Benchmarking Your Software Selection and Implementation Experience

Virginia Hoekenga, Deputy Director; NAEM
Goals for Today’s Conversation

Goals:

- To share a few insights from NAEM’s research
- Answer your questions about best practices for selection, implementation and ongoing system management
- Have a lively peer conversation about how to achieve success with your EHS&S software project!
Agenda & Expectations

● What We’ll Discuss:
  ❖ Snapshot of Who is in the Room
  ❖ Highlights from NAEM’s 2015 research on software selection & implementation
  ❖ Discussion of your experiences
  ❖ Intro to NAEM’s new software ratings project

● Expectations:
  ❖ Be candid, but remain focused on challenges and solutions
  ❖ Not here to discuss specific software or tools
Who’s in the room today

53% Corporate EHS or Sustainability professional who works for a regulated entity.

13% Corporate IT professional who works for a regulated entity.

19% Software company representatives

15% Consulting firm that assists with software selection or implementation.

N= 53
Who’s in the room today

Shopping for a New Software System

- Yes: 57%
- No: 30%
- Other: 13%

N= 37

First-time vs Returning Buyer

- First-time Buyer: 22%
- Returning Buyer: 44%
- Other: 35%

N= 23
Highlights from NAEM’s March 2015 Software Benchmark
Insights from NAEM’s research provides context

NAEM’s 2015 Research Objective:
- To better understand how companies are managing their EHS&S data and examine lessons learned from past purchasers who’ve been through the selection and implementation process.

Some questions the benchmark explored:
- How do most companies manage their EHS and Sustainability data?
- Why are companies looking for a new data management system?
- What are buyers looking for in a new system?
- How much time do buyers expect the process to take?
- How much are companies spending on their systems?
2015 Respondent Profile

- Research Participants
  - In-house EHS & Sustainability leaders
  - 165 Survey Respondents overall
  - Primarily drew from manufacturing, energy/utility, chemical
  - International operations
  - More than half have 50+ facilities
  - 28% have fewer than 5,000 employees; 35% have 5,000-20,000 employees; 38% have 20,000+ employees
  - The audience represented a mix of those who are currently in the market for software (36%) and past purchasers of software systems (64%).
Approaches to Managing EHS&S Data
Q: “Can you ever use just one system?”

NAEM Research:

95% of all the software users NAEM surveyed use more than one type of data management approach.

56% of all the those surveyed use a combination of off-the-shelf, internally developed systems and commonly available tools.
Purchase Drivers and Business Objectives
NAEM Research:
Q: Why are you in the market for a new system now?

Top Reasons Buyers are Seeking New Software Systems

- Outdated software: 42%
- Working to provide greater external transparency: 36%
- Poor integration with IT systems: 36%
- Do not have a software system: 32%
- Costs too much to maintain: 24%
- Not a good fit with internal culture: 19%
- Not satisfied with the service from current vendor: 17%
- Seeking ISO/OHSAS certification: 10%
- Other: 15%
NAEM Research:

Q: What are you looking to achieve with a new system?

**Buyer’s Business Objectives for New Software System**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve accountability for performance</td>
<td>17%</td>
</tr>
<tr>
<td>Centralize data collection efforts</td>
<td>17%</td>
</tr>
<tr>
<td>Build a management system</td>
<td>17%</td>
</tr>
<tr>
<td>Collect data for internal and external reporting</td>
<td>14%</td>
</tr>
<tr>
<td>Improve compliance assurance</td>
<td>10%</td>
</tr>
<tr>
<td>Improve communication across sites</td>
<td>7%</td>
</tr>
<tr>
<td>Facilitate reporting to senior management</td>
<td>5%</td>
</tr>
<tr>
<td>Improve incident reporting</td>
<td>5%</td>
</tr>
<tr>
<td>Improve data analytics</td>
<td>2%</td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
</tr>
</tbody>
</table>
Selecting a System, Setting your Requirements
Attendee Questions: Selecting a System, Setting your Requirements

- Who was involved in the software selection and decision-making process?

- What was involved in developing your list of software requirements? Any tips for how to ensure you get the right things on your requirements list? Did you have tiered priorities?

- How many systems did you look at?

- How long should you expect the selection process to take?
Q: What are the top software requirements users want?

