

International Safety and Health Construction Co-ordinators Organization

Evaluation of the EU Occupational Safety and Health Directives

Construction sites – 92/57/EEC

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1) Introduction

By information to tender¹ by the European Commission on 11th July 2012, the evaluation process of the EU occupational safety and health Directives was started. The title attributed by the EC to this evaluation was: "Evaluation of the practical implementation of EU occupational safety and health (OSH) directives in EU Member States with a view to assessing their relevance, effectiveness and coherence, and identifying possible improvements to the regulatory framework".

The main principles in occupational safety and health are laid down in the framework Directive 89/391/EEC. Afterwards, 23 other Directives were adopted for specific categories of workplaces, workers and specific risks, and especially Directive 92/57/CEE on the implementation of minimum safety and health requirements at temporary or mobile construction sites.

Directive 92/57/CEE introduced the safety and health coordinator on temporary or mobile construction sites, as well during the project preparations stage as during the project execution stage. ISHCCO groups together the national associations of safety and health coordinators of a dozen member states.

By this document, ISHCCO presents its evaluation of the practical implementation of these two Directives and its recommendations to improve its effectiveness.

2) <u>Application of the Directives on construction sites</u>

2.1) Introduction

In comparison with all industrial activities or services, the process from the idea to the design of a construction projects and the organization of construction sites present some important specificities.

2.2) Framework Directive 89/391/EEC

The framework Directive concerns all categories of workplaces and workers. The main principal of this Directive is risk prevention. To put this into practice, the general principles of prevention were introduced by the framework Directive. We want to recall these principles, because they are of prime importance within the practical application of the two Directives. The general principles of prevention set out by point 2 of article 6 are:

- (a) avoiding risks;
- (b) evaluating the risks which cannot be avoided;
- (c) combating the risks at source;
- (d) adapting the work to the individual, \dots ;
- (e) adapting to technical progress;

¹ Specifications-Open Invitation to tender No VT/2012/056, Evaluation of the EU Occupational Safety and Health Directives: <u>http://ec.europa.eu/social/main.jsp?catId=626&langId=en&calIId=360&furtherCalls=yes</u>

- (f) replacing the dangerous by non-dangerous or the less dangerous;
- (g) developing a coherent overall prevention policy which ...;
- (h) giving collective protective measures priority over individual protective measures;
- (i) giving appropriate instructions to the workers.

The application of the general principles of prevention to temporary or mobile construction sites requires taking into account the specificities of these workplaces. The next point will analyze the specificities of workplaces on construction sites, in comparison with workplaces in industry.

Beside the workplaces on construction sites, the general principles of prevention have also to be applied in case of maintenance works. The employers proceeding to maintenance works have to apply these principles, by analysing how to carry out the intervention².

2.3) Specificities of workplaces on construction sites

The following table compares the specificities of workplaces in factories and on construction sites:

Industry (factory)	Construction sites
Each day the same workers at	According to progress of works,
the same workplaces	workers are coming and going
One employer is responsible	The specific risk prevention of
for all workers in its factory	each work implies that each
	employer is responsible for his
	workers and for other workers, if
	they are also exposed to these
	risks
The workplace is more or less	Workplaces change continuously
unchanging	due to progress of construction,
	and consequently, the workers
	go from one site to another
The tasks are more or less the	The tasks change continuously
same every day	according to the progress of
	construction
The working conditions are	The changing weather conditions
more or less constant	influence the working conditions
	on the sites

Furthermore, the realization of construction projects presents some specificity to take into account:

- a) Each project is a prototype with other contributors.
- b) The technical feasibilities increase the challenges, and consequently the risks.
- c) The turnaround time is more and more under pressure. Too short turnaround time cause higher co-activities between different companies.
- d) Temporary workers take more and more the place of skilled labourers.
- e) The cheapest bidder obtains generally the market. Safety and health criterion are seldom taken into account to evaluate the offers.
- f) Modifications during the execution of works.

