A Designer's Perspective of the European Directive

Temporary & Mobile Construction Sites Directive 92/57/EEC

Paul Bussey
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SCOTT BROWNRIGG

UNITED BY OUR DIFFERENCE WSP

Judith Hackett – Chair HSE

The HSE is reviewing all it's guidance

to ensure it is practical and proportionate and helps organisations understand and comply with health and safety law.

Why?

- To ensure it is clear and fit for purpose;
- To make the law simpler and less bureaucratic for all businesses
- Making Britain more growth-focused by easing the burden of bureaucracy on all businesses.

And to ensure H&S "Myths" are busted

The Construction Industry “Disconnect”

Other drivers for change:-

Professor Lofstedt-

Too many different CDM interpretations
Too much trivial risk assessment
Bureaucratic nightmares
Much confusion over SFARP
ACOP’s need simplification

Lord Young of Graffham

Reasonable NOT ‘All risk’ approach
Disproportionate compensation culture
Reduce overzealous H&S approaches

CDM 2007 Evaluation Report

Poor coordination & cooperation
Too much competence assessment
Improve value generally & H&S standards on small sites

Not just a political agenda?

What is the Essence of CDM ?

Designer duties under other GB legislation (ie. non-CDM)

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H&S at Work Act 1974

Requires:-

Employers & self-employed to ensure, SFARP, that persons who may be affected are not exposed to risks

Employees to take reasonable care …..for the health and safety of himself and of other persons who may be affected by his acts or omissions at work

Communication & Interpretation are key?

What really is SFARP !!!!!

Designer duties under other GB legislation (ie. non-CDM)

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Management of H&S at Work Regulations 1999

Requires:-

Employers & self-employed to make suitable and sufficient assessment of risks to non-employees

Employers & self-employed to apply the principles of prevention

Proportionately and to everyone

P..p..p..p..principles of x * ! @ ?

The EU Framework Directive 1989 "…workers at work"

- All workers to be responsible (afap) for their own health & safety and for that of others affected.
- Employers to ensure the safety of workers unless unusual and unfore-seeable circumstances and events
- Workers must have necessary capabilities and means
- Persons consulted must have necessary aptitudes and personal and professional means
- Workers and persons consulted must be sufficient in number
- Member States to define necessary capabilities & aptitudes

Proportionate Health & Safety and "training"

What is competence?
Surely the Trades & Professions know?

The EU Directive 1992 “Temporary and Mobile Construction Sites”

Need for the TMCS Directive :-

Unsatisfactory architectural organizational options and poor planning at Project Preparation Stage have “played a role” in 50% of accidents on Construction Site’s

Inadequate coordination of various undertakings at Project Preparation and Execution Stages “may have caused” many accidents

How could this be improved……
by better guidance?

A big ask?

