Case studies to demonstrate the practical application of the Leadership and Worker Involvement Toolkit (LWIT)

Case studies to demonstrate the practical application of the Leadership and Worker Involvement Toolkit (LWIT)

Nikki Bell, Dr Chrysanthi Lekka and **Dr Roxane Gervais**
Health and Safety Laboratory
Harpur Hill
Buxton
Derbyshire SK17 9JN

This research explored the use of the Leadership and Worker Involvement Toolkit by five construction small and medium-sized enterprises (SMEs) to gain an understanding of how it is applied in practice and the associated benefits as well as challenges. The toolkit is available on the Health and Safety Executive's (HSE's) website to assist SME dutyholders in making health and safety (H&S) improvements through the adoption of leadership and worker involvement practices. The findings from this research provide insights for HSE and industry on how to encourage construction SMEs to improve leadership and worker involvement in H&S, using the toolkit as a source of advice. How SMEs apply the toolkit will depend on their own business needs, but the research provides evidence that engaging the workforce in H&S matters contributes to improved H&S performance and business gains.

HSE Books

KEY MESSAGES

The key messages that emerged from the research were:

- Use of selected approaches/tools supported by HSE and industry mentoring appears to have contributed towards improved H&S performance and business benefits (e.g. reputation, efficiency). While these improvements cannot solely be attributed to the use of the toolkit due to other changes occurring within the companies, improvements in communication, supervision and worker risk awareness brought about by implementation of the selected initiatives, were considered by participants to be key contributors.

- The H&S cultural assessment tool (the Health and Safety Diagnostic Tool) encouraged management to take an in-depth look at current performance and to identify priority improvement areas. Repeat assessments provided evidence of improvements in H&S culture in all companies. This is potentially due to greater ownership of H&S amongst the workforce.

- The leadership guidance and picture-based accident scenarios were considered the most useful tools to initiate two-way H&S communication and improved worker awareness of workplace risks.

- HSE and industry mentoring isolated two strategies as effective for improving worker involvement, i.e. 'risk profiling' (e.g. identifying the 'top five' workplace risks as a company-wide initiative), and 'safety observation cards' for companies that have a good understanding of their risk profile.

- Encouragement from a key client or principal contractor was considered by SMEs to be a key motivator to use the toolkit due to the incentive to secure repeat business. To encourage more widespread use of the toolkit, the companies involved in this research considered that construction SMEs need to be aware that the toolkit exists. They also need to be aware of the potential value that it can bring to the business (e.g. communicating 'good news' stories of companies having used it).

- To encourage continued use of the toolkit, SMEs need support with tailoring the advice and tools to their business needs, such as that provided through an industry mentor or possibly via SME networks. While the toolkit was designed to allow users to tailor the tools to their local circumstances, discussions about how this could be achieved in practice with mentors was considered valuable by management. Minor modifications to the homepage might also help to encourage uptake, such as a 'top tips guide' and testimonials from companies having used the toolkit.

EXECUTIVE SUMMARY

CONTEXT

Leadership and Worker Involvement (LWI) remain key elements of the HSE's strategy for improving H&S in the United Kingdom, and have been adopted by the construction industry as leading indicators of good risk management. To encourage the SMEs that dominate the industry to improve their H&S performance through effective LWI, HSE's Construction Division commissioned a three-year research programme (2008 to 2011) with the Health and Safety Laboratory (HSL). This programme resulted in the development of a Leadership and Worker Involvement Toolkit (LWIT), which was launched on the HSE's Website in June 2011. The toolkit is aimed at duty holders or H&S managers in small and medium-sized organisations (10-249 directly employed or sub-contracted staff), to apply the approach with their workforce. It packages the good practice from leading employers and the evidence base at the time into an interactive website.

Anecdotal evidence available to HSE suggests that users may experience challenges in applying some of the advice contained within the toolkit. As such, HSE commissioned research with the HSL in January 2013 to capture the learning surrounding its practical application to encourage and support other SMEs in using it. HSE also initiated an industry mentoring programme through the UK's Contractors Group in May 2013 to promote the use of the LWIT by members (comprising HSE and Industry participants) as a tool for mentoring smaller businesses in their supply chain.

AIMS AND OBJECTIVES

The research aimed to explore how the LWIT is applied in practice by construction SMEs, and to capture the potential benefits and challenges from following the advice and using the tools in the form of a case study. Five construction SMEs of various trades were followed for at least 12 months to monitor progress and to explore the practicalities of using the LWIT.

APPROACH

A longitudinal approach was adopted to monitor the use of the LWIT by the five participating companies over a minimum of 12 months. To collect rich data about how the LWIT had been applied in practice, each company was visited three times (a baseline and two follow up visits) by HSL Psychologists. Each visit consisted of a management interview with the person(s) responsible for H&S and up to three worker interviews (supervisory levels and other staff members). These interviews explored the LWI practices adopted (existing and new), and management perceptions of the LWIT's role in helping to improve H&S, including challenges and perceived benefits. The completion of the LWIT's Health and Safety Diagnostic Tool (HSDT) also enabled any perceived changes in the company's H&S culture to be monitored.

To supplement the HSL visits, three 'mentor meetings' were held between the HSE project customer, industry mentor and company key contact. These meetings provided guidance to the companies on improving their H&S performance by encouraging specific LWI initiatives using the toolkit as a source of advice. Inclusion of mentoring means that it is not possible to determine how much of LWIT's perceived benefits are due to LWIT directly, and how much may be due to the mentoring process itself. Management perceptions are likely to be influenced by both the use of the LWIT and the mentoring support provided.

FINDINGS

Individual findings for each company have been summarised into case studies (see **Annexes 2-6**). Looking across the five participating companies, the following key findings emerged:

Perceived benefits

Management in all participating companies stated that they had observed business benefits following the use of the LWIT. A key benefit cited was **an improvement in H&S culture** with greater ownership of H&S amongst the workforce and improved leadership and communication across the business. Other benefits included: repeat business, improved reputation and efficiency, better supervision to ensure the safe delivery of work on site, and a reduction in the number of RIDDORs, accidents, incidents and/or lost time due to injuries. Commonly cited **quick wins** were the increased competence and confidence of supervisors to deal with H&S issues on site and to involve their workers in H&S discussions; and improvements in worker risk awareness. These findings were supported by those obtained from interviews with workers. While these benefits cannot solely be attributed to the use of the LWIT and the guidance offered by mentors due to other changes/initiatives taking place in the companies at the time, management considered the perceived improvements in supervision and worker awareness of risks as important contributors to the improvements seen in overall performance.

Challenges encountered

The challenges that arose were generally considered minor, possibly helped by each company already having established H&S systems in place at the start of the research. Challenges centred on obtaining buy-in into the LWI initiatives from site supervisors/foremen and some practical constraints that emerged with accessing the LWIT on site. The persistence of senior management in driving forwards the initiatives and communicating their importance to the workforce was important for overcoming these challenges.

Experiences of using the LWIT

Companies reported a positive experience of using the LWIT. Each company regarded it as a useful resource for comparing their current H&S practice with good practice, and for making them aware of additional LWI practices that could further improve their H&S management. The most commonly cited tools used in the LWIT were the accident scenarios (in Step 3) and leadership guidance (in Step 4), both of which provided advice and materials for running interactive briefings and discussions. The HSDT was also considered a useful tool for assessing the company's H&S approach and to monitor progress. Perceived potential barriers to uptake of the LWIT amongst other SMEs included: lack of awareness that it exists and understanding of its potential value, resource constraints, motivation to address H&S issues and fear of the HSE.

The perceived value of mentoring

Companies valued the mentoring provided as part of the research for two main reasons: (1) the advice received to support the selection and tailoring of LWI initiatives to the business; and (2) the general support received throughout (e.g. signposting to other relevant material on the HSE website). Mentors' considered that the biggest incentive for companies engaging with the LWIT was to improve their chances of winning future work. Two specific LWIT initiatives worked well with the companies involved this research, which was supported by management views. These were: (1) 'risk profiling', i.e. company-wide consultation to identify key risks, to develop a shared understanding of these risks across the business and widespread involvement in the selection and use of control measures; and (2) the use of 'safety observation cards' for companies that understand their risk profile, but want to increase worker ownership of H&S.

CONCLUSIONS

Overall, the five companies involved in this research considered the LWIT to be a useful resource for companies of all sizes/industries. They considered it relevant to their business needs and instrumental for developing a culture where everyone takes responsibility for H&S.

Key learning for the companies was: the importance of training leaders at all levels in worker involvement techniques; a need to establish communication mechanisms between offices and sites to enable H&S improvements; the importance of assessing (and re-assessing) H&S culture to prioritise improvement areas; and the need for champions to drive forwards LWI initiatives.

Key learning for HSE and industry includes:

- Implementing a focussed set of LWI initiatives seemed to have helped each company to make H&S improvements on site. The HSDT enabled prompt identification of priority issues that each company needed to address.

- Encouragement from a supply chain mentor prompted companies to use the LWIT. Without this encouragement, it is uncertain whether companies would opt to use the LWIT of their own accord. Furthermore, the incentive to secure future work and on-going relationships with mentors as a source of advice seems to have motivated continued use of the LWIT. Without this incentive and support from mentors, it is uncertain whether companies would continue to use the LWIT.

- 'Risk profiling' provides a useful basis for involving the workforce in workplace risks, or 'Safety Observation Cards' for companies that have a good understanding of their risk profile. However, companies need to be aware of the LWIT and its potential value to the business, ultimately to improve the chances of winning future work.

IMPLICATIONS

Findings from this research and the learning from HSE's industry mentoring programme highlighted a number of considerations for HSE and industry. These were:

- **Communicating the LWIT and its value to SMEs** through established networks and information sources used by SMEs. The case studies produced in this research provide 'good news' stories of the importance of worker involvement in improving H&S performance and culture. Making it clear that the toolkit was developed to assist companies in making their own improvements, and is not monitored by HSE, might help to overcome a potential lack of use due to 'fear' of HSE amongst SMEs.

- **Motivating the supply chain to use the LWIT**, primarily through encouragement from key client(s) or principal contractors. The resource required to implement the toolkit is therefore offset by the anticipated business gains.

- **Encouraging SMEs to explore all the resources in the LWIT** by enhancing the homepage to include an index and explanation about how the toolkit is structured, testimonials from companies that have used the LWIT, a 'Top Tips' implementation guide with links to 'risk profiling' and 'safety observation cards'.

- **Establishing support networks**, such as an online LWI community or LinkedIn group, or through existing SME forums, to enable dutyholders/managers using the LWIT to seek advice from other companies and to share learning/materials. This would need to be owned by industry and closely monitored to encourage on-going interaction.

CONTENTS

1. INTRODUCTION

1.1   BACKGROUND

LWI remain key elements of the HSE's strategy for improving H&S in the United Kingdom, and have been adopted by the construction industry as leading indicators of good risk management in all areas, and not just H&S. The LWIT was developed to help construction contractors and managers learn how to make H&S improvements in their businesses by enhancing leadership skills and involving their workforce in H&S matters. The toolkit is aimed at SMEs (10-249 directly employed or sub-contracted staff) in construction given the predominance of SMEs in the industry[1]. The toolkit has also been aimed at dutyholders or H&S managers to apply the approach with their workforce.

The LWIT was launched on the HSE's Website in June 2011 as an online tool (see http://www.hse.gov.uk/construction/lwit/index.htm). The toolkit was the output of a three-year research programme, which involved 160 organisations. The aim of the research was to capture the good practice of leading employers in the construction industry and to package this learning in the form of an interactive website (see **Annex 1** for further details). The toolkit follows a seven-step process to sustainable behaviour change (as shown in Figure 1). Each step contains a 'key tool' (as a minimum requirement for completion of each step) with links to supporting information and tools (i.e. 'further tools'). There are 26 information sheets, 18 templates and three training packs contained within the toolkit. A HSDT[2, 3] provides a measure of H&S cultural maturity (i.e. how well developed an organisation's H&S culture is) at the outset and can be repeated (e.g. annually) to enable organisations to monitor improvements in their H&S culture over time.

Figure 1 The seven steps of the LWIT
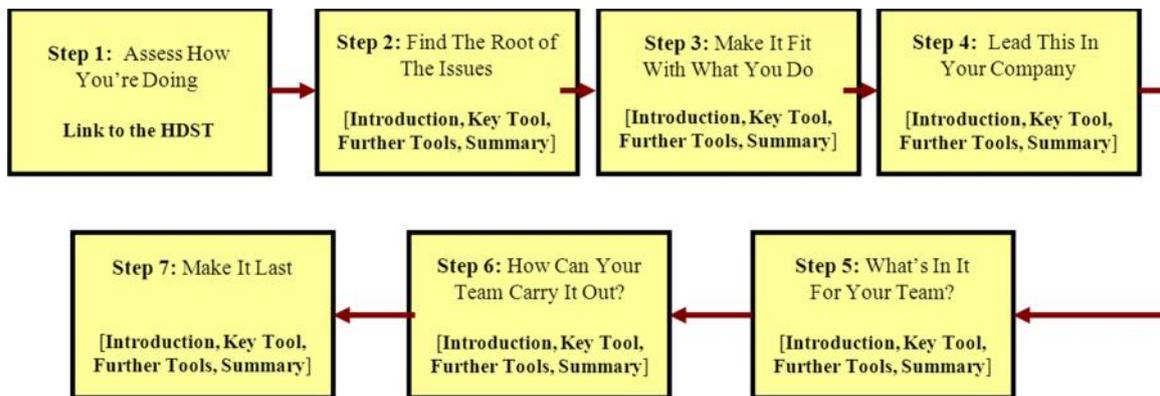
Following the launch of the LWIT, analysis provided by the HSE's e-marketing and online team suggested that users were not progressing through the seven steps. Collated data (i.e. the number of hits per page) indicated that users were accessing the 'key tools' but not the 'further tools' available in each step. In addition, anecdotal evidence available to HSE suggested that users may find it difficult to apply some of the advice contained within the toolkit, particularly relating to leadership. As such, HSE commissioned research with the HSL in January 2013 to

---

[1] *99.9% of private sector businesses in the UK are SMEs, see the Federation of Small Businesses[1]*

examine the experience of construction SMEs when applying the toolkit in practice and to produce case studies to help guide other SMEs. At a similar time (May 2013), HSE's Construction Division met with around a dozen members of the UK's Contractors Group (UKCG) to demonstrate the LWIT and try to encourage its use by members as a tool for mentoring smaller construction businesses in their supply chain. This HSL research also included a mentoring approach to support companies with application of the toolkit.

1.2 AIMS AND OBJECTIVES

This research aimed to explore how the LWIT is applied in practice by construction SMEs, and to capture the potential benefits and challenges from following the advice and using the tools. This will be achieved by:

- Recruiting five construction SMEs representing different trades that had not yet used the LWIT.
- Following each company for at least 12 months to monitor progress and to explore the practicalities of using the toolkit and any changes made as a result.
- Mentoring each company on tool selection and implementation.
- Developing five case studies (one for each participating company) describing how the LWIT was applied, the challenges encountered and the perceived successes achieved. The case studies will be made available on HSE's LWIT Website to support and encourage use of the toolkit amongst other construction SMEs.

1.3 ABOUT THIS REPORT

This report summarises the work carried out during Phase IV of the HSE/HSL LWI Research Programme. The first three phases focussed on identifying the necessary components of an effective LWI programme (Phase I, October 2007-March 2008[4]), developing the content of the toolkit (Phase II, April 2008-March 2009[5]) and converting this into an electronic format (Phase III, September 2009-March 2011[6]). The current Phase IV (January 2013-November 2014) focusses on the practical application of the toolkit by construction SMEs to encourage and support other SMEs to use it. As such, **the key outputs from Phase IV are the five case studies that summarise how each participating company used the toolkit, their experiences of using it and changes noted over the course of the research**. This report documents the methodology applied in Phase IV, the case studies produced and the key findings that emerged from looking across the five companies.

