VERDANTIX

Smart Innovators: Contractor Safety Management Solutions

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Contractor safety issues are pervasive, costly and severely damaging to workforces. As the conversation surrounding contractor safety management becomes more imperative within firms, the market for EHS solutions is expanding. This report provides EHS executives with an analysis of the evolving landscape of contractor safety management solutions, including software for prequalification, onboarding and safety training, site access control and control of work. Our analysis finds that more firms and hiring clients are realizing the importance of contractor safety and are further innovating their existing solutions to enhance EHS workflows.

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ORGANIZATIONS MENTIONED

Achilles, Alcumus, Avetta, BP, Chevron, Cognibox, Cority, Health and Safety Institute (HSI), Intelex, ISN, Noggin, Passport 360, Predictive Solutions, Safety Plus, SAI Global, Sphera, TenForce, VelocityEHS, Veriforce.

The Pandemic Has Highlighted The Importance Of Contractor Safety Management Solutions

The last 24 months have seen a growing appetite among firms for digital contractor safety management solutions. Due to the impact of recent events, such as COVID-19, worker and contractor safety has received heightened attention in corporate strategies and initiatives. A key driver of the renewed focus on contractor management solutions is the increased number of contracting firms that are now operating all over the world, across all industries, to help meet the labour demands experienced during COVID-19 and the subsequent 'great resignation'.

However, the use of contractors raises some issues. Firms reliant on third-party contractors to operate must account for the increased level of risk exposure that accompanies an outsourced workforce. Firms must ensure that contracted workers are competent, have appropriate safety credentials and, most importantly, are trained to operate on site. In addition, it is crucial that suppliers are accountable for providing contractors with the necessary safety training and qualifications. The key aim of contractor safety management solutions is to streamline the management of health and safety for both the hiring clients and the contractor firms.

Contractor Safety Management Solutions Boost Investment And Market Demand

As more firms begin to utilize and realize the importance of contractor safety solutions, market demand for such solutions is growing. Verdantix finds that:

- **Contractor management is a priority for EHS professionals.**
  According to a recent Verdantix global EHS survey, 49% of EHS executives are prioritizing the improvement of contractor management over the next two years (see Verdantix Global Corporate Survey 2021: EHS Budgets, Priorities And Tech Preferences). Many EHS functions are focusing on contractor management, as better adoption of tools helps reduce employee and contractor risks and eliminate the additional costs and delays associated with the onboarding and prequalification processes. Hiring clients can use contractor safety management solutions for assistance with various processes, such as ensuring contractor prequalification; managing contractor safety on site during operations; monitoring site entry of individual workers with safety passports; and onboarding and training employees for site-specific safe operations.

- **Contractor management software solutions will see increased adoption.**
  Firms are increasingly looking to adopt EHS software for contractor management across operations. Additionally, Verdantix finds that 19% of the 301 EHS decision-makers in our latest global survey have plans to adopt such software. A further 48% of respondents intend to use contractor management software for operations within at least a few facilities. Moreover, 17% of these decision-makers aim to increase investment in contractor management in 2022 (see **Figures 1 & 2**).