Guidance
EU -2011

ACOP
UK- 2007

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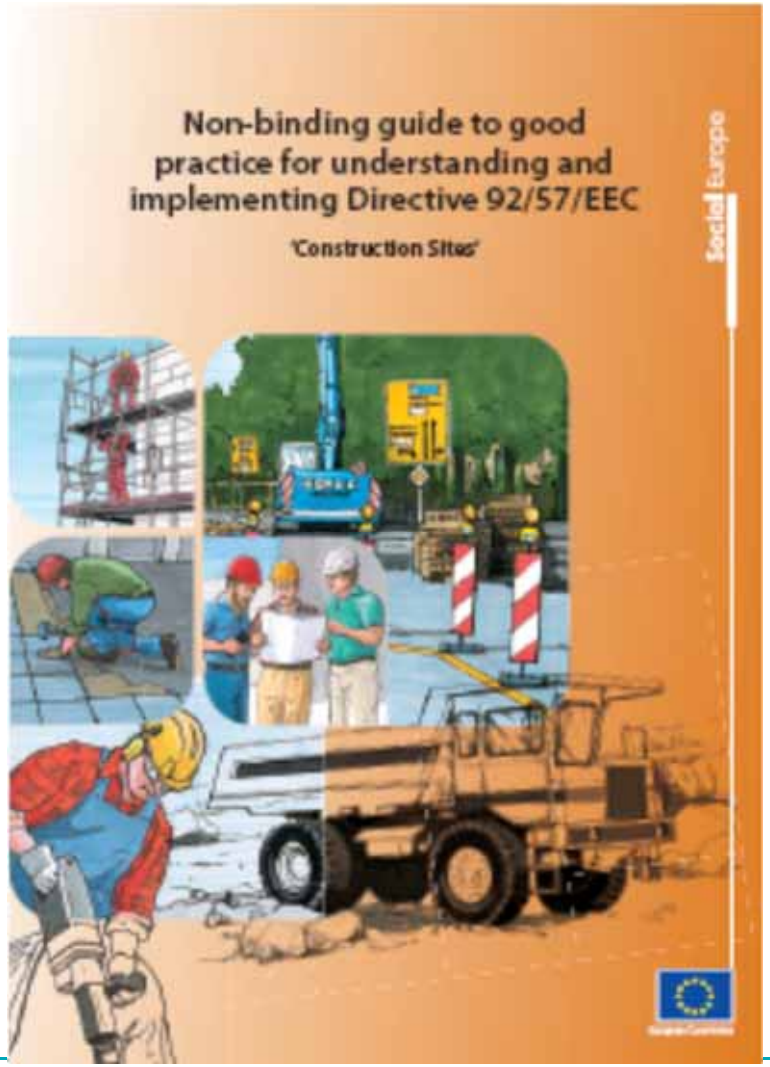
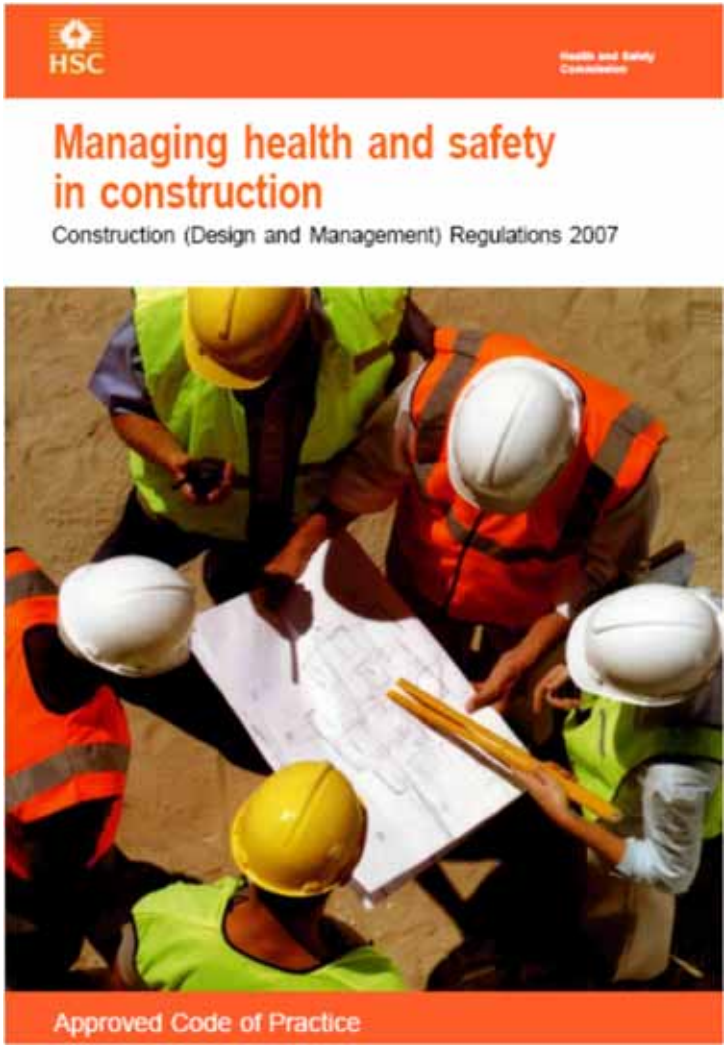
185 Pages



Both very long and complex documents?

HSE target 32 Pages for New ACOP's?

122 Pages



Tertiary Guidance

EU

None

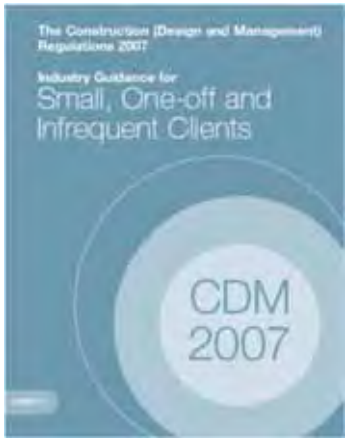
Is this necessary?

The relevant information is in the Non - Binding Guidance?

