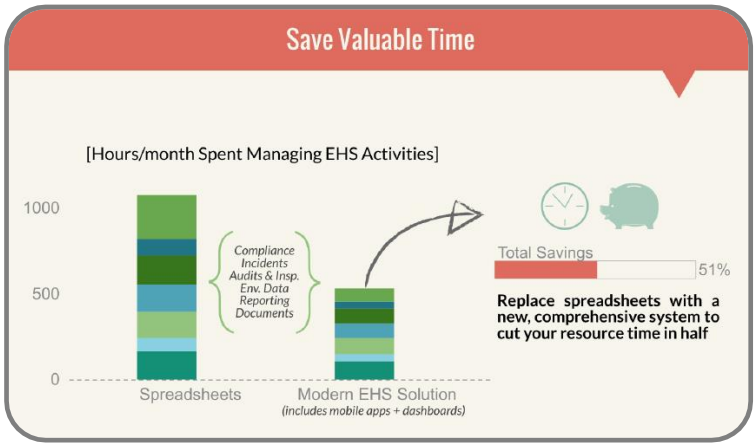
# Business Justification for a Modern EHS Management System

## *When is it time to consider a modern EHS Management system?*


As regulatory bodies continue to increase industry standards, traditional EHS Management systems are rendered inadequate for handling high volumes of information. Spreadsheets or outdated technology systems complicate collaboration with wide groups of users across the enterprise. As EHS organizations widen their data collection to include other non-EHS entities of the company, these old methods become problematic. If your enterprise has more than 10 employees managing EHS information, it is time to consider a more modern and efficient system. The latest systems are more standard, easier to implement and use, and (contrary to what you may think) more affordable. Corporations of any size can realize value that justifies the investment, as a modern system will significantly boost productivity, enterprise connectivity, and management visibility to mitigate costly risks.




## *What is the value of a modern EHS Management system?*

A modern EHS Management system will redefine efficiency standards for your enterprise. The centralization of knowledge, more accurate data, and enhanced management visibility will significantly reduce risk and incident occurrences, while reducing substantial costs. The ROI is typically more than 5X the cost of the software, with a payback period of well under 12 months.

## *What to look for in an EHS Management system…*

With a large amount of EHS Management software options available today, it can be difficult to decide which solution is best for your enterprise. Some systems may simplify your EHS activities, while others make things more complicated. To meet compliance responsibilities more efficiently and spare yourself from wasting time, look for the following key components in a modern EHS Management System.

- **Visibility:** Dynamic dashboards with data drill-down capability offer flexible data visualization and management transparency. Easily identify sites for improvement, highlight issues immediately, analyze performance and trends over time, and track corrective actions.

- **Mobile Capability:** Mobile is revolutionizing EHS, making it easier for enterprises to collect and manage data. Today's EHS mobile apps enable employees to capture data on-the-go and alert management instantly of any issues.

- **All-In-One System:** Seek a software solution that can manage complex, high-volume environmental data AND safety-related information in one system. This type of solution establishes a central system of record for your enterprise and automatically generates accurate regulatory and internal management reports. Look for a system that can both scale up to the needs of a large enterprise and scale down to mid-sized companies facing similar challenges.



# Business Justification for a Modern EHS System

## *Overview*

The business justification of a modern EHS software system should be a straightforward, low-risk management decision. Most companies today are still using spreadsheets to manage their EHS program. As regulatory agencies become more sophisticated in tracking, reporting, and compliance enforcement, spreadsheets are simply not viable and create risk of non-compliance events and lost productivity. Compliance experts estimate that **80 percent of enterprises use spreadsheets to support critical business functions** (*source: Matthew Schwartz, itcinstitute.com, 2008*). Spreadsheets are powerful and effective in small groups, but quickly break down when collaboration is needed across the company. According to a recent study, **88% of spreadsheets have errors** *(source: Wall Street Journal MarketWatch, March 20, 2013)*. These errors are caused by disparate data collection efforts, re-keying of data and complex data input screens only a few experts really understand.

The solution is to implement a modern, centralized software system that is easy to use, quick to implement and involves more employees across your enterprise so you can really change how you manage EHS. These modern systems are much more affordable today compared to even five years ago. And if your enterprise EHS program does not include mobile solutions, it should, because mobility is the #1 factor in driving value in the organization.

**There are three elements to a winning business justification.** First, **define the problem** by clearly breaking down your organization's issues into work activities and risk elements. Second, **quantify productivity savings** by work activity, including data dependencies from other organizations outside of EHS. Finally, **quantify the return on investment** into business terms that your CFO will relate to and expect. Show how the system will pay for itself. Be prepared to answer the question, "why now?"