- **EHS software vendors have invested in contractor safety functionality to meet demand.**
  To better meet the growing demand for contractor safety management solutions, the EHS software landscape has seen a rash of product development in the last 18 months. Of the 22 EHS vendors listed in the Verdantix 2021 Green Quadrant, no firms demonstrated zero capabilities for managing contractor safety – in contrast to previous years. This highlights the fact that at least some functionality for contractor management is essential for enterprise EHS software vendors. For example, SAI Global incorporates workflows that are preconfigured for enterprise-wide EHS compliance monitoring and
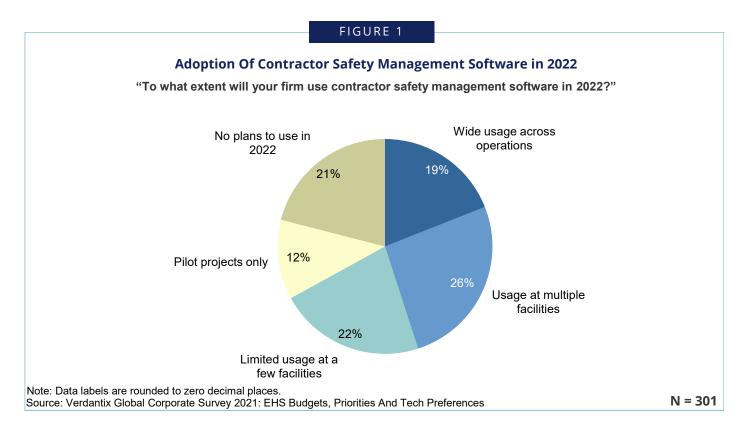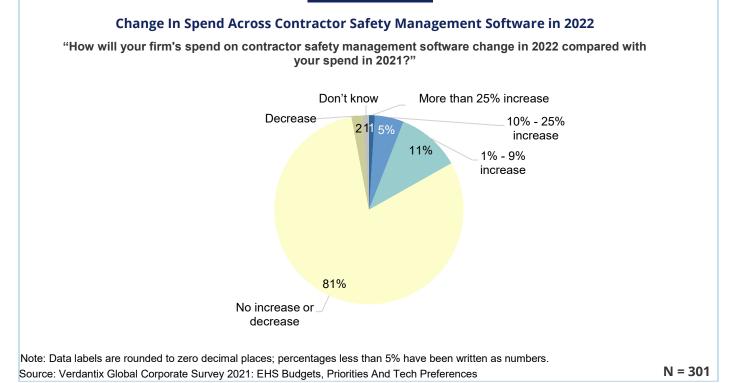
FIGURE 1

Adoption Of Contractor Safety Management Software in 2022

"To what extent will your firm use contractor safety management software in 2022?"

No plans to use in 2022 — 21%

Wide usage across operations — 19%

Pilot projects only — 12%

Usage at multiple facilities — 26%

Limited usage at a few facilities — 22%

Note: Data labels are rounded to zero decimal places.
Source: Verdantix Global Corporate Survey 2021: EHS Budgets, Priorities And Tech Preferences

N = 301

FIGURE 2

Change In Spend Across Contractor Safety Management Software in 2022

"How will your firm's spend on contractor safety management software change in 2022 compared with your spend in 2021?"

Don't know — 2

Decrease — 1

More than 25% increase — 1

5%

10% - 25% increase

11%

1% - 9% increase

No increase or decrease — 81%

Note: Data labels are rounded to zero decimal places; percentages less than 5% have been written as numbers.
Source: Verdantix Global Corporate Survey 2021: EHS Budgets, Priorities And Tech Preferences

N = 301

status-tracking. Meanwhile, the Health and Safety Institute (HSI) maintains safety-related records for each individual contractor, and Alcumus offers a contractor management portal that allows firms not only to track and assess individual contractor status on accreditations, insurance, work categories and risks on site, but also to facilitate the onboarding, prequalification and ongoing management of contractors (see [Verdantix Green Quadrant: EHS Software 2021](#)).

Firms Are Realizing The Growing Potential And Value Of Contractor Safety Management Solutions

The COVID-19 pandemic compelled many organizations to adapt to unique working conditions, which were intensified in industries such as manufacturing, oil and gas, and construction, all of which are now also contesting with a large turnover of employees. Managing the implications of lockdowns, transmission management and ever-changing COVID regulations over the last two years left contractor safety management solution vendors with no choice but to innovate their products. Verdantix analysis finds that:

- **Contractor compliance and safety is a complex area.**
  Several workflows must be performed to meet safety and compliance requirements. These encompass prequalification, which allows firms to assess whether contractors are financially solvent, have certificates of insurance, and can disclose full details on recordable incidents; onboarding and safety training, which involves the initial and ongoing training of contractors on firm and site safety practices; site access control, which ensures that only those contractors with the relevant credentials and who have passed relevant safety training and tests can enter a site; control of work, which covers permits to work, job risks assessments and isolation management; and safety and performance management, which ensures the constant monitoring and managing, over the duration of a contract, of training credentials, insurance certificates and safety performance, as well as audits of the quality of contractors' work. Ensuring complete contractor compliance and safety is therefore a complex task that can benefit immensely from a digital solution.

