

EHS Software Buyer's Guide

What to Know Before Selecting and Implementing a Solution





Environmental, Health, and Safety (EHS) leaders at the world's top organizations leverage EHS software to prevent accidents, mitigate workplace hazards, and minimize liability. Despite the wide variety of high-quality commercial solutions on the market today, many companies still attempt to manage EHS processes with homemade or manual systems. Even with thoughtful plans, policies, and processes in place, these DIY solutions often have gaps that can leave organizations exposed to unnecessary risk.

For example, an organization might have one system for managing safety audits and another for compiling accident and injury data. The rest might be in various spreadsheets, calendars, and file cabinets. Spreading your EHS management information across multiple interfaces makes spotting gaps in coverage or identifying leading and lagging indicators difficult.

Additionally, these manual systems are often controlled by one or two employees, creating a bottleneck to improvement and a potential loss of crucial knowledge as individuals leave the organization. When your EHS knowledge base is not organized and you rely on manual processes, important details can slip through the cracks, opening the organization up to liability and potential accidents.

We went from having an archaic, static, and incomplete compilation of information to an easy to use, dynamic, standardized system that allows for full visibility of all sites at all times.”

*- Director of Environmental Compliance
Western Sugar Cooperative*

How Does EHS Software Help?

Employers are responsible for providing employees, subcontractors, and vendors with a safe work environment free of recognizable hazards. **EHS software is one of the best ways** to accomplish this because it improves visibility into safety issues and empowers EHS leaders to identify trends that can improve safety performance.

One of the most significant benefits of using EHS software is that it centralizes all of your compliance obligations, permits, tasks, documents, inspections, etc., into a single digital platform, **breaking down information silos and creating visibility throughout the enterprise**. EHS software also makes it possible to streamline regulatory requirements, like OSHA annual reporting, making what can be a stressful process much more straightforward.

Once everything is in the software, the information your teams need will be **well organized and more accessible**, providing at-a-glance insights into where you perform well and where you need work. This provides a clear picture of your organization's EHS health, so you can take action on safety concerns before they turn into serious issues.

EHS software organizes your information into easy-to-understand dashboards that allow you to easily track, measure, and manage your company's EHS performance. In addition, you can quickly notify key stakeholders of this vital information in order to **make proactive, thoughtful, and well-informed decisions**.

Last but not least, EHS software **provides significant time-saving opportunities** by allowing users to automate routine tasks like alerting responsible persons when compliance or action item deadlines are approaching. The time saved from the use of software will allow you to focus your attention where it matters most and shift from a reactive to proactive EHS management approach.

Key Benefits of EHS Software



Improve compliance assurance

Save time on regulatory tracking, provide guidance to decision makers, and identify gaps in compliance programs.



Establish accountability

Prompt action in the field and provide management with visibility into overall compliance status, events, and issues.



Enhance collaboration

From incident investigation to audit findings and corrective actions, centralize your 'institutional EHS knowledge.'



Prioritize resources

A thorough understanding of EHS performance is essential for prioritizing risk and proactively addressing issues.



Streamline reporting

Normalize data for analysis and reporting of everything from OSHA 300 logs to corporate sustainability reports.



