

ENVIRONMENTAL HEALTH AND SAFETY: AN INDUSTRY IN TRANSFORMATION

If you're a risk manager or other leader within the Environmental Health and Safety (EHS) industry, rapid change – particularly around technology and regulation – is probably your biggest concern.

This whitepaper looks at the state of the industry today and how technology will continue to transform EHS, presenting both challenges and opportunities. It offers insight into the way technology is changing how data is collected and analysed to deliver deeper insights more efficiently. It should help you answer this question: will your organisation capitalise on the opportunities available or lag in the uptake of technology?

An array of mandatory compliance needs, increased stakeholder performance demands, corporate objectives to improve EHS performance, and the need to innovate to stay relevant to clients, have all helped drive growth in the market for EHS software.

Specific goals include:

- Improving EHS performance
- Proactive incident prevention
- Compliance with regulatory requirements
- Achieving corporate sustainability targets
- Complying with stakeholder requests for EHS disclosures.

EHS software solutions are helping businesses around the world achieve these goals, managing and reducing their exposure to a wide range of risks.

In compiling this paper, SAI Global spoke with independent industry leader David Metcalfe, CEO and Co-Founder of Verdantix.

Verdantix is an independent research and consulting firm with expertise in environment, health, safety and quality, and a focus on innovative technologies that optimise business operations.

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WHAT THE EHS INDUSTRY LOOKS LIKE TODAY

Over the past 10 years, the EHS industry has grown, broadened and matured into a pivotal player in the overall business landscape.

From the outside it may look like a niche, but I think the people who are actually managing EHS issues feel that they have a very broad range of responsibilities.

EHS has moved beyond focusing on employee health and safety into broader risk management at the operational level. It now covers areas like sustainability, social responsibility, operational risk management, brand sustainability and reputation, and a company's quality agenda.

Increasing demand for transparency is also playing a part in EHSs broadening reach. Media outlets and social media channels report disasters and enforcement actions affecting companies, and environmental and other pressure groups can reveal poor or unethical practices to the world instantly. This has brought about an increased need for supply chain stewardship – both from an ethical and a compliance viewpoint. This means some EHS professionals' roles may now include auditing key suppliers to ensure, for example, they're not using child labour or causing environmental damage.

The make-up of industries at the forefront of EHS is also changing. Increasing regulation means agriculture, consumer electronics, retail, pharmaceuticals, and food and beverage services have joined the likes of oil, gas and other heavy asset sectors under the scrutiny of enforcement agencies.

THE BIGGEST CHALLENGES FOR TODAY'S EHS PROFESSIONAL

Growth and transformation inevitably bring challenges, and the EHS industry is facing two key areas of difficulty: regulation and digital transformation.

A COMPLEX AND EVER-CHANGING REGULATORY ENVIRONMENT

Regulatory controls and complexity are part of the EHS landscape. Whether it's a global system of classification implemented differently across countries, or industry-specific regulations that overhaul a local sector, change is constant.

In a globalised world of business diversification and frequent acquisitions, many organisations, not surprisingly, struggle to stay on top of compliance and employ a consistent safety culture across all their sites.

In the last 18 months, we've also seen several updates to ISO standards. With the latest revisions to ISO 9001, for example, risk-based thinking is expected to be at the heart of any business, while ISO 14001 and the upcoming ISO 45001 have risk management at their core. Many larger companies may find that their biggest customers won't do business with them if their sites are not certified to the latest standards. The pressure to update quickly is real.

DIGITAL TRANSFORMATION

We feel that EHS people, and I think they feel this themselves, have been behind the ball. They haven't really been on top of implementing a digital transformation strategy. That is definitely the biggest anxiety we've been feeling in the last year or so.

Rapid technological changes are here to stay in EHS, offering increased efficiencies and innovation. This has been particularly clear in the last three or four years, with integrated software allowing better analytics solutions and tying in with other developments in mobile, drone, wearable device and robotics technology.

However, research conducted by Verdantix found that in 2016 only 13 to 30 per cent of firms with more than US\$500 million in revenue use software for EHS processes, placing the trend in the early majority phase.

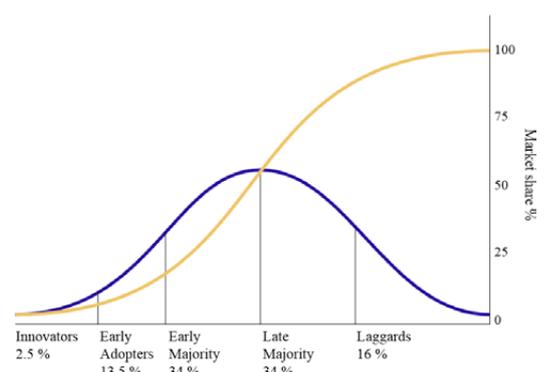
The complexity of the risk landscape, ingrained reliance on legacy systems and the huge scope of any conversion project present obvious difficulties in the EHS space. You may also have an added international dimension: how can you make sure everyone uses a new platform consistently? Many organisations, large and small, continue to rely on spreadsheets, documents and email.

