effective SOFTWARE

THE FUTURE OF ISO 45001

Is a truly international standard for OH&S management an impossible dream that will never be achieved?

Standards for products make sense. The harmonized EN standards for equipment provide a means of ensuring that when you buy equipment you know it will have been through a process of design, manufacture and testing which makes it safe to use.

But does it make sense to apply the same model to management processes? In particular, does it make sense to apply standardization to OH&S management?

1 INTRODUCTION

READERSHIP & SCOPE

This document assumes a basic understanding of occupational health and safety (OH&S) management systems. If you need to know more about OH&S management systems take a look at the HSE website[i].

Although some examples from the text of ISO/DIS2 45001 are included, this document does not seek to outline the contents of the standard in detail. For more information on ISO 45001 and how it maps to BS OHSAS 18001 see the BSI[ii] website. Other commentaries[iii] are available too.

This paper does not necessarily represent the opinions of Effective Software – its aim is to raise questions about the pros and cons of using an ISO standard and certification process to manage safety, and to consider some of the alternatives.

Understanding what it does well, and what it doesn't do will leave you better prepared to manage OH&S in your business, whether your organization adopts ISO 45001 or not.

QUESTIONS RAISED

Is a truly international standard for OH&S management an impossible dream that will never be achieved? Will local interests – cultural differences in how we see risk, in how organizations relate to their workers, in the role of regulators – always win out, so that whatever the standard says, some people will never be happy? And if we get a standard agreed, will it make a difference to safety? Will it be a tick-box exercise, increasing what safety thinkers such as Sidney Dekker refer to as the bureaucratization of health and safety? Or can it result in fewer lives lost and better protection of workers' health?

Standards for products make sense. The harmonized EN standards for equipment such as ladders and PPE provide a means of ensuring that when you buy equipment you know it will have been through a process of design, manufacture and testing which makes it safe to use.

But does it make sense to apply the same model to management processes? In particular, does it make sense to apply standardization to OH&S management?

Before we consider the future, let's think about the past.

"IS A TRULY INTERNATIONAL STANDARD FOR OH&S MANAGEMENT AN IMPOSSIBLE DREAM THAT WILL NEVER BE ACHIEVED?"

2 THE HISTORY

Standardization (BSI spell it with a 'z' so we will too) is considered to have started at the end of the 18th Century for two purposes – to enable employers to use less skilled (cheaper) labour, and to improve military efficiency. The first customer of Whitworth's standardized screws was the Woolwich Arsenal, whilst in the USA the first products to undergo mass standardization were guns with interchangeable parts for the US Government armies. Meanwhile the industrial revolution was fuelled by taking work away from skilled individuals, standardizing tasks, and setting up unskilled people on production lines. Whilst the spinners, carpenters and blacksmiths could vary their tasks and control their own rate of labour, new jobs were monotonous, noisy and driven by the production line. Standardization of work resulted in health problems, including musculoskeletal disorders, deafness and vibration injuries.

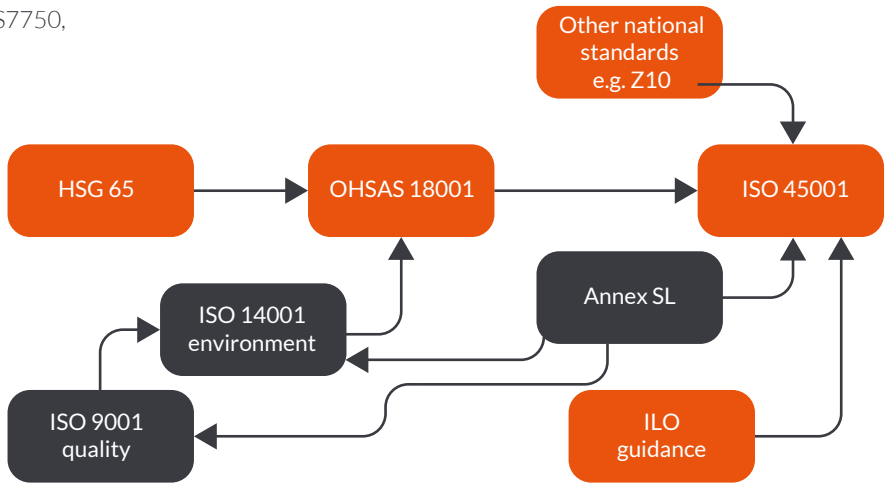
Quality standards were formalised in the 1960s as part of the Ministry of Defence requirements for suppliers. The original idea was simple: document what you do, the MoD will check it makes sense, then make sure your workers do it consistently. BS5750 was the first quality standard intended to apply across all business types, and was the basis for ISO 9001 in 1987.