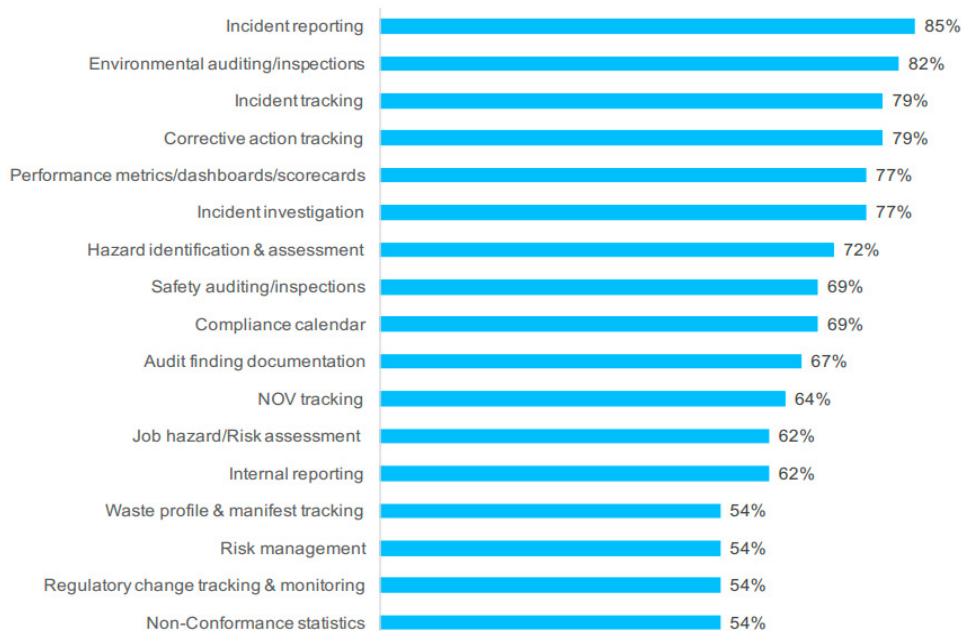
Who Uses EHS Software and What Are They Using It For?

Any organization can benefit from EHS software, but those that face the most stringent regulatory scrutiny and operational risk will see the most significant benefits. Industries like chemical manufacturing, oil and gas, utilities, aerospace, and mining have invested in EHS software for years to improve safety performance and environmental compliance.

In fact, compliance-related activities continue to be the main reason companies adopt EHS software. According to the *National Association of Environmental Managers (NAEM) EHS Software Buyers Guide*, 77% of buyers identified environmental auditing, corrective action tracking, incident reporting, and incident investigation as [essential features of EHS software](#).⁽¹⁾

Compliance is not the only driver though, as organizations across a variety of industries are now realizing the efficiency and decision-support benefits that EHS software offers. In short, if you have OSHA or EPA reporting obligations, have a safety training program, or conduct audits or inspections at your facilities, EHS software will likely benefit you.

Top Desired Software Capabilities⁽¹⁾



What Are the Key Features of EHS Software?

EHS software can cover a broad spectrum of EHS-related activities. Some platforms focus on Safety Data Sheet (SDS) management, training tracking, or ergonomics assessments, while others support specific areas of regulatory reporting or risk management. While every organization has unique needs, at its core, **EHS software should support the plan-do-check-act (PDCA) method** of continuous improvement, a practical approach to problem-solving and change management.

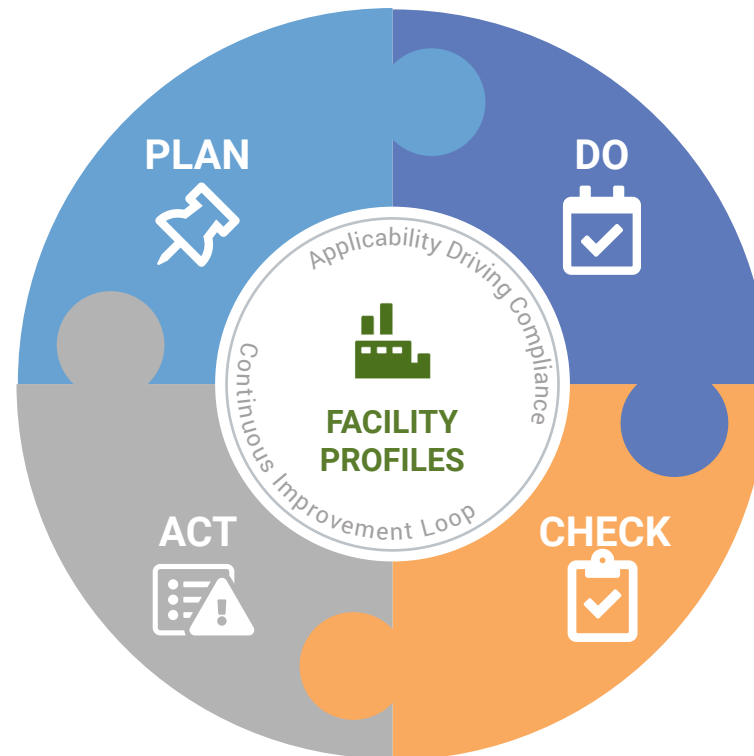
Let's look at how the PDCA methodology can be managed using EHS software:

PLAN

In this stage, you outline what you need to accomplish and how you will get there. EHS software should allow you to schedule activities, including compliance tasks mapped to your regulatory registers (known as **compliance calendars**) and set up alerts that notify key stakeholders of approaching or missed deadlines.