2. METHOD

2.1   DESIGN

A longitudinal design was adopted to monitor the use of the LWIT by participating companies over a minimum of 12 months. This was considered an appropriate time period to conduct a 'process evaluation', i.e. to assess short to medium-term (approximately one to two years) perceived changes in attitudes, practices, attitudinal and cultural change through self-reported scores on the HSDT, management and workers' perceptions of actions taken, and perceived benefits, including any observed improvements by management in company lagging measures[7]. Process evaluation permits determination of how an intervention works[8]. This approach embodied data gathering from HSL Psychologists (one assigned to each company) and ongoing HSE/industry mentoring.   To reduce the impact of researcher bias, two of the three Psychologists involved in the research were not involved in previous phases of the research programme (phases I, II & III).   Data were collected from each company on three separate occasions; a baseline visit and two follow up visits (see Table 1). Visiting companies on three separate occasions over the course of the research enabled the collection of rich data about how the LWIT had been applied in practice and the identification of emerging challenges as well as benefits.

Table 1. Length of time between visits (in months)

Company	Visit 1 (baseline) to visit 2	Visit 2 to visit 3	*Total duration of involvement in research
1	6	8	14
2	7	7	14
3	7	11	18
4	7	6	13
5	9	9	18

*Nb. Duration of the research varied across the five companies to allow sufficient time to implement selected LWIT initiatives taking account of any company-specific issues, e.g. personnel changes.

2.2   SAMPLE

2.2.1   Companies that participated in the research

To explore the application of the LWIT in different construction contexts, five companies representing different trades participated in the research. As shown in Table 2, all companies were SMEs employing fewer than 250 direct staff but more than 10. Most companies carried out sub-contracted work for principal clients, namely, Morgan Sindall, Bovis Homes, William Hare and Sir Robert McAlpine.

Table 2. Characteristics of participating companies

Company	Trade	Approximate size
1	Brick and block laying works	130 staff, mostly subcontractors
2	Civil engineering and utility contractor	150 staff
3	Erect steel structures for building development	100 staff
4	Ground works on house building sites	102 core staff, on average 10-15 subcontractors a day
5	A specialist interior architectural contractor	50 core staff, up to 300 subcontractors

2.2.2 Recruitment of companies

Four of the five companies (1 - 4 in Table 2) were recruited through the principal contractors belonging to HSE's LWI Forum, the industry body that worked with HSE/HSL to develop the LWIT. These companies belonged to the supply chains of the LWI Forum partners. Six companies nominated by the LWI partners were sent a letter from the HSE's project customer outlining the research and asking if they would be willing to take part. Participation was entirely voluntary. The final company (5 in Table 2) was recruited at a meeting between HSE and the UKCG (May 2013) to demonstrate the LWIT and to try to encourage them to start using it as a tool for mentoring smaller construction businesses in their supply chains.

While recruiting companies known to HSE, UKCG and LWI Forum members potentially resulted in a more motivated sample with higher H&S standards than might have been obtained from randomly recruiting companies from a public database, this approach was considered appropriate for the context of this research. This is because the research forms part of a wider industry mentor approach advocated by HSE's Construction Division. The recruiting companies in this way identified industry mentors that could support the companies to devise new or more effective ways to approach H&S challenges. Previous research has shown that smaller companies tend not to actively use the HSE's website and may need support in selecting initiatives that suit their business needs[9].

2.3 PROCEDURE

Figure 2 provides an overview of the research. In addition to the baseline and two follow up visits by HSL, three 'mentor meetings' were held between the HSE project customer, industry mentor and company key contact.

Figure 2. Flow diagram of the research method

HSL's visit 1 (baseline): Management and workforce interviews; completion of the HSDT
▼
Mentor's meeting 1: To discuss the 'HSL Baseline Report' and explore LWI initiatives, introducing the LWIT
▼
Mentor's meeting 2: To select 2 or 3 LWI initiatives and discuss how these could be implemented in practice
▼
HSL's visit 2: Repeat interviews and HSDT assessment
▼
Mentor's meeting 3: To discuss the HSL 'Follow Up Report' and agree next steps
▼
HSL's visit 3: Repeat interviews and HSDT assessment
▼
Production of company case study

2.3.1   Visit 1 (baseline)

The management interviews were carried out with the person(s) responsible for H&S to understand the company's motivation for taking part and the current LWI practices in place. The company key contact also completed the HSDT to assess their overall H&S approach on six areas that make up an organisation's H&S culture, i.e. 'commitment', 'worker engagement', 'prioritisation of H&S', 'compliance', 'measurement' and 'organisational learning'. Key contacts rated their perceived level of cultural maturity for each of the six areas. The qualitative scale ranged from 'Starting blocks' ("*Unless I get caught, I'm not worried*"), to 'Getting going' ("*I'll worry about it when it happens*"), to 'Walking' ("*I do it because I have to*"), to 'Running' ("*I do it because I want to*"), to 'Sprinting' ("*I do it without thinking*"). The results highlighted priority areas for improving H&S standards. One-to-one interviews were also carried out with up to three worker representatives (supervisory levels and below) selected by management. These interviews were conducted to obtain a worker perspective of the company's approach to H&S, covering the six areas.

2.3.2   Visits 2 and 3 (follow ups)

Each company's progress in applying the LWIT was monitored through repeat interviews during the second and third visits, including a re-assessment of the company's overall approach to H&S through completion of the HSDT. Management interviews explored the companies' experiences of using the LWIT, i.e. progress made with implementing selected initiatives, challenges encountered and perceived benefits. Worker interviews focused on how the use of the LWIT had affected H&S from an employee perspective and any observed changes in the company's H&S approach. Where possible, information was collected from the same representatives within each company to allow a more robust comparison to be made between each stage of the process.

2.3.3 Mentor meetings

The principles of mentoring used to support implementation of the LWIT were drawn from a training manual produced by the government recognised UK Standards Setting Body for Business Support and Business Enterprise[10]. According to the manual; *"In a good mentoring relationship, the mentor encourages the enterprise owner to reflect on his or her own personal and professional experiences, and shares his or her own professional experiences as well"* (p. 5). Through reflection and discussion, the mentoring meetings provided guidance to companies on improving their H&S performance by encouraging LWI initiatives, using the LWIT as a source of advice.

2.3.4 Company feedback

Each company received a report summarising the data gathered from the first two visits (one report per visit). These described the HSDT results mapped against the interview evidence with suggestions on how to progress, referencing relevant LWIT guidance/tools. These reports formed the basis of subsequent mentor meetings to guide discussions about next steps.

2.4 DATA ANALYSIS

Interview data were input into an analysis framework. This follows a systematic approach to the analysis of qualitative data advocated by the National Centre for Social Research[11]. The research needs necessitated a description of themes rather than in-depth conceptualisation of the relationships between different themes.

3. RESULTS

The findings for each company were summarised into a case study; one for each company (see **Annexes 2-6**). This section presents **the themes that emerged across the interview data gathered from the five companies with regards to (a) the perceived benefits and challenges of their selected LWI initiatives and (b) their experiences of using the LWIT in practice**. While each company adapted interventions to suit their own needs, there may be some valuable learning points for HSE and industry that could help guide future interventions.

3.1 PERCEIVED BENEFITS AND CHALLENGES OF LWI INITIATIVES

As summarised in Table 3, each company implemented a number of focussed LWI initiatives over the course of the research. Of the six HSDT areas, 'worker engagement' emerged as a priority area for four of the five companies. All companies wanted to develop a culture where the workforce is involved actively in discussions about workplace risks and potential solutions, and takes greater ownership of H&S.

3.1.1 Perceived benefits

All companies had observed benefits to the business since being involved in the research. Some of these were considered 'quick wins' occurring as early as four to six months after implementation of the LWI initiatives, and others took longer to emerge, such as culture change. It is not possible, however, to attribute these benefits solely to use of the LWIT and/or the mentoring provided given that some initiatives went beyond the use of the toolkit. For example, one company had implemented ISO18001 (company 4) and several had sent their supervisors on the Supervisors Safety Training Scheme[2] (companies 1 to 4).

Business and cultural benefits. A key benefit cited by all companies was improvement in their H&S culture with improvements being observed as early as visit 2 (between 6 to 11 months after the baseline assessment). **Key cultural improvements across the companies were the establishment of shared responsibility and ownership of H&S between management and workers, and improved leadership and communication across the business.** Over the course of the research most companies had improved by one level of maturity (e.g. from 'Walking' to 'Running'). While one company (company 4) had improved by two levels of maturity, this change could be attributed to different personnel completing the measure at visit 1 (baseline) and visit 2. Furthermore, another company (company 5) improved by two maturity levels by visit 2, but decreased a level by visit 3 as their final assessment included sub-contractors whereas previous assessments were based on the core workforce. Other benefits cited by all companies included: **a reduction in the number of RIDDORs, accidents, incidents and/or lost time due to injuries** since the start of the research. Management generally perceived this to be due to increased worker awareness of the risks associated with their jobs and better use of controls. In addition, **improved supervision on site** ensured that work stopped when it was considered unsafe. Improvements in the company **reputation and efficiency** were also thought to have helped to secure **repeat business** in some cases.

Quick wins. Commonly cited quick wins were: the **increased competence and confidence of supervisors** to deal with H&S issues on site and to engage their workers in H&S discussions; and **improvements in workers' awareness of risks** and willingness to voice their H&S concerns to management. One company also noted **a decrease in major incidents and serious injuries as well as a more accurate record of minor injuries** following the adoption of Safety Observation Cards (SOCs).

---

[2] *A training scheme run by ConstructionSkills.*

Table 3. Summary of the LWI initiatives adopted by the five companies, with perceived benefits and challenges as stated

	Company 1	Company 2	Company 3	Company 4	Company 5
Intervention focus (HSDT priority area)	• Improve **worker engagement** in H&S. • Grow a shared responsibility between workers and managers for H&S decisions. • Focus on developing the toolbox talks as a basis for two-way discussion.	• Ensure that H&S is given appropriate **priority** in management actions. • Improve the confidence of workers to stop work. • Promote a shared responsibility between workers and managers for H&S decisions.	• Improve **worker engagement** in H&S. • Create an environment where workers feel that they are part of the solution and not just 'being led'.	• Improve **worker engagement** in H&S. • Develop good H&S communication skills across the workforce.	• Improve **worker engagement** in H&S. • Improve the company's H&S culture.
Summary of LWIT initiatives (and steps) used	(1) Learn from the experience of delivering picture-based, interactive talks (**Step 3**); (2) consult with bricklayers to find out the top five risks in their job; and (3) develop a set of company toolbox talks that address the top risks.	(1) Deliver briefings on workers' and managers' responsibilities in controlling the company's top 4 risks, taken from near miss and incident reports (tailored **Step 3** scenarios and **Step 4** leadership guidance); (2) administer a survey to identify workers at risk of driving fatigue; and (3) issue text reminders of weather conditions and to take frequent breaks.	(1) Use of SOCs (**Step 7**) to facilitate H&S conversations between managers and workers; (2) provide supervisors with tips on how to make toolbox talks more interactive (**Steps 2, 4 & 6**); and (3) identify the leadership training needs of staff (**Step 4**).	(1) Develop site managers worker engagement skills (**Steps 3 & 4**); (2) improve workers' awareness of what is going on around them (**Step 6**); and (3) establish additional mechanisms for workers to voice H&S concerns/ideas (e.g. H&S Committee, suggestion scheme).	(1) Increase the visibility of leaders (**Step 4**); (2) use of techniques to engage staff (**Steps 4 and 5**, e.g. translating toolbox talks into four languages); and (3) use approaches to communicate with workers about what is expected of them and available support (e.g. H&S Committee, H&S surgeries, SOCs, dust campaign).
Summary of perceived benefits: Quick wins (4-9 months)	• Supervisors being more likely to adopt the desired H&S practices, including delivery of toolbox talks. • Increased assertiveness of	• Leadership training (Site Supervisors Safety Training) helped supervisors to encourage worker involvement in	• Workers questioning whether work is safe to undertake. • Supervisors highlight poor H&S practice to	• Site managers being more responsive to site issues and spending more time having open discussions with workers about site	• Able to demonstrate that H&S systems are in place when applying for new business. • Better interaction between

	• supervisors to stop work when unsafe. • Workers freely express their views about H&S.	briefings.	head office. • Reduction in major incidents and serious minor injuries. • Initial increase in minor injuries after introducing SOCs. The company considered the data now accurately reflect site practice.	risks. • Workers being more safety conscious and stop work that they consider to be unsafe. • Improved confidence of site managers to run interactive briefings with workers.	site managers and workers on H&S. • Sub-contractors have a stronger focus on H&S. • Starting to see improvement in worker attitudes towards H&S. • A streamlined Information Management System.
Summary of perceived benefits: Longer-term (13-18 months)	• Improved reputation amongst principal contractors. • Reduced RIDDORs. • Repeat business due to high H&S standards. • Increased confidence of supervisors to deal with H&S issues on site. • Workers wearing required PPE. • Nominated for a H&S award.	• Significant reduction in the number of underground damages, attributed to improved work planning and risk management. • Reduction in Road Traffic Collisions and Lost Time Injuries. • Increased confidence of supervisors to engage their team. • Two safety awards.	• Reduction in RIDDORs, major accidents and serious minor injuries. • More productive site audits by exploring work practices with workers. • Increased management awareness of site H&S issues (via the SOCs) • Improved worker morale.	• Improved efficiency, reputation and financial growth. • A more motivated workforce. • Reduction in accidents, but increase in near miss reporting, staff suggestions and review of risk assessments.	• Improved safety practices, e.g. reduction in accidents. • Workers are more relaxed about approaching directly both site and senior managers to raise H&S issues. • Project awards for H&S.
Perceived cultural improvements. Measured through the HSDT assessment at baseline (**B**), visit 2 (**V2**) and visit 2	• Worker engagement changed from 'Running' (B) to 'Sprinting (V2 & V3). • Responsibility for H&S is now shared between the director and supervisors. • Improved communication skills of supervisors.	• Prioritisation of H&S changed from 'Walking' (B) to 'Running' (V2 & V3). • Workers are more likely to recognise risks (including fatigue) and stop work. • A shared understanding	• Worker engagement changed from 'Walking' (B) to 'Running' (V2 & V3). • Improved leadership and development of supervisors. • Two-way communication between management and	• Worker engagement changed from 'Walking' (B) to 'Running' (V2) to 'Sprinting' (V3). • H&S is now shared between head office and sites. • Better communication across the business.	• Worker engagement changed from 'Walking' (B) to 'Sprinting' (V2) to 'Running' (V3). • Increased ownership of H&S amongst the workforce. • Workers reported as being more engaged,

(V3)		of managers' and workers' responsibilities in controlling risks.	workers. • Shared ownership of H&S.	• Being owned at site level, H&S is now recognised as a core company value.	challenging unsafe practices and helping to maintain healthy and safe work practices.
Challenges	• Getting all supervisors to carry out regular toolbox talks in the first six months. Regular prompts from the H&S administrator helped. • Practical constraints with using tablet computers to deliver toolbox talks on site.	• No challenges in applying the LWIT, other than finding relevant information at the start due to a lack of familiarity with the toolkit.	• A decline in completed SOCs after the first week of roll out. The director reiterated the importance of the cards to site supervisors and their role in encouraging workers to complete these. • Financial matters caused delays with the roll out of initiatives. • On-going challenges: getting the workforce to spot risks other than 'slips, trips and housekeeping', and reluctance amongst some to report unsafe behaviours.	• Mostly minor challenges, e.g. the accessibility of suggestion boxes, personnel changes causing delays, accessing the LWIT on site (IT issues). • Improving site managers' confidence to state their case to head office is an on-going challenge. Giving them more autonomy seems to have helped.	• An on-going challenge is that some mature workers are resistant to change. • Initial resistance of some supply chain foremen to present H&S information to workers in a different way.

3.1.2　Challenges encountered

As shown in Table 3, each company faced certain challenges when implementing the LWI initiatives. **Initial reluctance from site supervisors/foremen** to change their approach with workers (e.g. conduct regular toolbox talks, present information in different ways to workers, encouraging workers to complete SOCs) presented a challenge for most companies. Persistence and reminders from senior management about the importance of new ways of working helped to secure their commitment as well as affording them with greater autonomy to resolve issues themselves on site. In addition, some **practical constraints** were observed, such as technology issues when accessing the LWIT on site. Two companies also experienced **delays with the roll out of their initiatives** due to personnel and/or financial reasons.