² Erwin Bruch, ISHCCO (Luxembourg), Allgemeine Grundsätze der Prävention auf Baustellen, 2015 AAA Congress at Düsseldorf.

- g) Workers from many countries have problems to communicate.
- h) Several subcontracting levels cause loss of information.
- i) Small and medium-sized enterprises have fewer resources to dedicate to worker protection³.
- j) On construction sites, many employers intervene during different periods with partially overlapping in space and time.
- j) Inadequate training concerning safety and health.⁴
- k) ...

Concerning safety and health, all these points contribute to less good working conditions on construction sites than in other branch of industry⁵.

The comparison of the working conditions in factories and on sites shows clearly the requirement of permanent coordination between the different employers to provide the workers with correct safety and health working conditions on construction sites.

Point 4 of article 6 of Directive 89/391/EEC specifies that "... where several undertakings share a work place, the employers shall cooperate in implementing the safety, health and occupational hygiene provisions ...". Such a coordination, to organize by each employer with all the others, becomes rapidely inapplicable⁶ on sites with continuously other employers and sub-contractors. That's why the Directive 92/57/EEC introduces the safety and health coordination on construction sites. On of the roles of the coordinator is to organize an effective coordination according to point 4 of article 6 of Directive 89/391/EEC. That's why the coordinator must be able to act with independence of all the other intervener and without any conflicts of interest.

Following our above analysis and contrary to the already mentioned information for tender⁷, we conclude that the organization of workplaces on construction sites is significantly different from other industrial activities (Workplaces Directive 89/654/EEC), extractive industries (Directive 92/91/EEC and 92/104/EEC) or on fishing vessels (Directive 93/103/EEC) and consequently, the evaluation of construction sites (Directive 92/57/EEC) requires a specific approach.

Furthermore, statistical investigations about accidents and their severity underline these differences. For instance, the 2011 final report of the European Commission about socioeconomic costs of accidents at work and work-related ill health⁸ analyzed 401 cases of accidents at work and work-related ill health. The construction sector contributes to 40,4 % of the high sever cases, and 28,7% of all the cases, analyzed in this study. Furthermore, the construction sector alone accounted for 26,1% of fatal work accidents⁹! An American study concerning 2010 leads to similar figures¹⁰.

A Fresh study¹¹ leads to the conclusion that in the construction sector, the global financial consequences of accidents at work and professional disease, including direct and indirect costs, can be estimated at **5% of the costs of the works**.

³ Estimating the cost of accidents and ill-health at work: A review of methodologies, European Agency for Safety and Health at Work, 2014.

⁴ See resolution 70 of the European Parliament of 15th December 2011 mentionned later in this document.

⁵ Erwin Bruch, ISHCCO (Luxembourg), Situation in safety and health protection at European sites, 2013 AAA Congress at Düsseldorf.

⁶ Such an approach will constitute an importante administrative and financial burden.

⁷ Paragraph 5.1.3. of this document: Operational aspects of the evaluation.

⁸ Socio-economic costs of accidents at work and-related ill health, Final Report published by the European Commission, 2011, page 14.

⁹ Eurostat, Health and safety at work statistics 2012, mentioned by: Estimating the cost of accidents and ill-health at work: A review of methodologies, European Agency for Safety and Health at Work, 2014.

¹⁰ Comparing fatal work injuries in the United States and the European Union, William J. Wiatrowski and Jill A. Janocha, U.S. Bureau of Labor Statistics, Mounthly Labor Review, June 2014.

¹¹ Chantiers de construction: prevention des risqué, logistique et avantage économique, INRS, ED 6186, December 2014.

All these points confirm that the construction sector needs a specific approach to improve occupational safety and health in this sector.

2.4) <u>Construction sites Directive 92/57/CEE</u>

Following the framework Directive 89/391/EEC, the Directive 92/57/CEE on the implementation of minimum safety and health requirements at temporary or mobile construction sites was published.