ACT

Unfortunately, incidents and accidents do happen, and EHS leaders need a way to **track and analyze these events** to close the loop and prevent reoccurrence. Incident, near miss, and safety observation management software is a common and effective method to accomplish these goals while encouraging and supporting continuous improvement.



DO

This is when you **execute your plans**. Action item management within EHS software helps track to-dos, provides guidance to site staff, ensures accountability by responsible persons, and keeps the organization on track with their regulatory obligations, adherence to internal policies, and follow through on audit findings and corrective actions.

CHECK

In this stage, you analyze the results of your plan and look for areas of improvement, what went wrong and what went right, then eliminate or make changes to address those issues. EHS software can provide comprehensive **audit and inspection management** tools that simplify and normalize these processes.

Work Injury Costs - 2020⁽²⁾

-  per worker ----- **\$1,100**
-  per death ----- **\$1,310,000**
-  per medically consulted injury ----- **\$44,000**



Time Lost Due to Work-Related Injuries⁽²⁾

-  total in 2020 ----- **99,000,000**
-  due to injuries in 2020 ----- **65,000,000**
-  due to injuries in prior years ----- **34,000,000**
-  in future years from 2020 injuries --- **50,000,000**



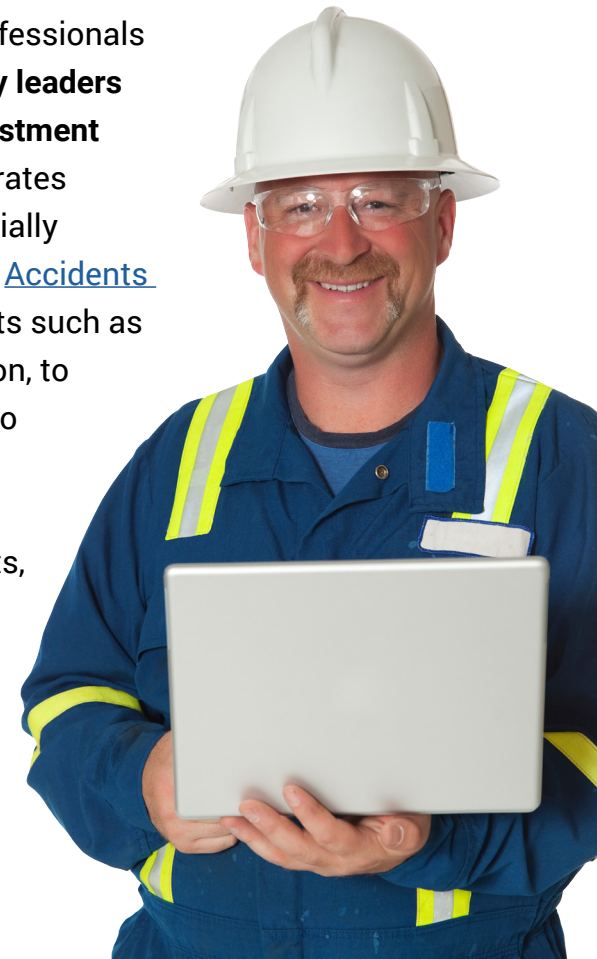
Estimated Cost of Common Occupational Injuries and Illnesses⁽⁴⁾

Injury Type	Direct Cost	Indirect Cost	Total Cost
Strain	\$ 32,023	\$ 35,225	\$ 67,248
Contusion	\$ 27,630	\$ 30,393	\$ 58,023
Laceration	\$ 21,872	\$ 24,059	\$ 45,931
Dislocation	\$ 75,190	\$ 82,709	\$ 157,899
Foreign Body	\$ 21,959	\$ 24,154	\$ 46,113
Respiratory Disorders	\$ 41,013	\$ 45,114	\$ 86,127

What Is the Return on Investment (ROI) of EHS Software?