3.2　USE OF THE LWIT IN PRACTICE

Data obtained from the management interviews indicated that the overall experience of interacting with the LWIT was very positive for all companies. Key themes have been extracted regarding views about the relevance of the LWIT to address business needs, ease of use, aspects considered to be most useful, and information that companies felt was missing from the LWIT. Findings relating to whether companies would recommend the LWIT to other construction SMEs, and their thoughts about potential enablers and barriers to its use, are also discussed.

3.2.1　Relevance of the LWIT

- Management generally felt that following the seven-step process of the LWIT was **primarily aimed at companies that had yet to implement H&S management systems or had only just begun this process**. The companies involved in this research had established H&S systems in place. As such, none of the companies sequentially worked through the seven steps of the toolkit; rather they focused on specific steps that they considered most relevant to them.

- All companies considered the LWIT to be **a useful resource for comparing their current H&S practice with good practice**. For example, one company followed the advice contained within the LWIT to streamline its Information Management System thereby making the system leaner yet just as effective (company 5).

- Management also commented on learning about **additional initiatives that could help to improve the people management skills of** their **leaders**.

3.2.2　Ease of use of the LWIT website and information sheets

- The **information sheets were** thought to be **written in an appropriate language and easy to follow** by all companies.

- Management in three companies commented on the **difficulty** that they had either **accessing the toolkit through the HSE website or navigating around the LWIT initially** due to lack of familiarity with its content. An explanation at the start of the toolkit about how it is structured with an index of the available information sheets was suggested as a way of improving usability.

- Management in two companies noted the **difficulty** that they had **with implementing technology that enabled site managers/supervisors to access the LWIT on site,** e.g. difficulty displaying pictures on a tablet with a large group of workers and patchy Internet

connection. An 'LWIT App' was suggested so that companies could download the toolkit onto managers'/supervisors' phones for them to refer to it on sites.

3.2.3 Aspects of the LWIT considered most helpful

A **key learning** for most companies **was the need for communication mechanisms** to be in place between offices and sites to enable improvements in H&S management to be made. **Specific steps cited as most useful** by companies were:

- **The HSDT (Step 1: "Assess how you are doing")** – All companies were very positive about using the tool. They considered it to be very useful for making management 'stop and think' about the way things really are within their organisation and for suggesting ways to improve. All companies also considered using the HSDT again (e.g. 6 months to a year later) as helpful for monitoring progress.

  "It does make you look at yourself honestly." (Managing director, company 3)

  "It's a thought provoking tool." (H&S Manager, company 2)

- **Step 3:** "Make it fit with what you do" – This helped three companies to identify H&S roles and responsibilities and provided picture scenarios to support managers/supervisors with delivering interactive briefings. Workers within these companies commented that they found picture-based toolbox talks more interesting and relevant to their work, especially foreign workers with English as a second language. Supervisors commented that the use of pictures required less explanation from supervisors meaning that the talks could be delivered more quickly. Management commented, however, that the scenarios worked best when they had been tailored to the company, e.g. use of company-specific pictures.

- **Step 4:** "Lead this in your company" – The leadership skills guidance was considered helpful by all companies for developing communication at all levels and for encouraging worker involvement in H&S, mostly through providing supervisors with tips on how to deliver interactive toolbox talks.

- **The Leadership check Tool (contained in Step 4)** – A Site Manager (company 3) commented that this was a useful tool for guiding the professional development of workers who have the potential to be a leader on site.

3.2.4 Information missing from the LWIT

Overall, the companies felt that the **LWIT is an excellent resource**, which is well organised and comprehensive. Some companies noted **potential gaps** in the information contained within the toolkit, which reflected their specific needs at the time. This **includes advice on: fatigue management**, **interacting with third parties** (i.e. other contractors on site), **a more varied portfolio of pictures in Step 3**, and **a SOC template**.

3.2.5 Would companies recommend the LWIT to other construction SMEs?

Management in two companies commented that they **had already recommended the LWIT to other companies**, e.g. during Safety Forums. All companies stated that they **would (continue to) recommend the LWIT**. Management felt that it could benefit companies of all sizes and SMEs in other industries.

3.2.6　　Factors influencing the use of the LWIT by other construction SMEs

Motivation and resources: There was a perception amongst management in all companies that the LWIT might help construction SMEs to get started with making H&S improvements, although this will be influenced by their motivation to improve and the resources that they have available. One director commented on his frustration that his sub-contractors showed very little interest, even when he signposted relevant material in the LWIT (company 5). All companies commented on the value of having an internal champion with the commitment and enthusiasm to drive forwards LWI initiatives.

> *"It [the LWIT]'s easy enough to use providing there is a willingness to use it."* (Director, company 3)

Awareness of the LWIT and its value: Companies commented on the need for HSE to promote the toolkit so that construction SMEs are aware that it exists and understand what it can do for them. Suggestions included promoting the LWIT as a success story using the case studies from this research to demonstrate the potential benefits of improving LWI practices to SMEs (e.g. through trade publications, trade associations, training bodies, 'Learning Together Groups', SME networks, and principal contractors). In addition, providing support, such as that offered through the mentoring in this research, to help SMEs understand how best to implement the LWI advice/tools was also recommended.

Fear of HSE: Management considered that SMEs are generally fearful of HSE. Companies perceived a need to communicate widely to SMEs that part of the HSE's role is to provide information to help companies improve their H&S practices.

Motivation to address H&S issues: Companies anticipated difficulty with engaging SMEs due to a perceived lack of motivation in addressing H&S issues. One manager referred to the SME mentality: *"If I don't say anything, I won't get caught"* (company 4). Suggestions to engage SMEs included adding clear messages on the homepage of the LWIT website that the toolkit is a free, practical and innovative resource that has the backing of the HSE/HSL. In addition, management felt that including testimonials from companies that have used the LWIT could instantly alert SMEs to the value that using it can bring to the business.

3.3　　REFLECTIONS ON THE VALUE OF MENTORING

3.3.1　　Company perspective

Companies considered that the mentoring provided by HSE and the principal contractors was a valuable aspect of the research, for two main reasons:

1. Receipt of **one-to-one advice about how to implement selected LWI initiatives,** appropriately tailoring these to the organisation. For example, advising company 2 how to implement the driver fatigue questionnaire and make sense of the data, and helping company 5 to design near miss observation cards. This was considered a key benefit as it helped to develop managers' confidence about implementing the initiatives themselves.

2. **Experiencing first-hand the support function of HSE.** The general support and advice was well-received, e.g. signposting to other relevant information on HSE's website, and spotting trends in company data. One director commented on the negative perception of HSE on site, and welcomed *"seeing the human side of HSE"* (company 1).

3.3.2 Mentor perspective

Mentors isolated three key elements in the success of the approach; firstly, building on a relationship that works; secondly, companies having to meet a need; and thirdly, the incentive of working with HSE to improve the company offering of H&S, ultimately to improve the chances of winning future work for the supply chain business. Mentors considered that two specific initiatives, i.e. 'risk profiling' (in two companies) and 'SOCs' (in the remaining three companies) could be signposted from the LWIT homepage as examples of LWI strategies with simple steps on how to implement these in practice (see Box 1 and 2 respectively). Both initiatives should be supplemented by use of the HSDT to help managers understand their H&S culture. The usefulness of these two approaches and the HSDT was supported by the management data.

Box 1 The 'Risk profiling' approach

Inspired by Step 3 of the LWIT ('Make it fit with what you do'), this initiative consists of studying the top ten safety risks and top five health risks in the business, and working to achieve these by:

1. Using the scenarios in Step 3 that are relevant to the business as a basis for toolbox talks.
2. Engaging supervisors to involve their workers in developing company specific top ten safety and top five health risks.
3. Developing toolbox talks and checklists on these top risks.
4. Using the information sheet in Step 2 ('Find the root of issues'), 'Acting on Worker Engagement', to ensure that control measures for these risks are in place and maintained.
5. Using training material from Step 4 ("Lead this in your company") to train supervisors in delivering interactive toolbox talks and safety briefings.
6. Using Step 7 ("Make it last") to help derive simple ways of measuring the effectiveness of the control measures, and to provide feedback to the workforce.

Box 2 The 'Safety Observation Cards' (SOCs) approach

This initiative helps companies that understand their risk profile to foster worker engagement and increase ownership of H&S by workers, and consists of the following steps:

1. Identify four to six critical behaviours that the business is trying to discourage, or encourage, and brief the entire workforce on the importance of these behaviours (Step 4).
2. List these behaviours on a pocket-sized card for supervisors to write their observations (positive and negative) and provide space for feedback.
3. Train management on how to use the cards – 'no observation without conversation'.
4. Train supervisors in giving praise and constructive feedback (Step 5, "What's in it for your team"). Emphasise the need to use the card for positive reasons, giving praise when actions are well done.
5. Set up a system to monitor feedback from completed cards and ensure that workers are kept informed of the actions taken ("*You said, we did*").
6. Extend use to peer on peer observations.

4. CONCLUSIONS

Overall, the five companies involved in this research considered the LWIT to be a useful resource, which is well-organised and comprehensive. All companies reported a positive experience of using the toolkit and found the guidance easy to follow. Furthermore, they considered it relevant to their business needs and instrumental for developing a culture where everyone takes responsibility for H&S.

A variety of business benefits were observed, most noteworthy were improved H&S records, company reputation and efficiency. While these benefits cannot solely be attributed to the use of the LWIT due to other changes taking place within the companies at the time of the research, management considered the perceived improvements in supervision and worker awareness of risks as important for achieving these outcomes. The perceived increase in the confidence and competence of supervisors in dealing with H&S issues on site, and worker knowledge and attitudes towards risks were noted as early as four to six months after the initial roll out of the LWI initiatives in some cases. However, it is not possible to separate the effects of the mentoring offered as part of this research from use of the LWIT. When responding to questions about the perceived benefits of using the LWIT, management considered both the tools that they had implemented along with the support provided by mentors to select tools, including advice on additional measures not included in the toolkit (e.g. a Driver Fatigue Questionnaire).

While the companies experienced some challenges when implementing their selected initiatives, these were generally minor in nature and were overcome by the dedication and perseverance of management to drive forwards the initiatives.

Key learning for the companies involved in the research was:

- Greater awareness of how to improve H&S in the organisation through exposure to additional ways (to those already in place) that could help to improve the people management skills of leaders, and techniques to engage their workforce in H&S matters, predominantly through the use of Steps 3 and 4 of the toolkit.

- A need for communication mechanisms to be in place between offices and sites to enable improvements in H&S management.

- The importance of management taking the time to 'stop and think' about their H&S culture, taking an honest look at the way things are to determine improvement steps through the use of the HSDT.

- The importance of training leaders, managers and supervisors in worker involvement techniques and supporting the professional development of such "soft" skills.

- The need for an internal champion (or champions) to drive forwards the LWI initiatives.

Key learning for HSE and industry includes:

- Implementing a focussed set of LWI initiatives seemed to have helped each company to make H&S improvements on site. This was perceived by management to be due to increased ownership of H&S at all levels.

- Encouragement from a supply chain mentor prompted companies to use the LWIT. Additionally, the incentive to secure future work with their principal client(s) seems to have motivated continued use of the LWIT by all companies. Without this encouragement from

mentors and perceived business incentive it is uncertain whether companies would have used/continued to use the LWIT.

- While the toolkit was considered to be a valuable resource by management, additional support (e.g. through industry mentors) to help develop managers' confidence about tailoring the initiatives to their own organisation might encourage continued use.

- 'Risk profiling' seems to provide a useful basis for educating and engaging the workforce in workplace risks, or 'Safety Observation Cards' for those companies that have a good understanding of their risk profile.

- Companies considered that the LWIT would benefit companies of all sizes and industries. Those starting out with H&S could be guided through the seven steps, yet those that have more established H&S systems could select techniques to bolster those already in place or fill any apparent gaps in LWI strategies. However, companies need to be aware that the LWIT exists and of the potential business benefits, ultimately to improve the chances of winning future work for the supply chain business.

5. IMPLICATIONS

This research has gathered evidence showing the value of LWI initiatives for making H&S improvements within five participating companies. Following up companies as part of a research programme seems to have encouraged agreed milestones to be achieved albeit with delays in some cases. This seems to be more difficult to achieve outside of a research context. For example, in the meeting between the HSE's Construction Division and members of the UKCG that took place in May 2013 (see **Section 1** of this report), only four of the 12 members present used the LWIT with their supply chain businesses, one of which was involved in the case study research (company 5).

Taken together, the reflections of the companies involved in this research and the key learning from the industry mentoring programme highlight a number of considerations for HSE and industry to optimise the use of the LWIT and the benefits achieved. These cover four main areas: (1) communicating the LWIT and its value to SMEs; (2) creating an incentive for the supply chain to use the LWIT; (3) encouraging SMEs to explore all the resources in the LWIT; and (4) establishing support networks. Each is discussed in turn.

(1) Communicate the LWIT and its value to SMEs:

Findings highlight the need to make construction companies aware of the LWIT via a range of established information sources and SME networks (e.g. trade publications/associations, training bodies, 'Learning Together Groups' and principal contractors). Publication of the case studies should help to make other SMEs aware of the value that the use of the LWIT can potentially bring to the business. Perceived benefits include an improved H&S record, efficiency, company reputation, and development of a culture in which everyone takes responsibility for H&S, all of which help to secure repeat business. In addition, making it clear that the toolkit is an information source developed by HSE/HSL to assist companies in making their own improvements, and is not monitored by HSE, might help to overcome SMEs' 'fear' of HSE.

(2) Creating an incentive for the supply chain to use the LWIT:

Encouragement from a supply chain mentor seems to have motivated SMEs to use, and to continue to use, the LWIT. Of the three UKCG member organisations that used the LWIT with their supply chain businesses as the H&S component of their mentoring schemes, two have on-going programmes. The initiative in the remaining member organisation did not prove sustainable due to changes in personnel and the LWIT not being seen as core to the success of the four supply chain companies involved. Reflections from the two UKCG members' with on-going mentoring programmes is that they require 'pushing' as there seems to be little 'pull' from the supply chain. These findings suggest a need for member organisations to take ownership of, and drive forwards, the LWIT initiatives to encourage its uptake and sustained use by their supply chain. Similarly, the key motivator for the five SMEs involved in this research was encouragement from their key client(s) or principal contractor(s). The resource required to implement the toolkit is therefore offset by the anticipated business gains, i.e. repeat business from key clients. Nevertheless, SMEs need to be aware that changes take time, require persistence and an internal champion(s) with the commitment and enthusiasm to drive forwards LWI initiatives. Encouraging companies to monitor their progress through cultural (HSDT) assessments could also support continued use.

(3) Encourage SMEs to explore all the resources in LWIT:

Minor changes to the homepage of the toolkit might help to encourage SMEs to explore it in greater depth. This includes an index and explanation about how the toolkit is structured, testimonials from managers and/or site supervisors from companies that have used the LWIT, and a 'Top Tips' guide about how to implement the toolkit in practice with links to 'risk profiling' and 'safety observation cards' as example LWI strategies (with links to the case studies). An 'LWIT App' could also support the use of the toolkit on site through tablet computers and mobile phones.

(4) Establishing support networks:

HSE and industry mentoring has emerged as a valuable component of the research in helping construction SMEs select and tailor aspects of the LWIT to address their business needs. Establishing an online LWI community or LinkedIn group for organisations using the LWIT to post questions, seek advice from other companies and share learning/materials could provide a valuable means of support for SMEs. Nevertheless, this would need to be owned by industry (e.g. principal contractors) and closely monitored to encourage on-going interaction.

A note on the wider applicability of the findings:

Adopting a longitudinal approach to conduct a process evaluation with five companies provided useful learning points for other construction SMEs when applying the LWIT in practice. How companies apply the toolkit will depend on their own business needs, but the case studies offer insights into the types of initiatives that can be adopted to engage the workforce in H&S matters. These findings support those obtained from HSE's broader mentoring programme through the UKCG and provide insights for HSE and industry to encourage wider uptake of LWI initiatives.

6. REFERENCES

[1] The Federation of Small Businesses, 2013. *Small business statistics.* Available at: http://www.fsb.org.uk/stats

[2] Flemming, M., 2001. *Safety Culture Maturity model.* HSE: Keil Centre.