According to article 6 of the framework Directive, the employers shall implement the necessary measures for safety and health protection of workers on the basis of the general principles of prevention. In order to take into account the specificities of the construction sector, the article 4 of Directive 92/57/CEE adds that the project supervisor, or where appropriate the client, shall also take account of the general principles of prevention concerning safety and health during the various stages of designing and preparing the project.

To make sure that the client, the project supervisor and the employers take their numerous tasks and responsibilities in this field into account, Directive 92/57/CEE introduces the coordinator for safety and health matters at the project preparation and the project execution stage. For further explanations concerning the application of Directive 92/57/CEE, we refer to the non-binding guide¹² of the European Commission.

2.5) Conclusion

This point has presented the specificities of construction works and why the application of the general principles of prevention (Directive 89/391/EEC) requires in this case the active collaboration of the coordinator for safety and health (Directive 92/57/CEE). We also conclude that this coordinator must be able to act with independence and without conflicts of interest from other stakeholders in the same project.¹³

The following points will present:

- Practical benefits of the coordination
- Answers to asked questions during the evaluation
- Recommendations to improve occupational safety and health in the construction sector

3) <u>Benefits of coordination</u>

3.1) Introduction

In this paragraph, we present some concrete or potential benefits of the application of the coordination. These benefits follow from the application of the general principles of prevention by all the concerned according to Directive 92/57/EEC.

The following points show some examples of benefits of safety and health coordination.

¹² Non-binding guide to good practice for understanding and implementing Directive 92/57/EEC, European Commission, 2011. ISHCCO has contributed to this document (see page 184).

¹³ Non-binding guide, pages 41 and 43.

During the project preparation stage, design coordination returns savings of costs and time for projects¹⁴. The PhD Thesis¹⁵ presented by Bianca Maria Vasconcelos Valério at University of Porto analyzed about 2000 accidents occurred during the last years on construction sites focused on benefits for safety and health procure by coordination during the project preparation stage. The conclusions of this thesis were also presented at the 2013 AAA Congress at Düsseldorf¹⁶. The following summary by the author presents the main conclusions of this thesis:

"Accident prevention in the design stage of the project is characterized by proactive and effective actions, and analyzing the risks of accidents at the beginning of the life cycle of the project can ensure that safety measures at the stage of implementation, maintenance and deconstruction are in place. However, due to the resistance to taking responsibility for work place accidents, possible associated costs, and lack of training in safety at work, the designers often do not address safety in their designs.

This thesis aims to contribute to filling this gap by presenting a proposal for a management model of the prevention of risks of accidents at work at the design phase by analyzing accidents at work occurring in the construction sector in order to identify links between the causes of accidents and the designs. To this end, we collected and analyzed 2,002 major accidents and fatal cases occurring in construction worldwide. In order to do this, a method of systematic analysis, the *MAARD-Method of Analysis for Accident Related Design*, was structured and applied. The method, which was validated through a case study, is based on the descriptions of the causes of accidents and of the measures that could be adopted to avoid accidents. In the case of measures which are applicable to designs, the method results in an analysis in which a conclusive answer can be obtained about the existing link between the causes of the accident and the designs in order to then determine the types of designs which could be involved, as well as the guidelines to be implemented in designs. Then, the data were analyzed on a country by country basis, and which was then represented by indicators. Based on the guidelines and information from the analyzes of accidents, a framework was created. The constituent tools of the model - the *MM PtD-Management Model for Prevention through Design* - were then substantiated for the framework.

Upon analysing major and fatal accidents which occurred in countries in which data was collected, it was found that 46.6% to 75.9% of occurrences could have been avoided through safety measures implemented in designs, resulting in an average of 60.8%. When using the lowest percentage found, it can be affirmed that at least 46.6% of work accidents could have been avoided if safety measures had been implemented. These designs involve conceptual designs (the permanent structure designs of the project), and the execution and equipment designs. In reporting major and fatal accidents with causes linked to conceptual designs, the percentages are smaller, ranging from 23.6% to 45%, resulting in an average of 35.1%. Making use of the lowest percentage found, it can be surmised that at least 23.6% of work accidents could have been avoided with adequate safety measures implemented in the conception of designs. Of these, architecture and structure designs were singled out as projects of greater efficacy in the prevention of accidents.