Most Important Software Requirements for Past Purchasers

1. User friendliness
2. Flexibility of configuration
3. Easy to update
4. Flexibility of the customization
5. Cost of implementation
6. Provides on-going customer support
7. Fit with business model
8. Cost of maintenance
9. Options for formatting the data output
10. Real time metrics tracking and performance measurement
11. Requires minimal on-going support
12. Cost of purchase
13. Training and customer support
14. Reflects our organizational work flows
15. Overall knowledge of the software vendor
16. Speed of implementation
17. Out-of-the-box functionality
18. Compatibility with existing IT systems
19. Graphical user interface
20. Single sign-on
21. Mobile accessibility
22. Single point document manager
23. Multi-language capabilities
24. Global, multi-site training system
25. Offline accessibility
26. Cloud-based (SaaS)
27. Integration with SAP

© All rights reserved 2016
The Selection Process Takes About a Year

According to past purchasers, the selection process tended to take between seven and twelve months to complete. Current buyers were more optimistic, with 38 percent expecting to complete the process within six months.

### Expected Selection Timeline: Buyers

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6 months</td>
<td>38%</td>
</tr>
<tr>
<td>7-12 months</td>
<td>35%</td>
</tr>
<tr>
<td>13-18 months</td>
<td>18%</td>
</tr>
<tr>
<td>19-24 months</td>
<td>3%</td>
</tr>
<tr>
<td>24 months +</td>
<td>6%</td>
</tr>
</tbody>
</table>

### Actual Selection Timeline: Purchasers

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-6 months</td>
<td>31%</td>
</tr>
<tr>
<td>7-12 months</td>
<td>41%</td>
</tr>
<tr>
<td>13-18 months</td>
<td>16%</td>
</tr>
<tr>
<td>19-24 months</td>
<td>3%</td>
</tr>
<tr>
<td>24 months +</td>
<td>10%</td>
</tr>
</tbody>
</table>

N=95

© All rights reserved 2015
Budgets, Costs and Making the Business Case
Attendee Questions: Budgets, Costs and Making the Case

- How did you keep your project within the scope of the original budget? Any strategies that were successful? Any unexpected costs?

- How did you make the business case for the software? How did you calculate ROI? How was the funding secured? Any simple calculations/conceptualizations of the business value that cut through objections/concerns?
EHS Tends to Provide the Budgets

The budgets for EHS and sustainability Information management systems primarily comes from EHS, with the function providing the budget over 50 percent of the time for the initial purchase, implementation and maintenance. IT also provides funds for EMIS systems, with respondents noting functions including Operations, HR and Supply Chain.

The Functions that Provide the Software Budget

**Initial Purchase**
- EHS: 65%
- IT: 20%
- Operations: 9%
- Other: 6%
- N=91

**Implementation**
- EHS: 64%
- IT: 24%
- Operations: 7%
- Other: 5%
- N=91

**Maintenance**
- EHS: 58%
- IT: 26%
- Operations: 8%
- Other: 8%
- N=91

© All rights reserved 2016
Buyers expect to spend an average of $340,000 on an comprehensive system. The average spend for past purchasers was $360,000.

### Software Purchase Budget: Buyers

<table>
<thead>
<tr>
<th></th>
<th>N=</th>
<th>25th Percentile</th>
<th>50th Percentile</th>
<th>75th Percentile</th>
<th>100th Percentile</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive</td>
<td>13</td>
<td>$100,000</td>
<td>$150,000</td>
<td>$300,000</td>
<td>$2,000,000</td>
<td>$339,615</td>
</tr>
<tr>
<td>Issue-Specific</td>
<td>12</td>
<td>$87,500</td>
<td>$200,000</td>
<td>$200,000</td>
<td>$400,000</td>
<td>$171,818</td>
</tr>
</tbody>
</table>
Implementation & Ongoing Management
Attendee Questions: Implementation & Ongoing Management

IMPLEMENTATION

- Did you use an implementation consultant? What are some of the biggest lessons you’ve learned from working with implementation partners? How can you make it successful?

- How do you ensure the expectations and agreements that are communicated in the sales process get effectively communicated and implemented?

DEPLOYMENT

- When it comes to deployments, what has worked best for other organizations? Is it better to do it in stages or all at once?

- What strategies did you use to effectively and smoothly deploy the software at your operating facilities?
INTEGRATION:

● How did you integrate your EHS MIS with your other enterprise-wide software systems? Did you integrate it? What is the biggest value you are getting from integration?

DATA MIGRATION

● If moving from a prior system, how did you approach data migration? Did you migrate or decide to start with a blank slate? Any lessons learned?

TRAINING & ENGAGEMENT:

● How did you conduct your training and user engagement? Was it in-person training or a virtual training (ie. Webinars and videos)?
Attendee Questions: Implementation & Ongoing Management

SECURITY:

● How do you ensure your data’s security when you consider a SaaS system? How did you address objections/concerns for housing your data offsite?

