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by Jill Barson Gilbert

Gauging EH&S Performance

Imagine you are navigating a busy road in a severe rainstorm while traveling behind a tractor-trailer. The combination of poor lighting and water spray from the back of the truck means that you have little or no visibility of your current position, not to mention of the road ahead. Your senses are overloaded, trying to listen to the traffic and weather reports on the radio, look for your exit, and avoid a collision with nearby vehicles. Then suddenly, you hit something in the road and the car veers sharply to the left—you have a blowout and are riding on the rim of your alloy wheel. In a microsecond, you assess the situation and steer to the side of the road to get out of harm's way and minimize damage to the vehicle.

We often find ourselves making business decisions on less-than-complete data, but without the necessary information, we cannot easily assess our current status, let alone see the road ahead. Whether you are an environment, health, and safety (EH&S) executive, middle manager, or specialist, you need information and tools to make good business decisions, recommend actions, and communicate effectively with stakeholders. If an incident occurs, you need to manage it successfully without turning your back on day-to-day obligations. This is where a new business imperative called performance management can help.

PERFORMANCE MANAGEMENT

Organizations want to analyze information faster, make better decisions, and control costs. Global business demands, stricter regulations, greater risk exposure, and mandates for tighter corporate governance are driving companies to adopt information technology (IT) solutions to manage performance. Performance management tools connect users with the information they need to improve performance. Users can access information on performance metrics and goals via dashboards (software displays that allow users to visualize state-of-the-business information at a glance), scorecards (a specific metric, or set of measurements, often displayed on a dashboard), and electronic reports. As part of an organization's governance, risk, and compliance (GRC) initiative, performance management extends across all departments and functions. Successful performance management initiatives require strategic alignment, support from top management, and a degree of IT maturity.

EH&S PERFORMANCE MANAGEMENT

To help describe performance management and its use in EH&S applications, the following are some insights and perspectives of executives and senior managers with industry, regulatory, software, and consulting experience.

Process Management

Whether you manage impacts on the environment or impacts on employees, you should use the same processes, according to Mark Jaine, president of Intelex Technologies Inc. EH&S performance management focuses on business processes rather than regulations. For example, by standardizing incident management, auditing, and reporting processes, they can be applied to myriad of issues— including air, water, hazardous substance, and occupational health and safety—across business lines and even at facilities in different countries.

Continuous Improvement

David Cox, vice president at ESP, defines performance management as "using data to drive improvement, beyond the passive use of reporting metrics." Performance management allows companies to understand how operations perform in relation to corporate expectations. Companies set standards and then measure against them.

Beyond Compliance

Greg Gasperecz, former state regulator and now vice president of EH&S at Enviance Inc., defines performance management as "an organized evaluation and improvement of the satisfaction of regulatory and policy obligations." He says EH&S performance management should be organized, systematized, and transparent. With transparency, Gasperecz says, it should be clear (a) what is being done, and (b) how things are measured.

Measure What Matters

Organizations use a broad range of key performance indicators (KPIs) to measure, track, and improve EH&S performance. Certain GRC initiatives state what organizations should measure (e.g., regulatory permits/authorizations, the Global Reporting Initiative; www.globalreporting.org). By and large, organizations measure too much. They should focus on indicators that fit with the organization's strategies and goals, and make the KPIs visible and transparent.

Gasperecz favors proactive EH&S performance metrics that allow organizations to take action before trouble occurs. Metrics should include leading indicators, such as audit findings, number of findings per audit, or number of near miss incidents, as well as lagging indicators, such as number of spills or number of vehicular accidents. Cox says that most companies currently use lagging indicators, though software can help to indicate trends and notify users of potential problems before they occur.

Trends

Robert Johnson, president of ESS, says that businesses and economists have used leading indicators for decades. However, the secret to developing effective KPIs is to create a process that provides results rapidly, so managers can develop strategies and tactics to correct negative trends in a timely manner. Johnson provides the folowing examples of the next generation of KPIs:

- measurements of performance trends, not merely performance;
- periodic surveys of relevant opinion leaders;
- sustainable development metrics; and
- consideration of measures such as physical conditions, employee attitudes and other factors when tracking factors that affect performance and results.