Meanwhile, the UK Health and Safety Executive decided organizations needed some ideas on how to build a management system around safety. Health and Safety Guidance document number 65, known as HSG65 provided useful advice. It didn't attempt to be a standard. Around the same time (1992) BS7750, the forerunner of the environmental standard ISO 14001 was published.

In 1996 BSI published BS8800 as guidance on OH&S, influenced by both HSG 65 and by the quality and environmental management standards. This evolved into the BS OHSAS 18001 standard. By 2008, managers seeking advice on how to manage safely were faced with an overwhelming choice – download the HSG 65 for free from the HSE along with relevant (also free) topic specific guidance, or invest in a library of documents from the British Standards Institute, which by then included BS OHSAS 18001, OHSAS 18001, BS OHSAS 18002 and BS 18004. Instead of simply documenting your system, you now needed a system for documents.

OHSAS 18001 (with or without the BS prefix) was widely adopted in over 100 countries around the world. However, despite the involvement of other national standards bodies in its development, it suffered from the "not invented here" problem. In 2013, British articles on ISO 45001 talked of how 18001 would be "converted" to an ISO standard. Across the Atlantic, articles described how the standard would be based on the American standard known as Z10. The International Labour organization (ILO) had its own expectations. A further expectation on the new ISO standard was that it should follow the Annex SL structure being used to align quality and environmental standards, as well as other standards such as information security.

The influences on ISO 45001 are summarised below.



"STANDARDIZATION OF WORK RESULTED IN HEALTH PROBLEMS"

"QUALITY STANDARDS WERE FORMALISED IN THE 1960S AS PART OF THE MINISTRY OF DEFENCE REQUIREMENTS FOR SUPPLIERS"

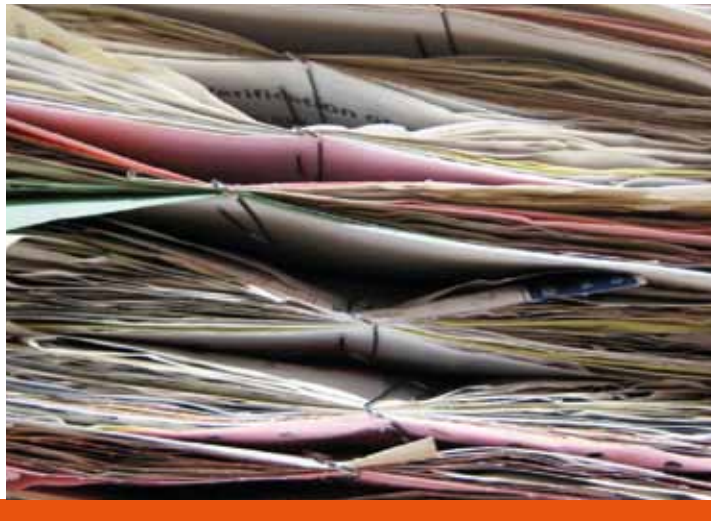
3 AN IMPOSSIBLE DREAM?

HYPOTHESIS

A (meaningful) international standard on occupational health and safety is an impossible dream which will never be achieved.

In 1997 ISO decided not to produce an international OH&S standard. The decision (or indecision) created a vacuum, filled by at least 40 separate national standards and variants for OH&S management. Once organizations have invested time and money in systems to meet the national standard, to audit to the national standard and to certify to the national standard, is it surprising if they are more resistant to a new international standard? Each country wants the ISO version to look like their existing version.

If the nettle had been grasped in 1997 rather than waiting until 2013, the arguments about ISO 45001 might have been resolved more quickly. If we do get a common standard, will it have been watered down by vested interests?



4 WILL IT MINIMISE RISK?

HYPOTHESIS

Certification makes us compliant, not safer.

Many presentations on OH&S standards start with statistics about how many people are killed or injured at work, or who suffer from ill-health as a result of work. As if we had ever questioned the right of people to go home from work without harm! As if we were the ones who need convincing! Perhaps they use these statistics because they lack evidence that being compliant makes you safer. Studies of the implementation of other ISO standards don't provide us with much confidence – a Canadian study[iv] in 2013 described the "rather elastic interpretation and application" of ISO 14001 and the "superficial" implementation of practices that led to certification; a 2016 study[v] looked at 14 years of audits using a laboratory-specific standard, ISO /IEC 17025. The researchers found that fewer than 1% of non-compliances would have consequences on the validity of results.