[3] Lawrie, M., Parker, D., & Hudson, P., 2006. Investigating employee perceptions of a framework of safety culture maturity. *Safety Science, 44,* 259-276.

[4] Lunt, J. A., Bates, S., Bennett, V., & Hopkinson, J., 2008. *Behaviour change and worker engagement practices within the UK construction sector.* HSE Research Report (RR)660: HSE Books. http://www.hse.gov.uk/research/rrpdf/rr660.pdf

[5] Lunt, J. A., Bennett, V, Hopkinson. J., Holroyd, J., Wilde, E., Bates, S., & Bell, N., 2011. *Development of the people first toolkit for construction small and medium-sized enterprises.* HSE Research Report (RR)895: HSE Books. http://www.hse.gov.uk/research/rrpdf/rr895.pdf

[6] Bell, N., Hopkinson, J., Bennett, V., & Webster, J., 2011. *Development of a web based Leadership and Worker Involvement toolkit for small and medium-sized enterprises in construction.* HSE Research Report (RR)880: HSE Books. http://www.hse.gov.uk/research/rrhtm/rr880.htm

[7] The Department of Work and Pensions, 2008. *Building the case for Wellness.* Pricewaterhouse Coopers. Available at: https://www.gov.uk/government/publications/work-health-and-wellbeing-building-the-case-for-wellness

[8] Spencer L., Ritchie J., Lewis J., & Dillon, L., *Quality in qualitative evaluation: a framework for assessing research evidence [monograph online].* London: Cabinet Office; 2003. Available from: www.gsr.gov.uk/evaluating_policy/era_papers/qual_eval.asp

[9] Bell, N., Vaughan, N., & Hopkinson, J., 2010. *Factors influencing the implementation of RPE programmes in the workplace.* HSE Research Report RR798: HSE Books. Available at: http://www.hse.gov.uk/research/rrpdf/rr798.pdf

[10] Standards Setting Body for Business Support and Business Enterprise, 2011. *An introduction to enterprise mentoring.* An Essential Enterprise Workbook, SFEDi & Essential Business. See http://www.mentorsme.co.uk/images/uploads2/Introduction_to_Enterprise_Mentoring_2011.pdf

[11] Ritchie, J., & Lewis, J., 2003. *Qualitative research practice: a guide for social science students and researchers.* London: Sage.

7. ANNEXES

7.1   ANNEX 1 – RESEARCH PROGRAMME SUMMARY

PHASE I (Oct 07 – Mar 08): A comparison of current LWI practices with good practice in the literature.
- Interviews with **8 large construction companies** belonging to HSE's LWI Forum.
- Interviews with **3 industry consultants** recommended by LWI Forum members.
- Participation from Magnox Electric, Bovis Lend Lease, Carillion Building, Kier Building Maintenance, Laing O'Rourke, Mace, Morgan Ashurst, MW Kellogg, Bill Leighton, Tim Marsh, and Robin Phillips.
- A literature review following a systematic approach to benchmark comparison.

*Key recommendation: To develop a toolkit to motivate SMEs to adopt LWI. This should provide the bottom-up leverage necessary to cascade good practice in LWI across industry.

PHASE 2 (Apr 08 – Mar 09): To develop the content for a toolkit that provides construction SMEs with the knowledge and skills to implement LWI themselves.
- Initial interviews with **8 construction SMEs** covering five work areas: Demolition, Design & build, Structures, Ground works, and Mechanical & Electrical.
- Two literature reviews to inform development – (i) small site characteristics and (ii) business evidence for LWE initiatives; and development of the Health and Safety (cultural) Diagnostic Tool (HSDT).
- Bi-annual meetings with the **LWI Forum** (**13 members**).
- Feasibility testing with 6 of the 8 SMEs interviewed at the start of Phase 2.

*Key recommendation: To translate the content into a web based system to improve usability.

PHASE 3 (Sep 09 – Mar 11): To develop the Leadership and Worker Involvement Toolkit (LWIT) into a web-based system in consultation with SMEs.
- *User Needs Workshops* with **12 SMEs & 4 large** construction companies to clarify needs for the toolkit and check understanding of the toolkit's outline structure.
- *User Trails* with **5 SMEs (1 new to the project) & 1 large** construction company to check the full prototype.
- *Usability testing* of the toolkit website with **4 SMEs & 1 large** construction company.
- Overall, **17 construction companies** participated in development of the web-based toolkit (**13 SMEs & 4 large**).

- **LWE Forum members** involved throughout (**n= 13** approximately).
- Also, **135 companies** (all sectors & sizes) participated in the reliability testing of the HSDT, including the 16 companies from the user needs workshops (119 new ones).
- **136 companies** involved in Phase 3 (includes 1 new company in the user trails).
- Overall, **149 companies**, including the 13 LWE Forum members.

160 companies took part in the project, phases 1-3:

- 21 SMEs
- 17 Large, includes the LWI Forum
- 119 all sectors/ sizes
- 3 industry consultants

7.2   ANNEX 2 – CASE STUDY 1 (COMPANY 1)

BRICKLAYERS TAKING OWNERSHIP OF H&S IN ALLGOOD SERVICES LTD

Key successes:

- Pictures help convey H&S messages to bricklayers and spark discussions in toolbox talks.
- Supervisors have more confidence to question unsafe working with site managers.
- Bricklayers now make H&S decisions themselves or with supervisors and suggest improvements to management.
- High H&S standards mean that Allgood is a valued subcontractor and has been nominated for a H&S award.

Who are Allgood Ltd?

- Allgood Ltd are bricklaying contractors, carrying out brick and block laying works for clients such as Bovis Homes, Taylor Wimpey and Kier Group.
- The company was established in 2001. There are currently around 20 sites/ projects in operation.
- The company currently employs around 130 members of staff, mostly subcontractors. Approximately 80% have on going employment with Allgood.

Why Allgood used the Leadership and Worker Involvement Toolkit (LWIT)

Management in Allgood are committed to protecting worker H&S. This commitment is shown through: achieving high standards set by principal clients to win work and to become accredited with health and safety assessment schemes which are members of the Safety Schemes in Procurement Forum; funding eight supervisors on the Site Supervisors Safety Training (SSST) course to develop their competence to manage H&S on site; carrying out H&S inductions, training and pre-task briefings so that workers understand how to work safely; a 'STOP work when unsafe ethos' and learning from accidents/incidents.

> *"We do instil that... we need you to go home every day to your family...that takes precedence over everything. Then we start work, then we start the quality, then we start the deadlines…, but paramount is H&S".* (Project Manager, October 2013).

Whilst management are committed to improving H&S, the same positive attitudes were not held by workers back in August 2012. Working for different clients had also created inconsistencies in acceptable behaviour on site. Allgood used the LWIT to:

- Increase responsibility and ownership of H&S amongst bricklayers; and
- Develop a distinctive 'Allgood' way of managing H&S, ensuring high standards are consistent across all sites and clients.

HSE/HSL and Bovis Homes supported Allgood in using the toolkit over a 14 month period as part of a research programme looking at how LWIT was being applied by small construction companies.

Which steps of LWIT did Allgood use and why?
- *Step 2 - The Health and Safety Diagnostic Tool (HSDT)*

The Director completed the HSDT at the outset of the research (August 2012) to understand how well developed Allgood's overall approach to H&S was. Results showed that the company had reached a high standard in H&S and constantly strives to improve standards on site. Nevertheless, worker engagement was identified as an area where improvements could be made. Supervisors promote good H&S on site through fortnightly toolbox talks, yet these were not wholly effective in engaging all workers with H&S matters.

> *"It's being able to…hone that [toolbox talks] down into…something that is relevant to us…and means something to us".* (Director, October 2013)

There was a need to grow a shared responsibility between workers and managers for decisions about H&S.

- *Step 3 – Make it Fit with What You Do*

Step 3 of LWIT was used to develop Allgood's programme of toolbox talks. Management recognised the need to put H&S information across in a simple way to prevent workers from "*switching off*" during toolbox talks and to quickly digest key messages. The picture-based scenarios in Step 3 were considered a useful starting point.

> *"We generally used them [Step 3 pictures] and…changed them a bit in the wording of our toolbox talks".* (H&S Administrator, October 2013)

How did Allgood use toolbox talks to involve bricklayers in H&S matters?

Allgood focussed on developing their programme of toolbox talks over the 14-month research period to encourage two-way discussions between management and bricklayers of H&S issues. The initiative consisted of three stages:

AUG 2012	OCT 2012	FEB 2013	OCT 2013
STAGE 1	STAGE 2	STAGE 3	

Consult with bricklayers to find out the top five risks in their job that might cause them to have an accident or suffer ill health	Learn from the experience of delivering picture-based, interactive toolbox talks using Step 3 scenarios, and consider using tablet computers	Deliver a programme of interactive toolbox talks that address Allgood's top 5 risks

Stage 1: The H&S Administrator developed and administered a short questionnaire to all bricklayers asking them for their top five risks and to rank them in order of

importance. The top five risks across the company were: (1) scaffold; (2) housekeeping; (3) manual handling; (4) Slips, trips and welfare; and (5) Weils disease.

Stage 2: The H&S Administrator produced a series of bite-sized toolbox talks targeting specific risks identified by bricklayers from Stage 1, focusing initially on the top three risks (scaffold, housekeeping and manual handling). Pictures from Step 3 were used to support the key points that supervisors needed to get across to workers. Being targeted at specific risks meant that toolbox talks were shorter and could be delivered more frequently (weekly as opposed to fortnightly on some sites).

Allgood trialled the delivery of a toolbox talk on one site using a tablet computer following feedback from the workforce that this would be a more practical way to deliver them allowing quick access to risk assessments on site. Supervisors also felt that it might encourage workers to absorb the key information through visual media rather than reading paper documents.

Stage 3: Bite-sized toolbox talks have been developed for the top five risks identified by workers. Where applicable, pictures from Step 3 have been included. Allgood is in the process of replacing pictures with their own site pictures (e.g. hazards or poor practice encountered by supervisors).

What challenges did Allgood encounter along the way?
▪ *Getting <u>all</u> supervisors to carry out regular toolbox talks*

Management commented that it was difficult at first to encourage up to 20 supervisors to carry out toolbox talks on a regular basis. Two things helped: firstly, making it clear to supervisors that the new toolbox talks are quicker to deliver and more interactive than previously; and secondly, giving the H&S Administrator the responsibility for getting in touch with and encouraging supervisors to deliver frequent, interactive toolbox talks.

▪ *Use of tablet computers on site to deliver toolbox talks*

The trial was not successful due to practical constraints associated with using tablet computers within large groups, e.g. difficulty for all operatives to see, unsuitability for certain locations (by a ditch, near a scaffold, etc.). As such, supervisors generally do not use the tablets to deliver toolbox talks.

"If it's about Weil's Disease…we'll take them by a ditch and if there's a crisp packet or a bit of rubbish I'll do the toolbox talk there because you can physically see what I'm talking about…with a tablet…you have to go into a room…pass it around and it doesn't seem to get the point across as much". (Project Manager, October 2013)

Allgood plan to revisit this and adopt a gradual roll out process rather than a sudden change from paper to tablet, given the IT preference amongst younger, newer workers.

What has changed in Allgood since using the LWIT?
▪ *Supervisors and bricklayers are involved in H&S decisions and are supported to make some decisions themselves*

Completing the HSDT for a final time (October 2013) showed a shift from mixed attitudes towards H&S and repeatedly having to tell bricklayers what to do (back in August 2012) to them making decisions themselves or jointly with supervisors and

feeding back ideas for improvement to management. Workers are "*no longer paying lip service to H&S*" (Director, October 2013) but are taking it seriously. They freely express their views on site as they know that they will be listened to by management. This improvement was thought to be a result of using the LWIT to revise the content and delivery of the toolbox talks.

"*Our operatives on site have become over the last six months more aware of their own H&S and that of others whilst working on site, they are more proactive when it comes to pointing out any problems... on our Site Safety Reports...there is always a little note on the bottom, e.g. scaffolding needs attending to.*" (H&S Administrator, October 2013)

- *Bricklayers now pay attention in toolbox talks, discuss and quickly grasp H&S messages*

Supervisors have learned that delivering toolbox talks in short sessions (targeting particular risks) on a more frequent basis stops workers from becoming overwhelmed with H&S information. Pictures and videos also help workers to quickly grasp key messages and encourage them to discuss these with supervisors on a one-to-one basis. Workers now better understand risks on site and are therefore in a position to readily identify unsafe situations, stop work and raise these to management.

"Asking the guys on site what their opinion on things is …like doing that simple top five task was a way of them coming back to us and telling us what they were worried about and then us actioning the toolbox talks…they felt we were listening to them. They'll come back to the [Director] and say, "No, I'm not working on that site…because that isn't right…they wouldn't have done that before." (H&S Administrator, October 2013).

- *Supervisors carry out regular toolbox talks and take decisions to stop work when unsafe*

Over the past six months, management have not had to chase supervisors to confirm delivery of toolbox talks. Supervisors have become more confident in telling site managers that they will not carry out tasks that they consider to be unsafe. For example, refusing to lift steel sections by hand and stopping work until a crane had been provided. As one supervisor said:

"*I know that it's within my right to stop work that may lead to injury or ill health, and management will support my decision.*" *(Site Supervisor, February 2013)*

Has changing the delivery of toolbox talks helped the business?
- *Allgood's good practice is noted in site meetings*

Improvements to the delivery of toolbox talks have been noted during site meetings organised by principal contractors. Allgood was previously one of the companies listed as not keeping up-to-speed with toolbox talks. Bovis Homes have also commented that the company's housekeeping is better than it used to be.

"You don't want to be the person who is named and shamed in the Site Managers meetings… constantly having to play catch up all the time." (Director, February 2013)

- *A reduction in reportable injuries under RIDDOR*

Despite the change in RIDDOR (from three to seven days) and Allgood effectively doubling its number of employees and subcontractors between 2009 and 2013 (from 85 to 140 direct staff respectively, and from 6 to 12 subcontractors), the number of reportable injuries under RIDDOR has fallen to zero (see Figure 1).

"Less grit in eyes as workers are wearing glasses, and hand cuts on site have gone down as workers are wearing their gloves." (Director, October 2013)

- *Repeat business is being generated due to high H&S standards.*

Allgood is now in a stronger position to win large contracts by being known to have good H&S systems and procedures in place. Kier and Taylor Wimpey want the company to become a regular subcontractor. Through word-of-mouth, Cambridge and Huntingdon Colleges asked Allgood if they would take on four of their apprentices in 2013. The company is also being put forward for a ROSPA Award (the Royal Society for the Prevention of Accidents).

- *Increased confidence and competence of site supervisors*

There has been a transition over the past two years through the use of the LWIT and putting supervisors through the SSST course. Supervisors are now more assertive with principal contractors and freely put their points across during site meetings on H&S matters.

"[Site supervisor] is a lot more confident and…concise how he gets his words over now…he's like, "No actually, I've asked you several times, that's not been done, we shouldn't be working there…let's get the site right and then we'll do it". They've got a lot more confidence now to be able to…say that, even the people who were a little bit shy will come out and say what they feel now". (Director, October 2013)
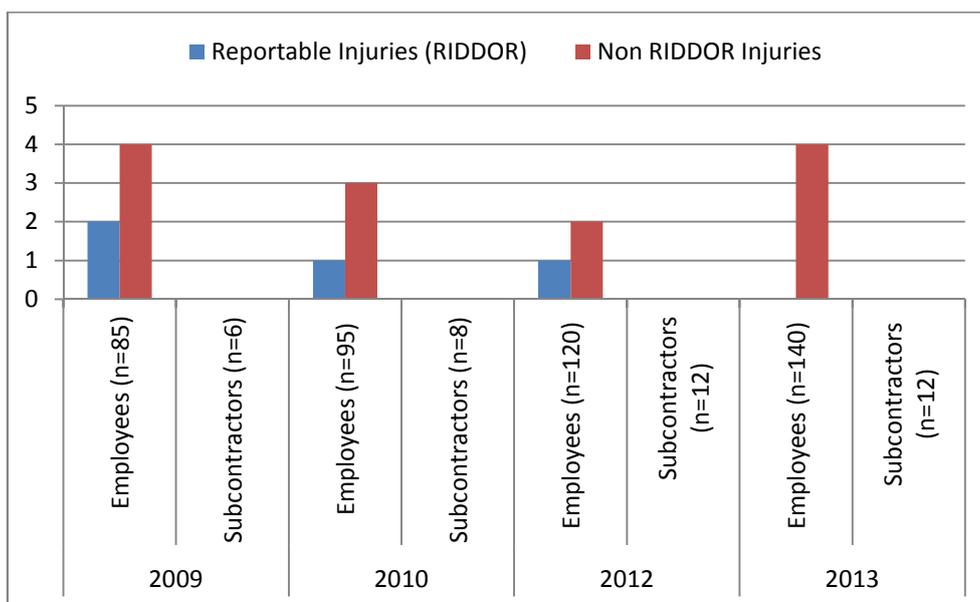
Produced with permission from Allgood Services Ltd.