- **COVID-19 transformed firms' approaches to managing worker exposure.**
  The global pandemic revolutionized the way firms operated, as they attempted to ensure consistent operations and worked to build out organizational resiliency. To reduce the risk of transmission in vital contractor-focused industries, hiring clients have required a greater level of data insight into each individual employee's exposure to the virus, to better protect all workers and contractors. As the world moves past active COVID outbreaks into continuous risk management and accompanying document control, EHS executives must implement contractor management solutions that can ensure the scrutinization of employees' vaccination statuses, as well as their credentials on aspects such as virus exposure and COVID testing records.

- **Innovation is leading to better contractor visibility and overall safer outcomes.**
  COVID-19 posed a multitude of new and critical challenges around contractor safety for hiring clients. Vendors have looked to innovate their contractor management solutions to meet these challenges and provide better access to valuable data. Witness Passport 360, an online safety compliance firm for contractors and clients in high-risk environments, which has deployed various Internet of Things (IoT) devices, such as temperature monitors, facial recognition devices and wearable sensors, to integrate contractor workflows into corporate clients' existing digital twin solutions. ISN, meanwhile, with the assistance of data analytics, provides a wealth of supplier safety and compliance data, which can be assessed and displayed in a collection of dashboards via the ISN Analytics tool. This holistic view of qualification data allows firms to create objective safety thresholds for contractors.

2022 Will See Contractor Safety Management Solutions Become A Key Driver In A Shifting Worker Safety Landscape

Contractor safety management is transitioning through a period of intense product development, initiated both to overcome the unprecedented challenges of the pandemic and to maximize the powerful insights now available through connected devices. This section of the report discusses how contractor safety management solutions can contribute to a safer society, considering the functionality such solutions bring to firms, as well as how they can be further innovated. Collecting these insights together, Verdantix has provided an overarching picture of the technology available in the market and the most prominent vendors.

Contractor Safety Management Solutions Offer Key Functionality To Protect Against Worker Risk

With more organizations utilizing contractor safety solutions, firms can be satisfied that their third-party contractors are not only prequalified, but have the correct working permits to work on site. Verdantix finds that contractor management software can:

- **Perform contractor prequalification inspection and compliance due diligence.**
  Hiring clients rely on contractor safety management vendors to provide a standardized assessment of potential contractors. Clients can search through a contractor database to find a contractor with suitable credentials, covering business information, employee qualifications, certificate of insurance documents and safety policies. Previously a heavily service-led industry, well-established contractor safety vendors such as ISN, Sphera and VelocityEHS have developed integrated software platforms that benefit from streamlined digital workflows to collect, analyse and display data in a single dashboard view. The prequalification of external contractors can also be conducted within the single platform (see **Figure 3**).

- **Manage contractor safety on site during operations.**
  Managing contractor safety and risks within ongoing operations and projects can be a big challenge for firms – but certain vendors have developed functionality to promote the safety of contractors and workers within this phase. A prime example is Cognibox, which is looking to introduce an incident management module to ensure that steps such as reporting, escalation and investigation are performed throughout contractor operations. These fundamental safety management workflows will be accompanied by the ability to perform a thorough route analysis, corrective measures, performance assessment and predictive analytics – resulting in the overall mitigation of contractor risk.

- **Ensure contractors have the right work permits and competencies.**
  Ensuring that contractors possess the necessary work permits for on-site operations has become an integral requirement for hiring firms. Permit to work solutions allow hiring clients to better regulate which individual contractors can carry out specific high-risk activities, such as working at height, operating heavy industrial equipment or effecting entry into confined spaces, all of which require additional competence, safety training and hazard insight. Firms incorporating software workflows can streamline the management of permit requests and reviews, as well as the authorization of work permits for on-site tasks. Recognizing the benefits of linking permits to individual contractor safety credentials, many organizations have transitioned into reinforcing their permit to work capabilities.