John Seddon's book "The Case against ISO 9000" (2000) argues that the ISO quality standard does not ensure quality. Seddon reminds us of the military "command and control" origins of standards, where managers decide and workers do. How can this model map onto the ISO 45001 emphasis on leadership and worker participation?

Studies on the use of BS OHSAS 18001 show a mixed picture. There is a correlation between certification to 18001 and good safety performance, but there is also evidence that the standard moves control and responsibility away from those who know the risks best, to those who understand the specification. And what does that correlation mean? Do poor companies become better because they chose to adopt a standard? Or is it more likely that already good organizations choose to target certification as their next step?

One key lesson from all of this: get your systems in order before you start on the compliance paperwork. If you have a well-managed health and safety management system, using the best available IT systems to oversee the administration, if you do decide you need ISO 45001 for commercial reasons, you will be much better placed to succeed, without the overload of additional paperwork.

"CERTIFICATION MAKES US COMPLIANT, NOT SAFER."

5 THERE IS NO ONE SIZE FITS ALL

The one size fits all idea of an international standard for every type of organization is impractical. Here are two alternative hypotheses on how OH&S management should be controlled.

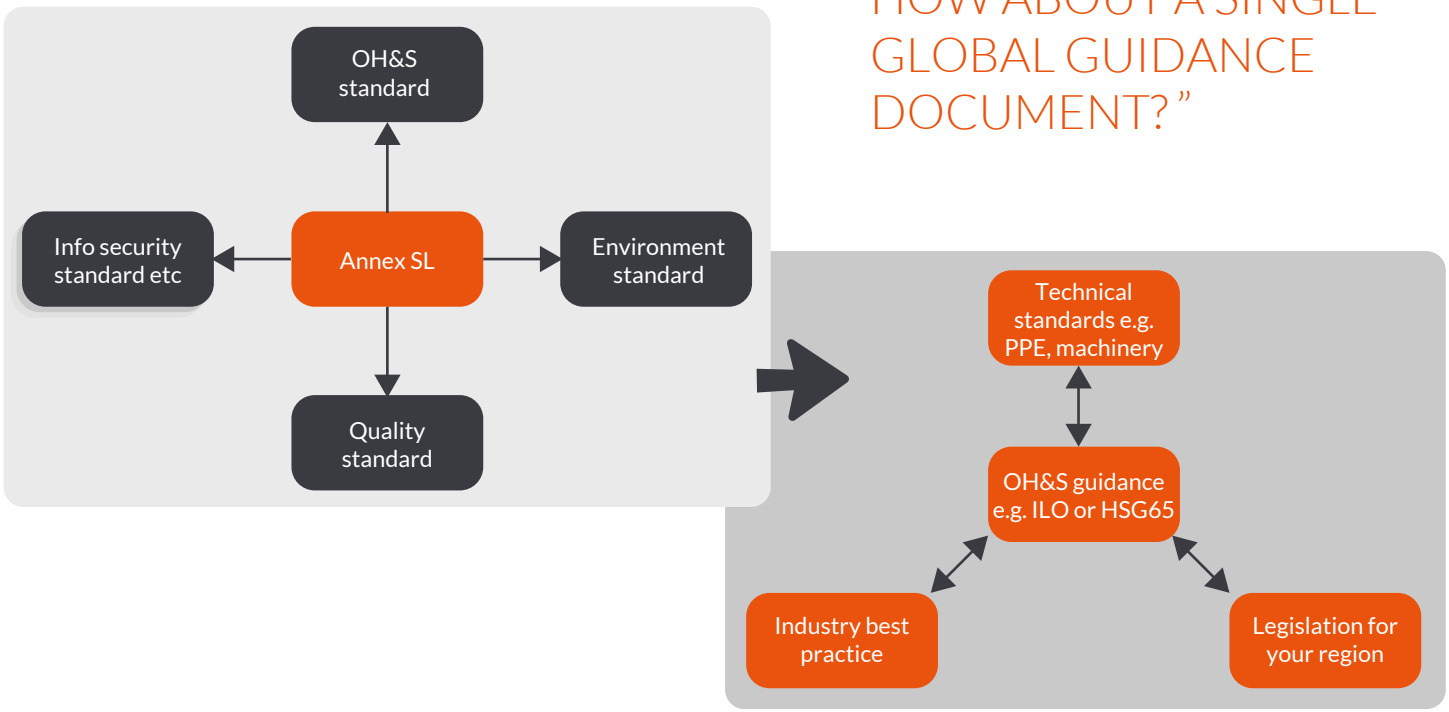
HYPOTHESIS 01

Only guidance can be global – everything else should be locally determined.

