

MEASURING CORPORATE HEALTH AND SAFETY PERFORMANCE AND CORPORATE SOCIAL RESPONSIBILITY – LATEST DEVELOPMENTS

Sara Marsden, Michael Wright and Joscelyne Shaw
Greenstreet Berman Ltd

The development of a Corporate Health and Safety Performance Index (CHaSPI) is one outcome of the work initiated by the *Revitalising Health and Safety* strategy statement and the Health and Safety Commission's (HSC) wish to increase incentives for senior managers to manage health and safety well. The HSC also wishes to raise the profile of health and safety as part of the corporate social responsibility (CSR) agenda as it is becoming increasingly prevalent in the context of the corporate and political landscape. In 2003 Greenstreet Berman Ltd developed and piloted an index that comprises a mixture of output and process indicators to give a balanced view of an organisation's performance.

This paper discusses the current status of CSR and the recent moves to better incorporate health and safety within the CSR agenda, as a context in which CHaSPI can facilitate investor and insurer scrutiny of large enterprises. It then outlines the research undertaken to design the web-enabled CHaSPI.

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INTRODUCTION

The development of a Corporate Health and Safety Performance Index (CHaSPI) is one outcome of the work initiated by the *Revitalising Health and Safety* strategy statement and the Health and Safety Commission's (HSC) wish to increase incentives for senior managers to manage health and safety well. The HSC also wishes to raise the profile of health and safety as part of the corporate social responsibility (CSR) agenda as CSR is becoming increasingly prevalent in the context of the corporate and political landscape. The increasing importance of CSR can be seen in a variety of initiatives and developments, including for instance:

- The review of UK company law requiring companies to report on risks which may threaten their business, and the ongoing debate around how that is defined (i.e. what constitutes a "material" risk);
- The growth in interest amongst socially responsible investors (SRIs);
- The development of the Global Reporting Initiatives (GRI) Reporting Framework has achieved much for the promotion of, and the development towards, a more consistent

and standardised reporting structure for companies producing environmental and social (sustainability) reports; and,

- The rise in profile of CSR since the meeting of the European Council in Göteborg, Sweden in June 2001, where it was acknowledged that the Sustainable Development Strategy for Europe requires, in the long-term, that economic growth, social cohesion and environmental protection go hand in hand.
- An Early Day Motion in the UK signed by over 230 MPs for a Corporate Responsibility (CORE) Bill, backed by a coalition of more than 25 charities, unions and church groups;

Additional softer factors driving the increased engagement with CSR include:

- New concerns and expectations from citizens, consumers, public authorities and investors in the context of globalisation and large scale industrial change;
- Social criteria increasingly influencing the investment decisions of individuals and institutions both as consumers and as investors;
- Increased concern about the damage caused by economic activity to the environment; and,
- Transparency of business activities brought about by the media and modern information and communication technologies.

The argument for CSR is that companies and other stakeholders need to consider both core business activities as well as softer issues in terms of the management of their risks. In the current economic environment, where issues related to corporate governance and market instability dominate the headlines on a fairly regular basis, investors are more than ever aware of the need to assess risk. Risk takes a number of forms, and in recent times, non-financial aspects such as reputational risk, have been shown to have a significant bearing on an organisation's bottom line. The examples often quoted include Nike and The Gap where issues related to work practices in developing countries have had an effect on consumer perception.

In accord with this increase in interest in CSR, the HSC is taking steps to raise the "business profile" of health and safety. For instance, the HSC formally responded to the DTI's consultation document "*The Operating and Financial Review Working Group on Materiality*" urging them "to include health and safety as a specific topic for company reporting to make clear that health and safety is an important element of the Government's commitment to developing sustainable work and communities"¹. Should this happen, there will be an increasing need for standardised ways of reporting health and safety performance.