## 1 | *Define The Problem*

Most companies today are still using cumbersome spreadsheets to management vital EHS information, and the risk of incident or violations continues to increase. EHS organizations are wasting valuable hours completing repetitive tactical tasks, such as data collection and reporting, and are not focused on strategic activities that add value. Most companies constrained with these outdated systems are not able to include employees across the organization with the data collection process. EHS staff must reach out to other organizations in operations to extract the information needed to conduct a comprehensive EHS program. A significant amount of time is spent by a relatively small number of employees chasing data, getting updates and reporting to management. Not only is the information hard to retrieve, but the information is often outdated and does not provide real-time management visibility which is so critical.



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For example, the following table shows examples of work activities broken down into time-consuming process issues and interest areas that a typical EHS organization is looking to address.

| **Tasks & Corrective Actions** |
|---|
| Create and assign tasks with alerts to assignees vs. phone/email |
| Reduced time wasted on follow up with assignees |
| Faster status reporting by assignees-- instant viewing |
| Reduced time to create management task status reports |
| Efficient regulatory reporting related to tasks/corrective actions |
| Reduced time reviewing permits for reference to tasks required |
| **Document Management** |
| Faster document retrieval through electronic library vs. paper/files |
| Eliminate manual routing/status follow-up of documents for approval |
| Reduced time preparing for external audits |
| **Dashboard Analysis (KPIs)** |
| Eliminate analysis of static reports-- conduct instant drilldown analysis |
| Faster preparation of management reports (copy dashboards) |
| Better/faster decisions and associated actions |
| **Incident Management** |
| Eliminate re-entry of incident definition (data recorded once) |
| Instant system notification of stakeholders |
| Investigation details centralized and standardized |
| Eliminate search of info for root cause analysis |
| Reduce phone/email follow-ups for incident stage status |
| Faster management reporting of issues |
| Faster external reporting (e.g. OSHA 300) |
| Faster analysis of data for corrective action assignment |
| **Mobile Data Collection** |
| Point & click data recording vs. writing (eliminate paper) |
| Eliminate data re-entry into central database |
| Eliminate review/correction of data re-entry errors |
| Reduce phone/email follow-ups for status |
| Reduce phone/email follow-ups for tracking corrective actions to closure |
| **Audits/Inspections** |
| More standardized drag and drop forms management |
| Reduce communication time for distrib./retrieval of assignments |
| Eliminate re-keying of data and findings |
| Faster assessment of risk profile |
| Reduce phone/email follow-ups for tracking corrective actions to closure |
| Faster management reporting |
| Reducing time preparing for On-site Regulatory Visits |
| **Environmental Data Management** |
| Instant data feeds from CEMs/historians, etc. (vs. disparate data silos) |
| Automated data checking/validation before commit to database and reports |
| Faster review of permit regulatory references |
| Faster creation, application and modification of calculations |
| Eliminate manual data analysis to look for exceedances (alerts) |
| Eliminate manual data retrieval for general reporting |
| Faster regulatory report preparation (major)-- data in one place |

# Business Justification for a Modern EHS System

## 2 | *Quantify Productivity Savings*

After you've defined each work activity that is potentially a problem area, the next step is to estimate how many hours are currently wasted each month across the number of employees impacted for each activity you've defined. A good way to break down employees impacted is to assess "heavy" impact employees and "light" impact employees (those individuals who may only be affected occasionally). Proceed through each activity and conservatively estimate hours that could be saved, line item by line item. Create a spreadsheet model so you can easily change your assumptions and see the effect across various activity or employee scenarios. The result will be an Activity-Based Cost (ABC) model.

Based on the results of the ABC model, this will provide direction for setting priorities on areas that have high potential for delivering value. This provides guidance for implementation of a phased approach to automation—focus on the areas that deliver highest value, demonstrate user adoption and success, and mitigate risk. Some vendors organize their EHS software by module. Your ABC model can help you see productivity improvement opportunities by activity or by module (if you work with a vendor).