While EHS was once viewed as a “necessary evil” with a sunk cost, the world’s leading organizations now know from experience that **investment in EHS brings significant returns**. While that return will depend on a variety of factors, it is not hard to see where the safety-related returns come from. Often, avoiding [one single accident or injury](#)⁽²⁾ can pay for a substantial portion, or even the entire investment, in EHS software.

The American Society of Safety Professionals (ASSP) has **resources to help safety leaders make the business case for an investment in safety**. [Their research](#)⁽³⁾ demonstrates that such investments are both socially responsible and good for business. [Accidents can be expensive](#),⁽⁴⁾ from direct costs such as medical bills, insurance and litigation, to indirect costs such as wages paid to injured workers, production losses, administrative time, training of replacement workers, clean-up costs, and more. EHS software helps you **analyze your safety data** and gives you the tools to identify trends in your workplace and **prevent accidents before they happen**.



Organizations that care for employee’s well-being by actively improving workplace safety can lower injury rates, reduce workers compensation premiums, and positively affect employee morale, retention, and brand reputation. Additionally, per the requirements of the [Federal Civil Penalties Inflation Adjustment Act of 2015](#) ⁽⁵⁾, all U.S. federal agencies must annually revise their civil penalty amounts to account for the rate of inflation. **So the cost of noncompliance is only going up.**

“Time is money,” as the saying goes, and the amount of time EHS software saves organizations can be enormous. For example, with a few clicks you can **automate repetitive, time-consuming tasks** and run year-end reports that took weeks to compile previously. In addition, software can do routine administrative tasks quicker and more efficiently, allowing EHS staff to focus their attention elsewhere.

OSHA 2020 Penalty Increases ⁽⁶⁾

Violation Type	CFR Citation	2019 Max Penalty	2020 Max Penalty
Other-than-Serious	29 CFR 1903.15(d)(4)	\$13,260	\$13,494
Willful or Repeated	29 CFR 1903.15(d)(1)	\$132,598	\$134,937
Posting Requirement	29 CFR 1903.15(d)(6)	\$13,260	\$13,494
Failure to Abate	29 CFR 1903.15(d)(5)	\$13,260	\$13,494

EPA 2020 Penalty Increases ⁽⁷⁾

U.S. Code Citation	Penalty Amount (before 2020 increase)	Penalty Amount (after 2020 increase)
42 U.S.C. 11045(a)	\$57,317	\$58,328
42 U.S.C. 11045(b)(1)(A)	\$57,317	\$58,328
42 U.S.C. 11045(b)(2)	\$57,317/\$171,952	\$58,328/\$174,985
42 U.S.C. 11045(b)(3)	\$57,317/\$171,952	\$58,328/\$174,985
42 U.S.C. 11045(c)(1)	\$57,317	\$58,328
42 U.S.C. 11045(c)(2)	\$22,927	\$23,331
42 U.S.C. 11045(d)(1)	\$57,317	\$58,328



5 Keys to a Winning Business Case

In most organizations, decisions to make IT investments are made on the basis of a Business Case. The odds of your project being approved will be much improved by paying attention to [these five critical factors](#) ⁽⁸⁾:

1. Align with the business

Think “big picture” and show how the project will support your organization’s strategic business objectives and improve metrics that are important to senior management.

2. Build a cross-functional coalition

Be inclusive and enlist buy-in from key business stakeholders such as R&D, manufacturing, and supply chain.

3. Get on the IT roadmap

IT professionals are experts at deploying technology to improve business processes and can help you compete for limited resources if well-informed.

4. Ensure completeness and credibility

Use realistic data and assumptions, such as peer benchmarking data and research findings by independent analysts, and avoid information gaps.

5. Show them the money!

Speak the language of management by showing that this is an investment, not a cost, and that it has a greater return than competing projects.

How Do You Choose the Solution That's Right for You?