The *MMPtD* was substantiated by the results of the analysis. The *MMPtD* is constituted of four standard operating procedures, four checklists and a form of control. It was concluded that the *MMPtD* provides practical guidance to designers and promotes interaction between design team members, contributing thereby to the enrichment of discussions about technical solutions on safety at work. *MAARD* has been shown to be an effective method for the establishment of links between the causes of accidents and design, and is easy to apply, requiring only basic knowledge of construction and safety at work."

¹⁴ The effects of design coordoination on project uncertainty, David Riley and Michael Horman.

¹⁵ Bianca Maria Vasconcelos Valério, Segurança no trabalho na construção - Modelo de gestão de prevenção de acidentes para a fase de concepção, Tese submetida para satisfação dos requisitos do grau de doutor em engenharia civil, Facultade de engenharia da Universidade do Porto, 2013.

¹⁶ Alfredo Soeiro, ISHCCO (Portugal), Praxis data about prevision of accidents by design – Investigation of more than 1.700 fatal accidents in 7 countries, 2013 AAA Congress at Düsseldorf.

The figures obtained by the PhD Thesis attest that an effective coordination during the project preparation stage contributes clearly to the cut in of the number of accidents during the project execution stage.

3.3) Project execution stage - benefits of prevention

The previous point showed the benefits of coordination during the project preparation stage. This point will show benefits of prevention during the project execution stage.

During the project execution stage, the application of an effective prevention provides economical advantages¹⁷. A recent study of the International Social Security Association leads to the following conclusion¹⁸. The following paragraph is an extract of the conclusions of this study:

"The three most significant cost and benefit types of occupational safety and health are called: [costs] guidance on safety technology and company medical support, investment costs, organizational costs, and [benefits] added value generated by better corporate image, added value generated by increased employee motivation and satisfaction and cost savings through prevention of disruptions. According to the companies interviewed, spending on occupational safety and health is an investment that "pays off" for companies. The Return on Prevention (ROP) is assessed to be 2.2¹⁹."

In case of the construction sector, safety and health coordination contributes actively by its preventive approach to these processes. Doing so, safety and health coordination adds value for the contractors and the workers on the sites.

3.4) <u>Reduction of the number of accidents</u>

In most of the countries, the enforcement of the Directive resulted to a significant reduction of accidents in the construction sector.

For example, Cyprus legislation was harmonised with the directive in 2002. During the period between 2003 to 2013 the Accidents Incident Rate has been decreased by almost 50%. A significant reduction took place during the period 2008 to 2013 (see annex 1 of this document). It is worth to mention that during 2007 and 2008, through a project funded by the European Union, 6,6% of the persons employed in the construction sector (2000 out of 30000) of Cyprus, mostly engineers and management staff employed both in the public and private sectors, participated in an intensive training programme on construction safety. The programmed focused on implementing the prevention principles during the various project stages as well as the safety and health plan and file and the coordination.

This example of Cyprus has shown that the combined application of the Directive and an adapted training program can led to significant reduction of the number of accidents.

3.5) Integration of the subcontractors

One of the specificities of the construction sector is the subcontracting of an important part of the works. Often, there are several levels of subcontracting between the initial contractor and the companies achieving a part of the work. The chain of subcontracting generates loss of information, especially concerning safety and health on site. This was also one of the

¹⁷ 1) Une approche économique de la prevention d'après 101 cas étudiés en enterprise, OPPBTP, ISBN : 978-2-7354-0451-3, mars 2013. 2) Chantiers de construction: prevention des risqué, logistique et avantage économique, INRS, ED 6186, December 2014.