FIGURE 3

Key Use Cases For Contractor Safety Management Software

Use case	Description	Vendor Example
Prequalification	Assess whether contractor firms are financially solvent, possess certificates of insurance, and have disclosed full details of any recordable incidents. Ensure that only workers with the necessary technical and safety qualifications for the project are employed.	ISN's ISNetworld platform assists the greatest number of hiring clients, including BP and Chevron, with prequalification requirements, providing them with a wealth of supplier safety and compliance data.
Onboarding And Safety Training	Initial and ongoing training of contractors on firm and site safety practices.	Passport 360 provides a refined safety training module to ensure contractors are well-equipped for the job ahead. Key features include the ability to monitor and report on individuals who do not attend mandatory courses.
Site Access Control	Ensure only those contractors with the relevant credentials and those that have passed relevant safety training and tests are granted permission to enter the site.	Cognibox's mobile application offers an on-site-accessible tool to manage relevant checks for both contractors and hiring clients. Prior to starting work, suppliers can identify outstanding training and questionnaire prerequisites to ensure compliance.
Control Of Work	Comprises permit to work, job risk assessment and isolation management.	Sphera offers SpheraCloud, which allows for control of work as a standalone platform, with an array of capabilities that tie in with permit to work solutions. The permit creation and associated permissions module is used to manage workflow and business procedures.
Safety And Performance Monitoring	The monitoring and management of training credentials, insurance certificates, safety performance and audits of quality of work of the contractor for the duration of the contract.	Cority offers CorityOne, which delivers performance monitoring alongside management of incidents, actions, risks and compliance.

Source: Verdantix Buyer's Guide: Contractor Safety Management Software (2021)

Contractor And Hiring Firm Relationships Within The Contractor Safety Management Software Market

Hiring clients must perform several workflows to ensure contractors meet safety and compliance requirements; contractor-focused software tools aim to assist managers in consolidating these processes and their corresponding data streams. Contractor safety management software solutions help hiring clients to:

- **Ensure individual contractors maintain safety standards and compliance.**
  It is vital that contractors maintain a range of safety standards whilst on operations. Firms must therefore ensure that contractors successfully complete any training that is needed for them to carry out their tasks both effectively and safely. In many cases, contractors may forget what training has been completed and

is still to be carried out. To counter this, EHS firm Veriforce has developed functionality in its solution allowing contractors to monitor the completion and outcomes of operator qualification (OQ) training. This enables them to stay up to date with their training, leading to safer working standards.

- **Monitor site entry and qualifications of individual contractors with safety passports.**
  To ensure granular control of contractor safety, hiring clients must perform and enforce checks and controls on the competency levels of individuals. This is especially important in very high risk industries, which require pipeline contractors to have complete OQs to remain compliant. Numerous contractor management vendors, such as ISN, offer competency checks to ensure that individual employees have the correct qualifications. Vendors incorporate competency check data, alongside safety performance and prequalification information, in a separate safety record for each employee. To leverage these insights, vendors have developed site security passes to ensure that only prequalified individuals can enter a site.

- **Enjoy a significant advantage in reputation and management.**
  The deployment of contractor safety management solutions has provided firms and contractors with great advantages. Chief among these are the protection of corporate reputation; the enhancement of vendor and contractor governance; the improvement of operational excellence; the facilitation of global process standardization, allowing the management of contractors from mobile devices; the ability to handle pandemic management measures; and the streamlining of audit preparation.

Contractor Safety Management Solutions Are Incorporating Innovative Functionality To Move Risk Management To The Next Level

Contractor safety management solutions have various functionality, ranging from worker onboarding that can be conducted prior to coming on site, to key use cases in operations. Verdantix finds that contractor management innovation and enhancements are found in:

- **Digital onboarding and training workflows.**
  Contractor management software vendors offer training and onboarding services to suppliers to allow them to build up safety expertise before operating on site. Providers deliver this in numerous ways; for instance, ISN offers personalized on-site training sessions with EHS professionals. A vast number of vendors have invested in learning management systems to both distribute and track the completion of digital training content. Take VelocityEHS, which has developed a solution in which contractors can conduct the entirety of their induction prior to coming on site, resulting in a time-efficient onboarding process. Contractors are not able to arrive on site before they complete their compulsory training; once this is done, the solution can pull training, permit and questionnaire response data to determine if individual workers are able to perform certain tasks (see **Figure 4**).