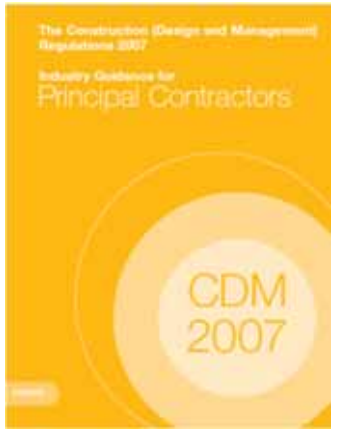
Simplification is the key

Avoids additional bureaucracy

UK- All dutyholders



Additional 300 All Approx. 50 pages



Colour Coding & Contents

EU

UK

Both use colour coding

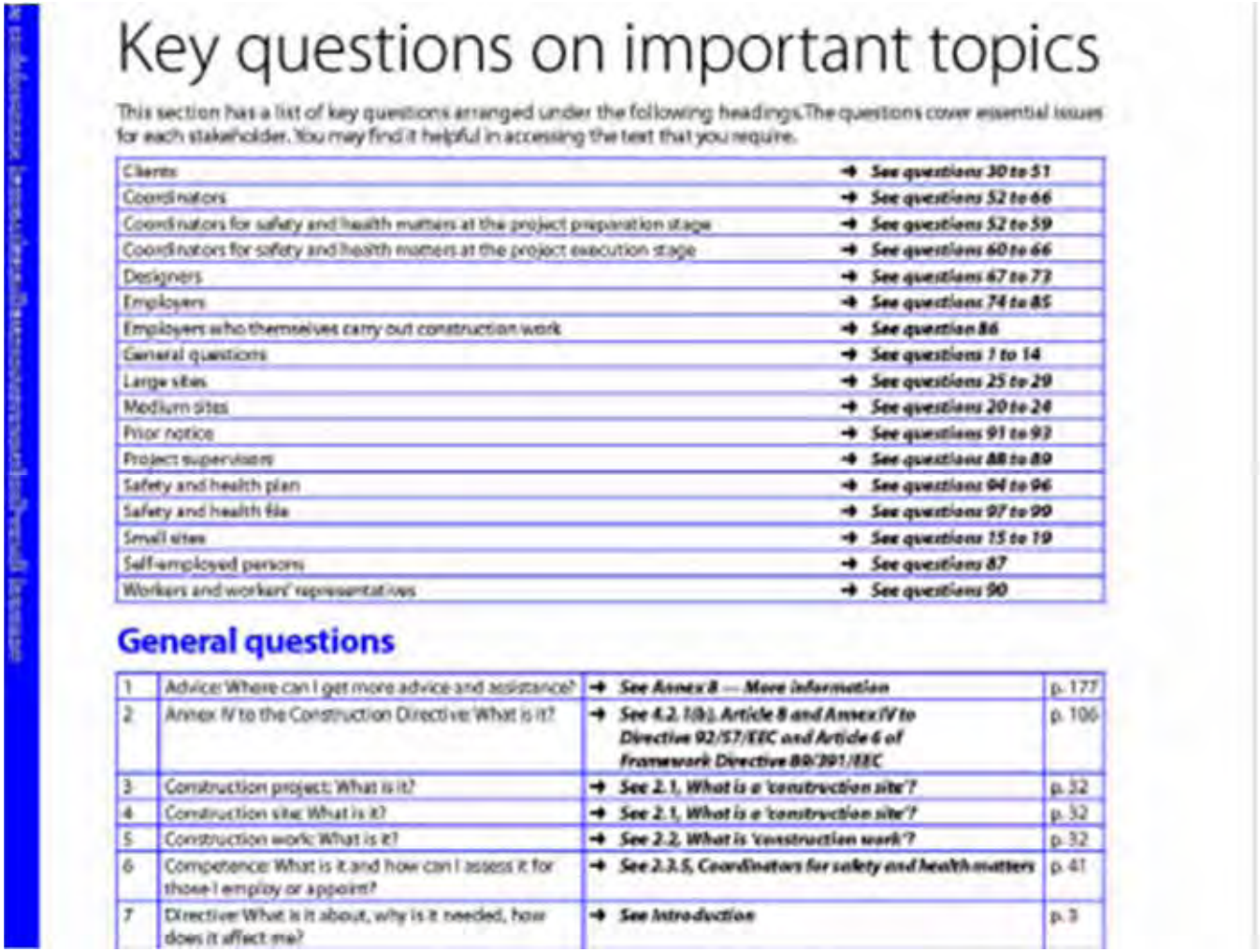
EU more intuitive

EU easier to browse

Search by Questions

EU

UK



Key questions on important topics

This section has a list of key questions arranged under the following headings. The questions cover essential issues for each stakeholder. You may find it helpful in accessing the text that you require.

Clients	→ *See questions 30 to 51*
Coordinators	→ *See questions 52 to 66*
Coordinators for safety and health matters at the project preparation stage	→ *See questions 52 to 59*
Coordinators for safety and health matters at the project execution stage	→ *See questions 60 to 66*
Designers	→ *See questions 67 to 73*
Employers	→ *See questions 74 to 85*
Employers who themselves carry out construction work	→ *See question 86*
General questions	→ *See questions 1 to 14*
Large sites	→ *See questions 25 to 29*
Medium sites	→ *See questions 20 to 24*
Prior notice	→ *See questions 91 to 93*
Project supervisors	→ *See questions 88 to 89*
Safety and health plan	→ *See questions 94 to 96*
Safety and health file	→ *See questions 97 to 99*
Small sites	→ *See questions 15 to 19*
Self-employed persons	→ *See questions 87*
Workers and workers' representatives	→ *See questions 90*