Figure 1. Decline in reportable injuries between 2009 - 2013

How did LWIT help Allgood to:
- *Increase ownership of H&S amongst bricklayers?*

Through using the LWIT, Allgood has seen a step change in worker involvement, bringing H&S to the forefront of everyone's minds. The company has worked hard to educate workers about H&S risks, and involve them in selecting appropriate controls.

> *"We have done a lot of the toolbox talks around the top five risks the guys on site were worried about, [they] felt that we had taken their concerns on board…reappraising the toolbox talks in line with those risks."* (H&S Administrator, October 2013)

Responsibility for H&S is now shared between the Director and supervisors with evidence of bricklayers thinking proactively about safety before they start work, and having greater confidence to raise issues.

> *"I used to dread a hot summer because my phone would be constantly going… "so and so has not got his vest on", etc., and this year it was great...I hardly had any phone calls."* (Director, October 2013)

- *Achieve consistent standards across sites?*

Allgood has made good progress with ensuring that its high H&S standards are upheld across sites, largely achieved through developing its own package of picture-based toolbox talks. In fact, other clients have commented on how good these are and are looking to do something similar themselves rather than reacting to each different client's demands or shortcomings on any given site. Involving bricklayers in the selection of PPE (e.g. safety glasses) has also led to consistent use of the required PPE for different jobs across all sites, which projects a uniform and professional image for the company.

> *"You walk on a site; you see exactly who works for us."* (Director, October 2013)

How does Allgood plan to keep up these high standards?
- *Refreshing the toolbox talks*

Allgood are keen to maintain the current high standards of H&S and plan to keep up the momentum by updating the content of toolbox talks, including site pictures of Allgood-specific hazards. The top five risks exercise will be repeated with operatives periodically and toolbox talks adapted accordingly.

> *"[We will] most certainly be measuring our results on a regular basis, i.e. staff morale, site safety, and encouragement for operatives to discuss any problems that they may have with regards to H&S on site."* (H&S Administrator, October 2013).

- *Adopting other LWIT practices*

The company is also quick to adopt the good practices that they come across from other companies. For example, developing a pocket sized prompt card for all operatives that lists the do's and don'ts from method statements (see Figure 2). Bricklayers have noticed these, and are using them on site. Management are also thinking about using other tools in the LWIT, e.g. developing Safety Observation Cards.

- *Repeating the HSDT periodically*

Management found the HSDT very helpful as it made them stop and really think about the way things are. They plan to use the tool periodically to help steer planned activities.

"It's a good tool…it does make you look at yourself honestly." (Director, October 2013)

Produced with permission from Allgood Services Ltd.

Figure 2. Pocket sized prompt cards

A final word from the Director of Allgood….

"Good H&S is making my life easier…I can now sleep easier at night knowing that workers are more aware of H&S issues and that they are taking proactive steps to avoid accidents/incidents. Responsibility for H&S is now shared and does not rest with me alone…The biggest thing for me is that everybody's attitude has changed, and I feel a lot more confident that we are doing a better job and the best job we can at the minute."

7.3   ANNEX 3 – CASE STUDY 2 (COMPANY 2)

WORKER ENGAGEMENT IN H&S AT M&A DOOCEY

Key successes:

- Improved worker attitudes and engagement in health and safety (H&S) mean that M&A Doocey have seen significant improvements in their health and safety performance.
- There is a shared understanding of workers' and managers' respective responsibilities in controlling risks.
- Workers are more confident in stopping work on safety grounds and seeking advice.
- Workers and supervisors are more aware of how fatigue can affect their ability to carry out work safely.

Who are M&A Doocey?

- M&A Doocey is a civil engineering and utility contractor providing a range of services for clients, such as Morgan Sindall, National Grid, South Staffordshire Water and Integrated Water Services.
- The company was established in 1981 and employs approximately 150 members of staff.
- The company has achieved several industry accreditations, including the BSI qualifications for Quality (9001) and Environment (14001) Management Systems, and Contractors Health and Safety accreditation.

Why M&A Doocey used the Leadership and Worker Involvement Toolkit (LWIT)

Management at M&A Doocey are committed to H&S and looking after their employees. This commitment is evident through: providing the best available personal protective equipment; funding twelve supervisors and two managers to attend Site Supervisors Safety Training (SSST) in how to engage staff in H&S discussions; carrying out frequent site inspections and audits; holding daily meetings between supervisors and workers to go through risk assessments to ensure that work plans are understood and learning by reviewing trends in incidents and near misses.

Whilst these actions have resulted in several improvements in H&S over recent years, workers' attitudes presented some challenges for management. Specifically, it was acknowledged that certain types of damage particularly underground cable strikes could be prevented by challenging 'bad habits' and unsafe practices among the workforce. Further, due to the nature of the work, the company's workforce is 'mobile' and works remotely, often covering long driving distances within a single day. Management was concerned about the potential impact of driving on workers' concentration and fatigue levels. M&A Doocey used the LWIT to:

- Improve worker attitudes and promote a shared responsibility between workers and managers for decisions about H&S, and
- Engage staff in risk management and build up workers' confidence in knowing when to stop work and seek advice, including recognising any potential risks from fatigue.

HSE/HSL and Morgan Sindall supported M&A Doocey in using the LWIT over a 14-month period as part of a research programme looking at how the toolkit was being applied by small and medium-sized organisations.

Which Steps from the LWIT did M&A Doocey use and why?

- *Step 1 - The Health and Safety Diagnostic Tool (HSDT)*

The Safety, Health, Environment and Quality (SHEQ) Manager completed the HSDT in July 2012 to understand how well developed M&A Doocey's overall approach to H&S was. Results showed that the company was committed to H&S and had a number of positive practices in place to ensure that there are high standards of safety on site (e.g. encouraging workers to raise safety concerns and make suggestions to improve H&S and management meetings to review H&S statistics on a weekly basis).

The results from the HSDT showed that the prioritisation of H&S was as an area where improvements could be made. Although supervisors and team leaders reinforce the message that safety is a priority there were times where productivity still took precedence over safety due to external time pressures (for instance, having to complete jobs quickly to ensure that the public is not left without water). There was a need to engage staff with risk management practices in order to improve attitudes towards H&S and foster a shared responsibility between workers and managers for decisions about H&S.

- *Step 3 – Make it Fit with What You Do*

Step 3 of the LWIT was used to develop a series of tailored, interactive briefings for managers and workers on the main H&S risks that they encountered on the job. The briefings aimed to raise awareness and prompt discussions about the types of risks that workers faced in their job and the responsibilities between workers and management in controlling these risks. The top 10 health and safety risks in Step 3 of the toolkit was a useful starting point, which enabled the company to narrow its focus on the risks that were most relevant to them within the utility industry and tailor them to the specific issues encountered by workers on a day-to-day basis.

- *Step 4 – Lead this in your company*

The health and safety briefings that were run with management also incorporated information from Step 4 of the LWIT to encourage supervisors and team leaders to reflect on their responsibilities for planning and resourcing the work carried out on site. They also focused on the supervisory behaviours that are important in engaging workers with H&S when delivering toolbox talks and/or safety briefings.

How did M&A Doocey engage workers in risk management?

M&A Doocey's first initiative focused on developing a series of H&S briefings to raise workers' awareness of the key risks in their jobs, and stimulate two-way discussions about workers' and management's responsibilities in controlling these risks. The initiative consisted of three stages:

JULY 2012	FEB 2013		SEPT 2013
STAGE 1	**STAGE 2**		**STAGE 3**

Use of near miss and incident reports to identify key risks across the company and select relevant risks from Stage 3 of the LWIT	Tailoring accident scenarios from Step 3 using information from near miss reports with input from the health and safety committee	Deliver a series of briefings on workers and managers' responsibilities in controlling M&A Doocey's top four risks

Stage 1: The SHEQ Manager developed a list of the key risks across the company using information from the near miss and incident reports over the last two years. Information from these reports was then used to select the most relevant H&S risks from Stage 3 of the LWIT. Four key H&S risks were identified, namely: (1) crushed by falling excavation, (2) overturning plant, (3) exposure to silica, and (4) struck by plant.

Stage 2: The SHEQ Manager used the accident scenarios from Step 3 to develop a series of H&S briefings based on the top four risks. To ensure that the scenarios were tailored to the issues that workers faced on site, the SHEQ Manager set up a meeting with the H&S committee to review the most common incidents and near misses across the company and identify how they could be prevented. This process ensured that the H&S committee provided valuable input to the development of the briefings.

Stage 3: Interactive H&S briefings were developed to raise awareness of the responsibilities among managers and workers across the company in controlling the top four risks. The SHEQ Manager first ran the briefings with managers and team leaders. Each team leader subsequently delivered the briefings with their respective teams. All workers attended the briefings on the first two key risks (crushed by falling excavation and struck by plant). Due to the remote nature of the work and the difficulty of getting all staff in one place, M&A Doocey have currently rolled out the briefing on exposure to silica to approximately a third of the workforce. The company is in the process of delivering this briefing to its remaining staff, which will be followed by the briefing on overturning plant.

Other initiatives: Identifying workers at risk of fatigue due to driving

Through its participation in the research, the company also identified worker fatigue as a potential risk among the workforce. Due to the nature of the work, remote working is common practice, and workers often drive long distances within a single day. Management was concerned that excessive driving could potentially impact on workers' fatigue levels and their ability to carry out work as safely as possible.

With support from the HSE and Morgan Sindall, M&A Doocey developed a survey to identify workers that may be at risk of fatigue due to excessive driving requirements. The survey was administered to employees working outside a fifteen-mile radius from the company's Headquarters. The findings from the driver survey were reviewed with the H&S committee, and were communicated to all staff.

Example questions from M&A Doocey's survey on driver fatigue

- How many hours on average do you work per week?
- Do you ever get tired during your journey home? (never/rarely/occasionally/frequently)
- What length of time or distance would you drive before taking a break?
- Does your job require continuous attention? (some of the time/most of the time/all of the time)
- Have you ever felt that you may fall asleep whilst driving? (Yes/No)
- Is there a specific site you may attend when tiredness affects you more?
- What job have you done recently when you have become most tired?
- How would you rate your usual level of tiredness when finishing work? (rated from 1 to 10 where 1 is fully awake and 10 is extremely tired)
- Have you ever been involved in an accident or near miss which could have been attributed to tiredness? (Yes/No)
- Do you think that high levels of tiredness affect your work? (Yes/No)

Produced with permission from M&A Doocey.

In addition to the survey, text messages were sent to workers every Monday morning to advise them of any adverse weather conditions and to remind them to take frequent rest breaks. This was an additional initiative that the company implemented to raise workers' awareness about the potential impact of fatigue, due to driving, on safety.

What has changed in M&A Doocey since the LWIT?
- *Workers feel more confident in recognising risks and stopping work on safety grounds*

The H&S briefings have helped to raise awareness among workers about the risks that they should be looking out for and their responsibilities in how to best manage them. There has been an improvement in workers' attitudes towards H&S where staff take more time in planning their work and thinking about the safest, rather than the quickest, way of completing a task (for instance adopting the safest approach when drilling underground). There is a perception that there is a balance between safety and production and workers are now more likely to stop work when they perceive that a task is unsafe and seek advice about the most appropriate course of action to take.

- *Supervisors carry out weekly briefings and feel more confident in engaging with their team*

Over the last twelve months, management have noticed that supervisors are more enthusiastic about health and safety, a change, which has been attributed to the use of the LWIT and attendance at the SSST course that was funded by the company. Supervisors' weekly briefings to their teams now have a more specific focus on excavation risks (from Step 3 of the LWIT), and are used as opportunities to go through everyone's roles and responsibilities in managing these risks. Supervisors are more confident in delivering the safety briefings and encouraging two-way communications with their respective teams.

- *Workers are more aware of the impact of fatigue on safety*

Use of the survey on driver fatigue as well as the weekly texts sent to workers has helped to raise awareness about the potential impact of fatigue when driving long distances. Supervisors now emphasise to workers the importance of taking regular breaks and working 'responsibly' (i.e. not carrying on working when fatigued). Feedback from staff on the use of text messages has been very positive and they are perceived as useful reminders for workers to look after themselves and take frequent breaks. This process also helped the company to appreciate that they were placing a disproportionate emphasis on distance travelled rather than on travel time (i.e. a 40-mile journey on A roads takes longer than a 60-mile journey on the motorway).

How has the use of the LWIT benefited the business?
- *Significant reduction in the number of underground damages*

At the beginning of the research, the company had set a target of achieving a 10% reduction in the number of underground damages. By the end of the research, the number of underground damages had decreased by 30% representing the lowest number of such incidents that the company has had in the last six years. This significant decrease was attributed to improved worker attitudes in planning work and managing risks.

- *Reduction in the number of Road Traffic Collisions (RTCs) and Lost Time Injuries (LTIs)*

There has been a decrease in the number of RTCs, which has been a result of both improved awareness among the workforce regarding the effects of fatigue (through the survey and texts) and a reduction in the amount of travel time that the company has implemented for its teams. Over the last fourteen months, the company has also observed a significant reduction in LTIs. In 2013 the company only recorded 5 working days lost due to LTIs compared to 70 for the same period last year.

How does M&A Doocey plan to maintain these high standards?
- *Running the LWIT H&S briefings with managers and workers annually*

M&A Doocey are keen to maintain the current high standards of H&S and further build on the positive changes observed in workers' attitudes towards H&S. The company will be repeating the H&S briefings on the top four risks as refresher training for both workers and management on an annual basis. The SHEQ Manager felt that the information contained in the Step 3 of the LWIT was *'too good'* to not be used beyond the duration of the research programme. In addition, the feedback from the workforce on the H&S briefings was very positive. Workers felt that the briefings were very relevant to their work on site, and they helped to bring H&S at the forefront of everyone's mind.

- *Repeating the driver fatigue survey annually*

M&A Doocey are currently developing a shorter version of the driver fatigue survey, which they will be administering on an annual basis across the whole of the workforce as a means of continuously monitoring fatigue levels among workers. Based on the findings from the survey, the company is currently updating the driver handbook and it will be incorporating specific guidance and advice on managing fatigue.

- *Adopting other LWIT practices*

M&A Doocey recognise that rewarding safety behaviours play an important role in encouraging workers to adopt positive practices and maintaining high H&S standards. During the research programme, the company had already started to implement specific practices to reward workers' safety behaviours, which included sending 'accolade texts' and organising an 'award ceremony' as a means of recognising workers and/or teams for a job well done, which was completed to high H&S standards. The company is constantly looking for new ways of rewarding workers and it is considering using information from Step 5 of the LWIT to implement additional incentives for H&S in consultation with the H&S committee.

A final word from the Managing Director and SHEQ Manager at M&A Doocey…

"I can honestly say how delighted and honoured we have felt to be part of this national HSE construction industry case study for the last 14 months. Along with the help of our workforce and management team I feel improvements made in our health and safety performance over this period can be attributed to our participation in this case study."
(Managing Director)

"By measuring our performance over the last 12 months I can honestly say that by being part of this case study and with the assistance of the workforce and our peers we can really see some benefits achieved in our health and safety statistics, such as reduced lost time injury days, reduction in accident book, no RIDDORs, and major improvements in underground damages. I feel sure we will continue to use the toolkit to further enhance our health and safety performance in the coming months ahead."
(SHEQ Manager)

7.4   ANNEX 4 – CASE STUDY 3 (COMPANY 3)

ENCOURAGING STEEL ERECTORS TO GET INVOLVED IN H&S IN ARCHBELL GREENWOOD STRUCTURES (AGS) LTD

Key successes:

- Site Observation Cards (SOCs) have proved a useful way of opening a dialogue with workers, increasing their awareness of safe and unsafe practices, and alerting management to risks on site.
- Involving workers in health and safety (H&S) has helped to improve site audits, reduce RIDDORs and serious injuries, and create a happier workforce.
- There is improved leadership across the business e.g. visibility on site, shared ownership of H&S and on-going professional development of supervisors.