Think about how a car designed to be driven on the left-hand side of the road is specified. The accelerator, brake and clutch pedals must be in the same order, the driver must sit on the right, the steering wheel must turn the wheels following the normal convention. There must be indicators for fuel tank, speed etc. Other controls (lights, indicators) vary from car to car.

Different colours, shapes and sizes provide a varied market from which to choose. So too with organizations. Legislation tells us what must be in place – identify significant hazards, manage them so far as is reasonably practicable. Guidance gives us some ideas of how to achieve this. Industry bodies provide more specific codes of practice for their sector. Product standards – such as those for machinery, PPE, electrical components, consumer or business products – provide objective ways of checking quality, safety and environmental impact.

So, how about a single global guidance document, with each organization determining which technical standards, legislation and best practice applies to them?



"HOW ABOUT A SINGLE GLOBAL GUIDANCE DOCUMENT?"

"ONLY GUIDANCE CAN BE GLOBAL – EVERYTHING ELSE SHOULD BE LOCALLY DETERMINED."

5 THERE IS NO ONE SIZE FITS ALL

HYPOTHESIS 02

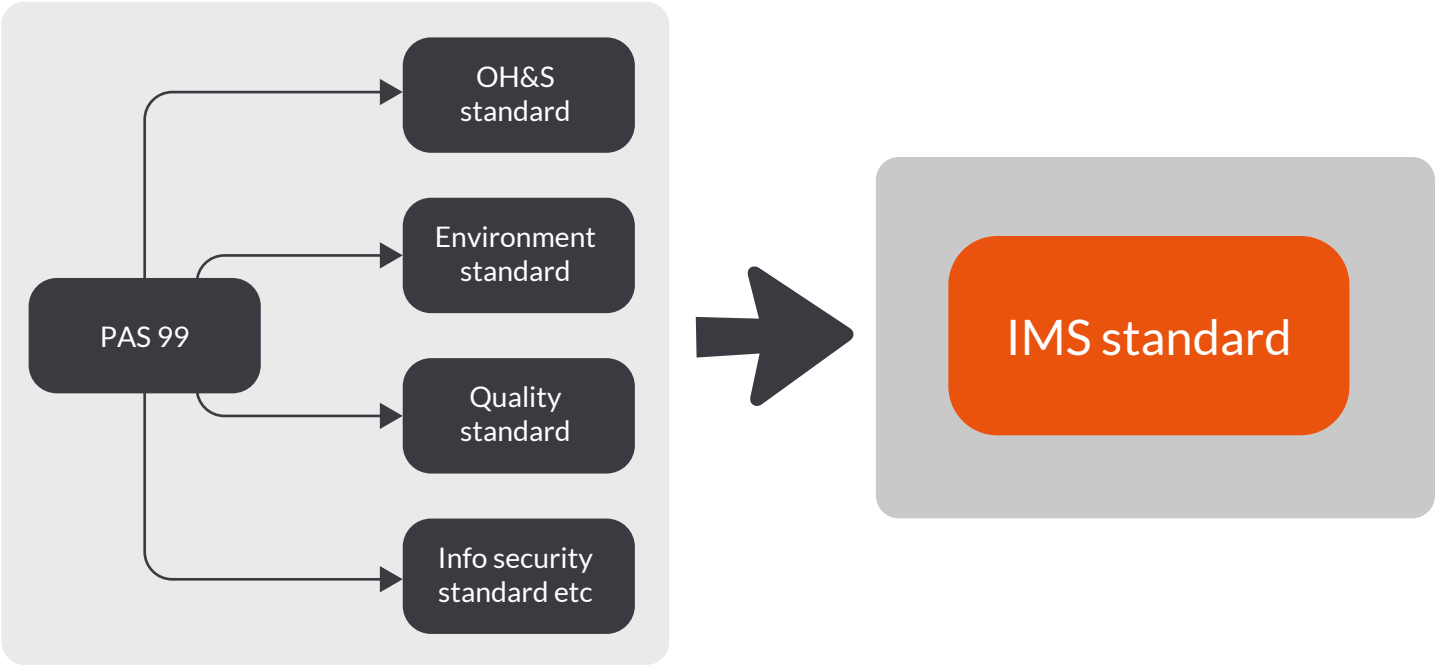
Instead of separate standards for quality, environment, health and safety, there should be just one integrated management standard (IMS).