Of course there is more savings potential beyond simply productivity, including risk reduction, reduced legal fees, lower opportunity costs, etc. For example, the following table highlights some of these cost reduction inputs associated with Incident Management, each a factor in driving incident-related costs today.

| Incidents |
|---|
| Number of incidents per month/quarter/year |
| Lost labor hours |
| Management & administration time lost |
| Medical fees |
| % of incidents with medical fees |
| Travel expense |
| Legal fees |
| Insurance impact |
| Equipment, production and other impacts |



## 3 | *RETURN ON INVESTMENT*

Although the cost savings potential with implementing a centralized EHS software system is quantifiable and significant, most executives make the investment decision based on factors that are hard to measure, such as risk reduction or employee safety. Most EHS organizations are understaffed and overworked with more regulations every year. Productivity savings are attractive, but companies are not seeking to reduce EHS staff and create more risk and morale issues. However, companies are indeed looking to be more efficient and more competitive. By improving worker productivity, EHS staff or other operations workers can focus away from tactical non-value adding activities (e.g. updating spreadsheets) and more toward strategic initiatives (e.g. safety optimization programs).

Your CFO will be most interested in the following business drivers as it relates to implementing a new software system:

- The cost of the software and implementation services over a three-year period.
- The return on this investment and how quickly is this ROI achieved. Within one year?
- The payback period (months not years).
- In addition to (conservative) hard cost savings potential, what are the soft benefits?
- Corporate risk reduction.
- The number of employees (and who) using the system.
- Phase implementation approach to mitigate risk.
- Incremental internal resource impact during rollout period.
- What are costs and risks of waiting another year?



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## *Business Justification – An Example*

The following business justification output provides an example of the estimated savings potential for a centralized EHS software system. Each client situation is unique, but this approach to a business justification has proven effective as part of the approval process.

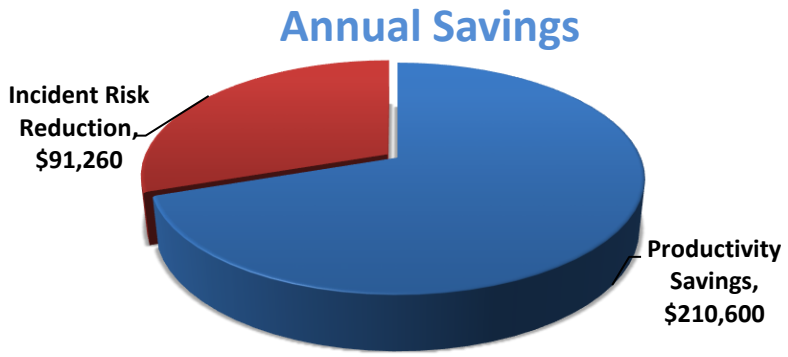
### Assumptions:

- 100 application users
- 250 mobile app users
- Components included:
  - Task/Action Tracking
  - Document Management
  - Performance Metrics
  - Incident Management
  - Audits & Inspections
  - Environmental Data Management
  - Data Integration
  - Mobile
- Burdened labor rate: $60/hour
- Implementation time: 4 months
- Learning time: 2 months
- Software cost: $75,000/year
- Services cost: $50,000 (one time)

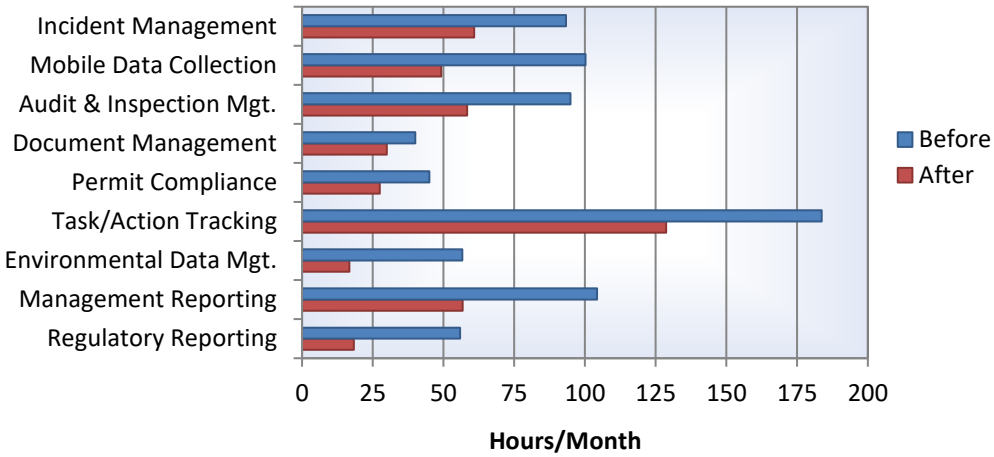
| | | |
|---|---|---|
| **Return on Investment** | **177%** | *In Year 1* |
| **Payback Period** | **8.5** | *Months* |

# Business Justification for a Modern EHS System

## Annual Savings




## Productivity - Monthly Time Reductions




## Productivity - Annual Savings by Activity