Who are Archbell Greenwood Structures (AGS) Ltd?

- The company was established in 1994 as a steel fabricator.
- They predominantly carry out sub-contracted work for their principal client, William Hare, to erect steel structures for building development / refurbishment.
- It has a stable workforce of around 100 members of staff; most continuing employment from a young age.
- They have gained the British Standards Institution qualification for Quality Management Systems (ISO 9000).

Why AGS used the Leadership and Worker Involvement Toolkit (LWIT)

Health and safety (H&S) is considered a priority on site by all AGS employees. The company is strongly guided by its client's H&S philosophy that 'safer is more efficient' and is continually making improvements to its H&S practices.

> *"The people we do work for… safety is always put forward first and we… try to follow suit… it's always safety first, as simple as that."* (Site Manager, July 2012)

Improvements over the past few years include: implementation of a 'stop work' (when considered unsafe) policy, development of a toolbox talk programme, introduction of a safety newsletter to communicate H&S issues to staff, involving workers in daily method statements and risk assessments to review tasks and potential risks, and more rigorous monitoring of staff training needs by management. While workers are encouraged by management to raise H&S concerns on an on-going basis (e.g. in toolbox talks, discussions when wage packs are handed out), it is often a challenge to get workers involved in H&S matters across the business. AGS used the LWIT (Leadership and Worker Involvement Toolkit) to:

- Encourage more widespread worker involvement in H&S matters (beyond risk assessments/method statements), and push forwards a more deliberate policy of involvement across the company so that workers feel they are part of the solution and not just being told what to do.

HSE/HSL and William Hare supported AGS in using the toolkit over an 18 month period as part of a research programme looking at how the LWIT could support small construction companies.

Which steps of the LWIT did AGS use and why?
▪ *Step 1 - The Health and Safety Diagnostic Tool (HSDT)*

The Managing Director completed the HSDT at the outset of the research (July 2012) to understand how well developed the company's overall approach to H&S was. Results showed that whilst workers occasionally raise safety issues with management, there was further scope to **engage the workforce**, and thereby raising the profile and knowledge of safety and prevention of ill health across the business.

"It's… difficult to get engagement from people that don't ordinarily engage on matters of health [or] safety… without a lot of encouragement." (Managing Director, February 2013)

▪ *Step 4 (Key Tool) – The Leadership Check Tool (LCT)*

The LCT was used to develop two charge hands (lead workers in a group of three workers operating a crane) to site supervisory roles by helping to identify their H&S training needs for managing H&S on site (e.g. Appointed Persons Course for cranes).

"We are using [the leadership tools in the LWIT] to bring on [charge hands] and give them the training necessary to lead their sites." (Managing Director, January 2013)

▪ *Step 7 (Key Tool) – Site Measurement Aid*

Following the guidance contained in the Site Measurement Aid on ways to involve workers in H&S performance measurements, AGS implemented site observation cards (SOCs). These were used to encourage workers to report good and poor practice that they observe on site.

"We encourage dialogue [on H&S matters with workers]… internally it's the biggest challenge we've got… getting people to open the dialogue even if you're encouraging it… it's really what the cards are trying to do." (Managing Director, February 2013)

▪ *Steps 2, 3, 4 and 6 (Further Tools) – Information sheets on engaging workers in H&S*

AGS selected four information sheets: 'Acting on worker engagement' (Step 2); 'Engaging your workers in risk management' (Step 3); 'Effective communication for toolbox talks, safety briefings and inductions' (Step 4); and 'Stop, Look, Assess, and Manage (SLAM) technique' (Step 6). These gave Site Supervisors tips on how to make toolbox talks more interactive.

"They are helpful because we don't have the wording anywhere else...specifically within our procedural systems. [Supervisors] are reading them...the way I know that is because when I go [to site] I see them stuck on the wall." (Administrative Clerk, January 2014)

How did AGS use SOCs to involve steel erectors in H&S matters?

SOCs were the key initiative used by the company over the 18 month research programme to involve workers in H&S matters, and to facilitate conversations about H&S between management and workers on an on-going basis. Figure 1 summarises this process.
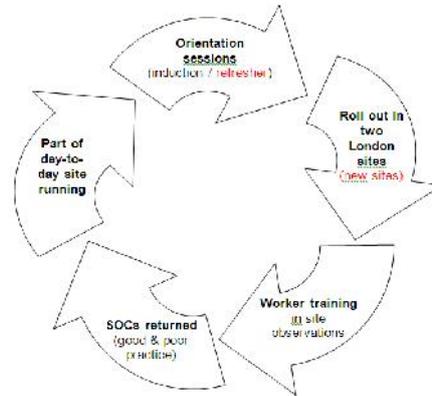

Figure 1. Roll out of Site Observation Cards (SOCs) in AGS

Orientation sessions (October, 2012): The Managing Director and Administrative Clerk ran orientation sessions on two London sites to familiarise the workforce with the SOC process. Charge hands and site supervisors were given responsibility for looking after blank SOCs.

Roll out to smaller sites (by February 2013): The roll out of the SOCs to other, smaller sites was a gradual process initiated when charge hands and site supervisors moved across to these sites. As part of the process, two operatives (working towards charge hand level) were trained in site observations (e.g. attending training by the Engineering Construction Industry Training Board), which has helped with delivery of the SOCs on sites.

Part of the day-to-day running of sites: Within six months of the orientation sessions, the SOCs had become integral to the way of working on sites, with around 100 cards completed per quarter (an average of one a day). The information sheets from Step 4 of the LWIT on leadership and communication skills provided some helpful tips for guiding senior management with the roll out process. This included:

- Increasing the visibility of senior management on site following the orientation sessions, and using this opportunity to reiterate the importance of completing the SOCs and to discuss some of the issues raised by workers.
- Getting the main contractor on board. The SOC process has had better uptake on London sites where the client actively encouraged their completion.
- Scheduling weekly/fortnightly meetings between the Administrative Clerk and a new co-director responsible for H&S (appointed six months into the research). H&S is covered as a topic in these meetings, focussing on matters that have arisen in the previous week or two and on the implications for staff training needs.
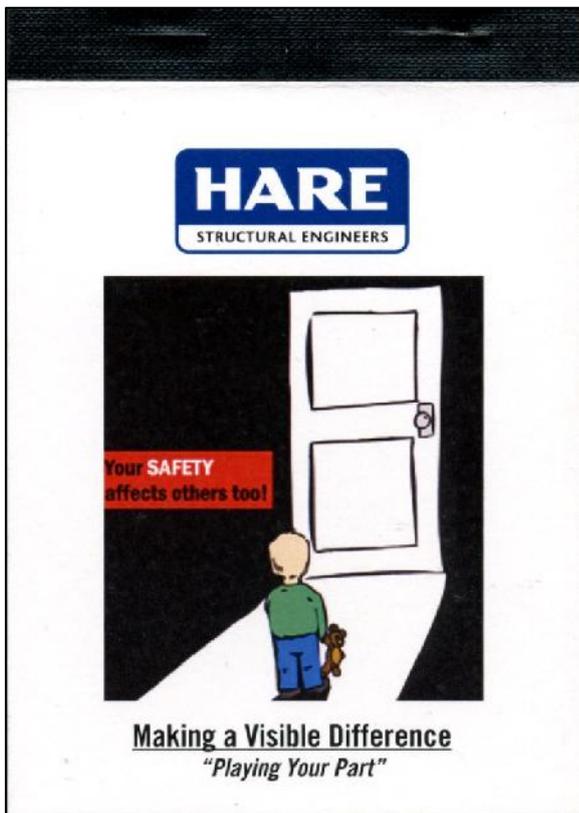
Briefly describe the safe/unsafe act

What action necessary or has been taken?

a) Thanked for good work etc. ☐
b) Corrected there and then ☐
c) Explained safe system of work ☐
   and got agreement to work to it
d) Training required/arranged ☐
e) Stopped task and raise with
   Supervisor/Manager ☐

Reaction of person commended or at risk:

☐ Positive   Negative ☐

Area: _____   Date: _____

Site observation cards (SOCs) – William Hare template used by AGS

HARE
STRUCTURAL ENGINEERS

Observation

Name of Observer _____

✓ Tick a category for the safe/unsafe
  action observed

Safe		Unsafe
☐ Safe body position		☐
☐ Tools & machinery		☐
☐ Overhead hazards		☐
☐ Falls, slips, trips		☐
☐ Lifting loads (slinging & handling)		☐
☐ Plant & vehicle movements		☐
☐ Other		☐

CARRYING OUT A BEHAVIOURAL OBSERVATION AND DISCUSSION
"NO OBSERVATION WITHOUT CONVERSATION"

Be a "Role model". Ensure you are acting in the manner you would expect others to act in and wearing all the mandatory PPE at all times.

When you approach a person, introduce yourself to them and let them know that you are carrying out a workplace observation/discussion (you may already know that person, however you can inform them what you are doing). Everyone will have had the "orientation", so they will understand what you are talking about.

Do not stand observing from a distance and writing down anything you see that is wrong and walk away without speaking to them!

Remember "NO OBSERVATION WITHOUT CONVERSATION"

Speak to the person how you would like to be spoken to, in a courteous and open manner.

Look for the "Positive" or "Good" they are doing first and praise or at least acknowledge the good work. If there is more than one positive (there usually is), then save it until the end!

"Ask" them what they are doing (it may be obvious, but let them explain).

"Ask" them "What is difficult or awkward/what they struggle to do" (this is often something they will not be doing or taking a short cut).

37

What happens with the information collected from the SOCs?
▪ *Analysis of all SOCs received*

All SOCs are analysed by William Hare on a monthly basis and results are sent to senior management in AGS. The analysis enables senior management to drill down into the data further and explore aspects that show a high number of reports. The most common safety risks reported relate to 'slips, trips and housekeeping' with around 20-30% of comments focusing on workers' own work areas (e.g. 'keeping his compound tidy'). This shows that workers are more aware of potential slip and trip hazards (which is a top safety risk for the company) and are flagging these up to management. The most commonly reported work category is 'lifting and slinging', which reflects typical work activities on site.

▪ *An example of where an issue raised by workers was acted on by management*

Analysis showed a high number of reports for the 'other' category relating to PPE use (October/November 2013). When explored further, it became apparent that a number of workers were getting cuts on their hands due to working on a project where unpainted steelwork was predominant. As a result, management purchased hand protection with greater durability and therefore a higher degree of protection against cuts.

What challenges did AGS encounter along the way?
▪ *A decline in completed SOCs after the first week of roll out*

The company noted a decrease in the number of SOCs completed following the first week of their roll out (November/December, 2012) with only one card being completed on average each week. The initial orientation sessions were worker-focused and did not include all supervisors. As such, the Managing Director spoke to all site supervisors, reiterating the importance of the SOCs and reminding them of their responsibility to encourage their completion on site.

"[The Managing Director] addressed that problem, getting the supervisors on board."
(Administrative Clerk, January 2013)

The Managing Director also spoke to workers during his site visits to reassure them that it is okay to say that something is unsafe.

"To begin with [during] that first week nearly everyone did it, then nothing more towards the end of 2012... it's really been [the Managing Director] pushing people to say, it's ok to say it's unsafe." (Administrative Clerk, January 2013)

▪ *Getting the workforce to spot hazards other than 'slips, trips and housekeeping'*

Management consider that 'slips, trips and housekeeping' are the most commonly cited category on SOCs because they are easier to spot. The company plans to address this issue through refresher orientation sessions, reminding workers of the importance of being vigilant to the range of hazards on site (e.g. manual handling).

▪ *Getting workers to report poor H&S practices to management*

Analysis of the SOCs generally shows that good reports far outweigh reports of poor H&S practice (approximately three quarter of all reports reflect good practice observed

on site). Furthermore, observations of poor practice tend to be from site supervisors. These findings, along with anecdotal evidence from Site Managers, suggest that there is a reluctance amongst workers to report their workmates when they see them behaving in an unsafe way.

"[Workers] don't like saying bad things about their own work mates. We do get some negative ones, but they're not always directed at our own company… nobody wants to hear bad news, but it's good to make improvements." (Site Manager, January 2014)

Senior management recognise the need to reiterate 'no blame' messages and reassure workers that *"it's ok to do it; you're not going to get done for highlighting anything"* (Administrative Clerk, January 2013). This will form part of the planned refresher orientation sessions. Management will also use these sessions to gather workers' feedback on the SOCs, in particular, whether they perceive the cards to be a useful way of voicing their safety concerns.

"While the site observation cards have encouraged some workers to become more engaged with H&S, this process will take time to embed." (Managing Director, February 2013)

How did the LWIT help AGS to encourage more widespread worker involvement in H&S matters?

"It's still difficult and it's still not easy to involve the workers because...they're not comfortable normally talking about the work...but the more you do it, the easier it gets." (Managing Director, January 2014)

▪ *SOCs encourage an interface with workers directly*

Senior and middle management have noticed that workers are more engaged in H&S since introducing SOCs on site. Workers seem willing to make management aware of safe and unsafe practices either through completing SOCs or speaking to site supervisors about their observations. Workers are starting to question whether work is safe to undertake rather than this being the sole responsibility of the Site Supervisor (e.g. this was evident by an increase in the number of phone calls being made by charge hands to supervisors).

"We know that they are...doing these cards themselves and all we can take from that is that they are putting the effort in." (Administrative Clerk, January 2013)

▪ *The style of delivery of toolbox talks has changed from' being told' to 'being involved'*

The information sheet 'Effective communication in toolbox talks' (Step 4) provides useful tips on different ways to deliver toolbox talks and challenge poor H&S practice. One Site Manager commented that the information sheet helped to boost his confidence:

"I get on with them all, I know them all… [But] standing up in front of the lads is a big thing…putting yourself forward… when you're challenging the men out on site, instead of just shouting… I went through… one of the sheets on that." (Site Manager, February, 2013)

- *Improved H&S leadership across the business*

The leadership tools have increased awareness amongst management of the importance of getting workers on board, and the key role that they have in driving home the message to the workforce regarding the importance of completing the SOCs. The Managing Director was the catalyst for encouraging site managers and supervisors to change their approach to managing H&S on site so as to involve workers in discussions and decision making. *"The leadership skills are important...and it's helpful, there's no doubt about that."* (Managing Director, January 2013)

Project managers have also come on board who previously did not consider safety to be their concern. *"We've got two project managers and they don't usually get involved in the safety... but those two are on board with it now... there's definitely been attitude change there."* (Administrative Clerk, January 2013)

The leadership skills of site managers and supervisors have improved considerably through giving them more autonomy for H&S on their site, supported by the necessary training. The LCT and supporting information sheets (e.g. 'Acting on worker engagement', Step 2) were considered a useful development aid for new supervisors to make them aware of the behaviours expected of them on site and to identify any necessary training to support them in this role.

How has using the LWIT helped the business?
- *A reduction in RIDDORs, major accidents and serious minor injuries*

Within six months of using the LWIT (by February 2013), AGS noted a decline in major accidents and serious injuries (e.g. deep cuts). Whilst the number of minor injuries steadily increased in the months following the introduction of the SOCs, by the end of the research (January 2014) incident levels had plateaued. Management perceived these levels to be a more accurate reflection of site injuries compared with those prior to using the LWIT when workers did not always report injuries to site supervisors. The company has also experienced a reduction in RIDDORs reaching zero in 2013. AGS acknowledges that:

"The safer we are the more likely it is that we are going to get better quality work...we wouldn't have stood a chance of getting [a large high-profile project] if we hadn't got the highest safety and quality standards." (Managing Director, January 2014)

- *Increased awareness amongst management of H&S issues on site*

The SOCs have alerted management to H&S issues that needed to be addressed on site that they were not previously aware of.

