Getting It Right: What to Consider When Evaluating, Choosing and Deploying EMIS Software

White Paper

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EMIS Selection Criteria

Compliance requirements, risk mitigation, sustainability practices you’re looking to develop – these are just a few of the reasons why companies are driven to purchase an Environmental Management Information System (EMIS). It’s these precise reasons, however, that dictate the system functionality specifications and requirements. If your purchase is driven by the organization’s Air, Water or Waste programs, then you need to determine whether the system can do everything it needs to follow that program – as well as handle future requirements to expand future reporting criteria. In addition, can it handle the calculations in the necessary format or data points to the granularity needed?

Another key element to consider is how you interact with the system. For example, how does data get in and out of the system? Can it generate submission-ready reports? Are reports dynamic enough to support a variety of people across the organization?

EMIS system selection should focus on both short- and long-term objectives. In other words, it’s important to choose a system that can meet your needs today as well as your future environmental data needs. Scalability becomes increasingly important when considering the long-range needs and requirements of your environmental programs.

The process of evaluating, choosing and deploying software to manage Environmental, Health and Safety (EH&S) operations and impacts can be challenging, especially as companies pursue more efficient alternatives to measure and manage water and greenhouse gas (GHG). The dizzying array of products, features and price points further complicates the decision. Selecting a software package means evaluating it against complex regulations, your company’s reputation and valuation, and financial risks. What should you consider when developing the scope of a software project implementation? Which internal groups should you involve? How do you integrate with existing internal systems? This white paper will explore these questions, among others, to help you navigate the process of evaluating, selecting and deploying the right software system for your organization’s needs.
Other considerations include integration points, such as the user interface for data entry, integration with legacy systems, and support for mobile or spreadsheet uploads. Reporting capabilities could include canned reports, ad hoc reports, user-defined reports and dashboards; it’s important to identify your reporting needs early in the process.

**Available Software Platforms**

There are two primary types of commercial off the shelf (COTS) software platforms available in the market today: Client-Server applications and software as a service (SAAS). The client-server COTS platform runs on the client’s network, and requires hardware and software installation. In addition, the client is expected to provide the IT support and hosting necessary to support the software. Upgrades and new functionality are typically purchased separately.

SaaS platforms, in contrast, are hosted by the provider, which means that there are no hardware or software installation requirements for the client. The software is accessible via internet enabled devices and maintains data in a centralized storage location. In addition, there is no code writing for deployment or expansion, and the software is fully interoperable with on-premise systems. Upgrades and new functionality are typically covered in subscription fees.

**EMIS Implementation Players**

In order to help ensure the needed buy-in throughout the organization, as well as a successful project, it’s important to gather a cross-functional team to participate in the implementation process. Potential groups or individuals that you should consider involving in an EMIS implementation include:

- Corporate
- Marketing
- Utility providers (gas/electric)
- Third party data providers
- Executive sponsor
- Contractors
- IT
- Legal
- SME (Subject matter experts)
- Technicians/end users
- Legacy system owners

While this recommended list is long, implementation scope will potentially impact or require some level of involvement from a wide range of groups. It’s important to obtain buy-in and flesh out any potential problems, conflicts, and functionality requirements before the system is actually deployed.

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**Implementation Approach**

Typically, after an EMIS system has been selected, the organization wants the system implemented for everything – yesterday. The reality, however, is that you need to determine how much you want to do. The recommended approach is a **phased approach**.

By choosing a limited scope implementation, companies benefit from phasing in programs that are the highest priority instead of waiting to implement all programs at once. It’s important to consider the impacts to the compliance reporting schedule and technical resources while estimating how quickly it can be deployed. If the implementation window is big enough, an organization doesn’t want to be implementing a system for a particular water or waste program while in the process of reporting for that program outside the system.

**How to Implement**

There are typically three ways an organization can implement an EMIS system: the EMIS vendor can conduct the implementation, a third-party contractor or it can be self-led using in-house resources.

Considerations when deciding how to proceed with an implementation include examining the implementation objectives. Do you want to replace current business processes? Enhance the compliance program? Who would be best equipped to help meet those objectives? In addition, consider the total cost of ownership. When comparing time vs. money, which option provides the best return on investment?

**EMIS Implementation Rollout and Maintenance**

As an example, **FUJIFILM Holdings America** settled on a phased rollout of its EMIS system implementation, due to internal challenges. The company selected EMS modules to implement based on key challenges the organization was facing.
EH&S Data Metrics was the first module rolled out. The organization had a responsibility to provide data, including electricity used, water and emissions, to its Tokyo corporate office for an annual sustainability report. The Tokyo home office format, however, was an annual challenge for use in the U.S. for each of the FUJIFILM operations within the U.S. m. The ultimate outcome was that there were significant bounces in trends due to inconsistencies in how they were interpreted.