¹⁸ Calculating the international return on prevention for companies: Costs and benefits of investments in occupational safety and health, Final report 2013, ISBN 978-92-843-6182-3, International Social Security Association.

¹⁹ We are underlining.

conclusions of the "Evaluation of the European strategy on safety and health at work 2007- 2012^{20} . The following paragraph is an extract of this document:

"The report on the implementation of Directives 92/57/EEC (mobile construction sites) and 92/58/EEC (OSH signs) has concluded, with regard to the mobile construction sites directive, that the compliance problems identified and the extremely high rate of accidents at work suggest that employers have difficulties in understanding the directive and proposed that non-binding guidance should be produced at the EU level to help all players understand their obligations and rights. This was done by the ACSH in March 2011 and gave rise to a relatively easy to read guidance document²¹, the impact of which at local level is not yet known. The report also highlighted the difficulties in enforcing health and safety provisions in relation to subcontracting, providing further evidence that action on issues related to subcontracting is necessary²²."

One of the benefits of the coordination is that the safety and health coordinator is in contact with all the companies present on site. The coordinator prepares the safety and health plan which includes "the rules applicable to the construction site". These are important information for the contractor and for the subcontractor to take into account. If the chain of subcontracting generates loss of information, the coordinator contributes to a better integration of the subcontractor and their employees.

3.6) <u>Conclusion</u>

The PhD Thesis of Bianca Maria Vasconcelos Valério demonstrates impressively the contribution of the coordination during the project preparation stage to the reduction of the number of accidents on construction sites, and the study of the International Social Security Association shows clearly the benefits of prevention during the project preparation stage, including the contribution of the safety and health coordinator.

Like the example of Cyprus has shown, the application of the Directive, combined with an adapted training program, has led to significant reduction of the number of accidents.

All these figures corroborate the added value of the preventive approach. Safety and health coordination contributes actively to these processes.

4) <u>Questions</u>

4.1) Introduction

The already mentioned information for tender²³ asks some questions to investigate during the evaluation of the Directives.

Two of these questions dealt with the concerns of ISHCCO. The following points present our answers to question 5 concerning effectiveness and question 1 concerning coherence and complementarity.

2011. ISHCCO has contributed to this document (see page 184).

²⁰ Evaluation of the European strategy on safety and health at work 2007-2012, Final Report, COWI, March 2013. ²¹ Non-binding guide to good practice for understanding and implementing Directive 92/57/EEC, European Commission,

 $^{^{22}}$ We are underlining.

²³ Paragraph 5.1.1. of this document: Subject matter to be covered by the study.

4.2) Effectiveness

Question 5 concerning effectiveness:

"What benefits (e.g. reduction in working days lost due to work related accidents or health problems; reductions in number or severity of work related accidents or health problems) and costs arise for society and employers (including compliance costs and administrative burden) as a result of fulfilling the requirements of the Directives, such as carrying out risk assessment, risk management measures, providing training and information, consultation of workers, protective and preventive services, health surveillance?"

Answer of ISHCCO:

The PhD Thesis presented above permits to show the benefits of an effective application of Directive 92/57/EEC during the project preparation stage. Like only the accidents happend are known, and not those avoided, we can only refer to statistics of the last 20 years to conclude that the system based on the Directives is effectif²⁴.

The compliance costs and administrative burden have to be compared with the real costs of accidents. Several studies²⁵ have shown that "society bears the largest part of the costs created by accidents at work and ill-health, followed by individuals. Employers bear the smallest part of these costs. ... This means that employers will continue to have weaker than optimal incentives to reduce occupational safety and health risks".

Furthermore, statistics have shown a clear correlation between competitiveness and the incidence of accidents at work²⁶ (see figure annex 2). "Countries with the best records on accidents at work are the most competitive leading to the conclusion that poor working conditions put a heavy burden on the economy and hinder economic growth."²⁷

Finally, we believe that the compliance costs and administrative burden of the application of point 4 of article 6 of Directive 89/391/EEC will be appreciably higher for each employer, than their collaboration in the safety and health coordination according to Directive 92/57/EEC.