Do you remember what you were doing in 1987 when the quality management standard ISO 9001 was first published? Maybe you were still at school. Perhaps you were already a seasoned practitioner. Younger readers might not even have been born. The Health and Safety at Work Act had been in place for 13 years, and had demonstrated the benefits of a single approach to ensuring the health and safety of workers and others across all workplaces, with a consequent reduction of the UK workplace fatality rate in that time of around 50%.[vi] It had been 25 years since Rachel Carson[vii] had warned us about a future where we didn't protect the environment.

Why then was all the effort put into a quality management standard that didn't treat health, safety and environment as equally valuable? How did anyone think that treating quality as a standalone property was a good idea?

Some organizations have tried re-integrating their management systems using the "Publically Available Standard" PAS 99, which provides a framework for integrating existing management systems. It does not, however, support the creation of a single integrated management system and it still involves buying each of the management systems requirements documents separately, as well as PAS 99, which despite its name, is not free.

So, what about a single, integrated management standard and certification process (so organizations need buy just one standard, and pay for one certification)?



"WHAT ABOUT A SINGLE, INTEGRATED MANAGEMENT STANDARD AND CERTIFICATION PROCESS?"

6 STANDARDS SHOULD BE STANDARD?

HYPOTHESIS

You can't standardize management

Isn't the point about a standard that it should be, well, standard? Something I can measure, and you can measure, and we'll probably get the same answer. The height of scaffolding, the results of strength tests of hard hats, the vibration emitted by machinery. Should you ever take subjective concepts such as leadership, worker involvement and management and change them into checkbox items?

See the examples below:

"CONTEXT IS A DOUBLE-EDGED SWORD..... IF I DO IT MY WAY, THAT'S BECAUSE OF MY CONTEXT"

There are some excellent ideas in ISO 45001 (as there were in HSG 65), which would provide a useful road map if worded as guidance. The problem is with its being a 3rd party certifiable standard. Just as the standardization of craft skills led to poor health for production line workers, standardization of management skills could result in a lowest common denominator approach. We might become compliant, but we won't necessarily be safer.

Context is a double-edged sword. Whilst its aim is to avoid the "one-size fits all" problem by allowing organizations the flexibility to adapt their management system to the size, purpose, activities and "needs and expectations of interested parties" it also allows for the "elastic application" of tick boxes referred to earlier. If I do it my way, that's because of my context.

REQUIREMENT IN ISO/DIS 45001.2:2017 (DIS2)	HOW?
4.2b **The organization shall determine the relevant needs and expectations (ie requirements) of workers.**	Since when did expectation = requirement? I might expect a pay rise or a sunny day, but that's not a requirement.
6.1.4 **The organization shall plan actions to prepare for, and respond to, emergency situations.**	Courts have spent weeks determining whether a hazard was reasonably foreseeable, and whether action was reasonably practicable. Higher courts overturn these decisions once made. How is an auditor to assess this requirement in the time allocated to an audit?
6.1.4 **When planning its actions [to address risks, legal requirements and emergencies] the organization shall consider best practices, technological options, financial, operational and business requirements.**	A manager tells you: "I considered best practice, but decided the business requirement was to use the cheaper (just compliant) option." Do they get a tick in the box?
7.4.2b **The organization shall ensure its communication process enables workers to contribute to continual improvement.**	How do you audit the causal path between communication – workers contributing – continual improvement? Even the idea that you can "ensure" worker contributions is a tricky one – you can lead a horse to water...
10.3 **The organization shall continually improve the suitability, adequacy and effectiveness of the OH&S management system.**	Is it never possible to be good enough then?

7 WHY DO WE AUDIT?

HYPOTHESIS

Audits, as done, are not the best way of making us safer and healthier

Here are some of the key arguments used by those for and against auditing as a way of improving safety – as you read each one, decide which you agree with. Are there are more on one side than the other?

"WOULD A SOFTWARE-BASED MANAGEMENT TOOL HELP TO TRACK AUDIT ACTIONS?"