By implementing the Data Metrics module, FUJIFILM Holdings America can benefit from data from waste and utility vendors being automatically entered into the system, which drives the reporting the Tokyo offices required. With significant implementation effort, the company was also able to drive federal and state annual waste reports off the same data entry. The initial implementation effort set the software to understand the underlying data for the purposes of both the U.S. and Tokyo offices. The Data Metrics module manages data for the company’s GHG, annual waste reporting, and health and safety.

The Calendar was the next module FUJIFILM Holdings America implemented, which enables the calendaring of regulatory requirements. The company was able to establish tasks which identify responsible parties and detail what needs to be accomplished within the task. The party then receives email reminders that the task is due. For FUJIFILM, tasks include POTW permit renewal, TRI submissions, weekly hazardous waste inspections and more. A long list of identified EH&S requirements, specific to each of its facilities, has been built out in the system and serves as the foundation of the management system.

When the incident management system was implemented, the objective was to have all FUJIFILM operations institute a formal process for incident management, including data collection and processing. The company was able to utilize existing best practices from some of its facilities to incorporate into the EMIS system. This formalized incident communication throughout the organization. While the incident management system was customized for each facility, it serves as a common platform for “near miss” reporting.

Benefits of FUJIFILM’s incident management system include:

- Generating periodic reports that paint holistic pictures to operations management
- Rollup reports to analyze trends across the organization, which it was unable to do in the past
- Seeing the organization as a whole from the top down

In addition, dashboards create charts for discussion with management, as well as bulletin board content to show progress or issues to employee population.

**Key Issues for FUJIFILM:**
1. **Buy-in to system** – From the outset, it was clear there was going to be little executive directive that this system would be put in place, which forced a “go slow,” opportunistic approach to rollout. The team was able to sell the system internally by identifying burning issues and functionality of benefit across the organization and keying in upon those issues.

2. **Data quality feeding the system** – The automated feeds the company’s EMIS system receives are superior quality to the previous manual data entry process, which were prone to error. In addition, the timeliness of data arrival improved significantly and the burden to the local organization in providing the data was eliminated.

3. **Management of change** – FUJIFILM underestimated the need to manage change for smooth operation of the system, and now allots significant resources for the management of change to keep the system strong. As new entities are purchased, they need to be set up in the system and require calculations to describe the facilities’ operations. In addition, tasks in the system are constantly changing. Keeping facilities current in the system means anticipating the regular addition and modification of tasks, as well as the regular addition of new users, removal of users and forgotten passwords.

4. **Training of users** – Training is critical and the rollout of each module requires significant training effort. New users coming into the system need access to computer-based training. Training needs should be anticipated with resources allotted appropriately.

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**Key Requisites for Superior Environmental Performance**

*Paul Carpenter, Manager of Environmental Information and Reporting for ArcelorMittal USA*—a division of the world’s number one steel and mining company—shares these requirements for achieving superior environmental performance:

1. **Executive Sponsorship and Facility Buy-In**. Who needs to have eyes on this project and what sort of information are they going to need? Also, consider how you will get your facilities or internal stakeholders to buy into the project and take ownership.

   *Action*: Have a detailed plan in place communicating project status at the different organizational levels.
2. **Define the Success Metrics.** Align environmental and business objectives, such as cost savings, compliance and NOV avoidance, with defined indicators.

*Action:* Define and distribute a concise set of environmental and business objectives.

3. **Vendor Committed to Service Delivery.** Can the vendor demonstrate ongoing service-oriented delivery through “go live” and beyond? For example, is there a common thread between sales and services delivery or are they disjointed?

*Action:* Understand not only the value of the software, but what the whole delivery team provides. These all carry significant value and a dollar spent on one does not yield the same value as a dollar spent on another.

4. **Project Ownership.** How complete is the transfer of knowledge from vendor/contractor to personnel who will maintain and manage the system?

*Action:* Create an in-house team of EMIS experts who follow the entire process, carry the torch for your internal stakeholders and participate at every stage.

5. **Focus…and Remaining Focused!** Never lose sight of the project objectives pre-sale and post-sale.

*Action:* Distribute and review your project goals and focus areas at every meeting, conference call and communication you have with stakeholders.

**Conclusion**

While the process of evaluating, selecting and deploying EMIS software can be daunting, it’s important to keep your organization’s business objectives at the forefront of the decision and process, as well as consider a phased approach. Companies such as Fujifilm Holdings America and ArcelorMittal have successfully completed the process and provided recommendations to set your business up for success. Good luck!

**About Enviance**

Enviance is the leading provider of Environmental ERP software. With more than a decade of experience providing EH&S environmental management and technical expertise, Enviance’s proven system is used by the world’s largest corporations and government agencies.

Customers include: *American Electric Power, ArcelorMittal, Beam Global Wine & Spirits, Chevron, Continental Resources,*

Full customer list.

Industry leaders have used Enviance to streamline GHG management since 2006.

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