear presentation of problems and possible solutions. The individual examples are essentially based on pictorial and graphic presentation.

3. Applications and site overview

The third and final part of the brochure consists of a collection of examples of optimum use of safety equipment for different types of buildings and activities. This part of the document too is made easily comprehensible through the use of essentially pictorial and graphic presentations.

Notes

- 1 Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile constructions sites
- 2 Council Directive of 18 July 1989 amending Directive 71/305/EEC concerning coordination of procedures for the award of public works contracts.
- 3 Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.
- 4 and their representatives, where there are any.
- 5 European Federation of Building and Woodworkers
- 6 European Construction Industry Federation
- 7 Société Européenne pour la Formation, le Management et L'expertise de Projets (European Society for Training, Management and Project Expertise, SEFMPEP)
- 8 FOCUS project (European training and qualification in construction safety)
- 9 Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.
- 10 Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites.