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How to Promote the Business Value of EHS

David Galt
Senior Legal Editor
Business and Legal Resources
Old Saybrook, CT

Introduction

To survive this economy, environmental, health and safety (EHS) professionals must transform EHS into a business value and demonstrate EHS performance in the context of their organization's business objectives. This paper will identify barriers to EHS as a business value, look at business investments and the benefits of EHS functions, link EHS to the drivers of business value, demonstrate tools to improve business performance, and help the reader better understand the language of business managers.

In 2008, ASSE's Council on Professional Affairs (COPA) published the findings of a survey of corporate executives' perception of the value of the safety professional in the workplace.¹ The survey results were generally positive in terms of executive's perceptions, but the executives also said that safety professionals:

- Are too technically focused.
- Don't integrate safety programs into the organization—in other words, they don't look at how safety programs relate to the organization's business initiatives.
- Lack key adaptive-type technical skills such as evaluating the effectiveness of safety-related programs.
- Skills in strategic planning tend to be narrow in scope and fragmented.

The perception among executives is that, in some respects, safety professionals have not mastered the skills necessary to fill these adaptive roles. Whether these perceptions are accurate is almost beside the point. As the old adage states, "perception is reality."²

The good news is that EHS professionals are increasingly advancing the value of their EHS programs in the eyes of executive management with the use of appropriate accounting, measurement, and process improvement tools.

Not every EHS activity will contribute tangible or easily measured value to the business, and some activities have intangible values that are difficult or impossible to express as business values. Several techniques have been developed and discussed in the literature to measure intangible values (e.g., Return on Assets hybrids, Delphi Method), but some are complex and hard to implement. Simpler techniques such as the Balanced Organizational Scorecard can be structured in a way that enables the user to demonstrate a measurable relationship between EHS performance and business value.

What is “Business Value”?

This section provides background about how an organization determines the business value of its activities, and how business and financial managers value EHS activities.

“Business value” is an informal term that refers to the tangible (perceptible and measurable) and intangible (not readily measurable) assets and qualities that determine the health and well-being of an organization, drive decision-making for all work activities, and attract investors. An activity or product is “value-added” or is a “value driver” by determining how well it performs its function in relation to the cost of producing the value.³

Tangible and Intangible Value

Business value includes tangible economic value expressed as increased revenues, decreased costs, cash flow, faster time to market, employee productivity, operational efficiency, increased capacity, decreased employee absenteeism and turnover, higher quality, increased market share, and improved customer retention.⁴

Intangible values include technical expertise, company reputation, employee morale, innovation, compliance risk, and political support or influence. These important values support the tangible value network.

There is no easy way to measure the business value of intangibles in the way that traditional financial values are measured. Many qualities of safety and environmental programs are in the category of intangibles. Physical property like a machine can be easily appraised, but it is much more difficult to appraise the value of increased or decreased compliance risk, or employee morale and skill, in accounting or financial terms.

In government agencies, a primary value driver would be mandated directives. For example, for the U.S. military the primary value is readiness. Readiness is more important than reduced costs or profit in this context. Safety plays a significant role in ensuring the readiness of troops and support personnel to handle all kinds of hazardous conditions and materials.

In nonprofit organizations, value drivers would be formal commitments to provide resources or services to members or the public.

Shifting values. The importance of value drivers can shift, resulting in a shift of resources within an organization to support the new primary driver. For example, profitability is an obvious tangible value. Reputation can be a powerful hidden value driver. Recent industrial explosions and deaths in an oil refinery in Texas, a sugar dust explosion in Georgia, and a gas explosion in Connecticut show how profit and revenue can take a back seat to company reputation and

compliance risk for a while. Safety performance can play a role in shaping the organization's competitive image and reputation.

Business Value and EHS

Business and financial managers will evaluate the contribution of EHS programs according to the impact of those programs on the organization's business or operational priorities⁵:

1. Control costs.
2. Comply with regulations, government mandates, judicial interpretations or directives.
3. Support business initiatives (e.g., strategies for growth, new technologies, competitive advantage).
4. Enhance the organization's image and reputation (e.g, public relations, reporting, disclosure).
5. Everything else (e.g., investor demands, employee considerations, insurance).

The business priorities listed above are consistent with those described by Mike Brady, the former Chief Financial Officer at BLR, during an interview in 2010 with the author of this paper. He said that the order may change periodically, but it is a good representation of the business priorities for business and financial managers. As described earlier, the order of priority may also be somewhat different for government operations.

How do financial executives view EHS programs? There is documented evidence that executives view workplace safety and health programs favorably. Evidence comes through the 2005 Liberty Mutual Insurance Company survey of 231 Chief Financial Officers (CFOs) at mid-size and large companies about their view on workplace safety and workers' compensation insurance.⁶

CFO most frequently mentioned top benefit of workplace safety:	CFO most frequently mentioned preferred safety intervention:
1. Productivity (43%)	1. Better training (26%)
2. Reduced costs (28%)	2. Better equipment and workspace (7%)
3. Employee retention (7%)	3. More safety management (7%)
4. Employee morale (6%)	4. Safer environment (6%)
	5. Enforce policies and procedures (6%)

Table 1. Findings of the 2005 Liberty Mutual Chief Financial Officer Survey.

The results shown in Table 1 show that more than 40% of the respondents cited increased productivity as the top benefit of an effective workplace safety program, and 28% cited reduced cost as the top benefit of such programs.

The choice of better training as the most frequently cited safety intervention activity may reflect a belief by executives that employee behavior is a primary factor in causing workplace injuries.

Barriers between EHS Performance and Business Value

There are barriers to demonstrating EHS performance as a business value. EHS competes with other value-added programs and activities in budget priorities. The author's research of the barriers in the "business case" literature generally align with the barriers identified in the American Industrial Hygiene Association's (AIHA's) Value of the Industrial Hygiene Profession Study and in a U.S. Environmental Protection Agency (EPA) report that explored the relationship between the environmental performance and the financial performance of businesses.^{7 8} These documented ASSE and EPA sources identified at least 5 primary barriers to identifying EHS performance as a high-priority business value.

1. ***EHS activity is viewed as a cost.*** Business executives often view EHS activities as a cost instead of an investment or benefit. A "cost," according to the Webster's Collegiate Dictionary, Tenth Edition, is the value of resources used up, sacrificed, or lost to produce something; a penalty incurred to gain something else.⁹ An "investment," according to the same dictionary, is a commitment in order to earn a financial return or gain future benefits or advantage. It will always be a tough, uphill battle if EHS tasks remind management of penalties and losses. An injury is a cost with no financial return, gain, or benefit to the organization. An EHS activity like employee training is an investment with a value-added return and benefit to the organization.
2. ***EHS professionals do not speak the financial or business language of their organizations.*** There is no common terminology between EHS professionals and financial analysts, making it tough to communicate effectively with each other.
3. ***It is difficult or impossible consistently convert cost/benefit data in a common format.*** There is no standard way for EHS managers to convert injury or illness data, or the benefits of injury prevention measures, into a financial format. For example, it's hard or impossible to get a company's cost data for worker injuries or compensation claims in a format that is usable for doing a cost/benefit analysis of EHS initiatives and their effect on injury rates. An example: Is an ergonomics program going to cost more than the expected reduction in workers' comp claims for musculoskeletal disorders, or reduce the risk of severe loss?
4. ***There is a lack of technical skills to link EHS performance to financial or business outcomes.*** Few people—if any—within an organization are familiar with both EHS reporting and financial accounting methods, so it's hard or impossible to coordinate financial and EHS performance reporting.
5. ***EHS professionals improperly apply measures of EHS performance to business objectives or outcomes.*** Business executives want to know future benefits and the risk of future loss when they evaluate and prioritize the performance of all business activity. EHS professionals typically do not have enough guidance or resources to apply EHS measures of performance in a way that directly speaks to the business case. For example, there is little guidance to show EHS managers how to use leading and lagging measures of EHS program performance to effectively anticipate future performance.

Note financial and business terminology: See the **Glossary** section of this paper for the meaning and applications of several terms used by financial analysts that EHS professionals should know in order to express the performance of their programs as a business value.

7 Steps to Integrate EHS as a Business Value

How can EHS professionals break down the barriers, change perceptions, and make a strong case for the business value of EHS programs? A maxim to follow is, “What gets measured gets acted upon.” EHS professionals can learn to think globally (e.g., grasp the big picture of business goals and initiatives) and act locally (adapt to internal and external changes that affect their organizations).

This section will discuss tools for making the business case through a 7-step process to integrate EHS as a business value. It describes common EHS functions, lists the business values critical to the organization’s executives, and links the two together.

The maxim to follow is, “What gets measured gets results.” Rather than bemoan the situation that the business end of the company does not understand EHS problems, it is better to learn business-speak in order to communicate EHS to upper management in their own language. The following steps will help EHS professionals adopt a system for measuring the performance of EHS functions in the context of their value to the organization, and for communicating results to business and financial executives.

Step 1: Identify the Organization’s Value Drivers

“Value drivers” are the specific values that steer the organization’s overall business strategy and decision-making processes.¹⁰ When these drivers change or are readjusted, many of the projects and resources of an organization are changed to express those values. EHS professionals must determine the core value drivers of their organizations and monitor how they are prioritized in order to have influence and a significant role in driving value.

For example, profitability is a primary value driver for private sector businesses, but the organization’s reputation can be a powerful secondary driver for generating new revenue or protecting market share. A company’s focus on a value driver like reputation can displace profit as the primary value driver when it is threatened or is in crisis as demonstrated by British Petroleum’s (BP’s) situation with the Deepwater Horizon explosion and spill in the Gulf of Mexico.

EHS performance can be a primary factor in shaping the organization’s competitive image and reputation in the industry.

Common drivers of business value. Following are common business value drivers for business executives and investors:

- Profitability
- Reputation/Image/Brand
- Market Share
- Time to Market
- Shareholder Value
- Cost Containment (e.g., control costs)
- Productivity
- Customer Service

- Compliance Risk

Do basic research to identify the organization's business value drivers? EHS professionals can identify the specific value drivers in their organization and determine how their business or financial managers prioritize them by taking the following steps:

1. Get a copy of the most recent financial report, annual report, or the budget if possible; look at mission statements and goals, and learn the basic terminology to understand how value is identified and expressed.
2. Learn the basic terminology your organization uses to identify and express business value.
3. Watch others who are successful in your organization at getting resources for their operations and learn the terminology and methods they use to express their value to the organization.
4. Consider taking a short course (online courses may save time and money) or purchase a book about basic business principles for non-financial students, such as *The Ten Day MBA*.
5. Identify key personnel in the organization who understand or work with the financial end of the business and learn from them.

Value driver identification case study. An EHS manager of a large construction company in Texas went to her Chief Financial Officer with a proposal to create a wellness program for employees. She made her case that the program would improve the health of employees and therefore increase employee productivity. She was initially turned down, but got a second chance to make the business case. This time she went back to the CFO with information that showed how the company would receive a discount on its employee health insurance premium if it instituted a wellness program. Her proposal was approved. She spoke the “control costs” language of the CFO.

Step 2: Identify Injury and Illness Costs

Once the values that drive your organization are identified, the next step is to conduct a form of financial “hazard analysis” or an inventory of EHS-related losses or costs that devalue the organization.

Injuries and illnesses are clearly losses to an organization. They increase production and administrative costs, reduce profits, and can incur substantial devaluation to the organization's reputation.

There are several freely accessible and very useful online tools and resources to help EHS professionals understand how to calculate the financial loss to an organization from unsafe acts or conditions.

OSHA Safety Pays injury impact on profits calculator.¹¹ OSHA offers a free online calculator that allows the user to enter very basic financial information about the user's company and a specific type of incident, such as electric shock. The user can either enter the company's workers' compensation figures if known, or by default use OSHA's average industry costs for the injury derived from averages calculated by the National Council on Compensation Insurance for policy year 2004. The calculator then displays an estimate of the impact of workplace injuries on company profit. It also shows how injuries increase the cost of production of a product or service. The results can be used to show the potential cost of injuries should they occur.

OSHA's Safety and Health Management Systems eTool.¹² Another OSHA online tool estimates the annual cost of accidents at the workplace. Like the OSHA *Safety Pays* tool, it estimates the impact of those accidents on company profits and sales, but also calculates both direct and indirect costs for average injury and illness incidence rates, using average costs for 1998 developed by the National Safety Council.

Workers' Compensation injury cost estimator.¹³ The Michigan Economic Development Corporation has developed an excellent online calculator that illustrates how workers' compensation costs are calculated for various job classifications within a specific industry. Though the site is focused toward organizations in Michigan, the information can be easily applied to job classifications and injuries throughout the United States.

Step 3: Identify Investments in EHS Activities

This step will help identify and inventory EHS-related investments with their associated work activities that will help control or eliminated true losses or costs. In this step, the goal is to view EHS activities as an investment instead of cost. An accident with injury is a cost. Accident prevention is an investment with benefits in cost control, compliance risk, and reputation.

EHS programs compete with other activities in the organization for materials, staff, and money. EHS will be in a better position to compete successfully for those resources when business managers can clearly group EHS activities into categories where investments can be measured and clearly measure how EHS resources are used.

Table 2 shows a sampling of EHS-related activities with their associated tasks and investments of time and resources. The chart can be used as a template to decide the major categories or activities that can be measured and quantified for comparison over time.

EHS Activity	Specific Tasks	Investment
Program Development	Hazard analysis, write plans and procedures, reports, investigations	Staff time, consultant fees, monitoring equipment purchase
Training	Scheduling, program development, conduct training sessions	Staff time, consultant fees, training materials purchase
Record-keeping	Update OSHA 300 forms, inspection reports, investigations	Staff time

Table 2. Common EHS functions grouped by investment categories.

There are many ways to calculate the financial value of investments. With today's computing power and sophisticated software packages, these investments can be compiled by activity and not just by product or service category.

Free total cost accounting software. Activity based costing (ABC) is a popular accounting technique that allows an organization to determine the actual cost associated with a product and service produced without regard to the organizational structure of the producer.¹⁴ A

form of ABC that has been used for EHS activities is Total Cost Accounting (TCA). Cost accounting is the process of tracking, recording, and analyzing costs associated with the products or activities of an organization. It is a type of management accounting that translates the supply chain (the series of events in the production process that, in concert, result in a product) into financial values. Managers use cost accounting to support decision making to reduce a company's costs and improve its profitability.

The financial value of each EHS activity can be evaluated with a TCA calculator.

EPA funded a free and easy-to-use TCA program developed by the Texas Commission on Environmental Quality to demonstrate the power of TCA.¹⁵ This web-based program will allow you to input costs into the calculator and run various scenarios to compare differing inputs.

This program can help EHS professionals understand the impact of EHS costs on their business, learn how to compare the cost of one process or activity to another, and learn how to communicate costs and benefits of pollution prevention projects to facility management.

There are many other cost accounting tools. The TCA tool illustrates that such tools exist and some are not beyond the abilities of professionals unfamiliar with accounting to learn and use in a short time.

Step 4: Link EHS Functions to the Value Drivers

Step 4 identifies the links between specific EHS functions and the core business values of the organization. The connections will vary depending on a particular organization's EHS activities and core business values.

Use Table 3 below to link the specific EHS functions identified in Table 3 to the corresponding business value drivers identified in Step 1 (see the common drivers of business value discussion). Table 3 is for illustration only and does not represent conditions at any specific organization.

Business Value →	Profit	Production	Risk	Reputation	Control Cost	Time to Market
EHS Function ↓						
Training	X	X	X		X	
Waste Reduction	X	X	X	X	X	
Environmental Permit Compliance			X	X	X	X
Studies, Audits, Reports	X		X	X	X	
Safety Compliance	X	X	X	X	X	X
Remediation	X	X	X		X	
Energy Efficiency	X			X	X	
Safety Committee		X	X		X	
Security		X	X	X	X	
Pollution Prevention	X	X	X	X	X	
Recordkeeping		X	X		X	

Table 3. Link EHS function to the corresponding business value.

Step 5: Measure Business Value Performance

Once the connections between EHS functions and the organization's business values are made in the first 4 steps, the EHS professional can choose the means to measure EHS performance in the context of business values, and evaluate and enhance EHS performance (i.e., streamline, innovate, improve processes) in such a context. There are 2 specific tools available in this paper to accomplish this:

- EHS Performance Metrics Table
- Balanced Organizational Scorecard spreadsheet

The EHS Performance Metrics Table. Table 4 below is a template to help the EHS professional identify specific indicators to measure EHS performance in relation to corresponding business value outcomes.

EHS Activity	Business Value Objective	Measure of Performance	Business Value Result
Training	Reduce compliance risk Cost containment	Incident rate Employees completed	% incident rate change/time % courses completed
Program Development	Reduce compliance risk Cost containment	Injuries per # of work hours	% change in lost work days/DART
Personal Protective Equipment	Reduce compliance risk Cost containment	% of employees wearing PPE during incident	Cost comparison of injury with and without PPE

Table 4. Convert of EHS performance to a business value outcome.

The Balanced Organizational Scorecard. The Balance Organizational Scorecard is a management method as well as a measuring tool for representing business value.¹⁶ It is a *management system* because it enables organizations to clarify their vision and strategy and translate them into action.¹⁷ The balanced scorecard graphically shows what and how things are measured in order to “balance” the financial perspective. Some organizations use the term *dashboard* as an alternative to the scorecard. The *dashboard* should include a glossary of definitions (easy way to translate EHS terms into business values) for anyone viewing the *dashboard*. It is also a measuring system in that the scorecard graphically illustrates how the organization is doing measured against the desired targets.¹⁸

Table 5 shows an example of the balanced organizational scorecard.

Ouda-Corpe Alliance Corp. Sample Balanced Organizational Scorecard									
Criteria	Indicator	Target	Current Year Actual	Base Year 2000	Exceeds Target	Meets Target	Marginal	Not Acceptable	Responsible Department (Lead/Assist)
Lost work day rate (LWDR)	LWD/1,000 work hours	0.03	0.035	0.18			Yellow		EHS/EHS
Energy Use—Production	kilowatt hours (kWh)/month Process	3,000	3,145	3,500			Yellow		EHS/EHS
Environmental Initial/Refresher Training Sessions Completed	Percent total initial/refresher training sessions / month	95/95	60/40	40/20				Red	EHS/HR
Safety Initial/Refresher Training Sessions Completed	Percent total initial/refresher training sessions / month	95/95	90/75	60/30			Yellow		EHS/HR
Air, Water, Waste Incidents of Noncompliance	Incidents per month	0	4	7				Red	Operations/EHS
Accident Investigation Time to Completion	Business days per investigation	20	18	27	Green				EHS/HR
Accidental Releases-Water/Air	Incidents per month water/air	0/0	0/0	3/5		Blue			Operations/EHS
Environmental Violations and penalties	Number of violations/total penalties (\$)	0/50	2/\$18,000	5/\$77,400				Red	EHS
Safety Violations and penalties	Number of violations/total penalties (\$)	0/50	1/\$500	3/\$15,000			Yellow		Operations/EHS
Water Use—Production Process	Gallons per month	340,000	342,000	400,200			Yellow		Operations/EHS
Hazardous Waste Generation Rate	Pounds per month	220	220	380		Blue			Operations/EHS
Community Complaints	Complaints per month	0	1	8			Yellow		EHS

Table 5. Balanced Organizational Scorecard.¹⁹

With the Scorecard, a viewer can see how EHS activities directly and indirectly influence a range of other activities at the company and quickly discern the performance of an EHS activity.

The reader may download a copy of the Balanced Organizational Scorecard Excel® spreadsheet template and manipulate the cells to see how the spreadsheet works. The template is a fully functional spreadsheet that includes an electronic copy of the OSHA 300 recordkeeping forms, a Days Away, Restricted, or Transferred (DART) Rate calculator, and a Days Away From Work Injury and Illness (DAFWII) Case Rate calculator. Several spreadsheet cells contain active URL links to relevant websites that contain benchmarking data and information related to the metric in the cell. Download the Scorecard template at:

<http://safety.blr.com/timesavers/workplace-safety-compliance-forms/safety-administration/EHS-strategy/Making-the-Business-Case-Balanced-Organizational-S/>

Step 6: Communicate Results

Use the following checklist to prepare a business case for EHS and to communicate with executive management.²⁰

Making the Business Case to the CFO Checklist

Chief Financial Officer (CFO) Priorities
1. Control Costs
2. Comply with regulations
3. Support business initiatives
4. Protect/enhance company reputation
5. Everything else (insurance, marketing, employees, investor interests)

Prepare the Case - Be Strategic

Network. Build a relationship with business and financial managers to influence their perception of environmental and workplace safety issues. Educate them about how EHS activities benefit business initiatives and operations, and let them educate you about their priorities and how they measure performance toward business goals.

Align EHS activities with the business needs of the organization. Prepare examples of how EHS activities align with the organization's overall business strategy and how EHS performance is integrated into business productivity.