4.3) <u>Coherence / Complementarity</u>

Question 1 concerning coherence / complementarity:

"What, if any, inconsistencies, overlaps, or synergies can be identified across and between the Directives (for example, any positive interactions improving health and safety outcomes, or negative impact on the burdens of regulation)?"

Answer of ISHCCO:

We don't have identified inconsistencies, overlaps or synergies between to two Directives concerned by construction sites. However, we believe that a more consistent application of the Directives will lead to still better results. This requires on the one hand a better adaptation of

²⁴ The data available from the different countries are not easily comparable, because the methods of evaluation differ from one country to the next. Annex II of this document shows figures concerning Cyprus.

²⁵ Socio-economic costs of accidents at work and-related ill health, Final Report published by the European Commission, 2011, pages 44 to 50.

²⁶ ILO, Occupational safety and health: synergies between security and productivity, 2006. Accessed from:

www.ilo.org/public/english/protection/safework/econo/barefoot.pdf and also mentionned by Socio-economic costs of accidents at work and-related ill health, Final Report published by the European Commission, 2011, page 24.

²⁷ Socio-economic costs of accidents at work and-related ill health, Final Report published by the European Commission, 2011, page 24.

incentives to SME^{28} , and on the other hand that the education programmes incorporate occupational health and safety aspects.

That's why ISHCCO lays stress on resolution 70 of the European Parliament of 15 December 2011 on the mid-term review of the European strategy 2007-2012 on health and safety at work²⁹:

"70. Calls on the Member States to incorporate <u>OHS from the start of training and subsequently as</u> <u>part of lifelong learning</u>; believes it would be desirable to make **risk education** part of certain technological, scientific, artistic and sporting education programmes, as well as in management training courses; <u>encourages Member States to incorporate OHS into university teaching</u>, so that it reaches future **engineers, architects**, business people, managers, etc;³⁰"

The European Parliament has confirmed this resolution by his resolution of 12 September 2013 on the European strategy on health and safety at work³¹.

The fact that this resolution mentions first "engineers, architects" to reach by the "risk education" underlines that construction industry needs special attention.

5) <u>Recommendations of ISHCCO</u>

5.1) Introduction

The application of the transposition of the Directive in the different member states and the practical experience of numerous coordinators in all these countries, allow ISHCCO to present several recommendations to improve the application of the Directive, not only on construction sites, but also during subsequent works.

5.2) Effective risk prevention at the planning stage

The PhD Thesis presented above concludes that effective risk prevention during the project preparation stage allows a significant reduction of number of accidents during the project execution. The risk prevention during the project preparation stage contributes also to the safety and health during subsequent works (see next point).

That's why ISHCCO lays stress on resolution 14 of the European Parliament of 15 December 2011 on the mid-term review of the European strategy 2007-2012 on health and safety at work³²:

"14. Believes that a genuinely effective accident prevention policy has to start at the planning stage so as to ensure that the greater safety resulting from <u>innovation</u> will extend to both the <u>product</u> and the entire <u>production process</u>; calls on the Commission and the Member States, therefore, to support and encourage research in this field;³³"

The European Parliament has confirmed this resolution by his resolution of 12 September 2013 on the European strategy on health and safety at work³⁴.

In case of construction, the words of this resolution we have underlined lay stress on some specific matters already presented above:

²⁸ The construction sector consists mostly of small and medium-sized enterprises, and FIEC estimates that 95% of these enterprises have fewer than 20 employes (mentioned by: Non-binding guide to good practice for understanding and implementing Directive 92/57/EEC, European Commission, 2011, page 3).

²⁹ Official Journal C 168 E of the European Union – Information and Notices – Volume 56 – 14 June 2013.

³⁰ We are writing in bold and underlining.