When searching for EHS software, some might know what they are looking for, and others might not. Some turn to their peers or industry analysts while others will look to [online review sites](#)⁽⁹⁾ to find a solution. With so many options available, picking one that best fits your needs can feel overwhelming, but it doesn't have to. **Knowing what questions to ask** up front is important because it provides an 'apples-to-apples' comparison so you can make an informed decision based on the factors important to your company.

In the Report '**Strategies for a Successful EHS&S Software Selection**,' the NAEM provides [tips on the selection processes](#)⁽¹⁰⁾ and shares insights from EHS business leaders on their experiences. Here are some additional questions you should ask when evaluating EHS software:



How easy is the software to use?

Getting people to use a new software system can be challenging. Make sure that the software you choose is easy to understand and navigate so it will be quickly adopted. Ask yourself, "Will my least tech-savvy people be able to use this?" Even with the most intuitive software design, users will inevitably need assistance. Make sure that training and onboarding resources are available along with technical support to assist when needed. Prioritize solutions that include **guided walk-throughs** to help new users learn the system at their own pace and on their own schedule.



Consider the Needs of Your Users



Corporate EHS Leaders

What they want: Global dashboards and reports that provide an overview of compliance, safety, operational efficiency, and key areas of risk.



Site EHS Leaders

What they want: Feature-rich tools for managing compliance activities, safety programs, employee training and collaborating with their teams.



Site Staff

What they want: Easy-to-use tools for reporting issues, documenting activities, and completing required training.



How is the software accessed?

Now more than ever, software must be accessible from **any type of internet connected device**. Ensure people working from home or in the field can access the content just as easily as those working from the office. This ease of access will encourage adoption, providing you with richer data to lean on. Additionally, the platform should **support Single Sign-on (SSO)** which allows your teams to access the software using existing logins and passwords.



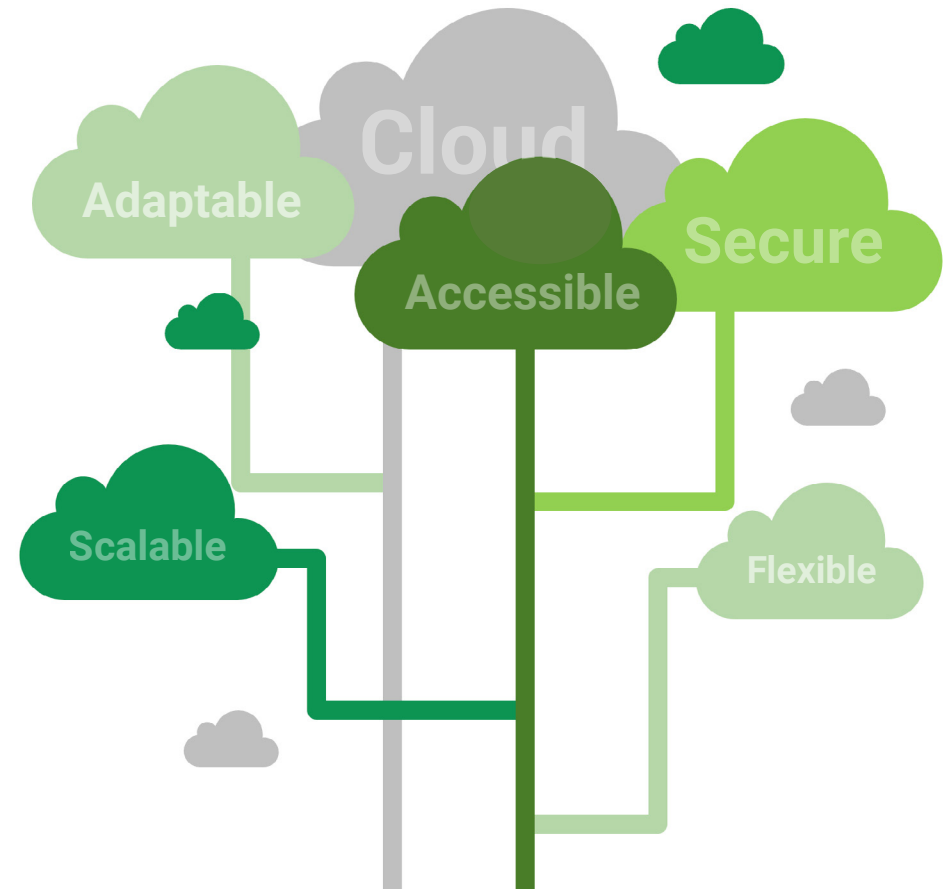
Is it scalable?