"The observation cards...are encouraging us to interface with the operatives directly and...I think it's benefiting us...and it's not an easy area to get the feedback, but we've found it's an important area and there are...a number of specific things that we've got out of it that will definitely benefit everyone." (Managing Director, January 2014)

- *More productive site audits*

The leadership tools have encouraged those carrying out site audits to approach workers differently by exploring work processes with them to better understand current practices. As the Administrative Clerk (January 2014) said, *"It's useful for me… for*

when I'm doing the audits to talk to them. It's not just like 'What are you doing?'...it's like 'Can you help me out with this', and then we can get talking to them about what they are doing rather than them being on guard."

▪ *Improved worker morale*

The Managing Director acknowledged the benefits of creating opportunities to discuss H&S with workers. Taking the time to talk to workers helps to make them feel appreciated by management and happier knowing that the company cares about their personal safety.

"The workforce is more content...if they are safer, why wouldn't they be...and if you're interacting with the workforce more... and not just coming and going and ignoring them...Surely everybody would be more inclined to play their full part in the company whether they be a steel erector or welder." (Managing Director, January 2014)

How does AGS plan to keep up these high standards?

"[Health and safety] is talked about more [by the workforce]… and will be sustained… part of it is the way the industry is going. It's not just us it's the clients and… the main contractors… there's no getting away from it." (Site Manager, January 2014).

• *Continue to embed SOCs across all sites*

Management recognise the need to run refresher training (repeat orientation sessions) with all staff to continue the process of embedding the use of SOCs across all sites. The training will reiterate 'no blame' messages to workers to encourage the reporting of poor practices. It will also remind workers of the importance of being vigilant to the range of hazards that they face on site as well as checking whether anything else needs to be in place for workers to voice their concerns. Management also plan to create a company specific SOC using the template provided by their main client, including only the categories that apply to AGS.

• *Continuing use of LWIT*

Management acknowledged that the **HSDT** was a useful tool for reflecting on current H&S practice. While results showed improvements over the course of the research in how AGS is complying with its H&S responsibilities and the involvement that workers have in H&S decisions, assessments by site supervisors tended to be slightly lower than those by senior management. AGS is considering using the HSDT in management meetings with site managers and supervisors to discuss reasons for any differences in views regarding H&S practice.

AGS plan to continue using the **information sheets** that encourage good communication with workers on H&S matters. The company is also considering developing their own series of additional toolbox talks to accompany those supplied by their main client. The **Leadership Check Tool** is regarded by management as a useful, practical tool for planning the development of upcoming site supervisors. Management are also considering implementing a suggestion scheme as referred to in the **Site Measurement Aid** in Step 7 of LWIT. AGS have experienced this type of scheme through their main client where workers are rewarded for feasible suggestions that they make to improve site safety.

A final word from the Managing Director and Administration Clerk in AGS Ltd…

"It's been beneficial and it's helped us. We were always very keen on safety and doing the right things. One of the difficult bits is always worker involvement...and that has definitely improved since we've started out on this path...and used the toolkit in that regard...hopefully...we can use it to full advantage as the years progress." (Managing Director, January 2014)

"Being involved has helped with [our] key goal… getting workers involved in H&S decisions and actions. The biggest improvements have been with developing the leadership skills of Site Managers and Site Supervisors to encourage worker involvement and understand… the importance of getting workers' views. This has been championed by the Director. A lesson learned has been that encouraging greater worker involvement in H&S requires as much work with Site Supervisors as it does with operatives." (Administrative Clerk, January 2014)

7.5   ANNEX 5 – CASE STUDY 4 (COMPANY 4)

GETTING THE WORKFORCE ENGAGED IN H&S AT BATEMAN GROUNDWORKS LTD

Key successes:

- With the creation of senior manager posts, responsibility for H&S is now shared between head office and sites.
- Worker involvement in H&S discussions has resulted in solutions that work in practice and save money in the long run.
- Communication has improved across the business. Observations get shared so that everyone is learning from each other.
- Senior managers have become more confident in running interactive briefings with workers to engage them in H&S.

Who is Bateman Groundworks Ltd?

- Established in 1997, the company's core business is ground works on house building sites for clients such as Bovis Homes, Taylor Wimpey & Persimmon Homes.
- The company employs a total of 128 staff (15 office staff, 7 site managers and 110 direct onsite operatives), with an additional 10-15 subcontractors per day.
- The company also employs an external H&S advisor (Foley & Baugh Associates) The company implemented the OSHAS18001 in September 2013.

Why Bateman Groundwork's used the Leadership and Worker Involvement Toolkit (LWIT)

Senior management at Bateman Groundwork's is committed to protecting the health, safety and welfare of its employees, consistent with its philosophy: *"To provide a service that meets client's needs, technically and financially, while ensuring quality and safety."*

The company underwent substantial change in the 18 months prior to using the LWIT. A new 'site management' tier was introduced to cover the managerial/administrative side of H&S. It was a significant investment for the company to select and equip these newly appointed site managers, some promoted from site foremen, with the necessary managerial and H&S competencies to effectively carry out this role.   This shift in responsibility for H&S from head office to site initiated a new way of working. Workers were given more responsibility for making H&S decisions, supported by the necessary systems/procedures and light touch supervision from senior management.   The company is keen to continue to develop a collaborative culture in which everyone in the business takes responsibility for H&S, moving away from the "them and us" attitudes of the past. It used the LWIT to identify any gaps in its current leadership and worker involvement practices, as well as any additional practices it could adopt and standardise. Specifically the company aimed to:

- Improve worker engagement in H&S issues and;
- Develop good H&S communication skills across the workforce.

Which parts of the LWIT did Bateman Groundworks find most helpful and why?

▪ *Step 2 - The Health and Safety Diagnostic Tool (HSDT)*

Senior management completed the HSDT at the outset of the research (April 2013) to understand how well developed was Bateman Groundworks overall approach to H&S. Results showed that H&S is considered to have an equal priority to productivity. The company's "Time Out" policy (implemented through OSHAS18001) requires workers to stop work in situations where they feel unsafe. The company has also established formal learning mechanisms (mostly through in-house and external training) to learn from experiences (e.g. accidents, incidents, near misses) and educate its workforce about risks and controls. Nevertheless, results also showed that management was more committed to H&S than workers. Senior management recognised the need to afford the workforce with greater autonomy for H&S decisions.

The company's H&S advisor incorporated the HSDT's scale ('Sprinting', 'Running', 'Walking', 'Starting Blocks', 'Getting Going') into a 'H&S Measurement Tool' developed by the company to assess the performance of site managers after being in post for a year. The scale has also been applied to production and commercial assessments to promote consistency in measurement. *"Doing this has helped not just H&S but it [has] moved through the company as well… production, administration, commercial, etc."* (Foley & Baugh Associates, October 2014).

▪ *Steps 3 to 6 – Communication, worker involvement and situational awareness advice*

Senior management looked through the LWIT to compare the company's current leadership and worker involvement (LWI) practices with good practice. While the company had an established H&S management system in place, with the introduction of the OSHAS18001 system on sites, some gaps were identified, namely to:

● Improve communication of H&S on site and between site and head office. This includes up skilling senior managers in worker engagement techniques to deliver the company's programme of circa 30 toolbox talks in an engaging way.
● Establish additional mechanisms for workers to voice H&S concerns/ideas.

How did the company improve communication and worker engagement on H&S matters?

Bateman Groundworks implemented a number of focussed initiatives to establish effective two-way H&S communication across the business and to provide mechanisms for workers to voice H&S concerns and suggestions to management. These initiatives included:

(1) Re-invigorating the company's H&S Committee:

The company re-established its H&S Committee, which is chaired by the Managing Director, and consists of representative site managers, foremen and workers from every trade. The committee meets every two months to discuss H&S matters under review. Two members of the committee are replaced every three years to ensure continuity while encouraging wider involvement. The committee provides a means for early worker involvement, increasing the likelihood that solutions will work in practice. For example, during discussions about how best to fit hand rails onto machines to

prevent falls from height during maintenance, a machine driver pointed out a potential issue with the planned placement of the rails and suggested a workable alternative. *"He is the one who works nine hours in that machine per day, so he is obviously the best person to consult [about] issues before we implement anything across the company"* (Lewis Nicholas, Bateman Groundworks Ltd. October 2014).

(2) A "Bright Idea/Bad Idea" suggestion scheme:

Each site now has a suggestion box with 'Bright Idea' and 'Bad Idea' cards that workers can complete anonymously to express their thoughts on how the company could improve and/or what it should not be doing. All suggestion boxes are locked and can only be accessed by the H&S advisor. Site managers were involved in producing the procedure for the scheme, which served as an aide memoire to ensure a consistent roll out to workers during the weekly toolbox talks. All cards are collected each month by the H&S advisor. Workers receive feedback about whether their idea will be pursued or not. Ideas that save the business money are rewarded. *"Whenever someone has written their name, they will get a letter from [the Managing Director]… thanking them for taking the time… to express their views through the system"* (Foley & Baugh Associates, October 2014).

Produced with permission from Bateman Groundworks Ltd.

"Bright Idea/Bad Idea" suggestion scheme at Bateman Groundworks

(3) Developing site managers' worker engagement skills:

While site managers had received the necessary accredited H&S training and had attended a five-day in-house management training programme, they needed support to help them to engage their workers in H&S discussions about method statements and risk assessments. A staff survey revealed that site managers were *"giving [workers toolbox talks]… saying 'read and sign that, are there any questions?'… That's not interactive enough for us"* (Foley & Baugh Associates, January 2014). Support was provided by:

- Enabling sites with Wi-Fi to access the Internet during toolbox talks, e.g. referring to the picture-based scenarios in Step 3.

- Training site managers to act as champions for specific topics, e.g. asbestos, manual handling. The accredited training provided further tips on ways to engage workers.
- Involving site managers in the design and delivery of interactive workshops at the company away day (March 2014). This runs every two years to refresh worker knowledge in eight key H&S risk areas relevant to the business. Being actively involved improved site managers' ability and confidence in delivering interactive and engaging talks.

Produced with permission from Bateman Groundworks Ltd.

Get the thumbs up before you approach logo ("Thumbs Up" scheme)

(4) A "Thumbs Up" scheme:

The "Thumbs Up" scheme was taken from Taylor Wimpey EA sites to improve worker awareness of what is going on around them on every Bateman Groundwork's site. *"If you see the machine carrying out a heavy lifting operation… you need to get the drivers attention first… actually put your thumb up so he can then see that you're there and acknowledges you, this will ensure should you walk around the back of the machine this is with the drivers consent… it's keeping everyone aware on site… with only approved personnel working in that area"* (Lewis Nicholas, Bateman Groundworks Ltd. October 2014). To prompt this behaviour, each plant/machinery on site has "Thumbs Up" stickers on them. The same logo has also been printed on high-vis jackets and vests for all site workers and visitors (see above). The initiative was well received by workers across all sites. The roll-out of the scheme was timely as workers had heard about someone in a nearby company being run over and killed by a reversing forklift truck.

How did the LWIT help Bateman Groundworks to improve communication and worker engagement on H&S matters?
- *Putting systems in place to promote two-way communication across the business*

Together with the company's existing H&S management practices, established with the introduction of OSHAS18001, the additional LWI initiatives were perceived by senior management as being instrumental in developing a two-way communication for H&S across the business. The company now has systems and procedures in place to get workers' views on H&S issues as soon as they arise. Any H&S suggestions discussed at the H&S Committee and monthly meeting between all site managers is funnelled to an 'Internal Management Meeting' each week where decisions are signed off by the

Managing Director. These outcomes are communicated to workers through site managers, H&S Committee minutes, a note in pay packs or site notice boards. Systems are also in place for site managers to provide timely feedback to head office, e.g. completing a 'Site Manager Report' to alert senior management of any site issues (e.g. safety equipment not arriving on time causing work delays). *"This is important for the [site] managers because they [have] got to be accountable, but they [have] got to have the opportunity to state their case"* (Foley & Baugh Associates, October, 2014).

- *Improving the delivery of training, toolbox talks and briefings to engage workers*

The training and support that site managers have received in worker engagement skills (e.g. through formal training programmes, involvement in the away day and access to the LWIT) have encouraged them to approach workers differently so that they are more likely to take on board H&S advice. Site managers feel more confident than they did at the start of the research in delivering interactive toolbox talks and briefing sessions to workers. *"We used the [site] manager's meetings prior to the away day to begin to outline the [sessions] and each had a lesson plan… presentational aids, etc… the guys were involved in that to enhance their ability to do training sessions"* (Foley & Baugh Associates, October 2014).

- *Encouraging more widespread worker involvement in H&S matters*

As advocated through the LWIT, a site manager and foreman considered that effective conversations with workers built through established good relationships offered the best route to engagement. Workers are now approaching site managers/foremen to voice H&S concerns rather than ignoring or keeping quiet about these, and are completing "Bright Idea/Bad Idea" cards (e.g., a recent issue raised about the safe storage of keys for vehicles and immobilisers). Workers are also more likely to use their own initiative, such as putting up appropriate H&S signage rather than having to be told to do so, and follow the "Thumbs Up" and "Time Out" procedures on site. Senior management actively encourage worker involvement, for example, by asking workers to trial PPE or test road machines and make a recommendation on which to purchase. One wheel digger operator posted a picture of himself with his new machine on a social media site and thanked the Managing Director for purchasing the model that he and his workmates had suggested.

- *Being owned at site level, H&S is now widely recognised as a core company value*

The company has observed an improvement in its H&S culture and believe that this reflects its progress with up-skilling site managers. Completing the HSDT again (October, 2014) showed a shift in the commitment and engagement levels of the workforce. The results showed that workers now share managers' commitment and are proactive in raising H&S standards. Site managers have been instrumental in: involving workers in discussions about risks, developing a culture of weekly safety briefings, promoting "Thumbs Up" and "Time Out", measuring progress through site observations and encouraging two-way communication on H&S matters between management and workers. Senior management noted the improved confidence of site managers in taking responsibility for the H&S of their own sites. For example, one site manager developed a H&S questionnaire to quiz workers on key learning points after toolbox talks. The questionnaire is also used in inductions to teach new starters about safety rules.

What challenges did Bateman Groundworks encounter along the way?

Only minor challenges arose when implementing the additional LWI initiatives. Senior management considered this to be a by-product of the company's new way of working with workers consulted about initiatives at an early stage. As such, any issues can be quickly resolved and a way forward agreed. For example, senior management became aware when talking with workers that they were reluctant to submit 'Bright Idea/Bad Idea" cards about their site manager as the suggestion boxes were initially located in the site manager's office. This also meant that the boxes were not accessible when the office was locked. To resolve this issue, all boxes were moved to a communal place (e.g. canteens), accessible to everyone at all times.

"Some operatives have said that they want to raise an issue, but the issue may well be with the site manager… so this is a confidential route that [only the H&S advisor] will see…" (Lewis Nicholas, Bateman Groundwork's Ltd. October 2014).

An on-going challenge that the company is addressing concerns the confidence of site managers to state their case to senior management to secure funding or change a work practice although a general improvement has been noted; "*Some of the site managers still suffer from lack of confidence… they will say something to me… and I say… 'Why haven't you told [the Managing Director] about that?'… [their] job is to state the case… they are slowly coming round to that"* (Foley & Baugh, October 2014).

How has the use of the LWIT benefited the business?

"*Accident rates are down, but more importantly more risk assessments are reviewed, more near misses are reported, more staff suggestions [are made and we have]… better skilled site managers and foremen"* (Foley & Baugh Associates, September 2014).

▪ *Improved reputation*

Senior management stated that the company has grown financially over the past couple of years and commented that the company is held in high esteem by clients who have confidence that Batemans Groundwork's will deliver quality work without compromising H&S. The Managing Director of a principal client praised Bateman Groundwork's for the step change that it has made with H&S management by creating site managers.

▪ *Improved efficiency*

"*The whole methodology of the company is different and is making for a better, more straightforward life for us all"* (Foley & Baugh Associates, October 2014).

The creation of site managers was believed to have created efficiencies within the organisation (e.g. materials coming onto sites just in time). One site manager commented on positive worker feedback about the new systems in place and acknowledgement that it is helping them with their day jobs.

▪ *A more motivated workforce*

Workers that had previously left the company to work elsewhere for a slight increase in pay have now returned to the business after experiencing lower H&S standards.