³¹ <u>http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=FR&reference=P7-TA-2013-385</u>

 $^{^{32}}$ Official Journal C 168 E of the European Union – Information and Notices – Volume 56 – 14 June 2013. ³³ We are writing in bold and underlining.

³⁴ <u>http://www.europarl.europa.eu/sides/getDoc.do?type=TA&language=FR&reference=P7-TA-2013-385</u>

- Innovation: each project is a prototype (other contributors, specificities of the site and its environment, new technics, ...)
- Product: the building to construct or the civil engineering works to achieve
- Production process: the carrying out of the works

5.3) The subsequent works – the hidden risks

Beside the works on sites, the subsequent works are also concerned by the general principles of prevention of the framework Directive 89/391/EEC. The points 5 (conversion or fitting-out), 6 (alterations), 7 (renovation), 8 (repairs), 11 (upkeep) and 12 (maintenance – painting and cleaning works) of annex I of Directive 92/57/EEC often concern subsequent works.

According to article 5 of the Directive 92/57/CEE, the coordinator during the project preparation stage prepares, and the coordinator during the project execution stage completes, the file appropriate to the characteristics of the project containing relevant safety and health information to be taken into account during any subsequent works.

ISHCCO lays stress on the following points to improve the application of the general principles of prevention during subsequent works:

- A point has to be adding to article 4 of Directive 92/57/CEE saying that during the project preparation stage, the project supervisor has also to consider the general principles of prevention for the subsequent works.
- Several points of Annex I of Directive 92/57/CEE concern subsequent works. The Directive has to make clear that for subsequent works, the application of the general principles of prevention by the employer includes to take into account information from the file appropriate to the characteristics of the project.

Doing so, the coordination procures not only add value during the few months or years of the execution stage, but also for the numerous subsequent works during the whole life of the construction. By add value, we don't only think to safety and health conditions of the employees executing the subsequent works, but also to the safe of money for the owner of a building if an effective execution of the subsequent works was foreseen from the project preparation stage.

This shows that an independant safety and health coordinator can add value not only during the construction stage, but to the whole life cycle of constructions.

5.4) <u>The training of the coordinator</u>

Directive 92/57/EEC gives any information about the training of the coordinator for safety and health, taking into account the initial and specific training, and the specific experience required for the different types of construction projects.

Concerning the initial and specific training of the coordinators, the different countries have set up their one specification, with important differences from one country to the other³⁵. The result of this is that the coordinators have important difficulties to offer their services out of their origin country. To reduce these difficulties ISHCCO suggest to set up an European certification scheme for coordinators³⁶. These processes will increase the visibility of the coordinators and improve the comprehension of the mission of the coordinators by all the other involved parties.

³⁵ Franz Weiss, ISHCCO (Österreich), Vergleich über die Ausbildung zum Sicherheits- und Gesundheitsschutz-Koordinator in Europa, 2013 AAA Congress at Düsseldorf.

³⁶ 1) Philip Baker, ISHCCO (UK), Certification scheme, 2013 AAA Congress at Düsseldorf / 2) Alfredo Soeiro and Philip Baker, A qualification scheme for all co-ordinators – Benchmarking with the European Qualification Framework (EQF) and the European Professional Card (EPC), 2015 AAA Congress at Düsseldorf.

5.5) How to select a coordinator

Directive 92/57/EEC gives any criterion for the client how to choose a coordinator for his specific project, taking into account the training and the specific experience of the coordinator. In order to give some guide lines to the client to choose a coordinator, a norm³⁷ is in process of preparation in France. The objective is to define some criterion to chose a coordinator, taking into account the specificities of the project and the practical experience and abilities of the coordinator.

Doing so, the coordination will clearly add value to the project for justified fees, instead of just be perceived as add cost.

5.6) Safety and Health Plan

According to article 5-(b) of the Directive, the safety and health plan drawn up during the project preparation stage has to include "the rules applicable to the construction site" and "specific measures concerning work which falls within one or more of the categories of Annex II". These are important information for the contractor (employer) to take into account.