However, digital transformation will soon be non-negotiable – regardless of industry. And with the right type of consulting partner to help with change management and training, the opportunity to develop a competitive edge is now within reach. The increased efficiencies and innovation associated with digital can translate to more risks averted and more enforcement actions avoided.

HOW TECHNOLOGY IS TRANSFORMING THE EHS INDUSTRY

Risk is inherently complex; however, technology is transforming the way data is collected and analysed. Technologies like mobile devices, smart meters, sensors, radio frequency identification tags and other connected 'Internet of Things' devices allow data to be gathered more consistently, and at a deeper level, across an organisation. This means EHS software systems can receive higher-quality information for their proactive estimations about the future. Predicting an oil spill or dam collapse is something that could be a reality within a decade.

Business Intelligence and analytics platforms can also cut through the complexity and volume of EHS data to deliver information that allows for insightful decisions and targeted actions. These changes are driving a fresh approach to risk analytics and improved EHS performance.



RISK ANALYTICS: SHIFTING FOCUS FROM LAGGING TO LEADING INDICATORS

Over the past 10 years, firms with strong risk analytics and management systems have reduced their recordable injury rates, especially around things like slips, trips and falls. In the last three to four years, however, there's been a plateau in those improvements.

While lagging indicators – those traditional safety metrics that measure past incidents to determine the future effectiveness of safety measures – may have led the trend, a focus on leading indicators will drive continuous improvement.

A leading indicator is a measure preceding or indicating a future event used to drive and measure activities carried out to prevent and control injury. Of course, getting data about leading indicators can be problematic.

The big issue everyone has is they frequently don't have the data they need to be able to correlate how you improve lagging indicators by working on your leading indicators.

The availability of integrated EHS software is changing that, and allowing a renewed push towards innovation and continuous improvement. Predictive analytics to support preventative action plans may be possible with good data collection practices and solid data that allows for multi-variant analysis.

TECHNOLOGY ALLOWS AN INTEGRATED APPROACH

There's this whole technology ecosystem which is going to encourage customers to say, 'Well, we can clearly have a better EHS management system.'

A single integrated platform – across EHS, risk management, compliance and performance improvement – can systematically compliance and record-keeping requirements, mitigate risk, limit the potential for brand damage and allow data to be incorporated into overall enterprise risk management (ERM).

A unified risk platform also allows organisations to shift the focus to leading indicators and continuous improvement. Using a single digital platform well across a number of work sites or organisational entities means you can collect relevant data for risk analytics. If, for example, data is siloed across excel spreadsheets, many of the insights needed to improve performance will be out of reach. A comprehensive approach to managing risk and analysing potential concerns can encourage a risk-aware rather than risk-averse culture across the entire business. With everyone from the C-suite down involved in a proactive culture of dealing with risk, organisations are better placed to make decisions affecting their future growth.

In addition to time efficiencies and better risk management, new technology is also executive-friendly, with accurate data across operations available at a glance to get an overall view of the business's performance. Organisations can quickly glean insights following an incident, and timely information reduces the possibility of any nasty surprises.

Technology is also being used to improve workplace health and safety in other ways. For example, wearable technology allows for real-time data feeds and safety monitoring for staff in potentially dangerous environments, while drones and robots can perform otherwise hazardous inspections or repetitive tasks. Importantly, these technologies fit within the broadening role of EHS by applying a risk-management lens to different business functions and connecting risks between departments.

TECHNOLOGY SOLUTIONS

SAI Global's Cintellate is one software solution for the EHS industry that enables better data collection and analytics. Capturing, monitoring and reporting on data in a visible and accurate way means no more paper-based forms or time-consuming spreadsheets. Out of the box, Cintellate offers over 20 integrated modules so it can be tailored to your requirements. Integration allows risk professionals to view and manage data across business functions, making it easy to understand trends and risks.

Cintellate also assists in managing complex and changing regulatory schemes. Assistance with compliance tasks comes in the form of built-in email notifications and reminders, and it provides a systematic framework for managing overall EHS performance.

It also fits in with your business: a modular format with the ability to configure to your unique needs provides scalability.

Cintellate has certainly got a wide range of the functionality that we feel EHS leaders who want to be proactive in risk management will need – whether that is the instant management capabilities, whether it is the risk register, whether it's the workflow that you need to manage those processes.

It's the sort of platform that we feel people looking to upgrade their risk management frameworks at the operational level should be looking at.

Its mobile capability is so important because what we've really seen is, in the past you've had power users and what we would call core EHS users who are accessing the systems like Cintellate. But what you need to do is get out there and gauge all of the frontline operatives – the end users – and that is what the mobile capabilities Cintellate has are going to make possible."

David Metcalfe
CEO & Co-Founder, Verdantix

More than 45 customers, including Fortescue Metals Group, Sandvik Mining & Construction, Scottish Power, Caltex, Petronas, and Chicago Bridge & Iron, use Cintellate to manage safety, analyse risk factors, monitor their industry environment and position themselves for growth into the future.

Find out more about SAI's integrated EHS software, Cintellate, or request a demo today.