Cox looks forward to trends such as using real-time data to assist in better decision-making, actively managing risk with software tools, and coupling metrics with business processes to continually improve those processes.

IT Enables Performance Management

With thousands of GRC obligations within permits, regulations, policies, and guidelines, organizations need tools to make their performance visible to internal and external stakeholders—employees, shareholders, regulators, and the community. Organizations require something more robust than spreadsheets to manage these obligations, and market needs are driving the development of IT tools to enable performance management.

A wealth of IT best practices, frameworks, and technologies can be applied to EH&S performance management. In recent years, entire software market segments have grown up around business process management, business intelligence, and enterprise performance management. Large software vendors, including Cognos, SAS, Hyperion, Business Objects, Oracle, SAP, and Microsoft are leading the charge. And the EH&S performance management software market has followed.

REAPING THE BENEFITS

To gain the full benefits of EH&S performance management, organizations need to consider how EH&S fits within their overall GRC framework. By identifying a few KPIs that mesh with corporate strategic plans, measuring progress against these KPIs, and taking the appropriate actions, organizations can instill common business processes across the entire enterprise. IT enables organizations to manage their EH&S performance by allowing secure, anytime, anywhere access and delivering the right information to the right people at the right time, at the right level of detail. **em**

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RETROSPECTIVE: FROM SLIDE RULES TO SOFTWARE

Our ability to manage EH&S performance has changed significantly over the past 30 years, largely due to IT advances. In the 1970s, EH&S professionals used slide rules, mechanical pencils, and paper for calculations. By the mid-1970s, we used the first handheld electronic calculators. A simple calculator with two memories and a square root function cost US$60 and a scientific calculator cost US$150. While handheld calculators made calculations faster and easier, we still needed pencil and paper, and it took a while to get complex calculation results. By 1980, EH&S professionals started to use programmable electronic calculators, available for less than US$100 each. By the mid-1980s, handheld, battery-operated graphing calculators were affordable for school, home, and business use—no longer for engineers and scientists alone.

The late 1970s ushered in electronic spreadsheets in the form of VisiCalc, the idea borrowed for Lotus 1-2-3 and later for Microsoft Excel (see "Six Technologies That Shaped EH&S," *IT Insight*, February 2007, page 34). The electronic spreadsheet is the most widely used performance management tool. People are comfortable using spreadsheets to manage all types of information, to perform simple and complex calculations, perform "what if" analyses, and generate charts and graphs. The latest spreadsheets allow users to create dashboard- and scorecard-like information displays, but their lack of version control and security create a colossal challenge.

The arrival of personal computers (PCs) in the mid-1980s drove companies to develop commercial EH&S "point" software solutions, typically focused on a single issue (e.g., air emissions modeling, groundwater modeling, Material Safety Data Sheet (MSDS) management) to parallel prevailing regulatory compliance issues.

As IT matured, organizations replaced 1950s- to 1970s-era mainframe computers with client/server networks. EH&S professionals received PC desktop "clients" that connected to servers that housed databases. Business information remained in "silos" as organizations installed a proliferation of client/server software to manage EH&S, human resources, financials, and supply chain data.

In the late 1990s, Internet technology created a new paradigm of connectivity and data sharing. EH&S professionals in geographically dispersed locations could connect to disparate data sources 24/7 using the Internet or company intranets. Today, software applications delivered using Web-based technologies allow us to share EH&S information. We can use powerful analytical tools, dashboards, scorecards, and reporting engines to analyze and communicate this information.

EH&S professionals can now use blogs to replace static EH&S status reports. We can capture best practices, operations knowledge, and lessons learned in wikis, rather than in limited-distribution documents (see "Wikis and Blogs Infiltrate the Business World," *IT Insight*, April 2007, page 32). Today, we are at the leading edge of delivering accurate and timely information at a level of detail tailored to the user's needs.