General questions

1	Advice: Where can I get more advice and assistance?	→ *See Annex B — More information*	p. 177
2	Annex IV to the Construction Directive: What is it?	→ *See 4.2.1(b), Article 8 and Annex IV to Directive 92/57/EEC and Article 6 of Framework Directive 89/391/EEC*	p. 106
3	Construction project: What is it?	→ *See 2.1, What is a 'construction site'?*	p. 32
4	Construction site: What is it?	→ *See 2.1, What is a 'construction site'?*	p. 32
5	Construction work: What is it?	→ *See 2.2, What is 'construction work'?*	p. 32
6	Competence: What is it and how can I assess it for those I employ or appoint?	→ *See 2.3.5, Coordinators for safety and health matters*	p. 41
7	Directive: What is it about, why is it needed, how does it affect me?	→ *See Introduction*	p. 3

No index or equivalent in ACOP

Difficult to navigate

Not easy for infrequent users to find key issues fast

Search by Topic

EU

UK

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Index by topic

Topic	Where can I find the main information on this topic
Advance works	p. 82, 94
Alteration	p. 84
Asphyxia	p. 75
Biological substances	p. 63, 64
Burial under earth fall	p. 64, 108
Burns	p. 70–74
Chemical substances	p. 65
Client	p. 36, 85, 93
Collective protective measures	p. 18, 21, 28, 101, 103
Compressed air caissons	p. 63, 66
Construction site	p. 32
Construction stage	p. 109
Construction work	p. 32
Contractor (including subcontractors)	p. 54
Conversion	p. 34
Coordinators for safety and health matters	p. 41
Coordinator for safety and health matters at the project preparation stage	p. 44
Coordinator for safety and health matters at the project execution stage	p. 46
Demolition	p. 35
Design stage	p. 82
Designers	p. 40
Directive 92/57/EEC	p. 3, 18, 32, 70, 80, 132
Dismantling	p. 35
Diving	p. 66
Drainage	p. 33
Drowning	p. 65
Dust	p. 74, 107
Earthworks	p. 33, 65
Electricity	p. 70
Employer	p. 4, 18, 50
End of construction stage	p. 109
Excavations in unsupported	p. 64

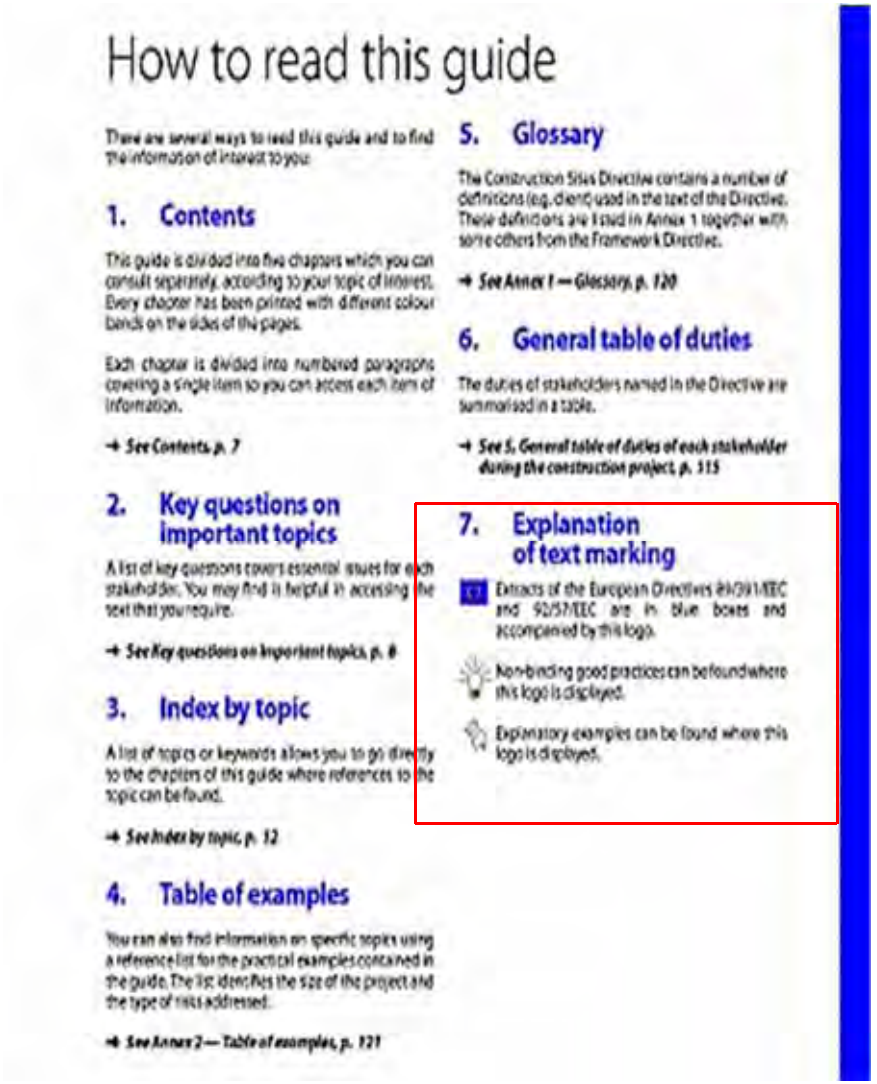
No equivalent in ACOP

Topic searches are most designer preferred entry level

Format of Guidance

EU

UK



How to read this guide

There are several ways to read this guide and to find the information of interest to you:

1. Contents

This guide is divided into five chapters which you can consult separately, according to your topic of interest. Every chapter has been printed with different colour bands on the sides of the pages.