ISHCCO suggests that the safety and health plan drawn up during the project preparation stage has to be included in the tenders documents.

³⁷ Projet de norme AFNOR Nr. NF P 99-600: « Bonnes pratiques de consultation et d'évaluation des offres de coordination en matière de sécurité et de protection de la santé (SPS) à l'attention des maîtres d'ouvrages » in process of preparation. The working group is chaired by Roger Piotto, President of GOC.sps.

6) <u>Conclusions</u>

This study leads to the following conclusions concerning the application of the EU occupational safety and health Directives on construction sites in general, and the contributions of the safety and health coordinator in particular:

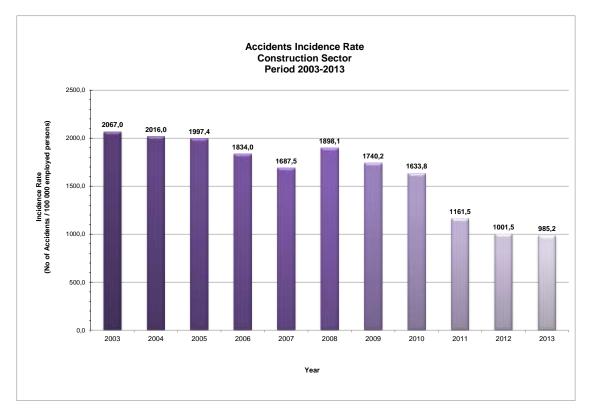
- 1. The consistent application of the general principles of prevention (Directive 89/391/EEC) by the numerous interveners during the realization of a construction project is only possible if the safety and health coordinator (Directive 92/57/CEE) contributes by his multidisciplinary experience to this objective.
- 2. Within this scope, the rule of the coordinator is not to prescribe solutions or to restrict freedom of conceiving. The rule of the coordinator is to safeguard safety and health of those who will construct and maintain constructions.
- 3. The coordinator must be able to act with independence and without conflicts of interest from other stakeholders in the same project.
- 4. The figures presented in this study corroborate the <u>added value</u> of the preventive approach. The safety and health coordinators contribute actively by their multidisciplinary experience and approach to these processes.

On the basis of the conclusions of the evaluation, and taking into account the EU Strategic Framework on Health and Safety at Work 2014-2020³⁸, ISHCCO will continue to promote high level contributions of safety and health coordinators.

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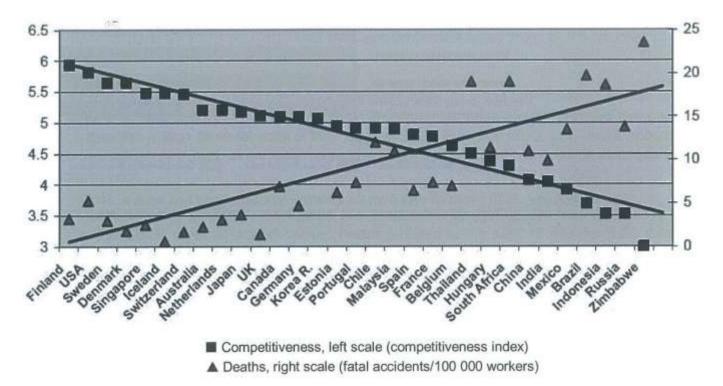
³⁸ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on an EU Strategic Framework on Health and Safety at Work 2014-2020, European Commission, COM(2014) 332 final.

Annex 1 : Figures from Cyprus



Source: Cyprus Association of Civil Engineers

<u>Annex 2: Coorelation between Competitiveness and the incidence of accidents at work</u>



<u>Source</u>: ILO, Occupational safety and health: synergies between security and productivity, 2006. Accessed from: <u>www.ilo.org/public/english/protection/safework/econo/barefoot.pdf</u> and also mentionned by Socio-economic costs of accidents at work and-related ill health, Final Report published by the European Commission, 2011, page 24.