IN FAVOUR	AGAINST
Audits should be integral to the "check" part of the management cycle	Audits cause disruption in the workplace, cost money and waste time
What gets measured gets done	What gets measured gets done, but "just-in-time" rather than "all-the-time", and what can't be measured might be more important
"It lays the foundations for continuous safety improvement to enhance competitive advantage" (RoSPA)	The focus of an audited organization is on prescribed ways of doing things which can be recorded and measured, not on doing things better
Some organizations claim an enhanced safety record as a result of changes introduced after audits	Compliance audits change the organizational goal to "pass audit" not "be safe and healthy"
Lessons can be learnt from other organizations, or other parts of the same organization	Audits based on standardized ways of doing things inhibit the cognitive flexibility that people need to solve problems in the modern workplace
If you pass an audit, you have reassurance that you are safe	You can pass an audit and still be unsafe (think BP Texas City)

Audits could be better, but 3rd party certification audits to a fixed standard take away an organization's freedom to decide what to manage and how to audit.

Ask yourself:

Do you need 3rd party certification?

Would internal auditors cause less disruption?

Could you pay auditors to find problems, rather than to provide reassurance?

If you use a software-based OH&S management tool, can you move from "just in time" to "all the time" safety, and reduce the time spent on periodic audits?

What is needed to make sure that audit findings are dealt with, not ignored? Again, would a software-based management tool help to track audit actions?

8 FUTURE

The journey of ISO 45001 since 2013 has not followed a straight path. Perhaps there is an inherent contradiction in getting a group of people whose life work is to protect health and safety to follow a framework with its origins in cost-reduction, de-skilling and military command and control. Perhaps there are too many vested interests in pre-existing national approaches.
Perhaps the target was the wrong one.

During 2016 there was concern that ISO 45001 would never be finished. Trade unions argued that it represented the privatisation of health and safety standards by ISO – something better left to national governments to regulate, and already covered by the ILO guidelines. Agreeing on the meaning of terms such as "consultation", "competence" and even "risk" delayed progress. Momentum was lost.

Following an ISO 45001 working group meeting in Feburary this year, the momentum appears to have picked up again, with a second Draft International Standard (DIS2) now available. The time-table below is the best forecast we have of the next steps. The optimists predict publication in the Autumn of 2017, whilst others warn a further draft might be needed, pushing publication to the second quarter of 2018.

"SOME PREDICT PUBLICATION IN THE AUTUMN OF 2017 , WHILST OTHERS SAY THE SECOND QUARTER OF 2018"

TIMELINE	ACTION
MARCH 2017	ISO/DIS2 45001 published to download[viii], (at cost) from BSI website
19 MAY 2017	ISO/DIS2 45001 will be available at no cost for people to make comments, clause by clause, on the BSI website.
18 JUNE 2017	final date for comments from interested parties. Comments will be considered by the UK committee. Other countries will have similar processes in place.
13 JULY 2017	all countries to submit their verdicts
20 JULY 2017	results of the DIS2 ballot and comments will be known
18 - 23 SEPTEMBER 2017	results of the ballot and comments received will be reviewed by the international working group in Malaysia
NOVEMBER 2017	earliest possible publication date
APRIL 2018	possible publication date if a further round of reviews is required.
2020 - 2021	BS OHSAS 18001 likely to be withdrawn

There is no argument that what those driving ISO 45001 are trying to achieve is a good idea – get top management to lead on safety, involve workers, and enable safety leaders at all levels to drive better standards throughout the organization.
Save lives, protect health. The fear is that the baggage that comes with being an ISO standard – the cost of the specifications, the emphasis on documentation, the existence of organizations whose entire business model is based on auditing to provide "assurance" – makes this a less effective and more expensive process than many would have hoped.

i. *www.hse.gov.uk/managing/delivering*
ii. *www.bsigroup.com/LocalFiles/de-de/ISO-45001/ISO45001%20_DIS%20_mapping%20_guide.pdf*
iii. *www.iso45001assessment.com/news.html*
iv. *www.sciencedirect.com/science/article/pii/S0959652613000450*
v. *http://onlinelibrary.wiley.com/doi/10.1002/mbo3.314/abstract*
vi. *www.hse.gov.uk/statistics/history/historical-picture.pdf*
vii. *Silent Spring, Rachel Carson, 1962.*
viii. *http://shop.bsigroup.com/ProductDetail?pid=000000000030358994*

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TRANSFORMING WORKPLACE SAFETY

UK:
9 Devonshire Square,
London, EC2M 4YF
020 3411 0092
sales@effective-software.com

Irl:
The Moorings,
Lennox Place, Portobello,
Dublin 8, D08 NV96
01 485 3551
sales@effective-software.com

www.effective-software.com