Each chapter is divided into numbered paragraphs covering a single item so you can access each item of information.

→ *See Contents, p. 7*

2. Key questions on important topics

A list of key questions covers essential issues for each stakeholder. You may find it helpful in accessing the text that you require.

→ *See Key questions on important topics, p. 8*

3. Index by topic

A list of topics or keywords allows you to go directly to the chapters of this guide where references to the topic can be found.

→ *See Index by topic, p. 12*

4. Table of examples

You can also find information on specific topics using a reference list for the practical examples contained in the guide. The list identifies the size of the project and the type of risks addressed.

→ *See Annex 2 — Table of examples, p. 121*

5. Glossary

The Construction Sites Directive contains a number of definitions (e.g. client) used in the text of the Directive. These definitions are listed in Annex 1 together with some others from the Framework Directive.

→ *See Annex 1 — Glossary, p. 120*

6. General table of duties

The duties of stakeholders named in the Directive are summarised in a table.

→ *See 5. General table of duties of each stakeholder during the construction project, p. 115*

7. Explanation of text marking

EU Extracts of the European Directives 89/391/EEC and 92/57/EEC are in blue boxes and accompanied by this logo.

Non-binding good practices can be found where this logo is displayed.

Explanatory examples can be found where this logo is displayed.

Introduction

1 The Construction (Design and Management) Regulations 2007 (CDM2007) come into force on 6 April 2007. They replace the Construction (Design and Management) Regulations 1994 (CDM94) and the Construction (Health, Safety and Welfare) Regulations 1996 (CHSW). This Approved Code of Practice (ACOP) provides practical guidance on complying with the duties set out in the Regulations. It replaces the ACOP to the Construction (Design and Management) Regulations 1994 from 6 April 2007.

2 The key aim of CDM2007 is to integrate health and safety into the management of the project and to encourage everyone involved to work together to:

(a) improve the planning and management of projects from the very start;

(b) identify hazards early on, so they can be eliminated or reduced at the design or planning stage and the remaining risks can be properly managed;

(c) target effort where it can do the most good in terms of health and safety; and

(d) discourage unnecessary bureaucracy.

3 These Regulations are intended to focus attention on planning and management throughout construction projects, from design concepts onwards. The aim is for health and safety considerations to be treated as an essential, but normal part of a project's development – not an afterthought or bolt-on extra.

4 **The effort devoted to planning and managing health and safety should be in proportion to the risks and complexity associated with the project. When deciding what you need to do to comply with these Regulations, your focus should always be on action necessary to reduce and manage risks. Any paperwork produced should help with communication and risk management. Paperwork which adds little to the management of risk is a waste of effort, and can be a dangerous distraction from the real business of risk reduction and management.**

5 Time and thought invested at the start of the project will pay dividends not only in improved health and safety, but also in:

(a) reductions in the overall cost of ownership, because the structure is designed for safe and easy maintenance and cleaning work, and because key information is available in the health and safety file;

(b) reduced delays;

(c) more reliable costings and completion dates;

(d) improved communication and co-operation between key parties; and

(e) improved quality of the finished product.

Typical operating and owning costs of a building* are in the ratio:

- 1 for construction costs
- 5 for maintenance and building operating costs
- 200 for business operating costs

*Report of the Royal Academy of Engineering on The long term costs of owning and using buildings (1998)

Simple explanation of format

No clear explanation of format?

Page Layout & Visual References

EU

UK

1.2.1 Avoiding risks

1.2.2 Evaluating the risks which cannot be avoided

ACOP

Designers

Regulations 17 and 20

ACOP

Who are designers?

Regulation 2

Visually clear, sections, easy to browse

Legislative look, jargon, not easy to browse

Simple Practical Examples

EU

1.2.1 Avoiding risks

One way of avoiding risk is to eliminate entirely the hazard that gives rise to the risk.

Example 3:
There are hazards from entering confined spaces in sewage treatment plants such as underground chambers associated with surface and foul water systems. However, if the design is changed so that such places are open to the general atmosphere and well ventilated, those hazards will not be present.

Example 4:
On a small domestic extension the architect specified the use of dry lining, thus avoiding the need for cutting and chasing masonry for the installation of electrical and other services. This avoided the risks to the health of the workers from dust, noise and vibrations.