Senior management considered the following as being important for boosting worker morale:

- Involving workers in purchasing decisions. "You start the guys off with the right attitude and they feel like they are part of the company" (Foley & Baugh Associates, October 2014).
- Promoting site managers from within the company (from site foremen) as they have already established a trusted relationship with their workers.
- Acknowledgement from the Managing Director for their valuable contributions to improve the business, and unexpected rewards – e.g. workers drawn out of a raffle at the away day chose an envelope containing anywhere between £5 and £300. However, "the biggest thing… is not the money, it's the recognition from [the Managing Director]… the fact that they… shook [his] hand and he said to them, thank you for all your hard work this year" (Foley & Baugh Associates, October 2014).

▪ *Improved communication across all areas of the business*

"The company is willing to act as one and going forward further procedures will be implemented so each person is aware of the decisions that are made and what's happening on site [each] week" (Lewis Nicholas, Bateman Groundwork's Ltd. October 2014).

The changes that the company have made have helped to improve communication generally. In particular, the 'Site Managers Report' was perceived by senior management as being invaluable for bridging the communication gaps between each site and head office for the core business areas (H&S, Production and Commercial). Management has learned that, *"communication is essential throughout our organisation; documenting progress within our weekly reports acts as an excellent aide memoire for our site team… whilst also providing Senior Management with a summary on works carried out that week."* (Lewis Nicholas, Bateman Groundwork's Ltd. October 2014).

How does Bateman Groundwork's plan to keep up these high standards?

"We are determined to take the best practice from every client we have… and build a system that is above everybody's, so that we are always compliant with their standards and always miles ahead of where the law wants us to be" (Foley & Baugh Associates, October 2014).

▪ *Further development of LWI initiatives*

The company is developing a Bateman's character to personalise "Time Out" and "Thumbs Up" signs so that these schemes continue to attract attention across sites. Site names are also being added to "Bright Idea/Bad Idea" cards to encourage site managers to take ownership of the changes that need to be made to their site. The company is also developing proactive measures of worker engagement, initially to measure site manager's level of engagement through a 'Site Audit Checklist' that captures, e.g. how many suggestion cards have been completed on their site.

- *Provide sites with instant feedback on how they are inputting into the business*

The company's aspiration is to give sites full profit and loss responsibility. It is considering doing this via an Excel spread sheet (having trained site managers to use Excel). Site managers would input work completed each week with the associated costs and value. Their objective is to break even, so that the company is making the profit that it needs to make. *"They will see then what [they] have done as site managers, the decisions [they] have taken and how that has affected the work"* (Foley & Baugh Associates, October 2014).

A final word from the Managing Director of Bateman Groundwork's, Richard Bateman…

"I am very pleased to have been a part of this study, not only have I seen improvement in our Health and Safety performance, but feel that we have played a small part in helping others to do the same" (October 2014).

7.6   ANNEX 6 – CASE STUDY 5 (COMPANY 5)

ENSURING A HOLISTIC H&S CULTURE AT STORTFORD INTERIORS

Key successes:

- The workers' engagement levels have increased since June 2013; they are more focused in following and adhering to the required health and safety practices and procedures, and thereby facilitating improvements in Stortford Interiors' organisational health and safety culture.
- There is a shared understanding of workers' and managers' respective responsibilities in controlling risks.
- Workers are more confident in taking the initiative to stop work on safety grounds.

Who is Stortford Interiors?

- Stortford Interiors is a specialist interior architectural contractor that offers a wide range of services for diverse clients including BAE Systems, Sir Robert McAlpine and Zurich Finance.
- The company was established in 1991, employs 50 core members of staff, and an additional 300 sub-contractors as needed.
- The company has achieved various accreditations, including the BSI Management Standards for Quality (9001), Environment (14001) and Health and Safety 18001 and also Contractor Health and Safety Assessment Scheme (CHAS).

Why Stortford Interiors used the Leadership and Worker Involvement Toolkit (LWIT)

Stortford Interiors' senior managers are very committed to the health and safety (H&S) of their employees. This is shown in the initiatives that were introduced in the company. These include:

- the near miss reporting card system;
- two sets of monthly H&S audits, one of which is carried out by an external auditor;
- disseminating messages to workers on site that they should not take any H&S risks to facilitate project delivery;
- providing workers with the correct personal protective equipment (PPE) and checking that these are worn;
- confirming that all workers have the required training and qualifications before being allowed on site and
- conducting start right meetings at the beginning of each work day.

Start right meetings occur at the start of the day and allow the site managers to reinforce safe ways of working and assess risks throughout the day. Overall, the company wanted to strengthen its H&S culture, i.e., all workers having similar beliefs, attitudes and values towards safety.

Stortford Interiors wants to ensure that H&S remains high on its agenda in order to guarantee that its workforce is protected consistently. In addition, it wants to work more proactively with clients to communicate its H&S commitment in its approaches to work. Stortford Interiors used the LWIT toolkit to:

- Improve on how it managed its H&S procedures and to ensure consistency in its H&S practices across the organisation, and
- Engage staff to a greater extent in H&S practices and thereby improve its organisation H&S culture.

HSE/HSL and Sir Robert McAlpine supported Stortford Interiors in using the LWIT over a 13-month period as part of a research programme to explore how small and medium-sized enterprises (SMEs) were using the toolkit.

Which steps from the LWIT did Stortford Interiors use and why?
▪ *Step 1: The Health and Safety Diagnostic Tool (HSDT)*

The Managing Director and the health and safety manager completed jointly the HSDT in June 2013 to allow an initial assessment of Stortford Interiors' overall approach to H&S. The results reflected the company's *commitment to H&S*, as illustrated in various positive practices to strengthen the high standards of safety that the company has in place (e.g. having the H&S committee meetings on site with allowance for one worker on site to attend to raise any site-specific issues that s/he perceives as relevant).

The results showed also that *worker engagement* was an area that could improve. While the supervisors and team leaders reinforced the message that safety is a priority and worked with contractors to devise safe practices, formal worker engagement practices within the organisation had not been implemented. The participants noted that collaboration with workers occurred in some situations, such as discussing with some teams the various options that could be used to proceed with a specific H&S issue.

▪ *Step 4: Lead this in your company*

Stortford Interiors used the information in Step 4 of the LWIT to increase the visibility and accessibility of leaders in the company. This involved the managers, including the Managing Director, being seen more often on all of the sites and actively encouraging the workers to approach them and raise issues. At the health and safety committee meetings all of the workers' suggestions were recorded as part of the official minutes and all of these were actioned. In order to increase visibility further, a presentation from the Managing Director was included as part of the new workers' induction.

Another initiative involved the site managers having a greater role in the handover meetings before the operatives started work on the various sites. The handover covered the scope of the work and what the workers would be doing. These actions served also to encourage worker engagement thereby allowing the workers to feel more comfortable in approaching leaders to discuss H&S issues.

▪ *Step 5: What's in it for your team*

Step 5 provided Stortford Interiors with various approaches to communicate to a greater extent with its workers on the support that they would receive from the company and the good practice that was expected of them. This 'buy-in' allowed the workers to appreciate that the management was committed to the process of improving H&S practices and the overall organisational culture. One of the company's initiatives included, a dust awareness campaign, i.e. 'ditch the broom'; to increase workers' awareness of the dust risks on site and improve their management. The campaign

included the training of site managers in the face fitting of masks to support the success of this particular initiative.

How else did the LWIT assist the company?
By allowing it to assess and adjust its H&S electronic management system:

Stortford Interiors uses an online Integrated Management System (IMS). This system contains all of the tools, forms and processes that are necessary to manage its H&S policies and procedures. Due to the knowledge gained over the course of the 13 months of the company using the LWIT, Stortford Interiors was able to streamline its IMS to ensure that it related to a greater extent to staff's needs as detailed. The changes over the period are as shown:

June 2013
The head office staff are responsible for maintaining the IMS, and for giving access to the site managers.

January 2014
The IMS contains 37 tool box talks that were available in English only. Stortford Interiors has an increasing migrant workforce, with 35-40% of the workforce having a mainly Eastern European background; most of these workers are site employees, while a few are foremen. One of the ways that Stortford Interiors felt would engage staff was to have relevant work-related material in the worker's own language. In this respect the 37 tool box talks were translated into the four languages of these workers - Russian, Lithuanian, Polish and Bulgarian.

Additionally, one of the operations that the head office administered, the production of a safe system of work, was transferred to the work sites, as it was felt that it was not necessary to have this operation run from the main office.

July 2014
After reviewing its IMS, the company realised that the system could be made much leaner, but be just as effective. It therefore removed 10 forms and reduced the length of others. The H&S manager stated this activity of assessing what was essential in the system, was influenced by using the LWIT.

Other initiatives: Increasing worker engagement and implementing best practice
Worker engagement:

Taking responsibility

Generally, the workers have been encouraged to take responsibility for their own H&S and to be aware of any unsafe practices. They have been advised not to do any work that they feel is not safe and to report these instances. Employees are assured that reporting H&S issues is not a factor in getting fired. As one of the interviewees noted, while the programmes of contracted work should be delivered, the staff should not take any risk in facilitating delivery.

Reporting unsafe practices

The company introduced a **near miss recording card system** in the early part of 2013. The near miss recording cards allowed the workers, including any sub-contractors, to feedback on H&S issues as they arose during the day and was one way

to support workers in reporting any unsafe practices that they observed. All of the information circulated as part of the cards were assessed and addressed.

Once completed, the cards were sent to the company's human resources (HR) department as well as to the main construction contractors for which the company is working. This allowed the information to be made available to all parties in order to determine improvements that could be made. The cards could be anonymised or the person filling out the card could choose to include his/her name.

In January 2014, Stortford Interiors upgraded the **near miss cards** to **site safety observation cards (SSOC)**. At this time, the latest version was the third iteration of the card system to improve its 'freshness' and usability, and to keep workers 'seeing' it. As the company noted, it wanted a recording system that the site operatives use and that would provide necessary H&S data. In June 2014, the fifth iteration of the card was in place, with a smaller size and additional graphics. Since the different designs have been used, the SSOC is viewed as a more positive tool by the workers and has been used more extensively.

Getting involved

The site operators have been invited to join the H&S committee meetings and to give feedback on site specific issues at these. The company has organised H&S surgeries for its sub-contractors as it believes that these are a useful way to spread the H&S message; while the company's H&S bulletin has been sent to all staff. Further, the site managers have been encouraged to use 'out of the box' thinking to inspire site operatives, i.e., using different ways to engage staff.

Best practice

Face fit training for all site managers

In January 2014, the company surveyed its workers, office staff and operatives about risks. The results identified that the company's top four risks were *access equipment*, *slips*, *trips and falls*, *cuts*, and *dust*. The risks due to dust were relevant, especially, due to the type of work in which it is engaged. The initiative in respect of controlling the dust risks was to purchase new respiratory personal equipment (RPE) for staff and to train two managers in face fit testing.

In July 2014, the company had progressed with its dust awareness. It introduced a "Ditch the Broom" campaign to control the dust on site. As part of the campaign, it decided that all of its site managers would be trained in face fitting and would have their own kits once they had received the training. By July 2014, eleven site managers had been trained in face fitting and had received their own kits, and further training for the remainder of the site managers will be undertaken over the next six months.

What has changed in Stortford Interiors since using the LWIT?
- *Health and safety practices are becoming second nature to workers*

The attitudes of workers towards H&S in general have improved and they have a stronger focus on safety practices. Workers are wearing PPE for the duration of a task and equipment, such as goggles, hoisters or hats, is not being removed during the task; even during the summer period when temperatures increase. The workers are getting more involved in creating method statements and are taking ownership, as

training has increased their awareness and they understand to a greater extent the implications of following safe practices.

- *Site managers are given more autonomy for their respective sites*

Site managers have been given greater responsibilities for their sites. They run the *start right* meetings and once trained, provide training on site as required. They are responsible for devising a site specific safe system of work, an operation which has been devolved from the main office. The onus is on site managers to close any faults in operating procedures that might arise.

One site manager decided to carry out an operation to reduce three-quarters of the cutting that was done on site and thereby reduce the dust generated, especially as the site was a hospital. The operation involved cutting the 500 metres of board, required for the job, away from the hospital and then bringing the final beams on site to be fitted. This reduced the amount of dust that was generated as well as the amount of vacuuming that would have needed to be done.

- *Workers are more engaged with site as well as senior managers*

The workers are more relaxed about approaching directly both site and senior managers and raising H&S issues. They highlight practices they believe to be unsafe as they know their concerns will be addressed. They provide feedback as required and interact in the H&S monthly meetings. Workers are more proactive in asking for specific PPE, as required, rather than waiting for these to be offered by their supervisors.

How has the use of the LWIT benefited the business?
- *The organisational health and safety culture has improved*

One of the main reasons that the company gave for taking part in this present project was to improve its organisational H&S culture. As noted in July 2014, the Managing Director felt that this had been accomplished. The reasons for this perception were that workers were more engaged, they were challenging unsafe practices and they were working with the company to maintain healthy and safe work practices.

- *Improvements in safety practices*

The company has worked diligently to increase engagement with its workers, not only to improve on work relationships, but to guarantee that the workers understood the importance of maintaining a high standard of health and safety practices. The outcome of these initiatives might be reflected in its improved safety practices. For example, at the start of the project, in June 2013, the company stated that three accidents had occurred the previous year. At the end of the intervention, in July 2014, it was noted that no accidents had occurred during the 13 months of the research project.

How does Stortford Interiors plan to maintain these high standards?
- *Continue to increase worker engagement*

Stortford Interiors plans to continue its worker engagement initiative. This will extend to its sub-contractors, i.e., its supply chain, so that all staff across the company have H&S at the forefront of their minds. As it wishes to get workers to 'stop and think', it is considering a video format to introduce scenarios of the 'right' way and the 'wrong' way to engage in work and get things done. It will continue also to update the SSOCs so that the workers continue to 'see' them and thereby use them

- Improving measurement of H&S

Stortford Interiors wishes to get more data to show the impact that its various initiatives are having on H&S. It intends to increase its data collection processes. This is especially as the number of sites on which it is working has increased by 100%, from 8 to 16. The organisation is aware that the numbers of staff for which it is ultimately responsible is increasing and would like to guarantee that all of its staff are protected when at work.

A final word from Stortford Interiors' Chairman and Managing Director, Brendan O'Riordan…

"As MD of SIL I am delighted that we took part in the HSE/HSL initiative over eighteen months. I feel we have benefitted greatly from our involvement and we have achieved our objective of raising Workforce Engagement within the business as a cornerstone of effective H&S management. We have thereby altered our cultural engagement with the subject, whereby we now ask everyone in the business, employee or subcontractor, to think and act on issues about their own safety in an open and supportive environment. We have taken positive steps where our staff and workers take responsibility for their safety and will stop work in an unsafe environment and are vigilant for others. I would encourage other businesses to get involved if given the opportunity."

Case studies to demonstrate the practical application of the Leadership and Worker Involvement Toolkit (LWIT)

This research explored the use of the Leadership and Worker Involvement Toolkit by five construction small and medium-sized enterprises (SMEs) to gain an understanding of how it is applied in practice and the associated benefits as well as challenges. The toolkit is available on the Health and Safety Executive's (HSE's) website to assist SME dutyholders in making health and safety (H&S) improvements through the adoption of leadership and worker involvement practices. The findings from this research provide insights for HSE and industry on how to encourage construction SMEs to improve leadership and worker involvement in H&S, using the toolkit as a source of advice. How SMEs apply the toolkit will depend on their own business needs, but the research provides evidence that engaging the workforce in H&S matters contributes to improved H&S performance and business gains.

This research explored the use of the Leadership and Worker Involvement Toolkit by five construction small and medium-sized enterprises (SMEs) to gain an understanding of how it is applied in practice and the associated benefits as well as challenges. The toolkit is available on the Health and Safety Executive's (HSE's) website to assist SME dutyholders in making health and safety (H&S) improvements through the adoption of leadership and worker involvement practices. The findings from this research provide insights for HSE and industry on how to encourage construction SMEs to improve leadership and worker involvement in H&S, using the toolkit as a source of advice. How SMEs apply the toolkit will depend on their own business needs, but the research provides evidence that engaging the workforce in H&S matters contributes to improved H&S performance and business gains.

RR1067

www.hse.gov.uk