The HSC has also issued a "reporting challenge" to the top 350 firms in the UK and provided guidance on directors' responsibilities for health and safety. Research shows that the vast majority of FTSE² 100 companies now include health and safety in their annual reports and that many boards have appointed a director for health and safety.

This raises the question — to what extent are issues related to occupational health and safety being incorporated within the broad agenda of CSR? Consideration of such

factors as racial and gender diversity within the workplace are an accepted part of this agenda. These are vital, but do not reflect the full picture of the state of the work place environment. Generally within the UK, as elsewhere, the CSR agenda suggests that companies benchmark and report on company policies and practices in at least one of the following four areas; environment; community; marketplace; and, the workplace. Whilst the CSR concept is broad ranging, it is focused at three levels, namely:

- Operational values, policies and practices of companies owned and operated (both in the UK and abroad);
- Management of environmental, social and other “softer” issues within the value chain from raw materials to product dispersion; and,
- Voluntary contributions made by the company to community development both locally and internationally.

The issue of health and safety in the workplace appears to have been by-passed to some extent by CSR, although there is an increasing tendency of CSR reporting initiatives to capture health and safety performance data and information (e.g. GRI). It was also clear from the response to the HSC’s reporting challenge that there is a lot of diversity in what FTSE firms report.

In this general climate of increasing interest, the HSE commissioned research by Claros Consulting³ which looked at the current role of investors and the opportunities that may exist to increase incentives for senior managers to improve health and safety. The Claros Consulting report highlighted the contact and influence that some investors, particularly the large institutional investors, have with senior executives. The research also showed that:

- There is a lot of interest amongst these investors in a health and safety index;
- Many stakeholders already have an intuitive understanding of health and safety management issues; and,
- Some investors are already beginning to ask questions of companies in respect of their health and safety management.

The Claros research concluded that there is a need for the health and safety community to assist in developing a set of valid indicators for use by external stakeholders, such as investors.

In 2003 Greenstreet Berman Ltd⁴ developed and piloted an index that comprises a mixture of output and process indicators to give a balanced view of an organisation’s performance. It is recognised that there are a number of existing audit and performance measurement schemes which aim to meet internal stakeholders’ information needs or have a compliance auditing role. CHaSPI has been developed to fulfil the information needs of external stakeholder, specifically investors, insurers and others such as trade unions. Early consultations with a broad range of stakeholders indicated their desire for a simple method of comparing organisational performance both within and between sectors to support decisions on (say) weighting sector specific investment portfolios,

screening firms for inclusion in SRI trusts or for initiating discussions with firms about their corporate governance. CHaSPI is currently being validated (2004). A project plan of the overall process is shown in Figure 1.

INITIAL DEVELOPMENT

Traditionally health and safety has been measured by one indicator of failure — injury (and less often, ill health) statistics. Both are important measures of performance but their narrowness contrasts with many other areas of business where measures generally include elements to track success. Many organisations do now recognise the range of limitations in lost time injury and illness, such as under-reporting; injury rates not reflecting the

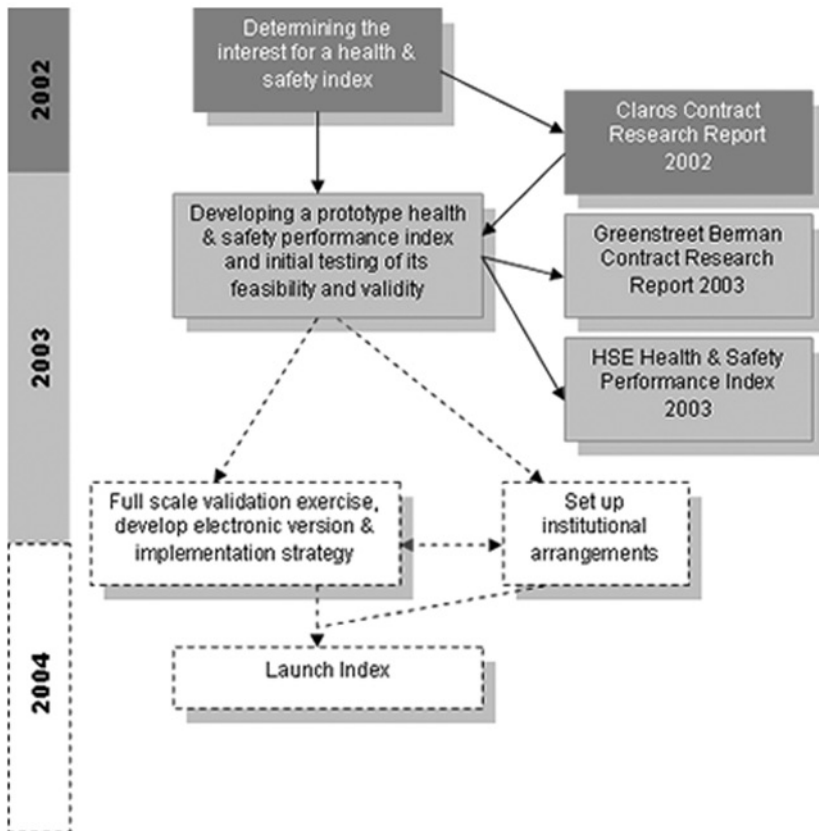


Figure 1. The development and implementation of health and safety performance index.

potential severity of events; low injury rate reflecting few people exposed and luck rather than a well-controlled hazard etc.

It is now widely established that a range of indicators should be used, which are not limited to outcome (failure) measures alone. Indicators typically can be split into a number of types, for example:

- Process indicators, such as assessment of management systems;
- Performance (or outcome) indicators, e.g. injury rates;
- Financial indicators, e.g. cost of injury claims; and,
- Compliance indicators, e.g. fines, etc.

It is also important to understand the range of health and safety hazards that need to be measured. For example, in the chemical industry operations can pose a risk to members of the public as well as employees.

INDICATORS USED IN CHaSPI

Following extensive discussions with a range of the key stakeholders, and a small pilot of a draft version of the Index, it was concluded that the following five ratings should be the core of the Index:

1. **Health and safety management rating** — including questions on board involvement, target setting, worker consultation and involvement, formal management systems, etc.;
2. **Injury rate** — a rating based on both contractor and employee injury rates, weighted for relative numbers of each;
3. **Employee absence rating** — based only on the employee absence rate, since the pilot found that no organisations had absence data for contractors;
4. **Occupational health management rating** — a series of questions specifically on arrangements for rehabilitation and return to work, the management of stress-related illnesses and their work-related causes, and the risk of musculoskeletal disorders; and,
5. **Major incident rating** — an outcome measure of incidents that had the potential to lead to major loss.

There are 4 more indicators which are not ratings and do not contribute to the final index score. These indicators are significant to many stakeholders, particularly investors and insurers, and are:

- Directors' Declaration — Confirmation that a director (or equivalent) has signed a statement that matches or is consistent with the following statement: "An assessment has been completed of the significant health and safety hazards posed by the organisation's activities and an appropriate set of health and safety arrangements are in place to control these hazards. The implementation of these arrangements is monitored and reviewed on a regular basis with action taken to redress any deficiencies and ensure continuous improvement";

- Indication of whether the employer conducts any highly regulated activities e.g. COMAH, licensed nuclear sites, rail, aviation, etc;
- Whether the organisation is “under watch” for any reason — i.e. whether some incident has led to a major loss of confidence in the organisation’s ability to manage its health and safety risks; and,
- Whether the organisation’s responses to the index questions have been externally verified or not.

An example set of CHaSPI results are shown in Figures 2 and 3.

MAJOR INCIDENT RATING

The fifth indicator, **Major incident rating**, may be of particular interest to the petrochemical, oil, gas and pharmaceutical industries. This indicator is included because of the researchers’ view that managing the risks from hazards such as slips, trips and falls well does not necessarily indicate that a firm is managing the risk of major incidents well. A range of stakeholders have an interest in this, not least the general public, but also financial investors who have an interest in the risk of catastrophic loss to an organisation.

This is NOT intended to only apply to sites where major accident legislation applies. A broader range of incidents is included, including for instance the risk of fire.

This indicator was developed by:

- Producing a general version of the International Nuclear Event Scale (see Table 1);
- Finding examples of the number of incidents per year within organisations;
- Calculating the rate of incidents per 100,000 employees per year; and,
- Producing a logarithmic scale that captures the range of rates.

A logarithmic scale is required due to the very wide variation in rates per 100,000 employees. The generalised version of the scale used in CHaSPI is given below.

The nuclear event scale was designed to communicate, in consistent terms, the significance of events at nuclear installations and is used in more than 60 countries. The scale was designed by an international group of experts under the auspices of the International Atomic Energy Agency (IAEA) and the Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development (OECD). Events are classified on a scale of 7 levels, where the upper levels (4–7) are categorised as “accidents” and the lower levels (1–3) are termed as “incidents”. Events that have no safety significance are classified below the scale at level 0 and are termed “deviations”. Each level is defined in terms of three safety attributes, i.e. off-site impact, on-site impact and defence in depth degradation.⁵

ABSENCE RATE

Early discussions with stakeholders and other interested people sought views and found a surprising consensus around the idea of using employee absence rates as a proxy measure

CHaSPI Summary Reports

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PI ID #:	PI-81	Company ID #:	102
Locked / Unlocked:		Company Name:	Pharmaceuticals Co 4
Date Created:	Fri 30/01/2004 17:23	Date Completed:	Mon 02/02/2004 13:04
FTSE Sector:	Pharmaceuticals	Business Sector:	Manufacturing
Employees:	5000 - 9999	Contract Employees:	less than 250
Turnover:	More than £100 million		

CHaSPI Overall Weighted Score

Scale of 0 to 10 (10 = excellent)

6.7

#	Indicators	Rating (0-10)	Weighting	Weighted Rating
1	Health and Safety Management Rating	5.5	0.5	2.8
2	Injury Rating – Employees / Contractors	9.0	0.125	1.1
3	Employee Sickness Absence Rating	10.0	0.125	1.3
4	Occupational Health Rating	4.6	0.125	0.6
5	Major Incident Rating	7.4	0.125	0.9
Overall Rating		-	-	6.7
6	'Under Watch' Flag			No
7	Conduct of Highly Regulated Activities			Yes
8	Directors' Declaration			Yes
9	Corporate Health and Safety Performance Index (CHaSPI) Verification			No
#	Additional Notes Relating to Indicators 1, 2, 7 & 9 (if appropriate)			
1.10	Recognised / Formal Management Systems in Place:	ISO 9001, HS(G)65, EMAS		
7.1	Conduct of highly regulated activities:	COMAH (Seveso II directive) Transport of hazardous cargoes		

Figure 2. Example CHaSPI summary report one organisation



CHaSPI Results for All Sectors

Click on an underlined heading to change sort criteria, or a CHaSPI ID # to view an organisation's summary report.

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Highest: **8.1** Mean: **5.7** Lowest: **2.4**

<u>PI ID #</u>	<u>Company ID #</u>	<u>FTSE Sector</u>	<u>Business Sector</u>	<u>CHaSPI Score (weighted) 0-10</u>	<u>Highly Regulated Activities</u>	<u>Under Watch</u>	<u>Directors Declaration</u>	<u>External Verification</u>	<u>Date Completed</u>
PI-78	99	Pharmaceuticals	Manufacturing	8.1	Yes	No	Yes	No	Mon 02/02/2004 11:36
PI-76	98	Chemicals	Manufacturing	7.8	Yes	No	Yes	Yes	Thu 29/01/2004 19:18
PI-77	94	Construction & Building M...	Construction	7.5	Yes	No	Yes	No	Thu 29/01/2004 19:20
PI-71	92	Construction & Building M...	Construction	7.4	Yes	No	Yes	Yes	Thu 29/01/2004 19:23
PI-81	102	Pharmaceuticals	Manufacturing	6.7	Yes	No	Yes	No	Mon 02/02/2004 13:04
PI-73	96	Chemicals	Manufacturing	6.2	No	Yes	Yes	Yes	Thu 29/01/2004 18:51
PI-80	101	Pharmaceuticals	Manufacturing	5.2	Yes	No	Yes	No	Mon 02/02/2004 12:25
PI-75	93	Construction & Building M...	Construction	5.2	Yes	Yes	No	No	Thu 29/01/2004 19:06
PI-70	91	Construction & Building M...	Construction	5.0	Yes	Yes	Yes	No	Thu 29/01/2004 19:21
PI-72	95	Chemicals	Manufacturing	4.3	No	No	Yes	No	Sat 31/01/2004 19:03
PI-79	100	Pharmaceuticals	Manufacturing	3.2	Yes	Yes	No	No	Mon 02/02/2004 12:06
PI-74	97	Chemicals	Manufacturing	2.4	No	No	No	No	Thu 29/01/2004 19:04

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■ Above Mean ■ Below Mean

Figure 3. Illustrative index of companies

Table 1. International nuclear event scale

Descriptor	Nature of the events	Examples
G: Major (international) accident	Major release or accident with widespread consequences, perhaps involving more than one country. Over 1000 fatalities or premature deaths	Chernobyl — tens of thousands premature deaths with international impact
F: Serious (national) accident	Accident likely to require full countermeasures by local emergency services Over 100 (<1000) fatalities or premature deaths	Bhopal – thousands died, >170,000 injured
E: Accident with off-site risk and/or many deaths	Severe damage to installation, major fire or explosion More than 5 but less than 100 deaths (or premature deaths from disease)	Chemical plant destroyed by explosion with (say) a few dozen employees killed Legionella outbreak kills >5
D: Accident without off-site risk	Significant damage to installation with some workers exposed or harmed Over 10 persons exposed to non-fatal but seriously harmful substance. Incident with 1 to 5 deaths	Refinery explosion Food poisoning of 50 residents in a (say) school or care home
C: Serious incident	Incident in which a further failure of a safety system could lead to a major accident, or where safety systems would be unable to prevent an accident	Signals passed at danger by trains without collision Major flammable gas leak not ignited but isolation valves fails
B: Incident	Incidents with significant failure in safety provisions but with sufficient defence remaining to cope with additional failures	Fire in contained by fire doors and people are safely evacuated or chemical leak isolated by valve
A: Anomaly	Anomaly beyond the authorised regime but with defence remaining.	Sprinklers inoperative but fire alarms and means of escape remain.
Deviation	Operational limits and conditions are not exceeded and are managed in accordance with procedures	Spurious activation of a safety system

of occupational ill health incidence. Some of the feedback indicated that although much absence is not work related, it does indicate the general health of an organisation's staff and this is relevant to many stakeholders particularly those whose prime interest is social responsibility.

Most organisations had little difficulty in providing employee absence data. As part of the pilot feedback we also asked if they might be able to provide specific data on work-related absence. Some were positive, but on the whole, this was thought to be impractical for the immediate future.

CONTRACTOR ABSENCE

Also during piloting we asked organisations to provide data on contractor absence. Unsurprisingly no one was able to provide it, though encouragingly one organisation did indicate that shortly they would be able to do so. Our reluctant, but pragmatic decision, was that we could only include employee absence in CHaSPI at this stage.

NON-COMPLIANCE AND EXPENDITURE

It was decided to not use non-compliance (prosecutions and notices) as an indicator of performance as the numbers are very small and so would only give significant information about an organisation's performance if numbers of actions became relatively large – moreover this would only affect a minority of organisations. It was also decided not to use health and safety expenditure as a measure as there is very little consistency in the way that amount invested in health and safety is calculated, and some question as to whether this is really possible where many functions are integrated, for instance, machinery maintenance is about more than quality and/or health and safety.

INITIAL AND SECOND STAGE PILOTING

Feedback overall was positive with very constructive suggestions for improvements. As part of the feedback process respondents were asked to rate Index characteristics: practicality, validity, usefulness, acceptability and meaningfulness. Only one respondent completely disagreed that the index was "meaningful" (for their sector). The prime concern was related to how the Index would be implemented. The initial version of the Index was modified in the light of this feedback.

Although the initial piloting was small scale, the early results suggest that the index does discriminate between firms (see Table 2). That is, the Index produced a range of Overall Scores from 4 to 7.5. This indicates that the questions and scoring method does discriminate between firms.

As regards individual indicators it is also pertinent to note that:

- The scores for Health and Safety Management range from 3.87 to 8.57;
- The injury rate score ranged from 3.1 to 7.8;
- The Occupational Health Management score ranged from 2.67 to 10;

Table 2. Scoring from pilot companies

Directors declaration	Highly regulated activities	Under watch events	Individual indicators					Overall score
			Health and safety management	Injury rate	Employee absence rate	Occupational health management	Major incidents	
No	None	Signed “has not”	7.80	5.2	5.80	9.33	Not avail.	7.29
No	None	Not signed	6.44	Not avail.	Not avail.	Not avail.	10.00	7.52
No	None	Unsigned “has not”	7.04	Not avail.	3.40	6.00	10.00	
Yes	None	Signed “has not”	4.94	3.10	Not avail.	6.40	5.70	5.00
Yes	None	Not signed	6.72	Not avail.	Not avail.	2.67	10.00	6.53
Yes	COMAH	Signed “has not”	8.57	6.30	6.20	8.00	8.80	7.95
Yes	COMAH	Signed “has not”	6.89	5.20	Not avail.	8.50	Not avail.	6.87
Yes	COMAH, Railways	Unsigned	8.17	6.60	6.40	10.00	6.06	7.72
No	None	Signed “has not”	7.63	Not avail.	Not avail.	7.14	10.00	6.55
Yes	COMAH, Asbestos licensing	Signed “has not”	4.71	3.00	Not avail.	5.00	2.40	4.09
Yes	None	Unsigned	9.38	5.80	6.80	10.00	3.60	7.96

(Continued)

Table 2. *Continued*

Directors declaration	Highly regulated activities	Under watch events	Individual indicators					Overall score
			Health and safety management	Injury rate	Employee absence rate	Occupational health management	Major incidents	
No	None	Signed “has not”	3.87	4.30	Not avail.	2.86	10.00	4.80
No	None	Signed “has not”	6.45	7.10	6.00	7.86	10.00	7.10
Yes	Asbestos licensing	Signed unstipulated	9.18	4.90	Not avail.	7.50	Not avail.	7.69
No	None	Signed “has not”	6.88	7.80	6.40	7.50	10.00	7.75
Yes	COMAH, IPPC, etc.	Not signed	8.84	4.90	4.20	6.43	Not avail.	7.46
Yes	COMAH, Transport hazardous cargoes	Signed “has not”	8.41	5.50	5.00	8.21	5.00	7.60

- The major incident score ranged from 2.4 to 10; and,
- The absence rate score ranged from 3.4 to 6.8.

Thus, it appears that there is a wide range of scores for each of the quantitative Indicators. Again, notwithstanding the small scale of the initial pilot, the correlation between the management indicator and injury rate score is 0.47 ($n = 13$) whilst the employee absence rate and occupational health management score has a correlation of 0.71 ($n = 9$).

CONCLUSIONS

It is concluded that it is viable to produce an Index of health and safety performance that can be used to compare large organisations within sectors as well as across sectors. The Index is practical and takes a reasonable amount of time to complete, although it is not clear that all organisations can readily include contractor injury or absence rates in their responses. Although some respondents could not provide data on employee injuries and absence in the time scale of this project, it is clear that such data can be produced if the Index was “live”. The Index has face validity (i.e. it appears to ask the right questions) and the scores for individual indicators are correlated. Moreover, the Index does produce a range of results, indicating that it does discriminate between organisations.

The main area of concern relates to the implementation of the Index, particularly the issue of external verification. Also, the extension of the Index to the overseas aspects of company operations appears challenging.

NEXT STEPS

Strong feedback from the pilot was that a web-enabled version of the Index would be much more user friendly than the paper-based pilot version, and would greatly facilitate wider participation in the validation exercise. So the HSE commissioned Greenstreet Berman, in collaboration with software providers Enable Infomatrix to develop CHaSPI as a web-based application. The HSC/E launched this “prototype” CHaSPI early in February 2004, and it is being validated using a larger number of respondents with a full launch proposed for 2005. Loughborough University was appointed to carry out the validation.

SIGNING UP

An online version of CHaSPI can be found via the HSE’s website at www.hse.gov.uk/research/chaspi.htm. The validation process is likely to lead to some changes as more experience and feedback is gained allowing a further assessment of the significance of the data input. Feedback includes suggestions for additional features to improve functionality for users and these are being considered. However, radical changes are not expected, so users will get a good understanding of the tool by visiting the site at this stage. Anyone can look at a “dummy” index on the site and examine the anonymised index results.

Organisations with more than 250 employees can also register to complete their own index. To provide flexibility for users, CHaSPI provides for controlled access to registered organisations for their own index at three different levels of authority — a “read only” access, access with inputting authority, and a highest level of access with “sign-off” authority. The act of signing off “locks” the Index so that no further editing can take place. It also means that the results of the Index — the overall score, scores of the individual sub-indicators and the four other key indicators — become available publicly. Note that during validation organisations are not named in the public index results — scores can be seen but are anonymised.

After validation is completed it is envisaged that there will be a facility for each organisation to complete an Index once a year. CHaSPI will retain the history of previously completed indexes. As to when this happens in the year, the detail has not been finalised and will depend on the needs of stakeholders and users. A likely scenario is that the timing will relate to other public reporting pressures and requirements.

NEW DEVELOPMENTS

Feedback during the research also supported the design of a version of the index for small and medium sized organisations. Greenstreet Berman developed and piloted a paper-based version for smaller business this year and will, in collaboration with Enable Infomatrix, also develop that into an online tool. Not unexpectedly stakeholders see different uses for this Index, with the needs of many of its intended users being very different from larger corporate bodies. Consequently interest and input into the development of this index has come from the HSE, the Department of Work and Pensions (DWP), the DTI’s Small Business Services and the insurance industry. This index is due to be launched later this year.

REFERENCES

1. Letter from Bill Callaghan, HSC Chair to Rt. Hon. Patricia Hewitt MP, Secretary of State for Trade and Industry, 2 September 2003.
2. FTSE now market themselves as “The Independent Global Index Company” providing business indices.
3. Mansley, M. 2002. *Health and Safety Indicators for Institutional Investors*, Report to the HSE, Claros Consulting, 28th February 2002, Available at <http://www.hse.gov.uk/revitalising/csr.pdf>
4. Marsden S, Wright M, Shaw J and Beardwell C (2004) The development of a health and safety management index for use by business, investors, employers, the regulator and other stakeholders. Research Report for the HSE.
5. For more information, visit <http://www.nrc.gov/reading-rm/doc-collections/commission/secys/2001/secy2001-0071/2001-0071scy.html>