If a hazard cannot be eliminated, it may still be possible to avoid some of the risks. For instance, there are hazards associated with many work activities that cannot be entirely eliminated; however, there are often alternative ways of completing the work that avoid some, if not all, of the risks. It is useful to think as broadly as possible and not be constrained by custom and practice.

Example 5:
Block-laying involves repetitive lifting actions. Lifting dense heavy blocks can cause musculoskeletal problems. The risk of injury can be reduced by specifying alternatives such as smaller or lighter blocks.

Simple & useful examples

UK

Designers

109 Designers are in a unique position to reduce the risks that arise during construction work, and have a key role to play in CDM2007. Designs develop from initial concepts through to a detailed specification, often involving different teams and people at various stages. At each stage, designers from all disciplines can make a significant contribution by identifying and eliminating hazards, and reducing likely risks from hazards where elimination is not possible.

110 Designers' earliest decisions fundamentally affect the health and safety of construction work. These decisions influence later design choices, and considerable work may be required if it is necessary to unravel earlier decisions. It is therefore vital to address health and safety from the very start.

Example 9

On a major office development with a large central atrium, the electrical contractor highlighted an innovative product for the roof glazing that was unknown to the other team members, including the designers. This was a double glazed unit incorporating internal prismatic reflectors.

It removed the problem of glare and the need for high-level roller blinds. It was virtually maintenance free, and led to significant savings over the life the building, and significantly reduced the need to work at height.

No visual aides
All written text
Examples relatively obscure

References in non-binding guidance to designers

No specific reference to designers in the Directive.

Project supervisor is responsible for the design &/or execution &/or supervision of the execution of a project and can include designers acting on behalf of a client.

Designer's must take account of the general principles of prevention during the various stages of designing the project.

- **Proportionately……**

Large amounts of bureaucracy are positively dangerous

References to designers in non-binding guidance

The Framework Directive also requires employers to apply the principles of prevention.

Designers acting on behalf of other stakeholders should take account of the general principles of prevention so that they reduce the on-site risks to workers……..not users.

Simple Risk Management

Not ill-considered and overprotective actions, and not “in use” issues

TMCS Directive Applicability Requirements

No definition of a “project” except that it is work for a client and includes building or civil engineering work including repairs and maintenance

Applies to construction workers & does not apply to the safety and health of the “users” of the finished project, only maintenance use.

Appointment of coordinator(s) required for H&S matters for any sites where there is more than one contractor present

Small, simple projects are exempt by reason of proportionality of risk and trade contractor competence…..

TMCS Directive Notification Requirements

No ‘domestic’ client exemption but

Notification, to HSE, by client or project supervisor, of all sites on which:

work is scheduled to last more than 30 working days and involve more than 20 workers at one time;

OR more than 500 person days of work

Relatively Simple

Project Supervisor / Coordinator ‘design’ functions

Project supervisor is responsible for

- the design
- execution of a project
- supervision of the execution of a project

And shall consider the general principles of prevention

Project “preparation stage” coordinator

To coordinate implementation of taking account of the principles of prevention

during design

Project “execution stage” coordinator…..

during construction

Coordination still required but by whom?

Appoint those most appropriate to coordinate the risks?

Competence…….but proportionately.

Competence is not mentioned directly in the TMCS Directive however:-

The Principles of prevention require consideration of the individual's capabilities as regards health and safety when entrusting tasks to them.

There is therefore a need for more specific training of capabilities within workers & designers and a better understanding of proportionate NOT "all risk" in the rest of the Construction Industry.

Reasonable Competence

'...are the stakeholders trained and competent?'

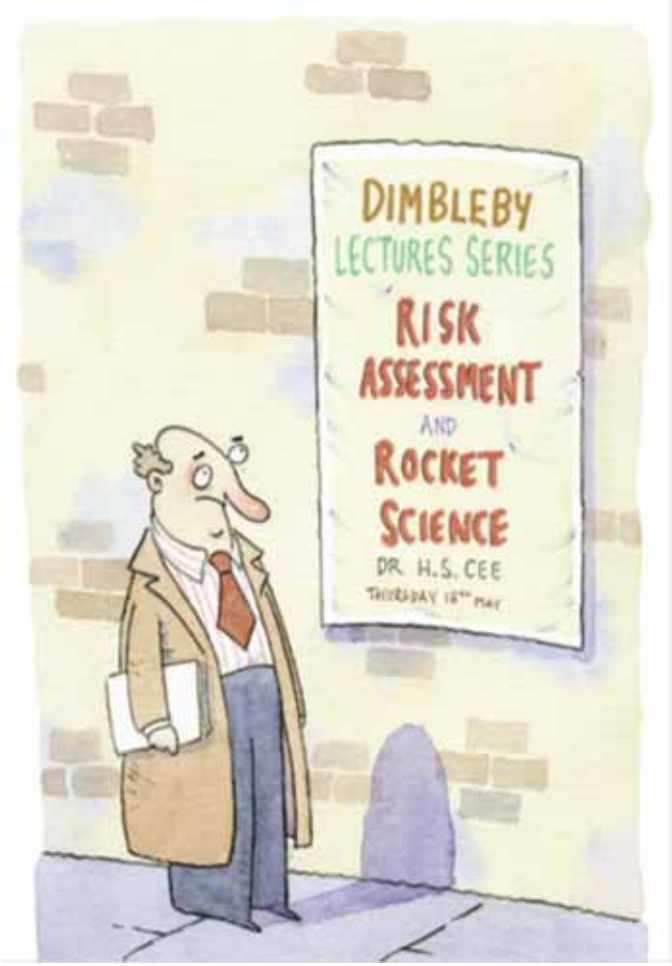
Principles of Prevention……& rocket science