SATISFACTION

● For software Vendors: How do you track customer satisfaction? For software users: How do you track user satisfaction?
Introducing NAEM’s EHS & Sustainability Software Ratings Project
Background

● The adoption of EHS and sustainability software tools represents an opportunity for dramatic EHS & sustainability performance improvements

● Adopting a commercial software system is becoming the norm

● The software marketplace is rapidly growing & evolving

● EHS& Sustainability software users are looking for credible information they can use to evaluate and select software systems

● There is a need for third-party benchmarking data on software performance and user experience
Project Goals and Timeline

- Give a voice to EHS & Sustainability software users around software satisfaction
- Assist EHS& Sustainability leaders in their evaluation and selection of EHS&S software
- Help software providers understand where improvements are needed to meet the needs (their customers)
- Enhance the quality of software products available to the EHS&S professionals

Q1 2016
- Survey Launch

Q2 2016
- Initial Results Published

2017
- Ratings Website Launch

© All rights reserved 2016
Why You Should Get Involved

- Give feedback to your software vendor
- Benchmark your system against your peers

- Gain actionable feedback to improve product offerings
- Benchmark vendor performance relative to industry competitors
- Drive visibility for your system

- Gain insight into how your peers rate the software systems
- Hone your list of options based on desired capabilities
How to Get Involved

Software Users--Take the Survey
• https://survey.co1.qualtrics.com/SE/?SID=SV_1FzsOGYheNPEgKN

Software Companies--Send the Survey to Your Customers
• https://survey.co1.qualtrics.com/SE/?SID=SV_1FzsOGYheNPEgKN

Software Companies--Subscribe to the Service
• http://www.naem.org/page/survey_2016_swrating
Thank you and Good Luck!
Lessons Learned
Lessons Learned?

#1: Have a Solid Game Plan
  ❖ “Be prepared to spend much more time than you ever thought it would need - identify a compact dedicated internal team with strong EHS background to manage the process.”

#2: Be Specific About Your Requirements
  ❖ “Need to be very specific in writing the scope of work.”

#3: Engage the Users Early
  ❖ “It is important to consider how your workflows will change with the system…As much as possible involve the right people early on to ensure that they are engaged in the selection and design process.”

#4: Be Prepared for Customization
  ❖ “The out-of-the-box solution required a number of changes and updates to make the software functional.”

#5: Be Realistic about the Outcome
  ❖ “There is no off-the-shelf system that provides everything we want.”
Q: What is your process for collecting input from your stakeholders?

Q: How do you identify the right software requirements? How do you prioritize your needs?

Q: How do you manage expectations for what the software will do?
Q: How do you evaluate potential fit with internal culture?

Q: For the IT folks in the room, how should these systems interact? What questions should buyers ask to assess integration potential?
NAEM Research:
Among those who were most satisfied, global, multi-language capabilities mattered less.

Most Important Requirements
- User friendliness
- Flexibility of configuration
- Easy to update
- Flexibility of the customization
- Requires minimal on-going support
- Fit with business model
- Real time metrics tracking
- Cost of implementation

Least Important Requirements
- Single sign-on
- Single point document manager
- Global, multi-site training system
- Mobile accessibility
- Multi-language capabilities
- Cloud-based (SaaS)
- Offline accessibility
- Integration with SAP
NAEM Research:
Among those who were least satisfied, compatibility with IT systems, customer support and SaaS mattered more.

<table>
<thead>
<tr>
<th>Most Important Requirements</th>
<th>Least Important Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cost of implementation</td>
<td>• Overall knowledge of the software vendor</td>
</tr>
<tr>
<td>• Compatibility with existing IT systems</td>
<td>• Requires minimal on-going support</td>
</tr>
<tr>
<td>• Provides on-going customer support</td>
<td>• Real time metrics tracking</td>
</tr>
<tr>
<td>• Cloud-based (SaaS)</td>
<td>• Single point document manager</td>
</tr>
<tr>
<td>• Cost of maintenance</td>
<td>• Easy to update</td>
</tr>
<tr>
<td>• Multi-language capabilities</td>
<td>• Flexibility of the customization</td>
</tr>
<tr>
<td>• Offline accessibility</td>
<td>• Single sign-on</td>
</tr>
<tr>
<td>• Mobile accessibility</td>
<td></td>
</tr>
</tbody>
</table>
Past Purchasers Sought Solutions to Centralize Data for Reporting Purposes