Focus on priorities. Address the "low hanging fruit" first (e.g., eliminate the most severe hazard or dangerous activity), where the proposal will result in optimal benefits with the shortest payback period.

Be ready with a counter-proposal. A successful proposal may require compromise with an incremental approach, building support for the full proposal over time.

Focus on future investments, costs, and benefits. Be prepared to show the range of benefits of your proposal and the probability of achieving the goal at a set time in the future. Compile information about past events/actions to document and support assumptions about future investments, costs, and benefits.

Make the Case

Speak the language of management. Use the business and financial terminology and methods of your organization for displaying and communicating information.

Make the pitch in 10 minutes or less. Show the problem, solution, and plan of action quickly.

Address risk from management's perspective. Show how EHS can achieve business objectives in the future, such as cost containment (e.g., fewer injuries, lower workers' comp, less equipment damage, etc.) and reduced exposure to fines or citations.

Show payback. Show a trend that payback will come at set time in the future, and how you will monitor financial performance toward payback. For example, measure lost workday or workers' compensation losses for the last year against investment in EHS for the coming year.

Compare your case to doing nothing. Project the impact on the organization's bottom line if your proposal is not implemented

Know your numbers. Make sure your financials and other measurements are correct, not manipulated. If you don't know, say you don't know and ask for assistance.

Document your assertions and assumptions. Document all information sources and assumptions and how you will consistently and reliably measure progress.

Prioritize. Make targeted recommendations as to how company should act on the most important trends you are seeing.

Demonstrate probability of success. Show probability on a scale familiar to your CFO that your projections will be achieved if the proposal or activity is implemented. This is not return on investment (ROI); it's the chances of achieving the anticipated ROI.

Step 7: Follow Up

Following up is like maintenance activities—vital to the health of the company, but often ignored. Follow up is the key to getting upper management to accept the business case for EHS in the long term.

- Update upper management on a regular basis using terminology business managers understand and according to the communication culture of your organization. Use a format they prefer—email, intranet, quarterly meetings, etc.
- Don't overwhelm them with data, and make sure the information is fresh.
- Stay consistent with the measures—if you change an indicator or way of measuring performance, explain what and why the change was made. This goes to the credibility and reliability of your information. Describe an example.
- Management often values information about nonfinancial matters, such as changes in employee morale or the organization's reputation. You may have an opportunity to become a key source of information about the nonfinancial health of the organization.

Summary

The benefits of an organization's EHS functions and performance are often undervalued due to communication barriers between EHS professionals and executive management, and a lack of standard metrics for evaluating all aspects of EHS performance. However, this situation is improving with the advent of EHS-business value metrics and well organized strategies for using them.

EHS professionals can follow a 7-step process to align their programs and activities with the business objectives of their organizations.

1. Identify the primary value drivers that steer the organization. Primary business drivers include profitability, market share, reputation, and compliance risk.
2. Conduct a form of financial "hazard analysis" or an inventory of EHS-related losses or costs that devalue the organization.
3. After researching these drivers, identify the investments and costs of EHS functions at the organization. This can be accomplished by using modified cost accounting methods common in financial circles such as Activity Based Costing and its hybrid Total Cost Accounting.
4. Link the value drivers to each EHS function or activity. Once these links are clear, implement one or more management tools to enhance EHS programs in the context of the organization's business values. Such tools include the Balanced Organizational Scorecard.
5. Measure EHS performance in the context of business values.
6. Use TCA and the scorecard to display information to executives and financial analysts in their language.
7. Once the business case is made to executives, follow up with updates periodically to keep the value of EHS programs fresh in their minds.

As Mr. Lawrence described in his article *The Versatile SH&E Pro*, "[T]he model for the EHS professional is shifting from, 'Do you have the technical skills typically associated with your profession?' to 'How do your skills add value to the organization?'"²¹ The EHS professional must become:

- A strategic thinker—align actions with the organization’s business objectives.
- Proficient—develop methods that integrate EHS performance into business productivity; understand financial related terms and information; and demonstrate EHS performance in a financial framework.
- A leader—align EHS activities with overall business strategy and effectively communicate the vision to management and to workers.
- Versatile—learn and integrate a wider range of disciplines such as employee wellness, “greening” business practices, security, emergency preparedness, business continuity, and risk management.

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