Principles of prevention apply to all stakeholders and provide a broad strategy for risk control:-

- Avoiding risk;
- Evaluating risks which can't be avoided;
- Combating risks at source;
- Adapting work to the individual;
- Adapting to technical progress;
- Replacing dangerous by non or less dangerous;
- Developing a coherent overall prevention policy;
- Giving priority to collective protection measures;
- Giving appropriate instruction to employees.

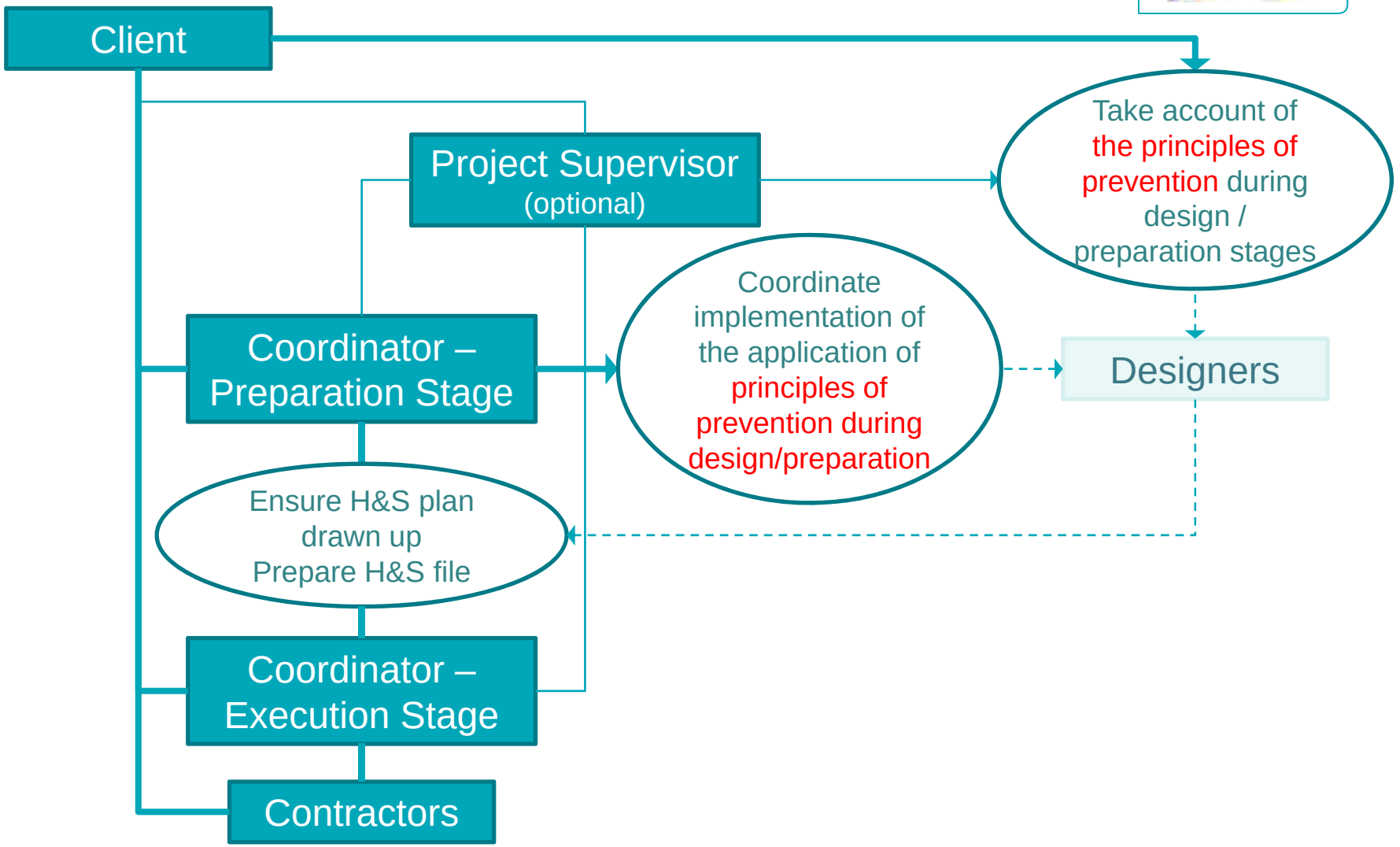
No reference to ERIC or SFARP…. but implied?