Ranking of Business Objectives for New Software System: Past Purchasers

<table>
<thead>
<tr>
<th>Business Objectives</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centralize our data collection efforts</td>
<td>74%</td>
</tr>
<tr>
<td>Collect data for internal and external reporting</td>
<td>71%</td>
</tr>
<tr>
<td>Improve data analytics</td>
<td>67%</td>
</tr>
<tr>
<td>Facilitate reporting of EHS and sustainability performance to our organization’s senior management</td>
<td>64%</td>
</tr>
<tr>
<td>Improve accountability for EHS and sustainability performance</td>
<td>61%</td>
</tr>
<tr>
<td>Improve compliance assurance</td>
<td>60%</td>
</tr>
<tr>
<td>Improve incident reporting</td>
<td>58%</td>
</tr>
<tr>
<td>Build a management system</td>
<td>47%</td>
</tr>
<tr>
<td>Improve communication across sites re: EHS and sustainability performance</td>
<td>46%</td>
</tr>
</tbody>
</table>

N=107
NAEM Research:
Those who prioritized flexibility, ease of updates and user-friendliness were most satisfied with their systems.

Most Important Requirements

<table>
<thead>
<tr>
<th>Most Satisfied</th>
<th>Least Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>User friendliness</td>
<td>Cost of implementation</td>
</tr>
<tr>
<td>Flexibility of configuration</td>
<td>Compatibility with existing IT systems</td>
</tr>
<tr>
<td>Easy to update</td>
<td>Provides on-going customer support</td>
</tr>
<tr>
<td>Flexibility of the customization</td>
<td>Cloud-based (SaaS)</td>
</tr>
<tr>
<td>Requires minimal on-going support</td>
<td>Cost of maintenance</td>
</tr>
<tr>
<td>Fit with business model</td>
<td>Multi-language capabilities</td>
</tr>
<tr>
<td>Real time metrics tracking</td>
<td>Offline accessibility</td>
</tr>
<tr>
<td>Cost of implementation</td>
<td>Mobile accessibility</td>
</tr>
</tbody>
</table>
NAEM Research:
The most satisfied software users were those whose business objectives were met by the system they selected.

Extent to which Business Objectives were Achieved

- Fully achieved: 20%
- Mostly achieved: 63%
- Partially achieved: 55%
- Somewhat achieved: 23%
- Did not achieve: 5%

Would not recommend software (N=22): 2%
Would recommend software (N=60): 18%
NAEM Research:
Using a third-party to assist with software selection may bolster satisfaction.

While there was little difference for those who used a third party to implement their system, past purchasers who used a 3rd party for selection were more likely to recommend their system (80% vs 71%).

Software Satisfaction

<table>
<thead>
<tr>
<th>Component</th>
<th>Used a 3rd Party for Selection</th>
<th>Did not use a 3rd Party for Selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software system</td>
<td>4.05</td>
<td>3.59</td>
</tr>
<tr>
<td>Customer service</td>
<td>3.84</td>
<td>3.52</td>
</tr>
<tr>
<td>User acceptance</td>
<td>3.63</td>
<td>3.45</td>
</tr>
</tbody>
</table>

N=19
N=68
#4: Who leads the Selection, Implementation & Management of EHS&S MIS Systems?
EHS Takes the Lead in Both Selection and Implementation

EHS takes the lead in the selection process, but IT and Operations get more involved for implementation.

Functions Involved with Selection and Implementation

- **EHS**: 94% selection, 100% implementation
- **IT**: 66% selection, 78% implementation
- **Operations**: 47% selection, 72% implementation
- **Other**: 19% selection, 13% implementation

N=32
The EHS function leads the selection, implementation and maintenance of the EHS Management information system (MIS), with support from IT and operations.

**Functions Involved with System Management**

- **EHS**
  - Lead the team: 75%
  - On the team: 28%
  - Consulted: 3%

- **IT**
  - Lead the team: 19%
  - On the team: 50%
  - Consulted: 22%

- **Operations**
  - Lead the team: 31%
  - On the team: 56%
  - Consulted: 31%

- **Other**
  - Lead the team: 9%
  - On the team: 9%
  - Consulted: 9%
Most Companies Still Use a Mix of Data Management Approaches

For both buyers as well as past purchasers, the most common data management approach is a mix of internally developed systems, commonly available tools and off-the-shelf software.

Current Data Management Approach

- **Commonly Available Tools ONLY**
  - 1%

- **Internally Developed Systems ONLY**
  - 2%

- **Off-the-Shelf Software ONLY**
  - 2%

- **Commonly Available & Internally Developed**
  - 7%

- **Off-the-Shelf**
  - **& Commonly Available**
  - 16%

- **Internally Developed**
  - **& Off-the-Shelf**
  - 15%

**Combination of all Three**

- **56%**

N=164