As your company grows, your EHS software should grow with it. Make sure that the software you choose offers a wide range of features and resources that will support your needs into the future. This should include the ability to **add locations and business units** as well as new users and system administrators. You should also be aware of any limitations on data usage that may trigger additional cost when thresholds are crossed.



How long does implementation take?

Implementation will vary greatly depending on the scope and size of your organization. Software buyers should ensure that vendors **have a history of success** with similar organizations and have project management built into the implementation plan. While timelines vary, Dakota Software's clients are **typically up-and-running within 30-60 days** of kick off.



Milestones	Month 1	Month 2	Month 3	Month 4
Needs Assessment/Planning	█			
System Configuration	█			
Compliance Calendars		█		
Historical Data Import		█		
Administrator Training			█	
User Set up			█	
End User Training				█

Sample implementation plan and timeline used for Dakota Software clients.



Can it be customized and/or configured?

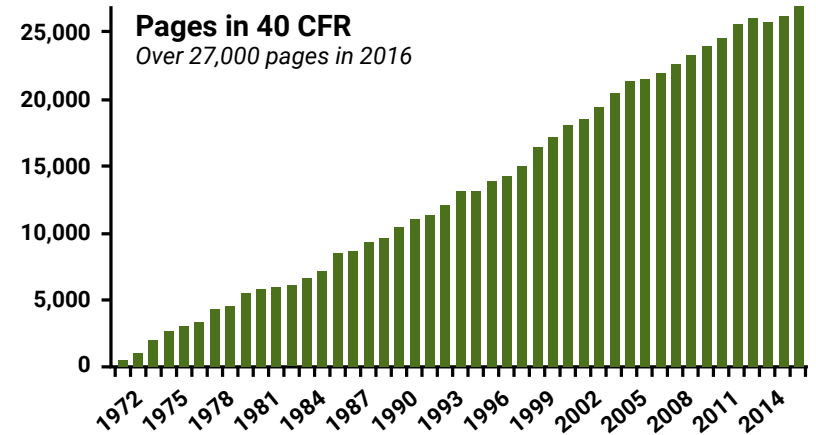
When you are looking to purchase EHS software, there are two options: You can buy a standard off-the-shelf software that is the same no matter the application, or you can look for software that can be altered to fit your company-specific needs. Be aware that “customization,” which is usually done by the vendor, often comes with additional cost and can lead to upgrade issues down the road. Therefore, **software that is “configurable” by the end-user** (usually restricted to system administrators) is often more desirable.



How is the regulatory content maintained?

For U.S.-based organizations, it’s estimated that there are more than 10,000 action forcing regulatory requirements under the EHS umbrella. An average of 5,000 of those requirements are revised each year. Add to that State and local requirements and it’s no wonder **compliance management is a key driver** of many EHS software purchases. Compliance is far more difficult to maintain when facilities are approaching it differently. Therefore, companies looking to create a strong foundation of compliance should prioritize solutions that **centralize regulatory registers and provide updates as changes occur**. Systems should also support management of local permits and organizational policies and procedures.

Growth of U.S. EPA Regulations



Source: U.S. Code of Federal Regulations



U.S. Federal

100,000

Action-forcing citations

5,000

Revised annually

1,000

Changes per year

3,000 U.S. State Exceptions



Will it help you achieve your goals?

While all of these considerations are important, don't lose sight of the *most* important question: **"Will the software help you manage and measure progress toward your EHS management goals?"** Many systems have features that look great during a product demo but may not align with your needs. Do the core functions solve your problems, or will they create more issues down the road? As the saying goes, "You can't manage what you don't measure," so be sure the platform has **built-in analytics and reporting capabilities** that provide full visibility to your EHS and management teams.