A framework for integrated team discussions.



It's not that difficult …….!

TMCS Directive Design Responsibilities



Summary of key differences for designers?

EU - TMCS	UK- CDM
All Construction Sites with multiple contractors	All qualifying Projects plus Use as Workplaces. Why? This is gold-plating?
Pragmatic & proportionate application to all sizes of projects inc. small sites	Domestic exemptions? Why not all projects because proportionality exempts smallest?
Functions- Only Client & Project Supervisors plus Coordination	Duties & Roles of Client, Designers, Principal Contractors, CDM-Coordinators ? Not clear?
Project Preparation -includes buildability	Pre-Construction- Poor construction input?
Project Execution – includes design	Construction Phase Poor design input?
Competence not included- implicit & expected from trades & professions	Competence expressed? Why? Trade competences not compulsory in UK.

Proportionate and Practical Health and Safety

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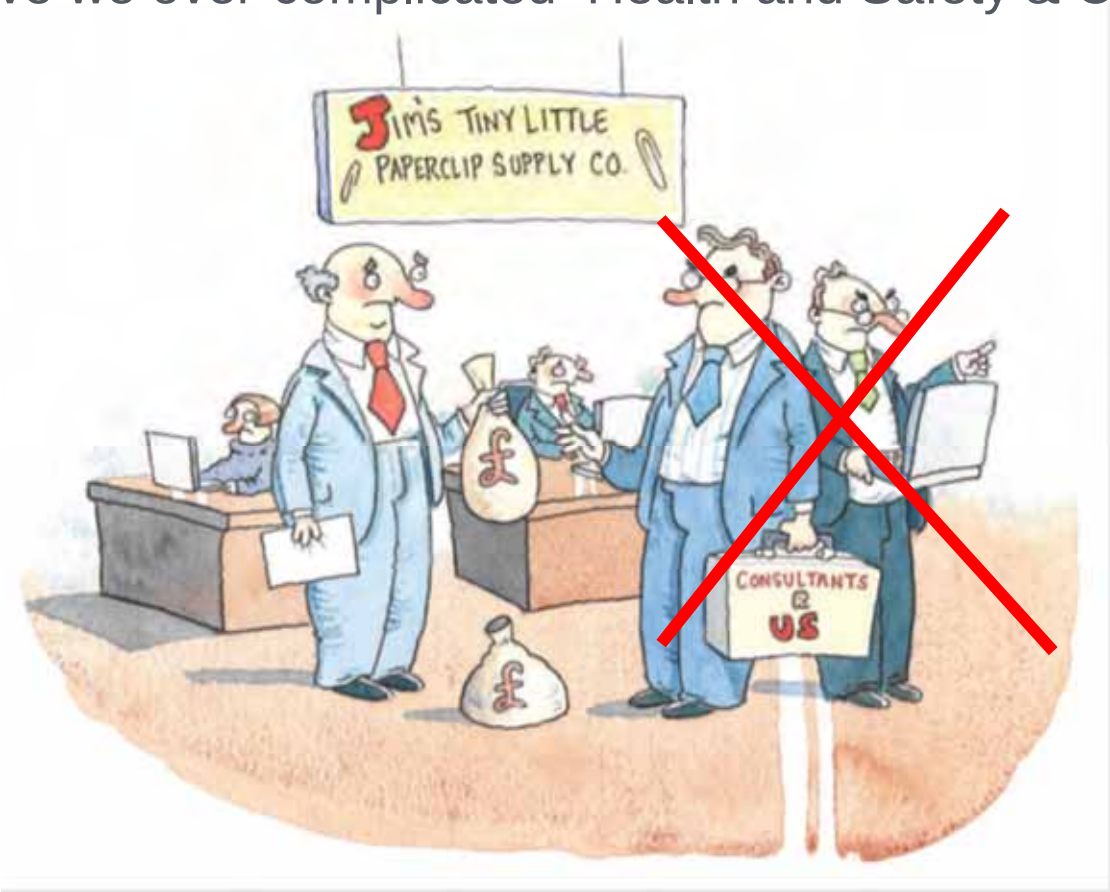
Why have we over-complicated Health and Safety & CDM in the UK?



The Directive encourages business & growth with H&S Compliance

Public Consultation ……..?????

2013??

Designers would like:-

- more simplification of regs
- more clarity of regs
- less guidance
- Sfarp clarified by industry
- Proportionality accepted
- Better H&S coordination
- Better design & value
- Better H&S for all.

Collaboration and implementation

All we need to do is agree and apply them, proportionately?
Thank-you