FIGURE 4

Key Players Within The Contractor Safety Management Industry

Providers	Prequalification	On-Site Risk Assessments	Job Hazard Analysis	Contractor Selection Tools	Monitoring & Analytics To Manage Risks
Achilles	◐	◔	◐	●	◐
Alcumus	◐	◐	◔	●	●
Avetta	◐	◑	◔	●	◔
Cognibox	◐	◑	◐	◐	◐
Cority	●	◐	●	◐	◐
Intelex	◐	◐	◑	◐	◑
ISN	●	◐	◐	◐	◐
Noggin	◑	◑	◔	◑	◔
Passport 360	◑	◐	◐	◑	◐
Safety Plus	◑	◑	◔	◔	◔
Sphera	◐	◐	◑	◐	◔
TenForce	◑	◑	◔	◑	◔
VelocityEHS	◐	◐	◐	●	◐
Veriforce	◑	◑	◑	◑	◔

Scoring Framework

●	Comprehensive functionality
◐	Out-of-the-box targeted solution
◑	Some evidence of functionality (e.g. product demo, video, named case study)
◔	Some product marketing
○	No demonstrated evidence

Note: Scoring does not represent the effectiveness of providers' solutions, but rather refers to the breadth of resources offered.
Source: Verdantix Buyer's Guide 2021 Contractor Safety Management Software

- **Integrations with emerging technology solutions for streamlined contractor safety.**
To further streamline contractor safety, many firms are integrating existing and emerging technologies into their solutions. Take Passport 360, which over the last year has worked to identify ways in which its AI algorithms can enhance the onboarding process and automate daily safety compliance tasks. Using predictive analytics, as well as the ability to forecast incidents and identify hazards, this will enable workers to receive real-time alerts, to increase the overall safety offering of a firm.

- **Contractor management analytics.**
Contractor management analytics enable firms to identify a number of elements, such as the qualifications a worker holds, incidents that have occurred, and whether a worker possesses the appropriate work permits. Firms are able to effectively visualize the entirety of the data in a dashboard and see exactly what may need improving, as well as where they are currently succeeding. By glancing at the generated dashboards, EHS executives can gain expertise through the visualization of the data, the interpretation of data insights and the ability to view predictive models – essentially resulting in much safer outcomes.

Competitors Are Streamlining The Management Of Health And Safety For Both Hiring Clients And Contractor Firms

Many firms have implemented solutions that can effectively safeguard workers, but it is crucial that these solutions see consistent innovation, to keep up with market demand and satisfy the needs of both hiring firms and contractors. Verdantix finds that competitors in the contractor safety space must:

- **Make captured contractor information more action-oriented.**
Firms such as ISN are developing solutions that will help action the information captured via contractors – instead of this being left aside. Contractors will appreciate this actioning, while hiring firms will understand that vendors are continuing to innovate, as well as seeking to prevent predictable incidents from occurring.

- **Provide contractors with constructive feedback.**
Feedback within firms is vital; workplaces need effective communication to succeed and thrive. As well as increasing morale, feedback supports contractors in learning more about themselves, their strengths and weaknesses, their behaviours, and how their actions may affect others, thus informing them on how they can improve their way of working to reach the best and safest standards.

- **Use gathered data to interpret where risks may occur.**
Recently, firms have been considering how they can make appropriate use of the data they gather. Many have realized that such data can indicate where risks may occur in the future. A key player in this respect is Veriforce, which assesses numerous lagging data indicators, such as previous incidents being monitored at the individual level. Thanks to a collaboration with Predictive Solutions, Veriforce has developed predictive analytical models to predict the likelihood that a specific contractor will be involved in a recordable incident. These sets of data support the identification of trends within contractor safety management, to deliver an overall heightened performance.

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