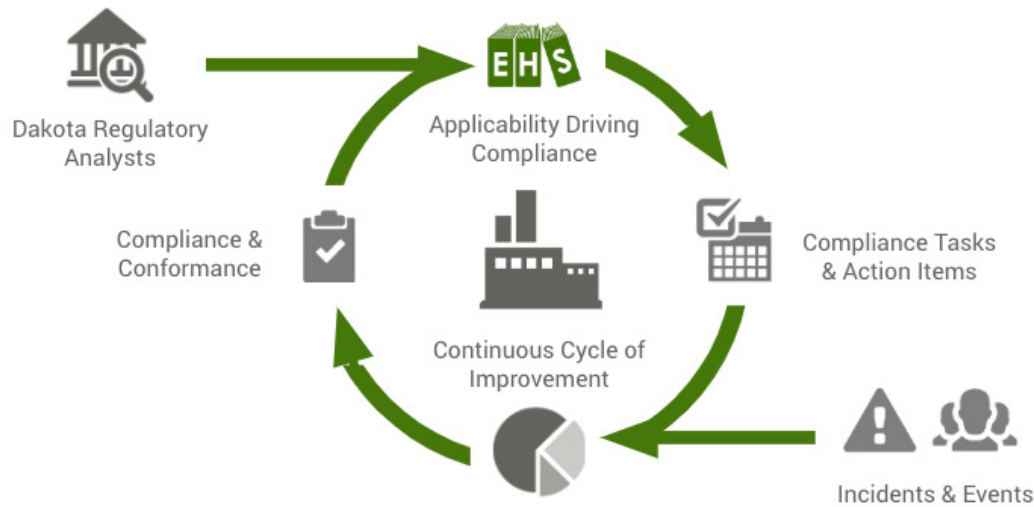


Why Is Dakota Software a Good Choice?

As you can see, choosing an EHS software system that is right for your organization can be challenging, especially when most of the available options lack functionality that helps them stand out. When compliance management is involved, as it typically is, EHS leaders can end up working for their software as they struggle to keep regulatory requirements and compliance plans up-to-date.

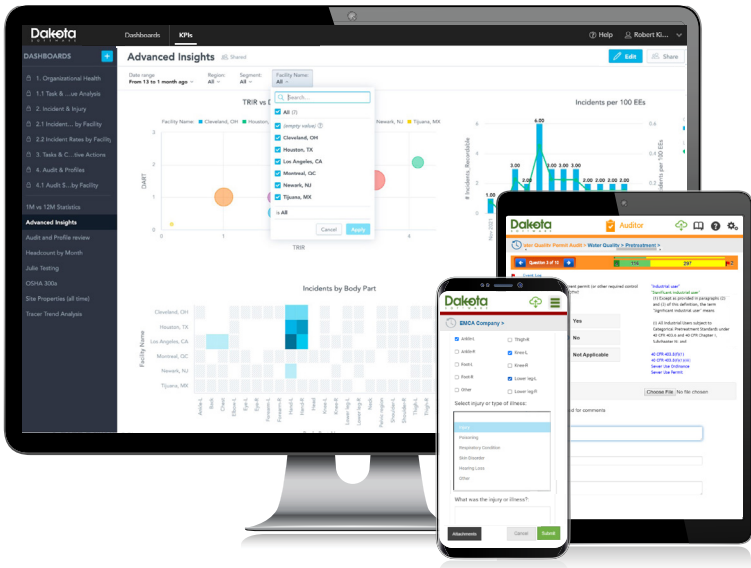
Dakota Software is different. Our ProActivity Suite® is fueled by a library of action-forcing regulatory requirements. This database is continually updated by our in-house team of regulatory analysts, providing users with applicability analysis tools, plain-language overviews, and up-to-date regulatory registers for tracking relevant requirements and managing the related compliance activities in real-time.

The result is that the software works for you, not the other way around.



Conclusion

The plan-do-check-act (PDCA) methodology is **the foundation of EHS management** and should be central to any EHS software platform. Software should make it easy for users to capture issues and complete activities but only a system that provide proactive regulatory change management can **drive the cycle of continuous improvement**. Contact us to learn how Dakota Software's ProActivity Suite can help you create a safer, more compliant workplace.



Sources

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